

Global 2022

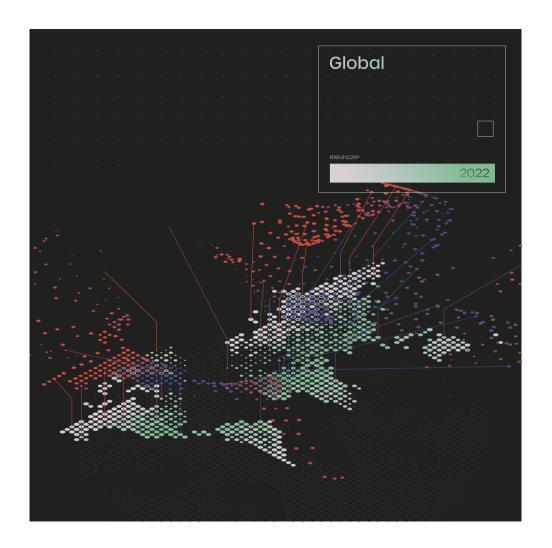
Ecommerce Report





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Introduction



Welcome to the Global Ecommerce Report for 2022

The Global Ecommerce Report is one of RetailX's largest reports of the year. Its aim is to offer a picture of how multichannel retail and ecommerce is developing around the world. It both takes an overview as well as looking at different regions and countries. In doing so, we contrast and compare the retail cultures of different territories and consider how they intersect with each other.

2022 was a year when assessments of the overall economic outlook changed radically. Russia's invasion of Ukraine in February was a huge component in this, in that it had a kind of negative multiplier effect. **Economies and businesses that had already been hit by Covid-19 and subsequent supply chain/logistics issues now also had to contend with a spike in energy prices.** As inflation began to bite, central banks raised interest rates. US Federal Reserve chair Jerome Powell has stated that its rates may hit 4.4% by the end of 2023. This rise has

increased the value of the dollar which, in turn, has put pressure on central banks around the world to raise rates.

Complicating matters, this is all happening at a time when, in one reading of what's happening in the retail sector, **a phase of rapid evolution driven by digital technologies is slowing down**. It may be that, in the months ahead, we see more emphasis on making multichannel retail work rather than being fixated on, for example, new channels. This is an idea we explore in our overview feature.

Speaking of new channels, elsewhere in the report, **we try to cut through the hype surrounding the metaverse**. We also take an in-depth look at logistics issues, we consider where the next generation of tech companies may emerge, and we focus on the sustainability agenda and the lingering afterlife of the pandemic.

Thanks to RetailX's researchers, designers and editors for their efforts. **We hope this report offers a combination of data-driven insights, fresh ideas and new perspectives**. Please do get in touch to share your thoughts.

Ian Jindal CEO, RetailX



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Adjusting the pace

The digital economy, while still growing, is also maturing. What does this mean for retailers globally?

Sometimes, events seem to coalesce. One such moment arrived in November 2022 with Amazon's announcement that it was to lay off around 10,000 workers^[1]. **This cut in the workforce, which will be focused on corporate and technology jobs, is the largest in the company's history.**

This news arrived around the same time as, in the wake of Elon Musk buying Twitter for \$44bn, the social media company shed as many as two-thirds of its workers^[2]. Over at Meta, while announcing the loss of more than 10,000 jobs^[3], **Mark Zuckerberg has said the company over-invested at the start of Covid-19** because he and his executives expected that online activity, and ecommerce in particular, would continue to grow at an accelerated rate associated with the pandemic.

"Unfortunately, this did not play out the way I expected," he noted. "Not only has online commerce returned to prior trends but the macroeconomic downturn, increased competition and ads signal loss have caused our revenue to be much lower than I'd expected. I got this wrong and I take responsibility for that."



Meta CEO Mark Zuckerberg at OC6, demonstrating the VR technologies that he believes are the future of his business

What are we to make of this slew of news stories? In the case of Amazon and Meta, one way to interpret them is simply to see them as examples of high-profile companies going back to basics at a time when the global economy is in a volatile state due to inflation, supply chain issues and the war in Ukraine.

As for Twitter, squint and you could say that, in cutting costs, it too has prioritised in returning to its founding principles – Musk's vision of a "global town square" where Donald J Trump is among those making his opinion known seems in keeping with a microblogging site where debate has always been robust. In this reading, what some see as the toxicity of Twitter is built-in.

In other words, move along, nothing much to see here, just a set of unconnected decisions each taken for understandable commercial reasons.

BUSINESS SUPERSTARS

But what if these stories are indicative of wider change within the technology sector, change that will inevitably affect a retail sector that would grind to a halt without digital technologies? Such an alternative view begins with the idea that **each of these companies is a tech behemoth headed by an entrepreneur whose fame far exceeds those of mere CEOs**. Jeff Bezos, Musk and Zuckerberg are figures whose public utterances make news around the world. While this reflects their individual successes, they also have other things in common.

Each of these three, as with Bill Gates at Microsoft and Steve Jobs at Apple before them, made their way at a time when the tech sector was in an expansionary phase that began in the late 1980s, and was, with the benefit of hindsight, only mildly interrupted by the dotcom bust at the turn of the millennium.

Amazon had first-mover advantage when it launched out of a Bellevue, Washington garage in 1994. In 2004, Facebook filled a social media need nobody knew existed. Musk has displayed a risk-taking genius for taking the money, as when eBay bought PayPal in 2002, and then starting again. That said, it's currently difficult to see how

he can ever turn a profit on Twitter, if that's even what he's trying to do.

Yet these are now all business stories that not only played out in relatively more benign economic times, but that also seem to belong to a different era when digital technologies were still novel and tech companies chased rapid expansion.

By way of contrast, in the 2020s, digital technologies are woven into our everyday lives in a way that few predicted even 20 years ago. This is why **big digital companies are now so often likened to utilities**. It's not just that we shop online or watch movies. In both developed and emerging nations, we organise our lives online, consult with doctors, participate in meetings from home, interact with the tax authorities and even check the time of the next bus.

Yet as the adverse publicity around Musk's takeover of Twitter shows, there can be tension when a service people think of as a utility becomes associated with a single person. Entrepreneurship is so often about disruption whereas utilities are about reliability. We don't want to worry that a service may not be available to use tomorrow because it's been bought out by the world's richest man.

None of this is to say that big companies should no longer have charismatic leaders, but it does put the question of



AnamXR sees the emerging metaverse as an opportunity to sell virtual fashion items

whether certain companies actually *need* larger-than-life leaders into focus. Sometimes, might it not be better to appoint someone interested in securing a company's long-term future through steady growth rather than reimagining an existing sector before cashing out with an IPO? Or, to put that another way, **moving fast and breaking a utility may not be the wisest business strategy**.

UNEVEN DISTRIBUTIONS

Which seems an apposite moment to return to those redundancies at Amazon and Meta. If we read these as evidence of large tech companies maturing, **what does that say about the future into which the digitally driven retail sector is heading?** Even investor TCI Fund Management has recently called on Google parent company Alphabet to make job cuts and reduce its

spending on long-term projects that might not pay off down the line^[4].

One thing it should do is make everyone cautious about the idea of retailers using constant technological change to endlessly revolutionise the sector. To cite, not for the first time in these reports, William Gibson's maxim that **the future is all around us, it's just unevenly distributed**, we can broadly see how retail will probably evolve.

More channels, more logistical complications, more multichannel purchases, more reliance on data, more subscription models, more mobile, more digital products, more livestreaming. Yet, at the same time, **consumers growing more aware of their personal data's value** as the internet becomes a pervasive, web 3.0 iteration.

Seen in this context, **whether it succeeds or not, the metaverse will be just one more channel**. While there are still many more fortunes to be made in ecommerce, they are unlikely to be made by dominating the metaverse but by working within it to figure out the sweet spots where consumers will be rewarded enough to shop there.

Granted, going shopping in virtual reality may seem strange at first. Irene-Marie Seelig, co-founder and CEO of "multiverse platform" AnamXR, says that some consumers now "value their digital persona more than the physical persona" and sees the metaverse as an opportunity for

selling virtual fashion^[5]. But is even this scenario really so alien to retailers? She is, after all, talking about trying to sell people stuff they will, if the right items are presented in the right way at the right price, want to buy.

ANOTHER VIEW

That's not to say that without the metaverse succeeding, everything will stay the same and retail will become an established industry moving slowly and sedately into the future. The key point here is more that, since we work in an industry driven by technology, we have got used to looking at things through the lens of rapid technological change, often driven by developments in Silicon Valley. But maybe this way of seeing the world has become a stale orthodoxy. (This kind of thinking may also, incidentally, partly explain why Zuckerberg latched onto the idea of us all spending more time online during the pandemic and assumed this situation would endure.)

Take just one of the big issues within retail – sustainability. Leaving aside it being caused by industrialisation, from a retail perspective, this has little to do with technology, except in so far as consumers are looking for goods that have a lower environmental impact. **Citizens (consumers seems the wrong word in this context) have a growing awareness of how their environment is changing and this is altering their behaviour**. Arguably, this will have a far more profound effect on global retail in the years ahead than any new channel or clever widget.

Or look at retail through the prism of the European Union's General Data Protection Regulation (GDPR), legislation mirrored elsewhere in the world that's already proved hugely challenging to personal data-driven business models. Inexorably, GDPR had made consumers more aware of the value of the data they share. Again, this isn't technologically driven change, it's the authorities stepping in to protect citizens using those services that have become essential to conducting day-to-day life.

It's as if the recent redundancies, economically turbulent as they are, represent a far more profound shift in the way the world does business. An era of change driven by digital tech and philosophically underpinned by ideas and attitudes associated with Silicon Valley is perhaps ending. Without in any way suggesting that consumers will cease to look for value and great customer service, or that business conditions will somehow become easier, it may also be that an era of moving more slowly and mending things lies ahead.

^[1] www.nytimes.com/2022/11/14/technology/amazon-layoffs.html

^[2] www.sfchronicle.com/tech/article/Twitter-fires-even-more-sales-staff-as-cuts-17601922.php

^[3] www.theguardian.com/technology/2022/nov/09/mark-zuckerberg-meta-to-sack-11000-workers-after-revenue-collapse-facebook-instagram

^[4] www.reuters.com/technology/hedge-fund-tci-says-alphabet-cost-base-too-high-2022-11-15/

^[5] www.mckinsey.com/capabilities/growth-marketing-and-sales/our-insights/fashion-forward-in-the-metaverse

Market overview: International indices

The level of development of different economies is shown in several international indices, which we track as part of RetailX research. The indices we currently track are:

- Ease of Doing Business: "The Doing Business project provides objective measures of business regulations and their enforcement across 190 economies and selected cities at the subnational and regional level."[1] In September 2021, the World Bank discontinued updating this research following "data irregularities" being "reported internally". A new Business Enabling Environment (BEE) index will follow at some point, but for now we continue to publish the final Ease of Doing Business Index results.
- E-Government Development Index: "Along with an assessment of the website development patterns in a country, the E-Government Development index incorporates the access characteristics, such as the infrastructure and educational levels, to reflect how a country is using information technologies to promote access and inclusion of its people."[2]
- 2IPD: "The Integrated Index for Postal Development (2IPD) provides the most comprehensive view on current global postal development. Relying on a unique combination of postal big data and statistics made

	EASE OF DOING BUSINESS INDEX	E-GOVERNMENT DEVELOPMENT INDEX	INTEGRATED INDEX FOR POSTAL DEVELOPMENT (21PD)	AVAILABILITY	AFFORDABILITY	RELEVANCE	READINESS	OVERALL INTERNET INCLUSIVE INDEX	HAPPINESS INDEX (O-UNHAPPY, 10-HAPPY)	CAGR (2018-2022 %)
AFRICA										
ALGERIA	157	120		68	86	70	65	71	5.12	20.7
EGYPT	114	111	91	49	67	66	47	57	4.29	39.5
GHANA	118	101	53	75	57	74	65	73	4.87	31.9
KENYA	56	116	75	67	72	18	49	58	4.54	52.3
MOROCCO	53	106	77	48	69	5	77	51	5.06	20.8
NIGERIA	131	141	68	81	41	57	30	64	4.55	33.1
SOUTH AFRICA	84	78	73	44	43	59	21	49	5.19	15.6
TANZANIA	141	152	99	93	68	82	58	87	3.70	29.6
ASIA										
AUSTRALIA	14	5	17	15	8	35	33	13	7.16	22.1
CHINA	31	45	25	24	30	13	41	22	5.59	7.6
INDIA	63	100	50	63	13	29	35	50	3.78	28.7
INDONESIA	73	88	67	45	74	23	13	46	5.24	43.8
JAPAN	29	14	4	17	18	43	30	20	6.04	19.8
SOUTH KOREA	5	2	27	2	37	11	9	2	5.94	14.2
VIETNAM	70	86	47	43	61	14	51	46	5.49	31.0
EUROPE										
FRANCE	32	19	5	9	10	7	29	4	6.69	17.3
GERMANY	22	25	2	11	19	44	19	14	7.03	18.4
ITALY	58	37	11	32	6	24	28	20	6.47	27.4
NORWAY	9	13	51	N/A	N/A	N/A	N/A	N/A	7.37	14.2
RUSSIA	28	36	20	34	4	25	52	30	5.46	20.0
THE UNITED KINGDOM	8	7	8	16	1	28	8	5	6.94	11.6
KEY: Top quartile	Second quartil	e Third qua	rtile Fourth q	uartile					@ (i)	RetailX 2022

available by 172 countries, it paints a picture of an asymmetric state of postal development."[3]

- Inclusive Internet Index: "Commissioned by Meta and developed by Economist Impact, [the Inclusive Internet Index] seeks to measure the extent to which the Internet is not only accessible and affordable, but also relevant to all, allowing usage that enables positive social and economic outcomes at the individual and group level." [4]
- World Happiness Report: "[This] uses global survey data to report how people evaluate their own lives in more than 150 countries worldwide. The World Happiness Report 2022 reveals a bright light in dark times. The pandemic brought not only pain and suffering but also an increase in social support and benevolence." [5]
- **Compound Annual Growth Rate (CAGR):** We have tracked the CAGR between 2018 and 2022 to see which economies have grown most consistently over time.

As you would expect, **the performance of different nations across these indices reflects strong regional variations.** Advanced economies in Asia, Europe and North America generally perform more strongly in the indices we track. In contrast, developing African nations perform relatively more poorly. In the Middle East and South America, the picture is more mixed. However, there are nuances here. In terms of CAGR, many African nations outperform other countries, albeit from a lower base, as their economies develop.

	EASE OF DOING BUSINESS INDEX	E-GOVERNMENT DEVELOPMENT INDEX	INTEGRATED INDEX FOR POSTAL DEVELOPMENT (21PD)	AV	AILABILITY	AFF	ORDABILITY	RELEVANCE	RE	ADINESS	OVERALL INTERNET INCLUSIVE INDEX	HAPPINESS INDEX (O-UNHAPPY, 10-HAPPY)	CAGR (2018-2022 %)
MIDDLE EAST													
IRAN	127	89	54		47		66	:	21	7	45	4.89	40.5
ISRAEL	35	30	32	N/A		N/A		N/A	N/A	N,	/A	7.36	28.2
QATAR	77	66	59		21		47		29	14	27	6.37	16.2
SAUDI ARABIA	62	43	55		31		77		8	40	39	6.52	19.9
TURKEY	33	53	41		46		46		26	16	43	4.74	22.5
THE UAE	16	21	65	N/A		N/A		N/A	N/A	N,	/A	6.58	29.7
NORTH AMERICA													
CANADA	23	28	9		13		15		41	16	12	7.03	19.1
USA	6	9	7		13		10		3	- 11	3	6.98	18.4
MEXICO	60	61	76		52		21		9	3	36	6.13	36.1
SOUTH AMERICA													
ARGENTINA	126	32	85		40		33		18	24	37	5.97	31.6
BRAZIL	124	54	48		38		16		1	44	23	6.29	23.2
CHILE	59	34	72		27		13	;	36	4	16	6.17	27.4
COLOMBIA	67	67	52		52		32		31	45	48	5.78	30.0
PERU	76	71	88		52		36		16	6	42	5.56	29.0
KEY: Top quartile	Second quartil	le Third qua	rtile Fourth q	uartil	е							(c) (i)	RetailX 2022

This year, for the first time, we have published both CAGR data and information from the World Happiness Report. We have ceased to track the Logistics Performance Index because it has not been updated since 2018. Key findings in the latest 2IPD report include the observation that, overall, "Quality of service has substantially improved since postal services were hit by the waves of the Covid-19 pandemic."

But the reports authors also note: "Many countries ought to revisit their postal business model and quickly adapt it to the needs of the next generation of postal customers." [6]

^[1] www.doingbusiness.org/en/doingbusiness

^[3] https://publicadministration.un.org/egovkb/en-us/About/Overview/-E-Government-Development-Index

^[3] www.upu.int/en/Universal-Postal-Union/Activities/Research-Publications/Integrated-Index-for-Postal-Development

^[4] https://theinclusiveinternet.eiu.com

^[5] https://worldhappiness.report/ed/2022/

^[6] www.upu.int/UPU/media/upu/publications/2IPD2022.pdf

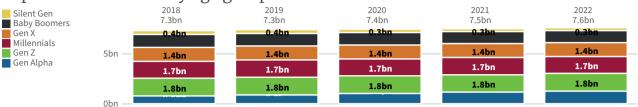
Global graphics: how different regions compare

How will the different regions of the world cope with the economic and political challenges that lie ahead?

On 15 November 2022, the global population reached **8bn for the first time ever.** [1] This figure is projected to peak at 10.4bn in the 2080s before declining in the years after 2100. First and foremost, we should recognise the good news contained in these figures. As António Guterres, secretary general of the United Nations, announced on World Population Day, "This is an occasion to celebrate our diversity, recognize our common humanity, and marvel at advancements in health that have extended lifespans and dramatically reduced maternal and child mortality rates."

However, these figures also reveal huge challenges. How will we feed so many people? Can emerging nations enjoy the same living standards as those enjoyed in Japan, the USA and the wealthiest parts of Europe? In the years ahead, there will be a tension between growth



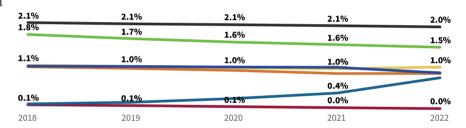


Age groups (year of birth): Gen Alpha (2013-present), Gen Z (1998-2012), Millennials (1983-1997), Gen X (1968-1982), Baby Boomers (1948-1967), Silent Gen (1928-1947) Source: RetailX, drawing on data from UN

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Population growth

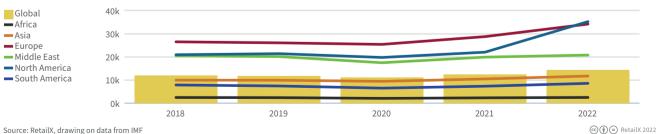




Source: RetailX, drawing on data from UN



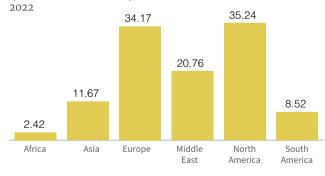
GDP per capita (USD)



and sustainability. How will the world's nations manage this? Evidence that such questions will prove difficult came at COP27 with the wrangling over the establishment of a Loss and Damage Fund to aid countries hit by climate disasters. [2] such as the flooding that afflicted Pakistan recently following torrential monsoon rains.[3]

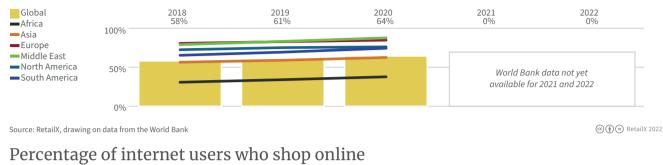
The need for such assistance in the developing world becomes clearer when you look at the relative population growth and GDP per capita in different regions. In the African countries we track, the population is growing by 2% a year and the GDP per capita is \$2.4k. In contrast, in the **European countries we track, the population is neither** growing nor falling, while GDP per capita is \$34.2k.

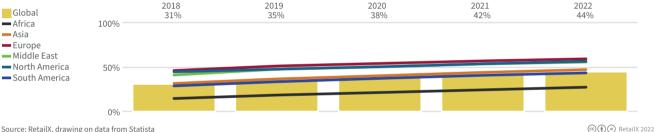
GDP per capita per region (thousand USD)



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Percentage of internet users





Source: RetailX, drawing on data from Statista

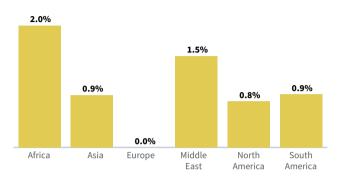
This stark contrast between two continents reveals huge inequalities, but that's not to say it will always be thus. As the success of Asian nations such as Japan and South Korea reminds us, the economies of different nations can be radically transformed over what are. in historical terms, short timescales. Witness what's happened in China and India in recent years. Turning specifically to global retail, one factor that businesses are likely to need to take into account is potential, which is to

say that while richer nations may offer better returns in the short term, emerging nations may offer better longer-term prospects and ultimately a better return on investment.

As to how to determine which nations offer the best opportunities for such growth, it is perhaps tangentially revealing to contrast the Qatar World Cup, which from the off gave the impression of being an event parachuted in for the sake of international prestige, with the Indian Premier

RetailX, drawing on data from IMF

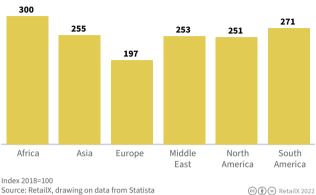
Annual population growth per region



RetailX, drawing on data from UN

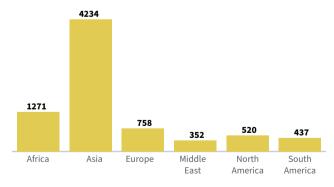
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Ecommerce revenue Index per region



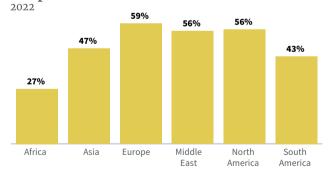
Source: RetailX, drawing on data from Statista

Total population per region (millions)



RetailX, drawing on data from UN (cc) (i) (=) RetailX 2022

Percentage of internet users who shop online



RetailX, drawing on data from Statista

(cc)(i)(=) RetailX 2022

League (IPL). The IPL has been built on a scalable mix of heavy investment, possible because India is now rich enough to pay the world's best players, and organic growth that relies on Indians' huge enthusiasm for cricket. The IPL looks a better long-term bet than football in Qatar.

Then again, global figures appear to suggest potential may be evenly spread. It's striking that the percentage of internet users who shop online stands at around 50% on every continent except Africa. Offer people the opportunity to shop digitally and they take it. Moreover, the ecommerce revenue index per region is highest in Africa, suggesting the percentage of online shoppers on the continent will catch up with the rest of the world.

Finally, it is fascinating to look at the relative populations of the regions we track (a figure lower than 9bn because we don't track every nation). Asia has by far and away the largest population, thanks in great part to the numbers who live in China and India. In these two countries, so many global tensions are dramatised: between growth and the environment, authoritarianism and democracy, globalisation and protectionism, tradition and modernity. All of which at the very least makes these countries a worthwhile study for anyone looking at how global retail – and indeed the wider global economy – may develop.

[1] www.un.org/en/desa/world-population-reach-8-billion-15-november-2022 [2] https://unfccc.int/news/cop27-reaches-breakthrough-agreement-on-new-loss-and-damage-fund-for-vulnerable-

[3] www.unicef.org/emergencies/devastating-floods-pakistan-2022

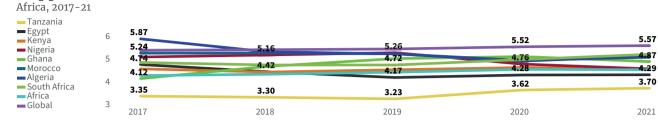
Happiness Index

The more content a population, the more likely they are to spend on products they'd like rather than things they need

We tend to assume that Gross Domestic Product (GDP) has always been the measure by which countries measure success. The truth is more nuanced. In 1937, Simon Kuznets, the economist who developed the first comprehensive set of measures of national income, warned against the limitations of number crunching. He said, "The valuable capacity of the human mind to simplify a complex situation in a compact characterisation becomes dangerous when not controlled in terms of definitely stated criteria. With quantitative measurements especially, the definiteness of the result suggests, often misleadingly, a precision and simplicity in the outlines of the object measured."

In other words, numbers always need to be interpreted. The GDP per capitas of Norway, the UAE and the USA are broadly similar, yet how much that really tells us about the real economies of three such different countries is a moot point.

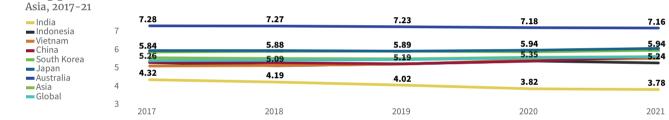




Survey respondents evaluate the quality of their current lives on a scale of 0 (unhappy) to 10 (happy). Source: The World Happiness Report

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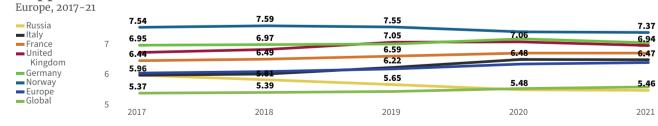
Happiness Index



Survey respondents evaluate the quality of their current lives on a scale of 0 (unhappy) to 10 (happy). Source: The World Happiness Report

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Happiness Index



Survey respondents evaluate the quality of their current lives on a scale of 0 (unhappy) to 10 (happy). Source: The World Happiness Report

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The World Happiness Report takes a different approach by using "global survey data to report how people evaluate their own lives in more than 150 countries worldwide"^[1]. To do this, **representative samples of respondents are asked to think of a ladder, with the best possible life for them scoring a ten and the worst a zero.** Its first publication, in 2012, followed the United Nations general Assembly adopting resolution 65/309 *Happiness: Towards a Holistic Definition of Development*^[2], which invited member countries to measure their citizens' happiness with a view to using the data to guide public policy.

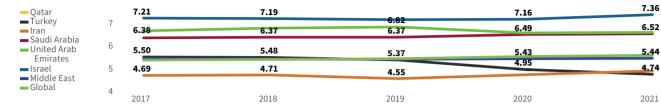
This may sound abstract from a business perspective, yet it's worth remembering John Maynard Keynes' work on the role of "animal spirits" in the economy. **Someone who is confident about the future is more likely to spend than someone facing redundancy.** The potential of such an approach can be seen that, even in 2021, Russians were growing progressively gloomier. Yet Norwegians, living in a wealthy country with high levels of social security, are the happiest of the European countries we track.

The world's happiest citizens live in North America and Europe, suggesting a link between economic well-being and happiness. Of the nations we track, only Norway, Australia, Germany, Israel and Canada scored more than seven out of ten. In two countries – Tanzania and India – the score was less than four out of ten.

[1] https://worldhappiness.report

Happiness Index

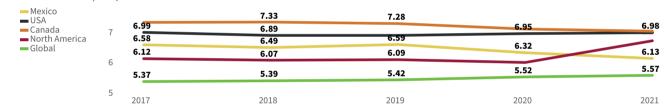
Middle East, 2017-21



Survey respondents evaluate the quality of their current lives on a scale of 0 (unhappy) to 10 (happy). Source: The World Happiness Report

cc (i) = RetailX 2022

Happiness Index North America, 2017-21

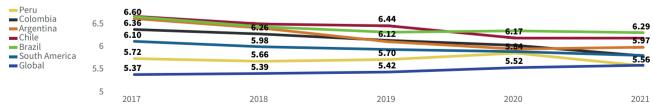


Survey respondents evaluate the quality of their current lives on a scale of 0 (unhappy) to 10 (happy). Source: The World Happiness Report

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Happiness Index

South America, 2017-21



Survey respondents evaluate the quality of their current lives on a scale of 0 (unhappy) to 10 (happy). Source: The World Happiness Report

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Expert insight

Payments and fraud solutions



Basant Singh, global head of the merchant business unit at ACI, on why payment orchestration solutions can give retailers the edge across all sales channels

What do customers expect of the retailers and brands in terms of payment and how are they adapting to meet these expectations?

Global and region-specific alternative payment methods are growing in popularity at considerable pace. Account-to-Account, real-time banking is more and more popular with shoppers and is expected to grow 25.6% in 2023. BNPL saw a meteoric rise to fame and mobile payments saw a 49% transaction growth in 2021. By 2025, this is expected to increase to 53%. Merchants need to be prepared to offer the payment methods shoppers want, in all channels. Yet integrating these payment methods is a costly process and in order to manage costs, business need to look at a single API payment orchestration platform that has access to regional and global wallets.

Since the payments landscape and customer preferences are constantly changing, merchants must always be ready for the unexpected.

What challenges do you see for ecommerce and multichannel retailers and brands in the year ahead and how they approach them?

We are living through a time of truly incredible change, which brings both challenges and opportunities. When the Covid-19 pandemic sent consumers away from the high street to shop online, some merchants, both multichannel and pure play online retailers, struggled to keep up. Now, we are in an inflation economy around the world and people are reining in their spending. At the same time, shoppers are shifting habits back to the online-instore mix we saw pre pandemic. This causes real challenges for merchants, who need to adapt quickly to shopper preferences while managing costs so as not to find themselves overstretched to a degree that caused so many retailers to recently stop trading. A payments strategy is central to navigating these times.

Facilitating this requires a true payments orchestration platform that has connectivity to emerging partnerships and technology. It needs to deliver customer-centric journeys and optimise payment acceptance across all channels while, at the same time, also enabling payment experiences and connecting to payment partners that increase conversion.

What are the opportunities that these businesses should be making the most of and how can both leading and growing retailers best tackle these?

Business should look at the growth in demand for new payment methods and be ready ahead of the competition to offer the preferred payment experience to shoppers. Real-time payments, or Account-to-Account payments, or Open Banking in Europe is expected to grow 25.6% in 2023. Card transactions have been the default payment method for a long time, yet this is set to change. If they are to compete, merchants need to have all the payment options available.

Managing the cost of reconciliation is another opportunity area for merchants. It is a challenge to manage settlement across all the different payment methods. Merchants need to find a payment partner that covers all the options in the reconciliation process

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Expert insight



Product information for a global audience

James Barlow, UK director at Akeneo, on the value of simplifying omnichannel ecommerce by starting with robust and accurate product information

It's no secret that pandemic lockdowns, along with technological advancements, have driven a boom in ecommerce sales. Almost a quarter of all retail sales this past year happened online and that percentage is growing as new technologies offer never-before-seen shopping experiences alongside new touchpoints. In short, shoppers around the world are heading online in droves.

Whether your customers are searching for you on a digital retail platform, social media app or search engine, or they're utilising newer technologies such as voice search or AI, all shoppers want to know they'll be able to find your brand. With thousands of options infiltrating their screens

and brains, it's crucial that your organisation makes the process of choosing your brand as easy as possible by tapping into the omnichannel nature of retail and showing up on the channels that shoppers are already using.

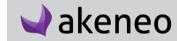
But while taking full advantage of this truly global market can reap massive rewards, it involves time-consuming work in setting up hundreds of new localisation processes for every product, marketplace and channel.

It's not enough simply to have a presence across multiple channels. You also need to ensure that all your product information is correct and up-to-date, regardless of where a potential customer has discovered you. They need to feel they can trust an organisation. This trust can't be built up if they are struggling to read or even find product descriptions, understand product data or view product assets.

So how can you optimise your global omnichannel success without breaking the bank or burning out your employees? As any good architect will tell you, it starts with a solid foundation: your product information. Without a dedicated solution for managing product information, your omnichannel product activation efforts will be doomed from the start. Your organisation can't afford to have siloed product data. Having a central repository for product information that communicates seamlessly with all the other tools in your tech stack allows brands and retailers to create personalised customer experiences across owned and unowned channels.

Not only does this accelerate time-to-market and optimise product information for existing channels, it also makes it easier to incorporate new channels.

When a customer knows that they're going to get the same experience regardless of where they encounter a brand or its products, that can serve as a foundation for loyalty. In such a tumultuous time, customers are looking for brands they can trust and rely on. By focusing on the root of the issue – proper management of your product information – your organisation will be able to embrace the omnichannel nature of shoppers and meet them where they are, all while ensuring you're providing the best, most seamless experience possible.



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Expert insight

Keeping up with expectations

Renaud Marlière, Asendia's chief business development director, discusses the need to move with an ever-changing digital ecosystem

How are brands and retailers adapting to meet the expectations of consumers?

Whether today's consumers are engaging with your brand via a webstore, a marketplace or a bricks-and-mortar shop, they expect the whole process to feel connected, coherent and simple. They may want to order a product online, sample it instore, then have it delivered to their home.

My practical advice for retailers is to dedicate resources into integrating inventories and ordering systems across your business. A shop assistant should be able to check stock availability throughout your retail network and place an order at the store of the customer's choosing. In this way, you can never under or over-sell.

How do you think ecommerce and multichannel retailers will approach the challenges ahead?

Becoming an omnichannel retailer and keeping pace with the latest ideas and technology is both a challenge and a major opportunity. Each player needs to think about how to strike the right balance between D2C, marketplaces and traditional retail – it won't be the same for every brand.

Then comes the challenge of selecting the right thirdparty ecommerce and logistics enabler. Are you a purely domestic business or do have a need or ambition to sell cross-border? Do you need support with developing or improving webstores, localised checkouts, merchant of records services or logistics and delivery?

What's needed is a clear idea of what your brand is and where it is going. An ecommerce and logistics enabler like ESW can help you establish the digital infrastructure that you need for successful online retail.

If you are planning to handle all this in-house, you must assess which digital solutions will work together. CMS, PIM, OMS, marketplace aggregators, WMS, TMS, RMS... there is certainly a lot to consider. Given the complexity of this digital ecosystem, agile SaaS solutions, such as those provided by Anchanto, can help to optimise the digital side of your operation. This can be a great way to get your legacy and future omnichannel operations in order.

How can leading and growing brands take advantage of ecommerce and omnichannel opportunities?

Omnichannel continues to evolve at a staggering pace – just look at the increasing numbers of players selling on, or even transforming into, marketplaces. If they are to make the right decisions, digital and ecommerce directors need to be very aware of how the landscape is evolving and what it means for their businesses.

Social commerce is already established on platforms like Facebook and Instagram but ByteDance's platforms, TikTok and Douyin, are also making strong headway.

Thinking a little further ahead, the metaverse is also going to have massive implications, although it is still to early to understand exactly what these implications will be, or even exactly what the metaverse is going to look like.



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Rakuten Advertising

Expert insight

Growing your market share during trying times

Kim Marks, SVP global strategy, Rakuten Advertising, looks ahead at the market trends that she believes will shape ecommerce in 2023

The ecommerce sector has been buffeted by Covid-19, supply chain problems, inflation and geopolitical issues. What's your take on the outlook for the year ahead? The complex and unpredictable landscape of the last few years has caused widespread uncertainty – especially with the geopolitical backdrop of 2022.

At Rakuten Advertising, we anticipate inflation will begin to settle in the first half of 2023, although it's unlikely it will drop back to the levels of early 2022. We also do not anticipate central banks to begin decreasing interest rates within the first half of the year, and in the US we expect the dollar and the labour market to remain relatively strong.

For brands, the combination of supply chain build-up and waning demand increases the probability that retailers will use promotions to offload inventory. In this market, performance channels, such as affiliate marketing, will benefit advertisers looking for resilience in their ROI.

People are becoming more aware of the value of their data. How will this impact the ecommerce sector in the years ahead?

With recent changes brought about by a combination of Apple, Google, government privacy regulations and overall consumer sentiment shifts, brands are testing new digital advertising approaches. Advertisers will increasingly be forced to rely on alternative forms of measurement and targeting, such as those driven by correlation and context.

Affiliate is uniquely positioned to support post-cookie strategies given its performance and partnership focus. Most of Rakuten's top publishers utilise user logins, and we have developed a new technology named Audience Engine that lets brands harness the untapped power of our publishers' vast first-party data. We've seen great results here with our closed beta partners. We are excited about the announcements we have planned for early 2023.

Where are the biggest opportunities for future growth?

The acceleration of existing trends in the advertising industry complicates investment decisions for many companies. Lines are blurring between content and

commerce. The evolution of media – for example, around the increased importance of influencers – creates both challenges and opportunities for advertisers.

There is a pent-up demand for performance-based, walled-garden alternatives. Retailers and publishers are investing in selling their own audiences and more businesses are offering turn-key retail media programs via Retail Media as a Service. Additionally, consumer segmentation and targeting capabilities using affiliate publisher data – such as our Audience Engine – enhance the use of first-party data in marketing campaigns and provide new monetisation opportunities for publishers.

The greatest paradigm shift we're working through is how we can better serve end-consumers and our clients in a volatile economic environment. We will continue to search for new growth opportunities through that lens .

RakutenAdvertising

Rakuten Advertising helps global retailers to outthink the challenges presented by changing economic climates and create strategic advertising campaigns that outperform expectations, please visit: www.rakutenadvertising.com

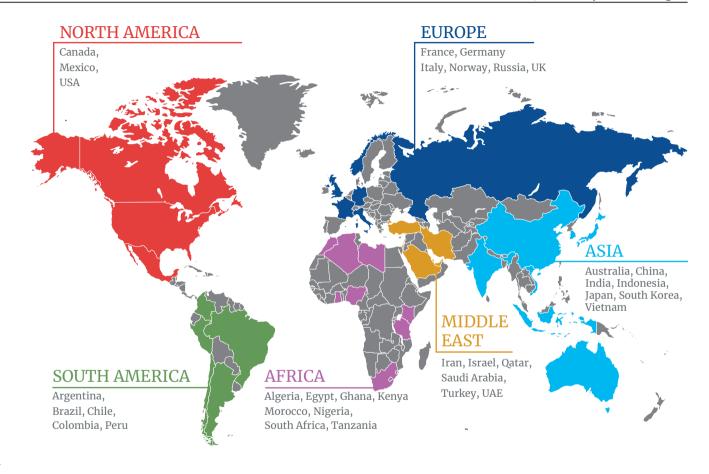
Introduction to the regions

Over the following pages, we look in detail at some of the world's key ecommerce markets – at both a regional and country-specific level

The regions and countries highlighted for this report represent ecommerce markets at different stages of maturity and adoption. We have grouped countries as far as possible into trading blocs. Broadly, these are nations that are likely to trade with each other because of geographical proximity, which makes the logistics of ecommerce far more straightforward.

However, it's important to recognise that retailers in many countries, especially nations with developed ecommerce sectors, sell around the world. Retailers such as Amazon international markets far away from the country where they are headquartered.

We should also emphasise that we have deliberately selected a cross-section of countries. We have looked both at nations that have developing ecommerce sectors as well as those where online shopping is more established.



Africa

With its young, growing and increasingly urban population, Africa is set for digital growth in the years ahead

As we noted last year, Africa has the potential to become a world leader in ecommerce. This is because of a combination of factors, notably:

- A young and growing population
- The rapid rollout of digital services
- Strong prospects for growth in the years ahead

The population in Africa is growing by 2% a year. **Gen Z** and Gen Alpha both have a huge influence on African societies and economies. The percentage of those online is growing, albeit from a lower base than elsewhere in the world. We should note here that we have revised the data we use, meaning the figures for percentage of internet users/percentage of internet users who shop online (see overleaf) show as lower than in previous years. Nevertheless, the trend is clear. More and more African consumers go online every year, often via mobile, and this will continue to be the case in the years ahead.

African expertise in digital technology is growing too. As we note in our feature on new tech hubs later in this



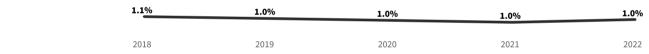


Age groups (year of birth): Gen Alpha (2013-present), Gen Z (1998-2012), Millennials (1983-1997), Gen X (1968-1982), Baby Boomers (1948-1967), Silent Gen (1928-1947) Source: RetailX, drawing on data from UN

(cc) (i) (=) RetailX 2022

Population growth

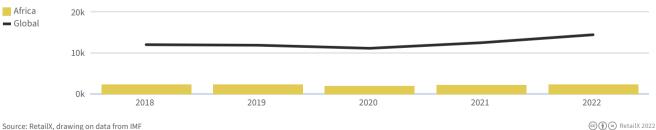




Source: RetailX, drawing on data from UN

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GDP per capita (USD)

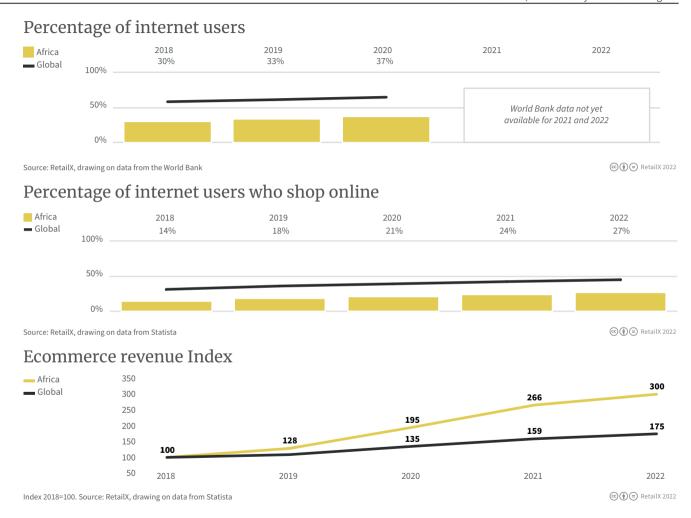


report, Lagos in Nigeria is becoming a regional centre for ecommerce. Cities such as Nairobi, Casablanca and Dakar are also leading the way here. It will be intriguing to see which African companies come to be ecommerce leaders – and we expect many of the continent's leading ecommerce companies in the future to grow from startups, in part because Africa's relatively low GDP per capita makes this, for now at least, a less attractive market for companies headquartered in the developed world. More positively, African companies understand local conditions and so can make the most of opportunities.

However optimistic the overall picture may be, Africa remains relatively underdeveloped and there are factors that will impact on the growth of the digital sector and ecommerce in the years ahead. The Covid-19 pandemic was hit relatively poor countries without ready access to vaccines harder than those in the developed world. While citizens in Africa's cities typically have access to digital services, that's not always true in rural areas. Many African nations are already dealing with climate change.

Inequality, often historically linked to the colonial era, is a huge issue. The World Bank has, for example, highlighted South Africa, with its "legacy of exclusion" from the apartheid years, as a country where "intergenerational mobility is low". [1]

[1] www.worldbank.org/en/country/southafrica/overview

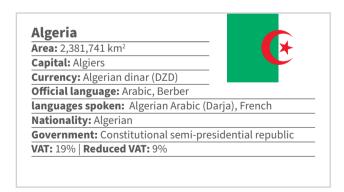


Algeria

With its growing cities and towns, this oil-rich North African nation has huge potential as a centre for ecommerce

The North African country of Algeria is the largest nation on the continent. Around 90% of its population lives on the heavily urbanised Mediterranean coast. The Sahara Desert, which covers much of the country, is only sparsely populated. Its capital, Algiers, is also its largest city, with an estimated 4.5mn residents. Modern Algiers has enveloped the old citadel - a UNESCO World Heritage Site.

Algiers was a French colony between 1830 and 1962. Independence was achieved after an eight-year fight





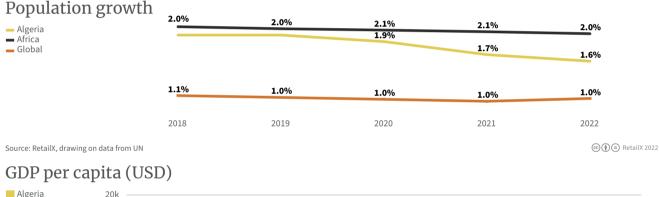
Africa

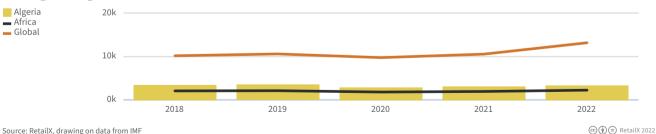
Global



Age groups (year of birth): Gen Alpha (2013-present), Gen Z (1998-2012), Millennials (1983-1997), Gen X (1968-1982), Baby Boomers (1948-1967), Silent Gen (1928-1947) Source: RetailX, drawing on data from UN

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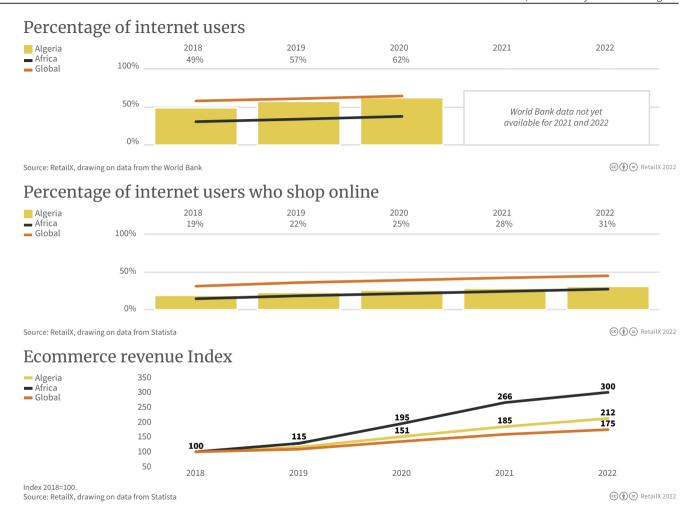
against the French that displaced 2mn Algerians and killed hundreds of thousands. **Despite such a fractious shared history, ties to France remain strong**, with French still used widely as an administrative language and up to 1.7mn Algerian migrants making their home there.

Algeria produces 1.1mn barrels of oil per day and is also a major exporter of gas to Europe. Unsurprisingly, around 60% of budget revenues, 30% of GDP and 88% of export earnings are hydrocarbon-based, with much of this business and revenue tightly controlled by the state – a legacy of the system established post-independence.

Despite such natural resources – the country's ranked 16th globally for oil reserves – the average Algerian is not particularly affluent. **The IMF estimates Algerians to have a per capita income of \$4,294 – 138th globally, immediately below Belize and immediately above Egypt.** According to datareportal.com^[1], the number of internet users increased 16% between 2020 and 2021, then a further 7.3% between 2021 and 2022. Currently, 60.6% of the population have internet access.

Ecommerce usage has increased steadily since 2017 and shows none of the spikes caused by the pandemic seen elsewhere. By 2025, it is projected that 16.2mn Algerians will shop online, up from 14mn in 2022, an increase of 15.7%. [2]

[1] https://datareportal.com/reports/digital-2021-algeria [2] www.statista.com/forecasts/1331902/number-of-e-commerce-users-in-algeria

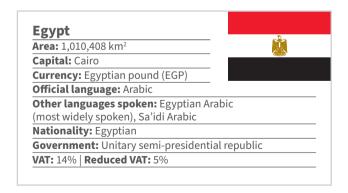


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Egypt

The Egyptian ecommerce sector is growing and the country has ambitions to be a digital powerhouse

As this report went to press, Egypt was preparing to host COP27. Ahead of the event, the Egyptian government said it wanted the conference to focus on implementation. "There can be no room for delay in the fulfilment of climate pledges or backtracking on hard-earned gains in the global fight against climate change," noted HE Sameh Shoukry, Egyptian minister of foreign affairs and COP27 president-designate. [1] Whether the conference is a success or not – and there is disquiet among African nations over whether richer countries are doing enough to

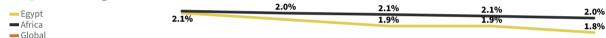


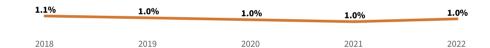
Population structure, by age group



Age groups (year of birth): Gen Alpha (2013-present), Gen Z (1998-2012), Millennials (1983-1997), Gen X (1968-1982), Baby Boomers (1948-1967), Silent Gen (1928-1947)
Source: RetailX. drawing on data from UN

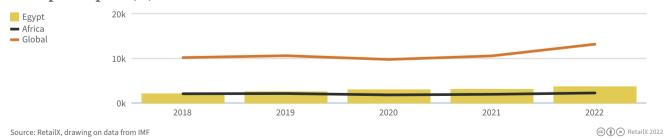
Population growth





Source: RetailX, drawing on data from UN

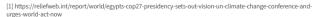
GDP per capita (\$)



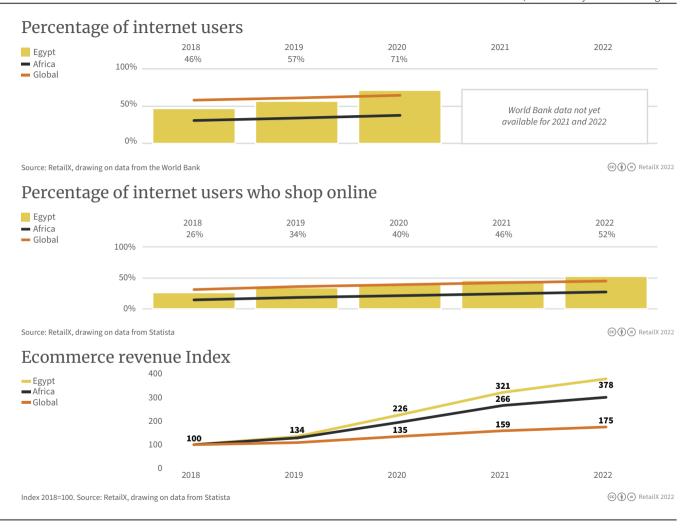
fight climate change^[2] – the selection of Egypt as hosts is an indication of the country's geopolitical importance.

Egypt boasts the second-largest economy in Africa, after Nigeria. It is relatively wealthy compared to other African nations. Its GDP per capita stands at \$3,772, compared to an overall figure for the African nations RetailX tracks of \$2,207. **Turning to ecommerce, 52% of Egyptian internet users also shop online. The equivalent figure for the African countries that RetailX tracks is 27%.** According to Statista, the country's annual ecommerce spend will reach \$7.7bn in 2022. In 2016, Egypt, supported by a \$12bn IMF loan, embarked on a series of macroeconomic reforms. The Egypt Vision 2030 programme announced that year envisages the transformation of Egypt into a digital society.^[3]

Egypt is widely regarded as a stable country but this hasn't always been the case in recent times. After the revolution of 2011 brought down the presidency of Hosni Mubarak, there was hope a new era of democracy might follow, yet **Abdel Fattah el-Sisi, president since 2014, heads an authoritarian regime.** ^[4] To return to COP27, there are, ironically enough, worries that environmentalists are among those being silenced in Egypt. ^[5]



^[2] www.theguardian.com/global-development/2022/oct/06/african-countries-urge-rich-nations-to-honour-100bn-climate-finance-pledge-cop27 [

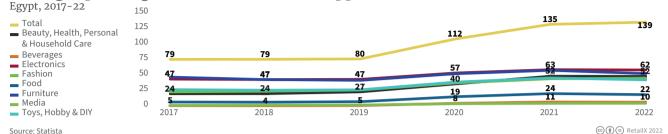


^[3] https://mcit.gov.eg/en/Digital_Egypt

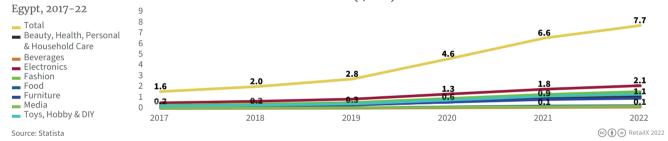
^[4] https://freedomhouse.org/country/egypt

^[5] www.theguardian.com/environment/2022/oct/14/cop27-egypt-host-climate-talks

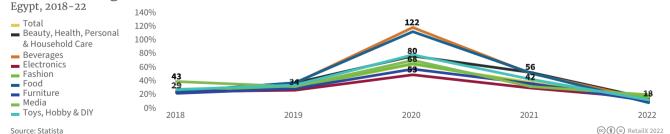
Average spending of the ecommerce eshopper (\$)



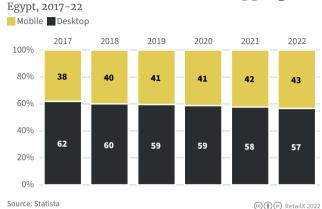
Annual revenue for the ecommerce market (\$bn)



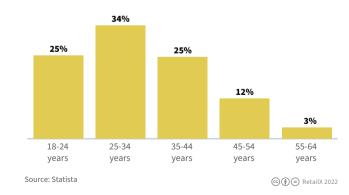
Annual change in revenue for the online ecommerce market (%)



Preferred device for online shopping (%)



Age distribution of ecommerce eshoppers Egypt, 2021

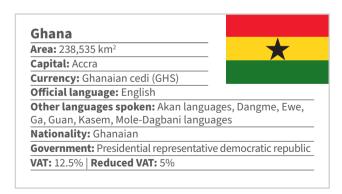


Ghana

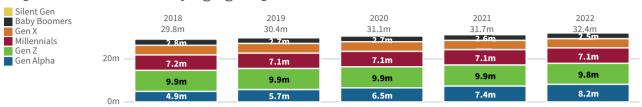
There's a strong sense of both increasing status and untapped potential for this West African mini-powerhouse

Although Ghana's economy was negatively affected by the Covid-19 pandemic, which triggered the country's first recession in nearly four decades, it has quickly bounced back. As in other countries, the population's shopping habits have now changed, to the benefit of ecommerce.

Agriculture is traditionally strong, while the services and banking sectors are dynamic. [1] Famously, Ghana's chief exports include gold, oil (specifically the sweet crude variety) and cocoa (used in the manufacture of chocolate).



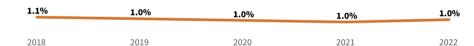
Population structure by age group



Age groups (year of birth): Gen Alpha (2013-present), Gen Z (1998-2012), Millennials (1983-1997), Gen X (1968-1982), Baby Boomers (1948-1967), Silent Gen (1928-1947)
Source: RetailX. drawing on data from UN

Population growth

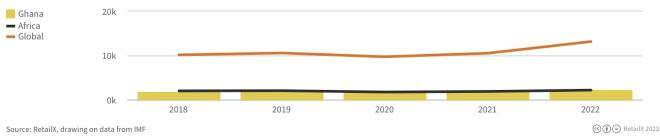




Source: RetailX, drawing on data from UN







(cc)(i)(=) RetailX 2022

It could be argued that another of Ghana's top exports is people, in the form of emigration. Almost 1mn leave each year, often to seek more favourable economic opportunities in neighbouring African countries, but also to the USA and the UK, with which Ghana has strong links, as well as the shared English language.

Population estimates for Ghana vary but numbers have risen for 50 years and are currently thought to be between 32.6mn (Worldometer) and 33.4mn (MacroTrends).

Females outnumber males by around 50.7% to 49.3%.

In terms of both development and human rights, Ghana still has some way to go. Imperfect infrastructure affects areas such as electricity supply and until recently, less than half of the population had internet access. However, the country benefits from a lively legacy media encompassing newspapers, magazines, television channels and a radio sector that is still highly popular and influential.

In terms of ecommerce, **notable sites include Hubtel**, **a platform to organise sales processes**, **and the online shopping mall**, **Jumia**. Also of note are Plendify, an online wholesale shopping platform, and Jiji, which is Ghana's biggest online classifieds site. [2] **Smartphone use is widespread** and social media advertising is a key driver of consumer spending in this area.

Percentage of internet users 2019 2020 2018 2021 2022 Ghana 43% 53% 57% Africa 100% Global 50% World Bank data not vet available for 2021 and 2022 (cc)(i)(=) RetailX 2022 Source: RetailX, drawing on data from the World Bank Percentage of internet users who shop online Ghana 2018 2019 2020 2021 2022 Africa 14% 18% 21% 24% 27% Global 100% 50% (cc) (i) (=) RetailX 2022 Source: RetailX, drawing on data from Statista Ecommerce revenue Index 350 — Ghana 303 Africa 300 Global 250 200 175 159 135 150 100 50 2018 2019 2021 2022 2020

Index 2018=100, Source: RetailX, drawing on data from Statista

^[1] www.worldbank.org/en/country/ghana/overview
[2] www.trade.gov/country-commercial-guides/ghana-ecommerce

(cc) (i) (=) RetailX 2022

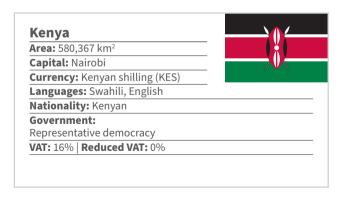
(cc)(i)(=) RetailX 2022

Kenya

This regional financial hub and centre for digital development still faces many long-standing problems

With GDP of more than \$100bn in 2021^[1], Kenya has reached lower-middle income status. **After Nigeria and South Africa, Kenya has the third-largest economy of sub-Saharan Africa** and offers an entry point for businesses trading in East Africa. Kenya is a regional financial services hub, while the Nairobi Stock Exchange is Africa's fourth-largest in terms of market capitalisation.

The agricultural sector is central to Kenya's economy. Exports such as tea and cut flowers help to offset the

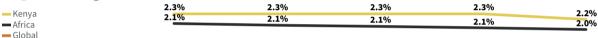


Population structure by age group



Age groups (year of birth): Gen Alpha (2013-present), Gen Z (1998-2012), Millennials (1983-1997), Gen X (1968-1982), Baby Boomers (1948-1967), Silent Gen (1928-1947)
Source: RetailX. drawing on data from UN

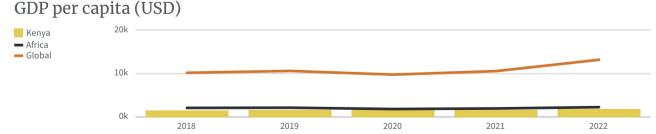
Population growth





Source: RetailX, drawing on data from UN





Source: RetailX, drawing on data from IMF

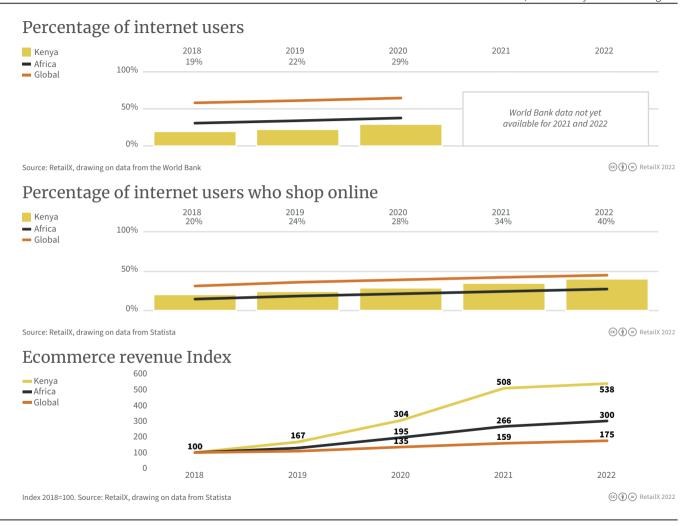
balance of payments deficit that results from importing machinery, oil and petroleum products, motor vehicles, iron and steel, resins and plastics. **Other sectors are now growing in importance, notably tourism.**

Despite strong growth in recent years, Kenya faces many challenges. In 2021, around 17% of the population were defined as living in extreme poverty. As this figure hints, **there are huge inequalities in wealth**. The humanitarian organisation, Action Against Hunger, has talked of "an explosion of needs" in Kenya and in its neighbours, Somalia and Ethiopia 13. This is because of factors such as the inflation in energy prices and the residual effects of the Covid-19 pandemic. It's also worth noting that another of Kenya's neighbours, Uganda, has been facing an outbreak of Ebola 4, driven in part by years of localised droughts. Famine is a very real threat in some parts of East Africa.

The digital sector is growing in importance in Kenya and earlier this year, the government launched a ten-year Information Communication Technology (ICT) Digital Masterplan. ^[5] In recent months, the Communications Authority of Kenya has been running a programme to verify SIM cards amid fears that fraudulently registered cards may be linked to theft and data insecurity.



^[2] www.statista.com/statistics/1227076/extreme-poverty-rate-in-kenya/



 $[\]label{lem:com/global-development/2022/oct/11/overlapping-shocks-are-undoing-efforts-to-end-hunger-in-africa-un-warns$

^[4] www.bbc.co.uk/news/world-africa-63212117

^[5] www.trade.gov/market-intelligence/kenya-launches-new-ten-year-digital-masterplan

Morocco

Already a global hub for trade, the prosperous North African coastal state seems set to grow its ecommerce market

Despite its modest-sized population (which at 36.9mn is the 11th-largest on the continent), **Morocco currently has the fifth-highest GDP of the African nations**. Historically, its economic prowess has benefited from its geographical location at the north west corner of the continent, with access to both the Atlantic Ocean and the Mediterranean Sea. At its closest point, Morocco is just 13km from Europe.

Boasting 22 ports, Morocco is a major player in the region's shipping and logistics. Its biggest city,



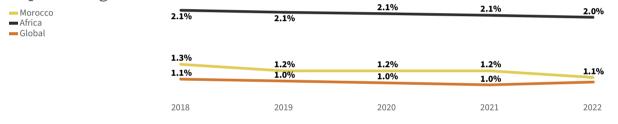




Age groups (year of birth): Gen Alpha (2013-present), Gen Z (1998-2012), Millennials (1983-1997), Gen X (1968-1982), Baby Boomers (1948-1967), Silent Gen (1928-1947) Source: RetailX. drawing on data from UN

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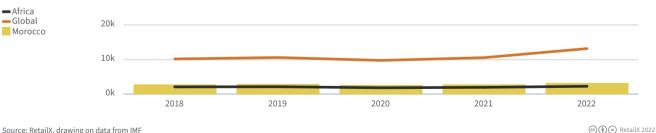
Population growth



Source: RetailX, drawing on data from UN



GDP per capita (USD)



Casablanca, also has the largest port in terms of area, while Tanger Med handles the greatest volume of cargo.

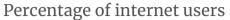
A popular tourist destination, Morocco has also been conspicuously successful in terms of agriculture,

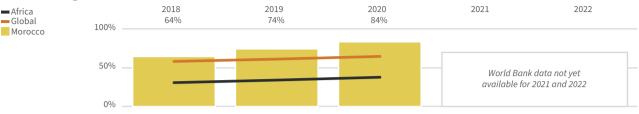
exporting fruit, vegetables and grains. There has even been speculation (led by a spate of popular YouTube videos) that Morocco will one day be the richest nation on the planet, **due to its possessing 70% of the world's phosphates**, which are essential for producing agricultural fertiliser.^[1]

According to a recent report, despite near-universal smartphone adoption, Morocco remains a largely cashdriven economy, even in the digital realm. ^[2] **Cash on delivery is still the most popular form of payment** for ecommerce transactions (74%) and just 22% of the population use debit cards. At 1%, credit card use is almost non-existent.

Morocco is currently the world's 60th largest ecommerce market. As in other territories, its ecommerce boom has outlasted its Covid-19 lockdown, with the ecommerce market reportedly increasing by 36% during 2021. What this amounts to in practice is **many hundreds of individual ecommerce operators using social media, principally Facebook and Instagram**, along with WhatsApp groups, to find and retain customers.

[1] https://youtu.be/GztRh8isKKc

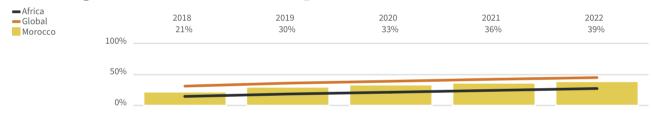




Source: RetailX, drawing on data from the World Bank

© (†) (=) RetailX 2022

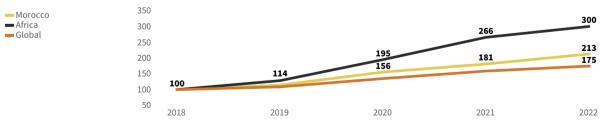
Percentage of internet users who shop online



Source: RetailX, drawing on data from Statista



Ecommerce revenue Index



Index 2018=100. Source: RetailX, drawing on data from Statista

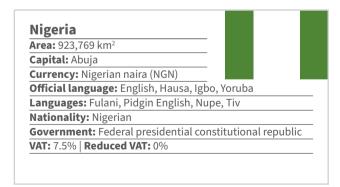
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^[2] www.statista.com/forecasts/1306025/morocco-users-in-the-e-commerce-market2

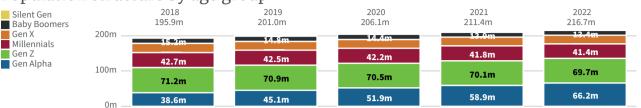
Nigeria

Although this African giant is on a slow path to prosperity, its ecommerce market shows signs of expansion

While only the 14th-largest country in Africa by area, Nigeria boasts both **the biggest population and the most sizeable consumer market** in the continent. It is a young nation, both in terms of existence – it has been an independent federation since 1960 – and in terms of a population where over 135mn of its total 217mn are Generation Alpha (born post-2010) or Generation Z (born between 1997 and 2012). **While population growth is very slightly down this year, it is still ahead of the trend in Africa** and 2.5 times the global rate.







Age groups (year of birth): Gen Alpha (2013-present), Gen Z (1998-2012), Millennials (1983-1997), Gen X (1968-1982), Baby Boomers (1948-1967), Silent Gen (1928-1947) Source: RetailX. drawing on data from UN

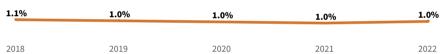
(cc) (i) (=) RetailX 2022

2.5%

2.0%

Population growth

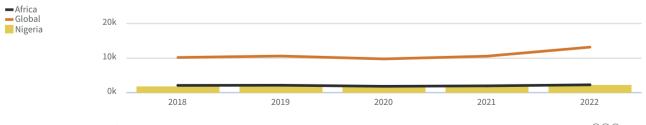




Source: RetailX, drawing on data from UN

© (i) (=) RetailX 2022

GDP per capita (\$)



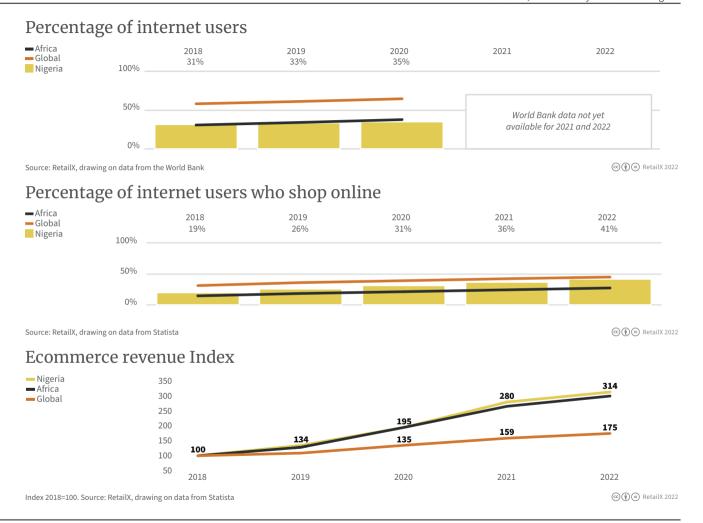
Source: RetailX, drawing on data from IMF

Generally speaking, the northern states are predominantly Muslim – Nigeria has the largest Muslim population in sub-Saharan Africa – while the south is mainly Christian.

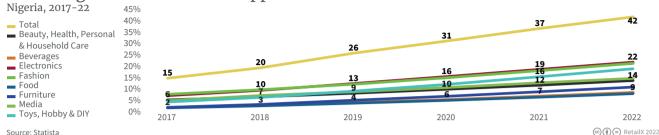
The centrally located planned city of Abuja (population 3.7mn) replaced the coastal megacity of Lagos as Nigeria's capital in 1991, **although Lagos remains the largest population centre (15.4mn)**. Port Harcourt, Benin City, Ibadan and Kano all have populations between one and three million.

Rich in natural resources, **Nigeria is Africa's biggest oil producer**, with other lucrative exports including palm oil and cocoa. Culturally, Nigeria is known for its domestic film industry, 'Nollywood', which is said to produce as many as 2,500 films each year. However, **Nigeria's GDP per capita lags behind the developed world** and, according to the World Bank, "as many as four in ten Nigerians live below the national poverty line".^[1]

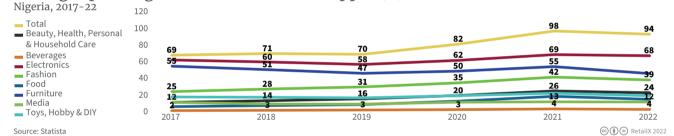
Recent years have seen setbacks to economic progress, including the 2014 drop in international oil prices, the 2016 recession^[2], the 2020 Covid-19 pandemic, with its associated lockdowns and curfews, and the 2022 Russian invasion of Ukraine. While Nigerian banks have low exposure to Russia and Ukraine, Nigeria has still experienced knock-on effects to food security^[3], since supplies of energy sources, wheat and fertiliser have all been affected.



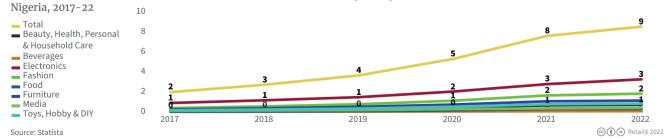
Percentage of ecommerce eshoppers



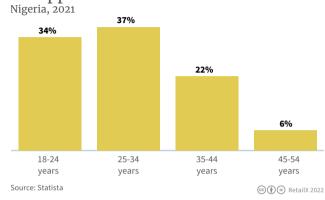
Average spending of the ecommerce eshopper (\$)



Annual revenue for the ecommerce market (\$bn)



Age distribution of ecommerce eshoppers

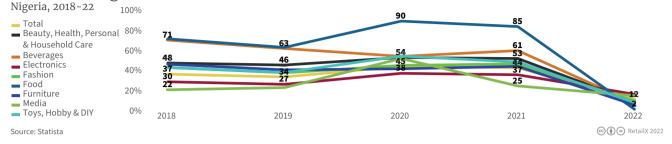


The oil industry has also been hard hit by rampant theft and illegal refining operations. The near-collapse of the Nigerian railway system means transportation is largely dependent on the road network, which often suffers from congestion, poor infrastructure and lack of maintenance. Nigeria has over 800 km of coastline and six major ports, including Lagos/Apapa, Tin Can Island and Calabar, yet all these have been criticised for their high cost of doing business and operational paralysis.

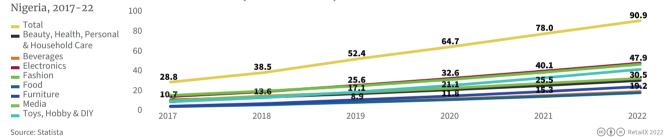
Corruption in general remains a problem for Nigeria. It ranks 154th in the Corruption Perceptions Index, which

also links corruption with black market activity and over-

Annual change in revenue for the online ecommerce market (%)



Number of ecommerce users (in millions)



regulation. [4] Nigeria has long had a reputation as a centre for cybercrime in general and email investment scams in particular. The country has also suffered long and violent terrorist campaigns, notably those pursued by Boko Haram and the Islamic State West Africa (ISWA).

There are signs that consumer spending will have recovered to pre-pandemic levels by early 2023. However, much of Nigeria retains a distinctly old-world way of

doing things. An estimated 90% of retail activity is still conducted via community markets and small kiosks.

Nigeria's huge and growing population is giving rise to an expanding middle class, yet it's an emerging market where almost 50% still live in rural areas and the majority of retail choices still revolve around food and essentials.

The Covid-19 pandemic aided the rise of ecommerce in Nigeria. The fragmented retail sector was so badly affected

that online merchants were often able to step in to assist with the distribution of essential goods and services.

Amazon reportedly has plans to launch in Nigeria in April 2023. For now, the biggest player in Nigerian ecommerce is Jumia, founded in 2012 and sometimes described as "Africa's answer to Amazon". With its own logistics network and payment app, Jumia operates in 13 other African countries and has been listed on the New York Stock Exchange. [5] Online megastore Konga, meanwhile, promises fast delivery from its warehouse network.

Ominichannel retail company PayPorte serves the women's fashion market and first won recognition by sponsoring the Nigerian *Big Brother* TV show in 2017. Konga and PayPorte both allow a number of smaller, more local businesses some platform space to showcase their products. Another competitive online store is Kara, which promises delivery in under 24 hours. **Kara is well-regarded as a destination for phones, computers and other electronics and again includes a marketplace section**. Also of note is Jiji, a popular destination for online shopping classifieds, which ranks among the most widely downloaded mobile apps in Nigeria.

^[1] www.worldbank.org/en/news/press-release/2022/03/21/afw-deep-structural-reforms-guided-by-evidence-are-urgently-needed-to-lift-millions-of-nigerians-out-of-poverty

^[2] www.reuters.com/article/nigeria-gdp-idUSL5N1GD2MJ

^[3] www.ifpri.org/blog/russia-ukraine-crisis-presents-threats-nigerias-food-security-potential-opportunities

^[4] https://tradingeconomics.com/nigeria/corruption-index

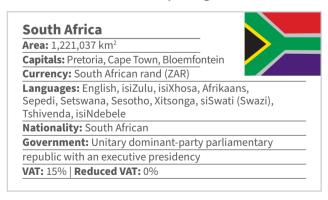
^[5] www.csis.org/analysis/real-controversy-about-jumia-why-did-it-list-nyse

South Africa

As inflation bites, South African shoppers are limiting basket size and turning to online marketplaces for convenience

The South African **economic recovery from the Covid-19 pandemic has been slower than forecast**, with growth estimated at 1.9% this year^[1]. After two consecutive quarters of positive growth, real GDP decreased by 0.7% in the second quarter of 2022^[2].

Previous fears over unemployment, expressed in the *RetailX 2021 Global Ecommerce Report*, remain. **Poverty has reached levels not seen for more than a decade** as inflation has increased to a 13-year high.



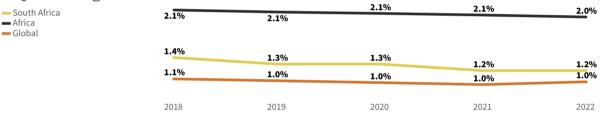
Population structure by age group



Age groups (year of birth): Gen Alpha (2013-present), Gen Z (1998-2012), Millennials (1983-1997), Gen X (1968-1982), Baby Boomers (1948-1967), Silent Gen (1928-1947) Source: RetailX, drawing on data from UN

(cc) (i) (=) RetailX 2022

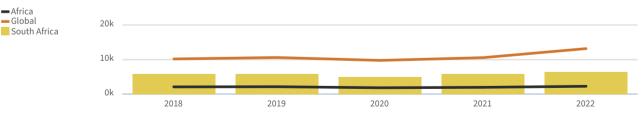
Population growth



Source: RetailX, drawing on data from UN

© (i) (=) RetailX 2022

GDP per capita (USD)



Source: RetailX, drawing on data from IMF

It is perhaps no surprise then that **shoppers are spending less online and are focusing on smaller baskets**. The average purchase value of R390 was R60 less than the average in 2019, according to First National Bank^[3].

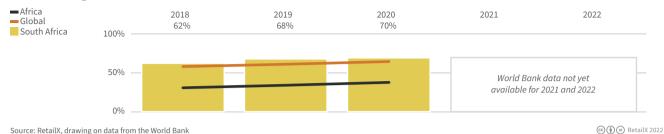
Even though the amount spent online has declined in recent years, the switch to online shopping continues. **45% of South African internet users now shop online**, an increase from 31% in 2018 and a 4% rise from last year.

This ecommerce shift that began as a reaction to the pandemic carries on as shoppers are drawn in by the convenience and price point of marketplace offerings.

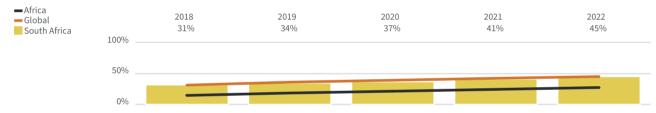
Convenience topped the reason for shopping online more. In a recent Deloitte *Digital Commerce Survey*, 26% of South Africans cited convenience as the key driver for choosing to shop online^[4].

This can only be good news for South Africa's own ecommerce retailers. **Cape Town-based Takealot has 10mn visits each month from 1.8mn shoppers**. It is estimated that marketplace sellers currently generate 36% of Takealot's US\$300mn in annual sales and that the proportion of marketplace sales is increasing each year^[5].

Percentage of internet users



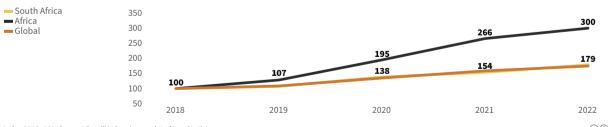
Percentage of internet users who shop online



Source: RetailX, drawing on data from Statista

cc (i) = RetailX 2022

Ecommerce revenue Index



Index 2018=100, Source: RetailX, drawing on data from Statista

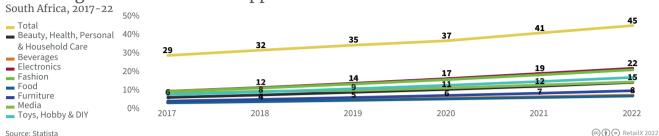
^[1] www.worldbank.org/en/country/southafrica/overview

^[2] www.statssa.gov.za/?p=15728

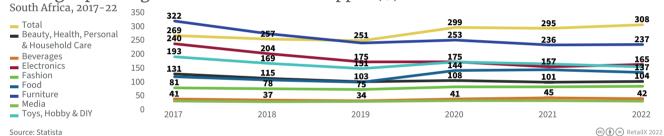
^[3] https://businesstech.co.za/news/business/568272/the-explosive-growth-of-e-commerce-in-south-africa/ [4] https://www2.deloitte.com/content/dam/Deloitte/za/Documents/strategy/za-Digital-Commerce-Acceleration-

^[5] www.webretailer.com/marketplaces-worldwide/online-marketplaces-africa/

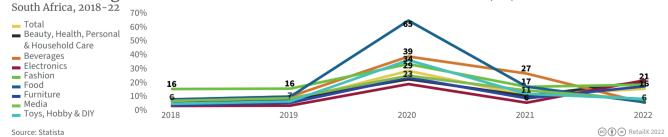
Percentage of ecommerce eshoppers



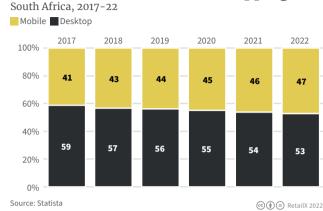
Average spending of the ecommerce eshopper (\$)



Annual change in revenue for the online ecommerce market (%)

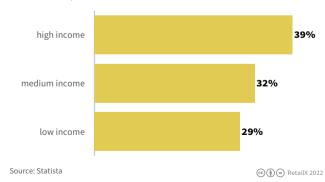


Preferred device for online shopping (%)



Income status split of ecommerce eshoppers

South Africa, 2021



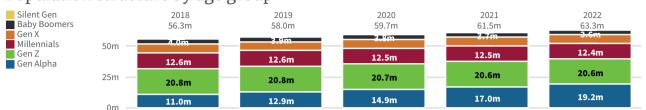
Tanzania

With a focus by government on strategy alongside overcoming traditional challenges, Tanzania could soon see huge ecommerce growth

Tanzania's ecommerce market continues to teeter on the brink of growth, with the potential evident in a young, growing population. **Around a third of the country's population are Gen Alphas and another third are Gen Z**, with Millennials accounting for 12.4mn of the 63.3mn population and older generations much less. Population growth has been consistently at around 3% for the past four years. While its GDP per capita is minuscule, the potential of such a young population is huge.



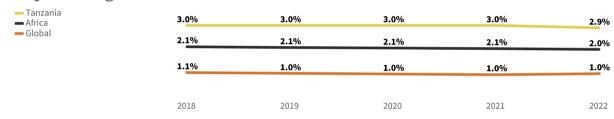
Population structure by age group



Age groups (year of birth): Gen Alpha (2013-present), Gen Z (1998-2012), Millennials (1983-1997), Gen X (1968-1982), Baby Boomers (1948-1967), Silent Gen (1928-1947) Source: RetailX, drawing on data from UN

(c) (i) (=) RetailX 2022

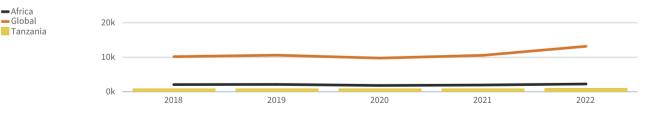
Population growth



Source: RetailX, drawing on data from UN

cc (i) = RetailX 2022

GDP per capita (USD)



Source: RetailX, drawing on data from IMF

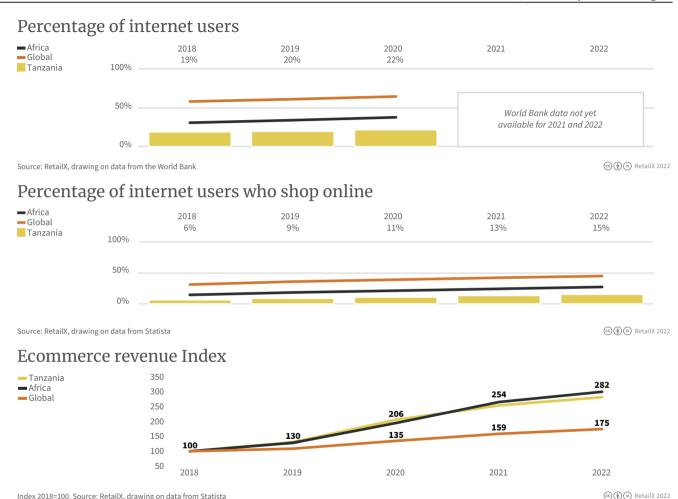
cc (i) = RetailX 2022

Currently, however, ecommerce is not widely adopted. **The share of internet shoppers who shop online still stands at a mere 15**% but that figure has more than doubled from 6% in 2018. Tanzanian consumers tend to purchase by directly contacting sellers^[1] who have advertised on social media to arrange for delivery. Payments are subsequently made via mobile or, more commonly, by cash on delivery since Tanzanians are traditionally wary of online payments.

Many see potential in this market, though. The United Nations Conference on Trade and Development (UNCTAD)^[2] published an assessment in which it said Tanzania's location, as well as market readiness, means that **ecommerce could boost the country's economy**, create employment opportunities and diversify income sources.

Access to the internet is usually via mobile, which can lead to a disparity in coverage since mobile data prices are unaffordable for much of the rural population.

Development will rely on challenges such as these being overcome, as well as a more focused effort by Tanzania on adopting a standalone ecommerce policy, although **the government is already looking at digitalisation**. UNCTAD has recommended a clearer focus on integrating ecommerce into national development planning, as well as engaging more strongly with the private sector.



^[1] www.trade.gov/country-commercial-guides/tanzania-ecommerce Tanzania - eCommerce (trade.gov)

^[2] www.tanzaniainvest.com/economy/trade/e-commerce-can-boost-tanzanias-economy-unctad-say

Asia

Home to over a third of all people, Asia is, quite understandably, a powerhouse when it comes to ecommerce innovation

Revenue in the ecommerce market in Asia is predicted to be \$1,761bn in 2022. [1] This figure, lower than it would have been due to a combination of the rise in the value of the dollar and the effects of the conflict in the Ukraine, will likely rise to more than \$2,000bn in 2023.

These are figures that reflect the huge importance of the ecommerce sector in Asia. China, for example, is home to many of the world's largest online retailers, including Alibaba. Between them, the company's three main sites, Alibaba Taobao, Tmall and Alibaba.com, have hundreds of millions of users. In addition, these sites offer channels for other retailers to get to market. Innovations in the Chinese ecommerce market such as livestreaming are often adopted elsewhere and thus help to shape emerging consumer behaviour around the world.

Over recent decades, China has been the workshop of the world, a centre for manufacturing. However, that is beginning to change as it too begins to offshore some of this kind of work to emerging countries such as Vietnam.

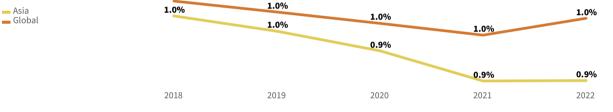




Age groups (year of birth): Gen Alpha (2013-present), Gen Z (1998-2012), Millenials (1983-1997), Gen X (1968-1982), Baby Boomers (1948-1967), Silent Gen (1928-1947) Source: RetailX. drawing on data from UN

(cc) (i) (=) RetailX 2022

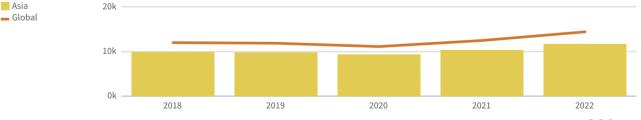
Population growth



Source: RetailX, drawing on data from UN



GDP per capita (USD)



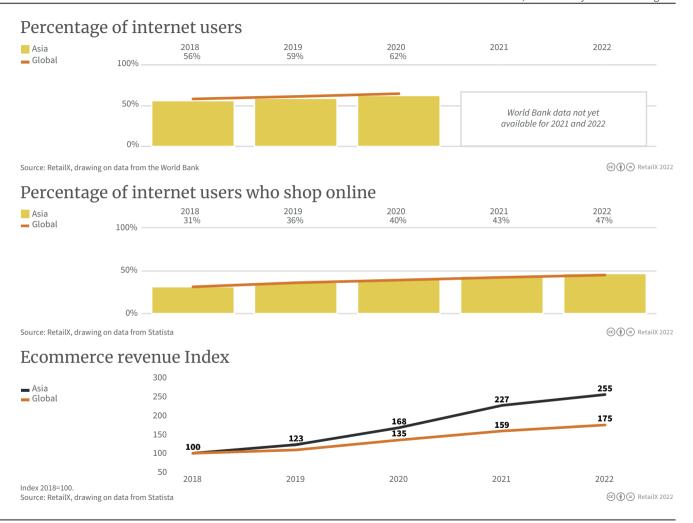
Source: RetailX, drawing on data from IMF

In itself, this change reveals the growing complexities of the Asian market – which, for the purposes of our analysis, we have also taken to include Australasia – a region with countries at very different stages of development. This helps explain why GDP per capita in the Asian countries we track is below the equivalent global figure.

We should also mention the sheer size of the Asian market. Out of a global population of around 8bn, around 2.8bn people live either in China and India, the world's two most populous countries. India has yet to become an ecommerce powerhouse to rival China but there are signs this may happen in the years ahead. It will also be fascinating to see how India develops digitally when compared to its authoritarian neighbour. While there has been disquiet over the populist approach of Narendra Modi, the official line is that India, the world's largest economy, wants to transform itself into "a digitally empowered society and knowledge economy".

Asia's population structure – with Gen X, Millennials and Gen Z present in more or less equal numbers – shows early evidence of societies that are ageing, albeit at very different rates when you compare, for example, Vietnam and Japan. **Internet use and ecommerce are growing across the region**, with patterns of usage in the most developed countries similar to Western Europe or the USA.

[1] www.statista.com/outlook/dmo/ecommerce/asia#revenue [2] https://digitalindia.gov.in/content/about-digital-india

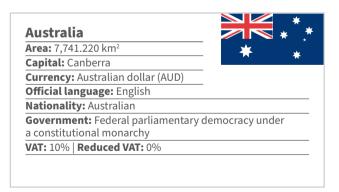


Australia

With an ageing population happier with desktop PCs than mobiles, ecommerce growth is taking a traditional path

Australia is the eleventh-largest ecommerce market in the world and is expected to grow by 13.4% this year.[1] The country has a healthy GDP per capita of around \$60k, well above both global and Asian averages.

Experts suggest it won't be enough to stave off a predicted recession, with the Reserve Bank of Australia recently sounding warning bells around higher inflation. As of November, this was not leading to higher interest rates as the bank opted to keep a watching brief, although that may change in the months ahead.



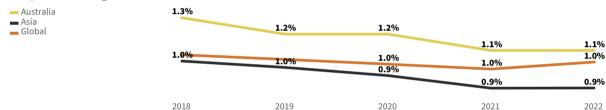
Population structure by age group



Age groups (year of birth): Gen Alpha (2013-present), Gen Z (1998-2012), Millennials (1983-1997), Gen X (1968-1982), Baby Boomers (1948-1967), Silent Gen (1928-1947) Source: RetailX, drawing on data from UN

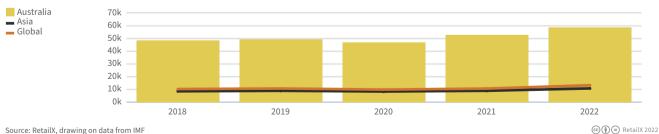
(cc) (i) (=) RetailX 2022

Population growth



Source: RetailX, drawing on data from UN

(cc) (i) (=) RetailX 2022



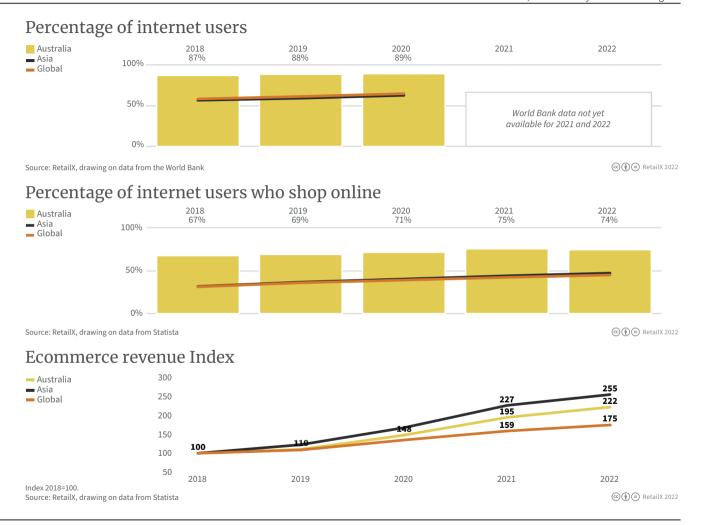
The dwindling population of Australia is centred on the under-50s, followed closely by the disposable income-friendly Baby Boomers. Hence, **internet use is high, with figures suggesting that 89% actively used the internet in 2020.** We would expect this figure now to be above 90%.

Online shopping stands at 74% of those who use the internet, a figure boosted by the pandemic. This number is rising steadily every year, with Australian consumers buying a lot from within the country but also relying heavily on retailers headquartered in the USA and UK.

The UK-Australia trade deal, signed in 2021, will make it easier for Australian companies to operate in the UK and eliminate many tariffs on British imports.

Australians are comfortable with the idea of using digital technologies. The level of smartphone usage is high and consumers are increasingly able to access 5G networks. Nevertheless, **more shoppers use desktop (58%) than mobile (42%) for shopping,** a figure that can partly be explained by Australia relatively early on developing a fixed internet infrastructure. In urban areas at least, **this is not a mobile-first economy**.

Ecommerce is a growing business in the country, with around three-quarters of Australian businesses earning part of their revenue from online sales. **Pandemic-related lockdowns led to food delivery businesses taking off and Amazon Australia saw a huge rise in monthly users.**



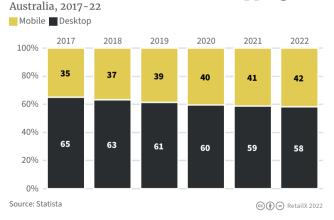
According to Statista figures, the biggest spend among e-shoppers is in beauty, health, personal and household care, followed by beverages and then electronics.

Australia has infrastructure barriers to ecommerce.

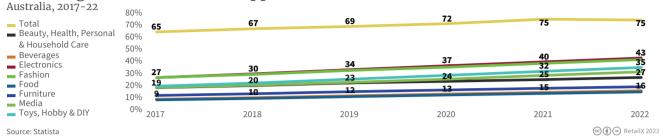
These can be explained in part by the country's size (same-day deliveries are always going to be an issue), but Australia Post, the government postal service, has said it was spending \$400mn by mid-2022 on new parcel facilities, fleet and technology, bringing its total committed investment to more than \$1bn over three years. [3]

The Australian federal election of May 2022 led to a change in the country's political order. The centre-right Liberal/

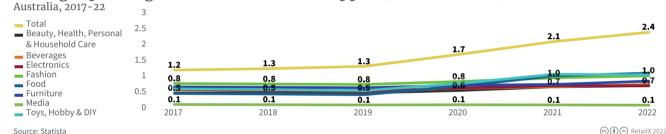
Preferred device for online shopping (%)



Percentage of ecommerce eshoppers



Average spending of the ecommerce eshopper (thousand USD)



national coalition, led by Scott Morrison, was seeking a fourth successive term in office but lost out to the Labor Party, led by Anthony Albanese, which won a narrow majority. **One effect of Labor's election win has been to put environmental concerns higher up the political agenda**, an overdue development in a country that has lagged behind similar economies in addressing, or even fully acknowledging, the issue of climate change.

As in so many other countries, the **Australian authorities** see digital innovation as crucial in deriving future growth, with a 2021 report, for example, highlighting the importance of sectors such as artificial intelligence, robotics and data science.^[4]

^[1] www.worldfirst.com/au/grow-your-business/online-sellers/ecommerce-trends-statistics-2022 [2] www.theguardian.com/australia-news/2022/nov/15/rba-reserve-bank-australia-signals-it-may-pause-further-interest-rate-rises

^[3] https://auspost.com.au/content/dam/auspost_corp/media/documents/ecommerce-industry-report-2022.pdf [4] www.dfat.gov.au/sites/default/files/business-envoy-april-2021-digital-trade-edition.pdf

China

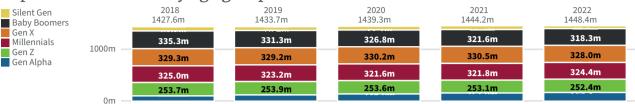
The world's largest ecommerce market still has plenty of room for growth and opportunities for foreign merchants

While China is often seen as a leading proponent of technological innovation, it should be remembered that 30% of the population – mainly in rural areas – is still offline. However, **residents of the major cities are among the world's most enthusiastic e-shoppers**.

As in other countries, the Covid-19 pandemic of 2020 influenced greater transition to online sales. ^[1] China was hit first, went into lockdown first (in Hubei province), and has also seen subsequent localised lockdowns.



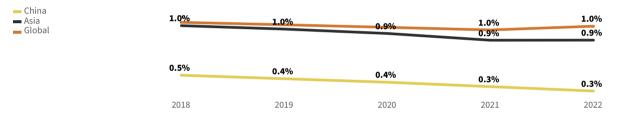




Age groups (year of birth): Silent Gen (1928-1947), Baby Boomers (1948-1967), Gen X (1968-1982), Millennials (1983-1997), Gen Z (1998-2012), Gen Alpha (2013-present)

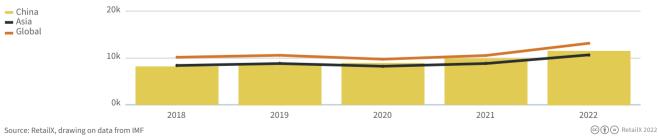
(cc)(i)(=) RetailX 2022

Population growth



Source: RetailX, drawing on data from UN



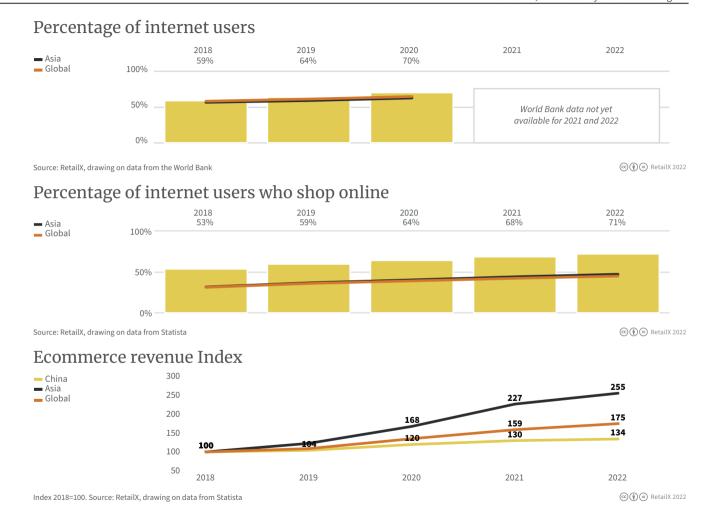


Major companies, such as the electrical appliance retailer GOME, adapted to pandemic conditions by taking more of their business online. Other notable ecommerce players include tech leviathan Alibaba and Jingdong, better known as JD.com. Alibaba owns online shopping platform Taobao, whose spin-off venture, **Tmall Global, has enabled thousands of small and medium-sized foreign merchants to enter the Chinese market**. [2]

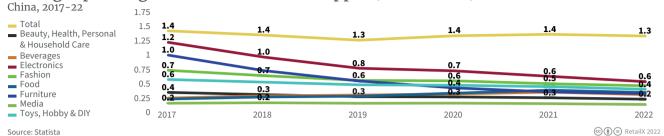
A Chinese ecommerce innovation that now seems likely to spread globally, **livestreamed marketing mixes entertainment, celebrity and social media activity with shopping**, utilising mechanisms such as time-limited offers, coupons, rewards and prizes. More traditional shopping bonanzas include the summer shopping spree in June, and Singles Day on 11 November, which has become the world's biggest retail event.

China has also seen the rise of 'super-apps', such as Tencent's WeChat and Alibaba's AliPay. These allow users to access multiple services – including messaging, ecommerce and payment – within a single app. Over 70% of ecommerce payments are made by 'alternative payments' such as mobile and digital wallets, with cards (14%), bank transfers (11%) and cash (3%) accounting for the remainder. [4]

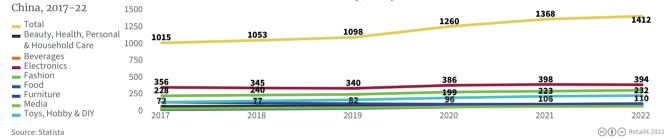
As the world's most populous nation – although it is set to be surpassed by India in 2023 – China has no shortage



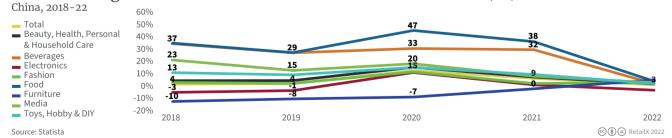
Average spending of the ecommerce eshopper (thousand \$)



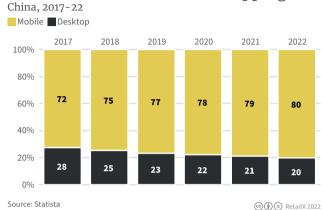
Annual revenue for the ecommerce market (\$bn)



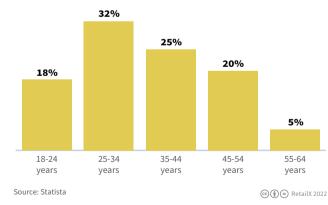
Annual change in revenue for the online ecommerce market (%)



Preferred device for online shopping (%)



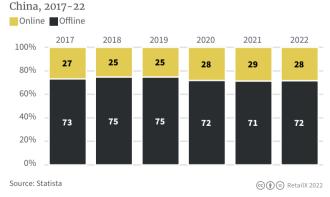
Age distribution of ecommerce eshoppers China, 2021



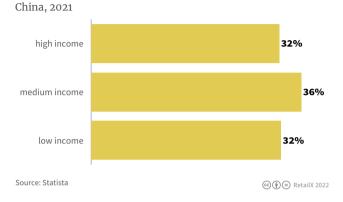
of manpower. Numerous logistics couriers such as the ubiquitous JD 'delivery guys' are a familiar sight in China's cities, regularly delivering hundreds of parcels a day, with some orders being fulfilled within one hour. **JD boasts the world's largest fleet of delivery drones** and is currently testing other autonomous delivery methods.

Overall, 2022 has seen China retain its place as the world's second-largest economy by GDP after the USA. It remains by far the global number one for ecommerce, with a projected 10-11% increase this year. In recent decades, China has undoubtedly become the world's leading manufacturer (a position previously held by the USA), but it's also a market that presents lucrative opportunities

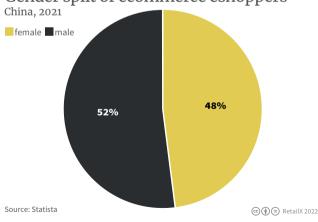
Preferred shopping channel for ecommerce multichannel shoppers (%)



Income status split of ecommerce eshoppers



Gender split of ecommerce eshoppers



for foreigners with sufficient flexibility to adapt to local business practices. In a country where networks are everything, it is crucial to employ facilitators, especially in terms of language and understanding etiquette. While apps like WeChat can be used to establish connections, face-to-face meetings are still important, along with traditional accessories such as business cards. [5]

There are also indications that China's younger generation – along with its expanding middle class – are perhaps beginning to resist the demanding six-days-a-week working culture and instead adopt more Westernised attitudes to recreation and leisure. Although still a male-dominated society, there are signs that female entrepreneurs are beginning to break through. However, China is also the land of tech surveillance, social credit and uncompromising Covid-19 lockdowns, with the current regime showing little sign of loosening its grip.

[1] www.globaldata.com/media/banking/china-continues-to-lead-global-e-commerce-market-with-over-2-trillion-sales-in-2022-says-globaldata/

^[2] www.tmogroup.asia/tmall-global/

^[3] https://blog.kms-solutions.asia/what-is-super-app-and-why-it-is-taking-over

^[4] www.globaldata.com/media/banking/alternative-payments-account-for-almost-three-fourths-of-e-commerce

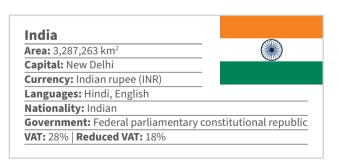
^[5] https://aexus.com/doing-business-in-the-apac-region/

India

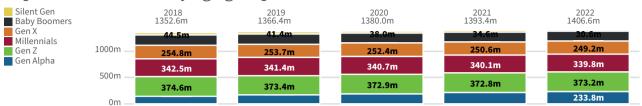
The prevalence of Generation Z consumers in India is fuelling growth in a market which is soon expected to surpass the US in size

India is a market that is seeing rapid ecommerce growth, in part thanks to the prevalence of younger customers. **Generation Z is the most heavily represented age group in the country**. As of 2022, there were more than 373mn Generation Z consumers in India, compared to nearly 340mn Millennials, making it critical that retailers meet the needs of this customer segment.

Their growth is pushing ecommerce adoption and fuelling growth, making India an exciting market of opportunity. In 2022, India finally passed the halfway mark when it comes



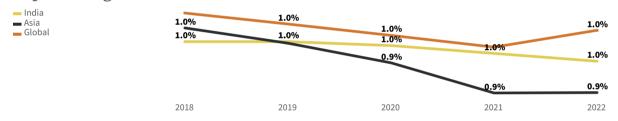




Age groups (year of birth): Gen Alpha (2013-present), Gen Z (1998-2012), Millennials (1983-1997), Gen X (1968-1982), Baby Boomers (1948-1967), Silent Gen (1928-1947) Source: RetailX, drawing on data from UN

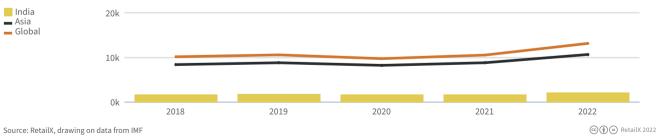
© (i) (=) RetailX 2022

Population growth



Source: RetailX, drawing on data from UN

© (i) (=) RetailX 2022

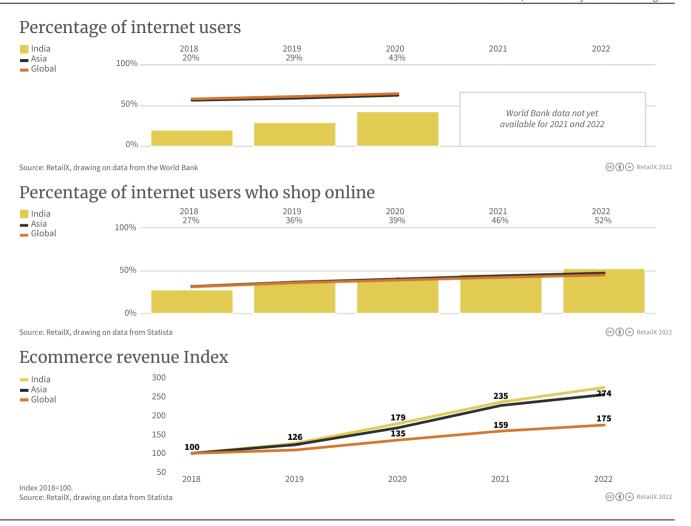


to the share of internet users who shop online. **52% of India's internet users are now ecommerce shoppers**,
a number that, for the first time, is also higher than the
figures for Asia and globally. However, the percentage of
Indian internet users is much lower than in Asia and globally.

A recent report by Bain & Company^[1] suggests that with 190mn online shoppers in 2021, India's ecommerce market could, within two years, end up surpassing the US to become the second-largest shopper base behind China. **India's ecommerce market value hit \$40bn in 2021 and is expected to top \$50bn in 2022.** An annual growth of 25% to 30%, alongside a steady increase in the user base, are both expected over the next five years.

Such growth will mean that policies surrounding ecommerce practises will need to be improved. For example, **clear and specific laws**^[2] **around the use of consumer data and consumer privacy are currently lacking**, although India's parliament is said to be looking at how it can improve this, with a new bill covering personal data protection currently being planned.

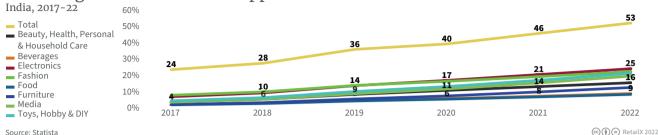
Digital payments are also growing and expected to account for more than 70% of total payment volume by 2025, according to ACI Worldwide research.



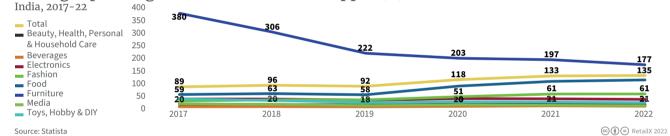
 $[\]label{thm:combine} \begin{tabular}{l} [1] https://timesofindia.indiatimes.com/business/india-business/india-will-pip-us-to-become-worlds-second-largest-online-shopper-base/articleshow/94801621.cms \end{tabular}$

^[2] www.trade.gov/country-commercial-guides/india-online-marketplace-and-e-commerce

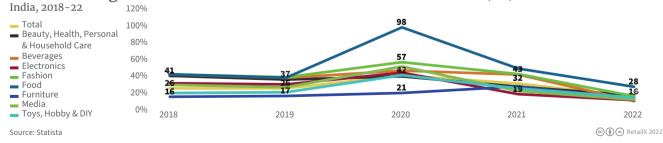
Percentage of ecommerce eshoppers



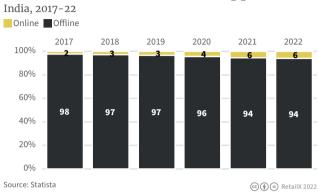
Average spending of the ecommerce eshopper (\$)



Annual change in revenue for the online ecommerce market (%)

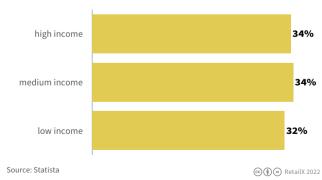


Preferred shopping channel for ecommerce multichannel shoppers (%)



Income status split of ecommerce eshoppers

India, 2021



Indonesia

A stable economy and a younger population are driving the growth of Indonesia's ecommerce revenue index

Nearly two-thirds (64%) of internet users in Indonesia **now shop online**, a figure that's surpassed the Asian and global shares since 2019. This is driving strong growth in the ecommerce revenue index, which has risen to 427 since the 2018 base and is also significantly higher than the Asian and global measures.

The country's GDP is also strong, with an average GDP growth of more than 5% per annum^[1], except during Covid-19 in 2020. Projected growth is expected to be above the 5% mark each year for the next five years. with President Joko Widodo, who has been in power



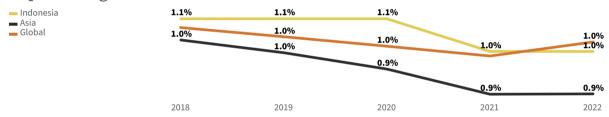




Age groups (year of birth): Gen Alpha (2013-present), Gen Z (1998-2012), Millennials (1983-1997), Gen X (1968-1982), Baby Boomers (1948-1967), Silent Gen (1928-1947) Source: RetailX, drawing on data from UN

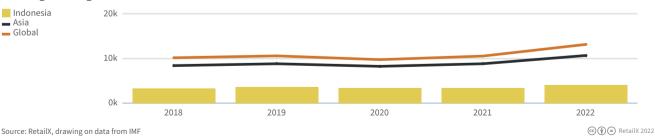
(cc) (i) (=) RetailX 2022

Population growth



Source: RetailX, drawing on data from UN

(cc) (i) (=) RetailX 2022



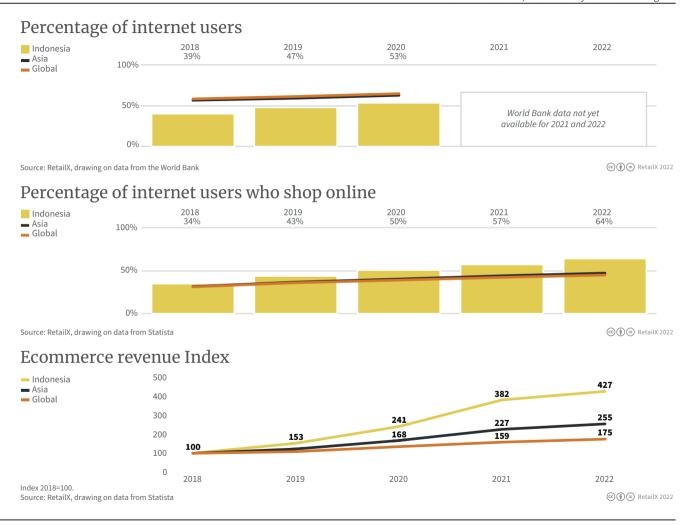
since being elected in July 2014, largely credited for the country's stability.

Of the country's 279mn population, 235mn are aged under 55, with a fairly similar split across the four generations. **This younger population is expected to be one of the main drivers of ecommerce growth in the short to medium term.** The country is also set to become one of the largest digital economies in Southeast Asia^[2], with around 40% of the market share in the region.

Although international players such as JD.com have a strong presence, **shoppers have embraced more local ecommerce marketplaces such as Tokopedia and Shopee**, whose market shares are increasing.

Indonesia is the largest economy in Southeast Asia, making it an attractive focus for growth. Along with resilient economic growth, low government debt and prudent fiscal management are also said to be key to attracting international investment.

A recent report by the Asian Development Bank^[3] said that Indonesia's economy is expected to grow by 5.4% in 2022 and by 5% in 2023. However, inflation is also projected to increase significantly before staying elevated into next year, driven in part by high commodity prices and fuel prices.



^[1] www.express.co.uk/comment/expresscomment/1689646/brexit-indonesia-cost-of-living-crisis-trading-economy-eu [2] https://uk.finance.yahoo.com/news/indonesia-b2c-e-commerce-markets-101300085.html

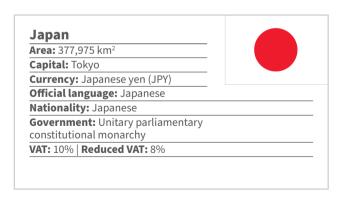
^[3] www.adb.org/news/indonesia-economy-holding-well-2022-faces-headwinds-2023-adb

Japan

Although already huge, there's still greater potential in Japan's ecommerce market, both at home and cross-border

Japan sits within the top four ecommerce markets in the world, behind China, the US and the UK. For 2022, it's expected to register a 6.9% growth as shoppers shift from offline to online. That's a market size of \$194.3bn, following a 5.2% compound annual growth rate between 2019 and 2021. It's expected to grow by a further CAGR of 5.2% to reach \$237.8bn by 2026.

Around three-quarters of internet users shop online. However, that share has remained fairly static, rising only



Population structure by age group



Age groups (year of birth): Gen Alpha (2013-present), Gen Z (1998-2012), Millennials (1983-1997), Gen X (1968-1982), Baby Boomers (1948-1967), Silent Gen (1928-1947) Source: RetailX, drawing on data from UN

(cc) (i) (=) RetailX 2022

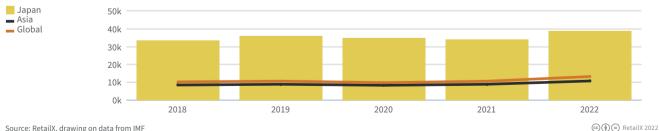
Population growth





Source: RetailX, drawing on data from UN

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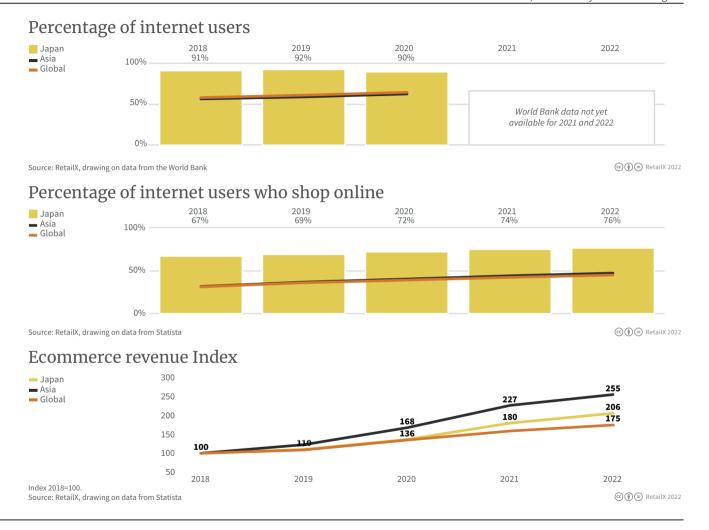


four percentage points since 2020. This is most likely due the country having a higher proportion of older consumers than in many other markets.

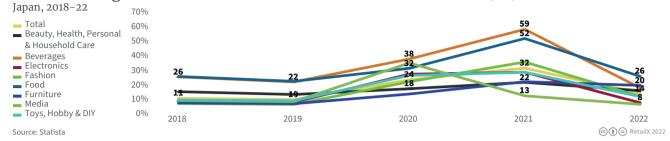
Japan's dense infrastructure offers huge potential, allowing easy access to ecommerce, an efficient logistics infrastructure and speedy deliveries. Amazon Japan is can deliver next-day to 95% of the country, for example. GlobalData's 2022 Financial Services Consumer Survey suggested that nearly 70% of Japanese consumers had shopped online in the past month and only 8% said they had never shopped online. Domestic retailers such as Rakuten and Mercari dominate the market, although international sites such as Amazon are gaining popularity.

48% of smaller companies have already started, or are considering, cross-border ecommerce, according to a survey by the Japan External Trade Organisation. **Such companies have taken advantage of a sharp decline in the yen making Japanese products cheaper overseas**, as well as IT advances which make it easier to communicate with buyers and handle customs paperwork.

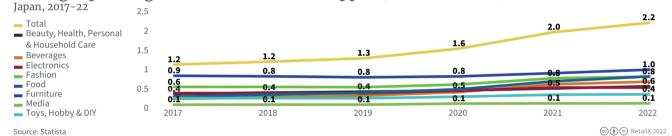
The scale of overseas opportunity is illustrated by figures from the Ministry of Economy, Trade and Industry which show that **online sales to China hit \$14.37bn in 2021, up 10%** from 2020, while sales to the US grew by 26%. Luxury items including accessories and watches are said to be leading the boom.



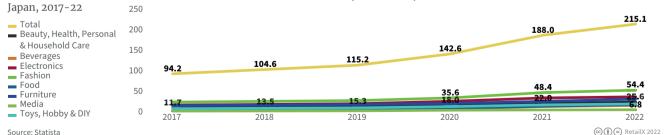
Annual change in revenue for the online ecommerce market (%)



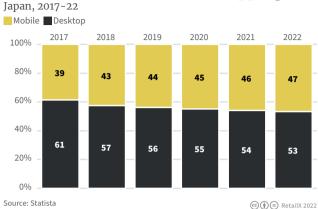
Average spending of the ecommerce eshopper (thousand USD)



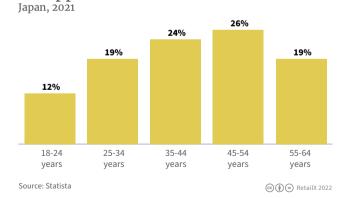
Annual revenue for the ecommerce market (bn USD)



Preferred device for online shopping (%)



Age distribution of ecommerce eshoppers



South Korea

Mobile-first digital leader South Korea is one of best-connected ecommerce markets in the world

South Korea lies on the southernmost part of the Korean peninsula, between the East China Sea and the Sea of Japan and south of heavily militarised North Korea. **South Korea is one of the most densely populated countries in the world**, with a population of 51.3mn living in an area of 100,370 km². Around 82% of that population lives in cities. Its capital, Seoul, has a population of 10.3mn^[1], with 16.5% of the country's population aged 65 and over^[2]. Birthrates are at record lows, with no population growth expected at all in 2022, well below the average for Asia.



Population structure by age group



Age groups (year of birth): Gen Alpha (2013-present), Gen Z (1998-2012), Millennials (1983-1997), Gen X (1968-1982), Baby Boomers (1948-1967), Silent Gen (1928-1947) Source: RetailX, drawing on data from UN

(c) (i) (=) RetailX 2022

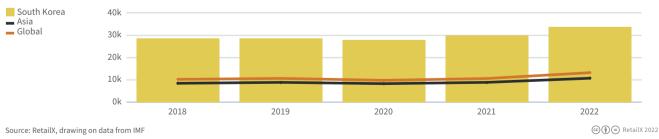
Population growth





Source: RetailX, drawing on data from UN

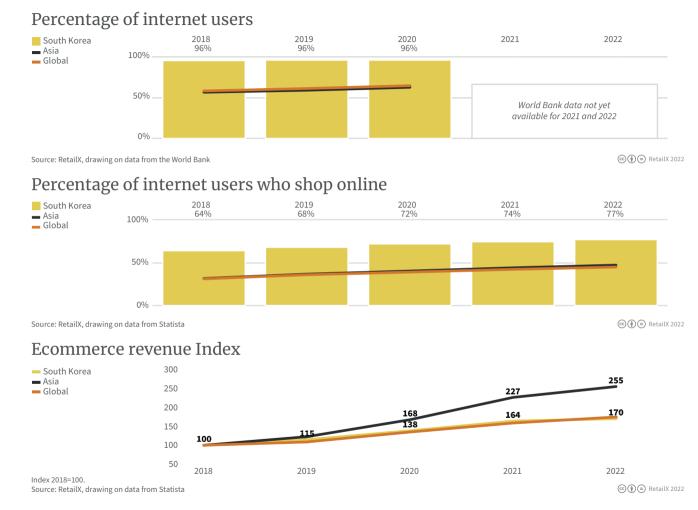
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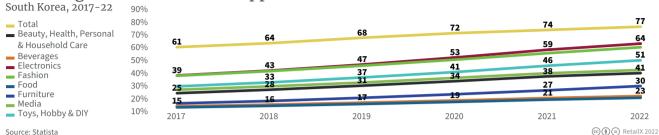
transformed itself from a low-income economy to a high-income one, says the World Bank. [3] It is a leading digital economy, ranked number one on the online participation index in 2020 and first in the world for 5G internet speeds. Key industries include the production of semiconductors. Key local businesses include Samsung and Hyundai alongside local retailers such as Coupang. com, SSG.com and yes24.com. Tourism, mining and manufacturing are also key sectors. [4] In 2022, the country has been affected by the global slowdown that has held back demand for the products it exports.

Most (96%) South Koreans use the internet while 77% shop online, a figure that has grown steadily from 64% in 2018. Rates of South Korean internet use puts this market well ahead of the regional average, with ecommerce revenues estimated at \$124.2bn and per capita average online spending of \$3.1k. Some 28.7% of retail sales took place online in 2021, according to Invest Korea/ Statistics Korea, putting the market fifth in the world for ecommerce participation rates. This, says Invest Korea, has been fostered by convenient online payments and fast and flexible deliveries, including early morning timeslots.

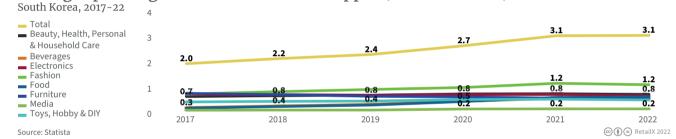
Electronics, fashion and food are among popular ecommerce categories, although fast growth seen during the Covid-19 pandemic appears to have slowed somewhat in 2022. This level of maturity means that while



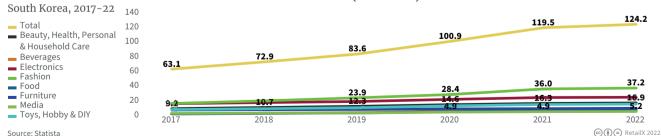
Percentage of ecommerce eshoppers



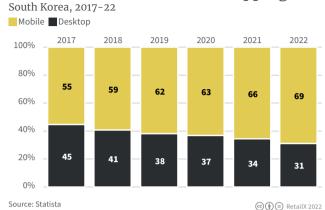
Average spending of the ecommerce eshopper (thousand USD)



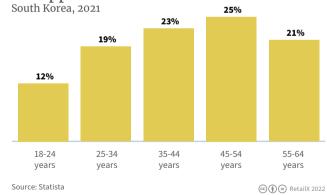
Annual revenue for the eCommerce market (bn USD)



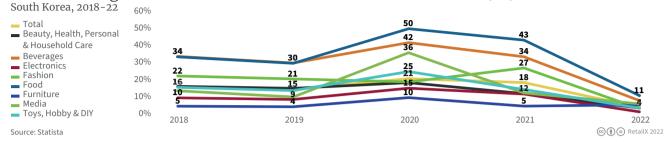
Preferred device for online shopping (%)



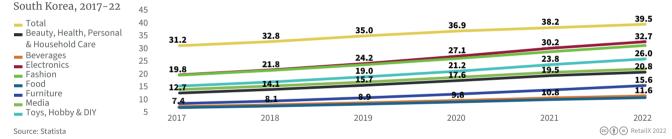
Age distribution of ecommerce eshoppers



Annual change in revenue for the online ecommerce market (%)



Number of ecommerce users (in millions)



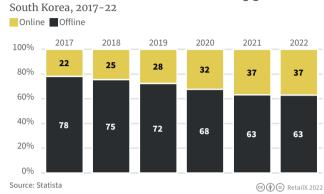
the South Korean ecommerce market is growing in line with global averages, it is growing more slowly than the Asian market as a whole.

Shoppers of all ages buy online in this market, with a quarter (25%) of ecommerce shoppers aged between 45 and 54, followed by the 35 to 44-year-old age group (23%) and those aged between 55 and 64 (21%).

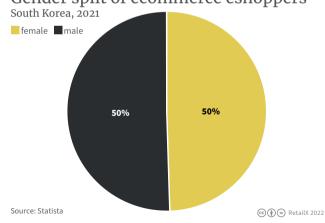
South Korean multichannel shoppers have a preference for buying offline (63%) rather than online (37%), while online shoppers heavily prefer buying via mobile devices (69%) over desktops (31%). Indeed, **71% of online transactions are via mobile, according to Pymnts.com.** [5]

- [1] www.worldometers.info/world-population/south-korea-population/
- [2] www.koreaherald.com/view.php?ud=20210929000712
- [3] www.worldbank.org/en/country/korea/overview#1
- [4] https://www.investkorea.org
- [5] www.pymnts.com/news/cross-border-commerce/2022/pymnts-intelligence-meeting-the-challenges-of-the-southkgrean-ecommerce-market/

Preferred shopping channel for ecommerce multichannel shoppers (%)



Gender split of ecommerce eshoppers



Vietnam

Strong domestic ecommerce growth and a growing digital economy mean that in Southeast Asia, Vietnam is emerging second only to Indonesia

Ecommerce continues to boom in Vietnam, with more domestic retailers entering the online retail market for the first time. Such an increased appetite to embrace ecommerce is shown by the fact that the number of Vietnamese sellers on Amazon has risen 80%[1] since **September 2020**. Local traders sold nearly 10mn 'Made in Vietnam' products to global buyers via the marketplace between September 2021 and August 2022.



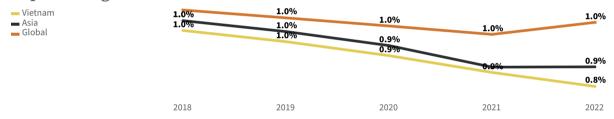




Age groups (year of birth): Gen Alpha (2013-present), Gen Z (1998-2012), Millennials (1983-1997), Gen X (1968-1982), Baby Boomers (1948-1967), Silent Gen (1928-1947) Source: RetailX, drawing on data from UN

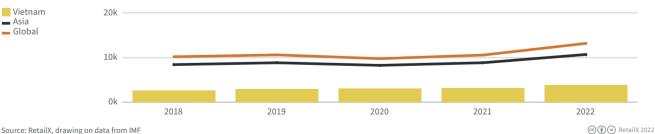
(cc) (i) (=) RetailX 2022

Population growth



Source: RetailX, drawing on data from UN

(cc) (i) (=) RetailX 2022



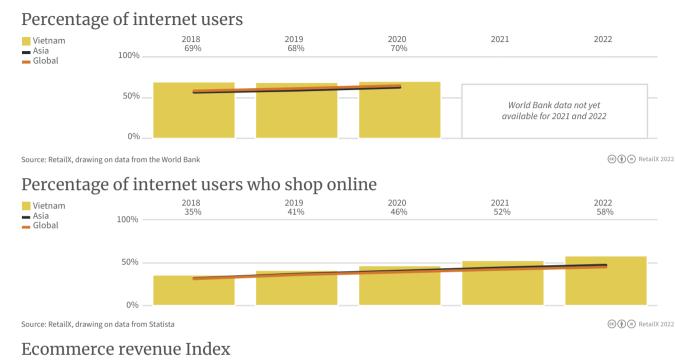
The country is expected to have the highest rate of digital economy growth in Southeast Asia between 2022 and 2025, growing by $31\%^{[2]}$ according to e-Conomy SEA 2022. That compares to 19% for Indonesia. Eretail's share of the total retail sales of goods and services in 2021 was $7\%^{[3]}$, up 27% from 2020. **Eretailing spend is expected to grow by 20% this year to \$16.4bn, compared to \$5bn in 2015**.

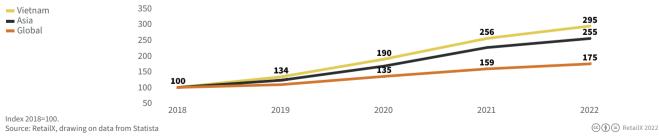
This rate of growth is being fuelled by the Vietnamese consumers' hunger for digital engagement, with Meta saying that virtual reality adoption rates, at 29%, are the highest in Southeast Asia.

The country has a high rate of internet adoption, both in city and rural areas, as well as an above-average share of internet users who shop online (58% as of 2022). **Vietnam also has the highest average volume of cross-border online purchases in Southeast Asia**, at 104 orders per year^[4], compared to the regional average of 66.

Despite such high ecommerce adoption, there are still challenges. For instance, **cash on delivery payments for digital transactions still account for 11%**^[5] of the total spend, so online payments still need to improve.

[1] https://e.vnexpress.net/news/industries/number-of-vietnamese-sellers-on-amazon-up-80-over-past-year-4530366.





 $[\]label{lem:constraint} \begin{tabular}{ll} [2] $$ $$ $$ $$ is $$ $$ $$ is $$ $$ is $$ $$ is $$ $$ is $$ is$

^[3] https://en.vietnamplus.vn/eretailing-to-grow-20-this-year/239588.vnp

^[4] https://e.vnexpress.net/news/business/data-speaks/vietnam-tops-region-in-online-cross-border-purchase-volume-4486706.html

^[5] https://en.vietnamplus.vn/more-favourable-mechanisms-needed-to-attract-firms-engagement-in-ecommerce/243022.vnp

Europe

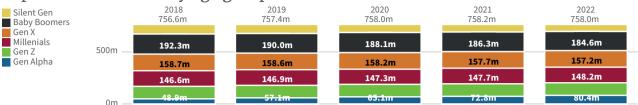
The continent has so far been resilient to both Covid-19 and global events due to stable governance and high incomes

While we should not underestimate Europe being a continent of uneven development and one that still has vast areas of deprivation, it is also home to many of the globe's most advanced economies. The European Single Market makes it relatively easy for European Union (EU) and European Economic Area (EEA) nations to trade across borders. Even nations that are not part of the EU or EEA – notably the United Kingdom and Switzerland – have businesses that are tightly integrated into the wider European economy.

Against this macroeconomic backdrop and with Europe early to roll out vaccines against Covid-19, as 2021 ticked over into 2022, it at first seemed likely that the retail story of the year would be one of recovery. Instead, when Russia invaded Ukraine, a new crisis beckoned.

Countries dependent on Russian energy supplies, notably Germany, had to balance the day-to-day considerations of keeping the lights on and industry moving with wider strategic and humanitarian concerns. Since the





Age groups (year of birth): Gen Alpha (2013-present), Gen Z (1998-2012), Millenials (1983-1997), Gen X (1968-1982), Baby Boomers (1948-1967), Silent Gen (1928-1947) Source: RetailX, drawing on data from UN

(c) (i) (=) RetailX 2022

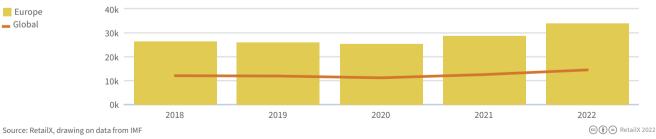
Population growth





Source: RetailX, drawing on data from UN

© (i) = RetailX 2022



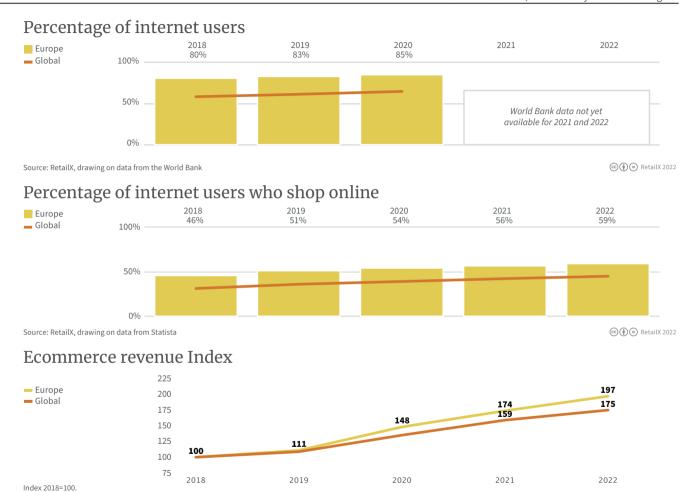
invasion by Russian forces, more than 7mn Ukrainian refugees have been recorded across Europe, with Poland alone having taken in 1.4mn people. While this has put a huge strain on European nations, we should not lose sight of this part of the world being blessed with a mix of strong institutions, sophisticated infrastructure and reserves of underlying wealth to help it cope. The GDP per capita of the European nations tracked in RetailX research is a little more than \$34k against a global figure of \$14.4k.

At least nine out of every ten European citizens goes online. Of these, 59% shop online and, while the upsurge in ecommerce due to the pandemic has not remained, as many had predicted, ecommerce growth remains steady. Those least-likely to go online to shop are, by and large, older consumers, and when looking at ecommerce usage it's worth noting that Europe has more of these consumers than other parts of the world. In the comparatively near future, an ageing population will put a strain on resources and on younger generations as Baby Boomers reach their dotages.



Finally, we should add a note about why we have not provided extra graphics on the countries we have featured. This is because these are covered in far more detail in both our RetailX Europe 2022 Ecommerce Region Report and in reports focused on countries and European sub-regions.^[2]

Source: RetailX, drawing on data from Statista



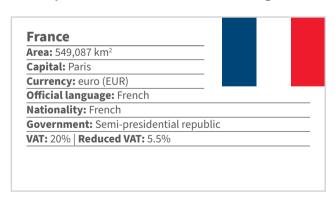
^[1] https://reliefweb.int/report/poland/refugees-ukraine-poland-profiling-update-august-2022 [2] https://retailx.net/countries/

France

State intervention has shielded French citizens from the cost-of-living crisis, letting the economy grow modestly

Despite turbulence in the global economy, France's ecommerce sector is mature, sophisticated and thriving. Its leading companies include the supermarket Carrefour, which RetailX research in 2022 ranked as among Global Elite retailers because of its innovative approach.

Turning to the wider economy, **France enjoyed post-pandemic growth of 6.8% in 2021.**^[1] This was, arguably, in part thanks to state intervention. The second-biggest economy in the eurozone, France also has the highest state



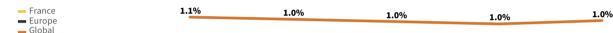
Population structure by age group



Age groups (year of birth): Gen Alpha (2013-present), Gen Z (1998-2012), Millennials (1983-1997), Gen X (1968-1982), Baby Boomers (1948-1967), Silent Gen (1928-1947) Source: RetailX. drawing on data from UN

(cc)(i)(=) RetailX 2022

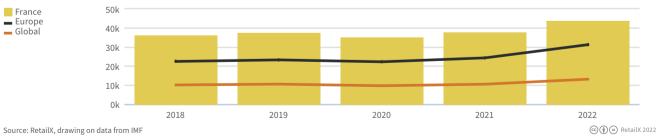
Population growth



0.2% 0. <mark>1%</mark>	0.2% 0.1%	0.2% 0.1%	0.2% 0.0%	0.2% 0.0%

Source: RetailX, drawing on data from UN

© (†) (=) RetailX 2022



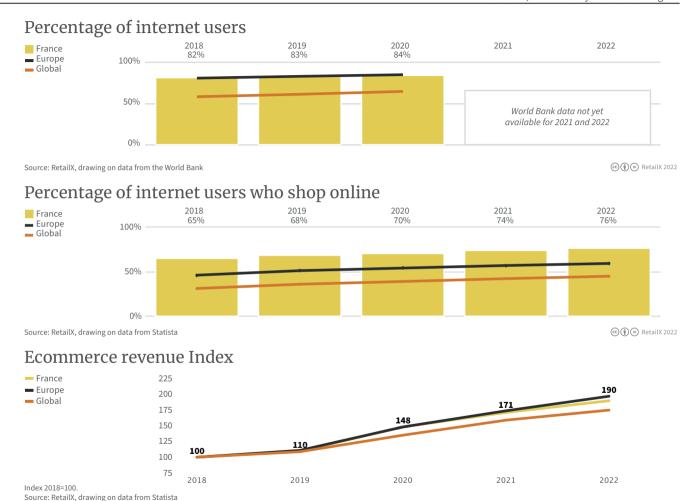
spending. The authorities have intervened, for example, to cushion consumers from energy price rises linked to the war in Ukraine and will continue to do so through 2023.^[2]

In the third quarter of 2022, France's economy grew by 0.2%. Bank of France Governor Francois Villeroy de Galhau is also a policy maker at the European Central Bank. While he saw no reason to revise downwards his forecast for 2.6% GDP growth in 2022 he also warned of signs of weakness in the eurozone as a whole.^[3]

In April 2022, French voters re-elected Emmanuel Macron of the centrist LREM as president after a runoff against Marine Le Pen of the far-right National Rally party. Macron faces huge challenges, not least because, following elections in June that produced the country's first hung parliament since 1988, he does not command a majority in the National Assembly.

The economic challenges Marcon faces include a rising trade deficit. In September 2022, this was \$17.5bn, a record. More positively, France is a nation of startups. In 2019, Macron identified a goal of having 25 French 'unicorns' (a private company valued at \$1bn or more) by 2025. This was reached in January 2022, when robotics company Exotec raised \$335mn in funding, bringing its valuation close to \$2bn.

[1] https://economy-finance.ec.europa.eu/economic-surveillance-eu-economies/france/economic-forecast-france_en [2] www.lemonde.fr/en/france/article/2022/09/14/france-to-limit-energy-price-hikes-to-15-in-2023_5996945_7.html [3] www.reuters.com/markets/europe/french-economy-grows-02-third-quarter-insee-2022-10-28/

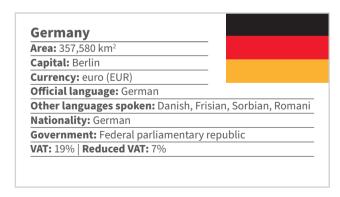


Germany

While an over-reliance on Russian gas has left the country scrabbling for alternatives, the digital economy is sound

The German economy is the largest in the European Union and made a good recovery from the global challenges of Covid-19 and Brexit. GDP per capita is high (\$49.6k), well above global, EU and eurozone averages. In 2020, Germany's population declined for the first time in more than a decade. Studies suggest the population – currently 83.4mn – will have decreased by 14% by 2060.

As gas supplies decline, **the country faces an energy crisis**. Businesses and householders are being asked to



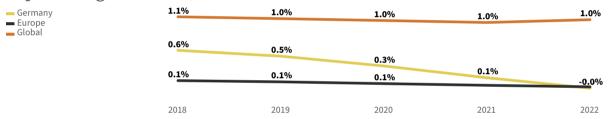




Age groups (year of birth): Gen Alpha (2013-present), Gen Z (1998-2012), Millennials (1983-1997), Gen X (1968-1982), Baby Boomers (1948-1967), Silent Gen (1928-1947) Source: RetailX. drawing on data from UN

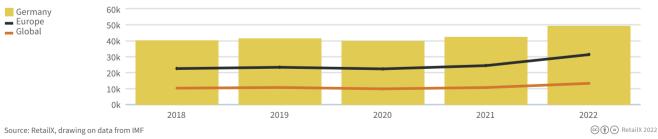
(c) (i) (=) RetailX 2022

Population growth



Source: RetailX, drawing on data from UN

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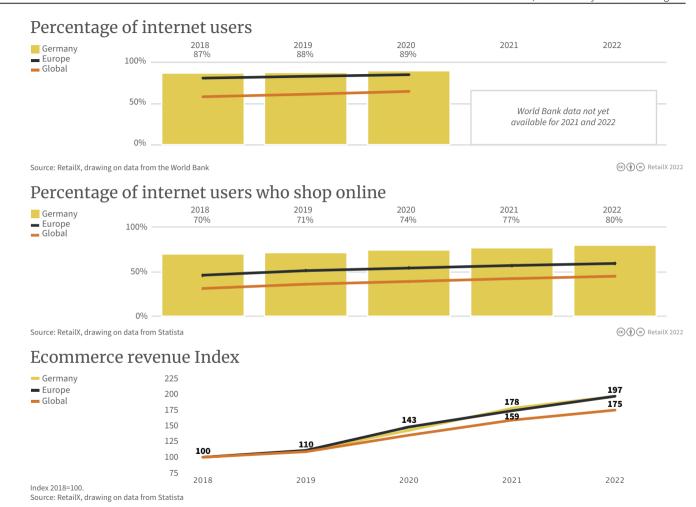
ration usage and it is difficult to see when, if ever, the Nord Stream 2 pipeline from Russia will once again bring gas to Germany. Instead, **the government is focusing on building liquefied natural gas terminals.**^[1] It is also restarting coal-fired power plants to ease the pressure on energy supplies over the winter of 2022-23.^[2]

Looking ahead, the outlook for the German economy is unusually gloomy. With its energy-intensive industries under pressure, it is predicted the country's GDP will contract by 0.6% in 2023.^[3]

The German shopper is digitally savvy. Of the more than 90% of Germans who are online, 80% are internet shoppers. Much like the Netherlands, **Germans favour bank transfer (28%) over other forms of online payment**, thanks to the rise of services such as SOFORT and iDEAL. E-wallets are at 23% and cards are at 19%.

The 2021 elections left the country with a coalition, governed by the chancellor Olaf Scholz, between the Social Democrats (SPD), Greens and the Free Democrats (FDP). All members of the coalition have made clear they want to see a decade of digital and social renewal, with plans already in place to address digital skills and the digitalisation of business.

^[1] https://abcnews.go.com/international/wireStory/germanys-1st-lng-terminal-takes-shape-north-sea-93327182 [2] www.reuters.com/business/energy/germany-fires-up-extra-coal-power-capacity-plug-winter-supplies-2022-11-02/ [3] https://economy-finance.ec.europa.eu/economic-surveillance-eu-economics/germany/economic-forecast-germany_en



Italy

After bouncing back well from the pandemic, war in Ukraine and political turmoil threaten Italy's economy

In September 2022, following the fall of the government led by technocrat banker Mario Draghi, Italians went to the polls. **The snap election brought a centre-right coalition to power, led by Giorgia Meloni's Brothers of Italy, a radical-right party with roots in neo-fascism.** An election that, it was hoped, would restore international market confidence instead created widespread disquiet.

Italy was the first country in Europe to be hit by the coronavirus pandemic. Its economy suffered a sharp



Population structure by age group



Age groups (year of birth): Gen Alpha (2013-present), Gen Z (1998-2012), Millennials (1983-1997), Gen X (1968-1982), Baby Boomers (1948-1967), Silent Gen (1928-1947) Source: RetailX. drawing on data from UN

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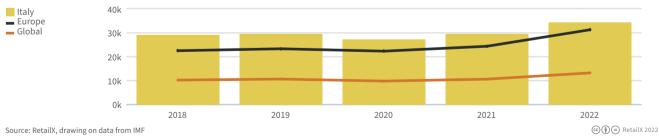
Population growth



0.1%	0.1%	0.1%	0.0%	0.0%
-0.1%	-0.1%	-0.2%	-0.2%	-0.2%
2018	2019	2020	2021	2022

Source: RetailX, drawing on data from UN

© (i) (=) RetailX 2022



downturn in 2020 before recovering in 2021 as disposable income grew and confidence improved, according to Banca d'Italia figures^[1]. Early in 2022, the bank warned that war in Ukraine represented an increase in the risks to financial stability through a slowdown in economic activity and rising interest rates. **With energy prices rising, the new government has pledged to double its gas production** yet it won't be easy for the country to move away from its recent reliance on supplies from Russia. ^[2]

Whatever its electoral volatility, economic challenges and the perennial problems caused by a pronounced north-south divide, Italy is a major European market. **Italy is both home to many leading retail brands, notably in the luxury sector, and attractive to foreign-based retailers looking to expand overseas.** It's a highly educated country where 99.6% of students learn English. [3]

While Italy's economy unexpectedly grew over the summer, there are fears it is heading for recession. [4]

Italy has an ageing society. World Bank figures show that over the last decade, **the proportion of over 65s in the country has steadily increased, from 20% in 2010 to 23% in 2020.** By contrast, 19.1% of Europeans were 65 or older in 2021, according to Indexmundi figures.



^[2] www.reuters.com/business/energy/new-italian-govt-aims-double-national-gas-production-2022-10-27/

Source: RetailX, drawing on data from Statista

Percentage of internet users Italy 2018 2019 2020 2021 2022 74% 76% 70% Europe 100% Global 50% World Bank data not vet available for 2021 and 2022 (cc)(i)(=) RetailX 2022 Source: RetailX, drawing on data from the World Bank Percentage of internet users who shop online 2021 2022 Italv 2018 2019 2020 48% 52% 55% 59% 61% Europe 100% Global 50% 0% (cc) (i) (=) RetailX 2022 Source: RetailX, drawing on data from Statista Ecommerce revenue Index Italy 300 264 Europe 250 Global 227 200 177 174 150 121 100 100 50 2018 2019 2020 2021 2022 Index 2018=100.

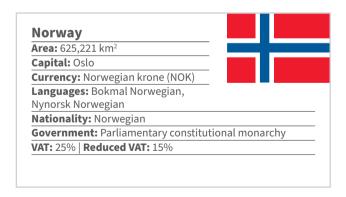
^[3] www.statista.com/statistics/1080527/high-school-students-learning-foreign-languages-in-italy/

^[4] https://capital.com/italy-recession-growth-inflation-gas-dependence-consumer-spending

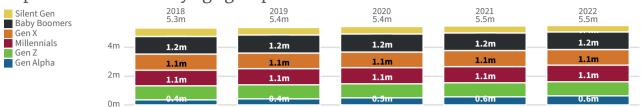
Norway

This rich nation has embraced ecommerce as it looks forward to a digitally enabled, post-carbon future

Norway is one of Europe's richest nations, with a GDP per capita of a \$76k. This is down to its energy wealth. In the 1960s, oil was found in Norwegian waters under the North Sea and the country has also benefited from its natural gas reserves. In 1990, the government established the Government Pension Fund Global, also known as the Oil Fund, a sovereign wealth fund investing surplus petroleum revenues. The value of the Oil Fund passed \$1tn in 2017. Following the Nordic model, Norway is a highly taxed country with high levels of social welfare.



Population structure by age group



Age groups (year of birth): Gen Alpha (2013-present), Gen Z (1998-2012), Millennials (1983-1997), Gen X (1968-1982), Baby Boomers (1948-1967), Silent Gen (1928-1947) Source: RetailX, drawing on data from UN

(cc) (i) (=) RetailX 2022

Population growth

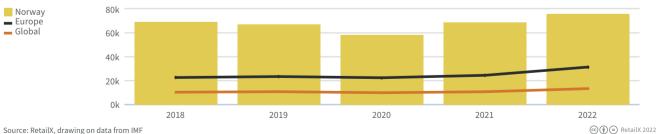




0.1%	0.1%	0.1%	0.0%	0.0%
2018	2019	2020	2021	2022

Source: RetailX, drawing on data from UN

© (i) (=) RetailX 2022



In the years ahead, Norway's wealth may be needed as the global economy shifts to a post-carbon age. This massive transition to a greener economy is a big issue in Norway. In the general election of September 2021, the Social Democratic Labour Party won the largest number of votes. Labour's leader, Jonas Gahr Støre, hoped to form a majority government in coalition with the agrarian Centre Party and the Socialist Left Party. But the latter, which opposes further oil and gas exploration, left talks. Støre formed a minority government but the future of the energy sector and global heating will again be live issues when Norway next goes to the polls, in 2025.

Nearly all Norwegians can access the internet. Norwegians are happy to shop online, with 81% of people also happy to buy goods and services online.

This digital adoption is captured in a report produced as part of research towards the European Commission's Digital Economy and Society Index (DESI) 2021^[2]. This tracks "digital competitiveness in the areas of human capital, broadband connectivity, the integration of digital technologies by businesses and digital public services". **A mini-report on Norway reveals it to be among the most digitally sophisticated countries in Europe**, [3] broadly on a par with its Nordic neighbours and the Netherlands.

Percentage of internet users 2018 2019 2020 2021 2022 Norway 96% 98% 97% Europé 100% Global 50% World Bank data not vet available for 2021 and 2022 (cc)(i)(=) RetailX 2022 Source: RetailX, drawing on data from the World Bank Percentage of internet users who shop online 2018 2019 2020 2021 2022 Norway 70% 73% 79% 75% 81% Europe 100% Global 50% 0% (cc) (i) (=) RetailX 2022 Source: RetailX, drawing on data from Statista Ecommerce revenue Index Norway 225 Europe 197 200 Global 175 150 125 100

2019

2020

2021

2022

75

Index 2018=100.

Source: RetailX, drawing on data from Statista

2018

^[1] www.worldoil.com/news/2021/10/8/norway-s-labor-center-agree-to-form-pro-oil-minority-coalition [2] https://digital-strategy.ec.europa.eu/en/policies/desi

^[3] https://digital-strategy.ec.europa.eu/en/policies/desi-norway

Russia

The world's largest country has become something of an international pariah, yet its ecommerce continues to grow

The invasion of neighbouring Ukraine, which Russia embarked upon in February 2022 has, for all the wrong reasons, been the single-most significant event influencing the year's global economic activity.

While the invasion has been condemned by much of the international community, the majority of which has rallied to Ukraine's support, **Russia has seemingly thus far been able to withstand the economic sanctions levied against it** by the USA, the EU, the UK and others.







Age groups (year of birth): Gen Alpha (2013-present), Gen Z (1998-2012), Millennials (1983-1997), Gen X (1968-1982), Baby Boomers (1948-1967), Silent Gen (1928-1947) Source: RetailX. drawing on data from UN

(c) (i) (=) RetailX 2022

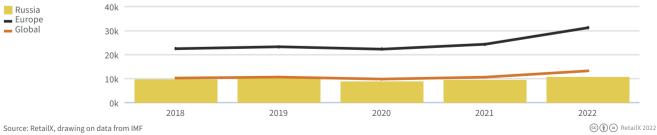
Population growth





Source: RetailX, drawing on data from UN

(cc)(i)(=) RetailX 2022

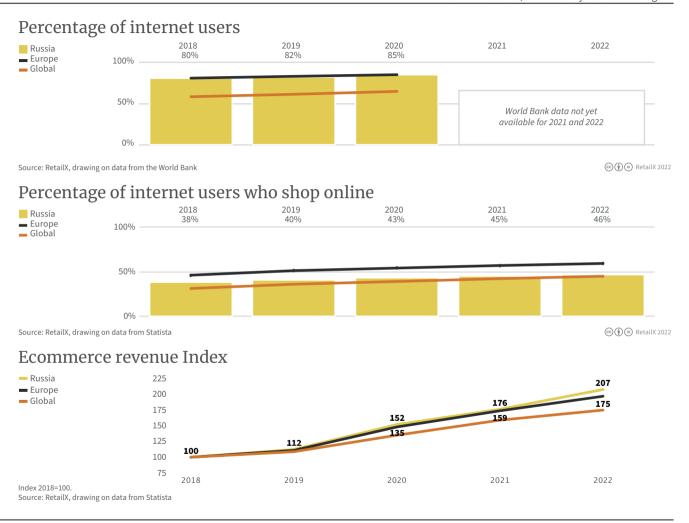


In Russia's favour is the sheer size of its territory and population (145.8mn, the world's ninth-largest), along with the rich diversity of the resources it can draw on, including oil and natural gas. **The International Monetary Fund ranks Russia's economy as the world's ninth-largest by GDP** and, in 2021, Russia had the world's twelfth-largest ecommerce sector. Moreover, with 23% of the population under the age of 18, the new generation is likely to adapt to ecommerce as an element of everyday life.

This year, it may be difficult to get accurate figures, allowing for elements of propaganda. However, Russia itself claims that ecommerce has increased in 2022.^[1] **Along with hundreds of other major Western brands, Amazon has suspended operations in Russia**, although it remains to be seen if this mass withdrawal will be permanent. According to reports, **Russian ecommerce sites such as Wildberries and Ozon have been able to acquire Western branded items** from countries that are not participating in the sanctions, such as Turkey.^[2]

While most of the big players in Russian ecommerce are around 20 years old, including Wildberries (launched 2004), Ozon (1998), DNS (1998) and Utkonos (2000) and have established consumer recognition and trust, security remains an issue, with anxiety around fraud in particular affecting both customers and merchants.

^[2] www.euractiv.com/section/global-europe/news/russian-e-commerce-firm-opens-turkish-office-to-help-goods-flow-to-home-market/1



^[1] https://russoft.org/en/news/russian-e-commerce-up-50-in-h1-2022/

United Kingdom

For all of its current problems, both external and self-inflicted, the UK remains a wealthy country

Prior to the Brexit referendum of 2016, the UK was widely regarded as a stable and pragmatic country, albeit one with a seam of Euroscepticism in its politics. Fast forward to October 2022 and Rishi Sunak became the country's third prime minister within a two-month period, succeeding Liz Truss and Boris Johnson. While the UK's politicians are reluctant to discuss Brexit, Britain leaving the European Union has much to do with this churn.

According to the Office for Budget Responsibility, Brexit represents a permanent 4% hit to the economy. [1]



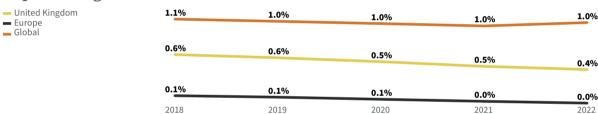
Population structure by age group



Age groups (year of birth): Gen Alpha (2013-present), Gen Z (1998-2012), Millennials (1983-1997), Gen X (1968-1982), Baby Boomers (1948-1967), Silent Gen (1928-1947) Source: RetailX. drawing on data from UN

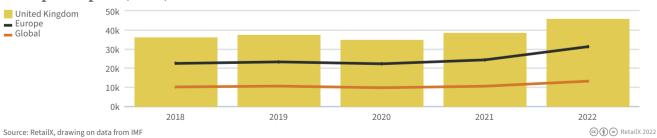
(c) (i) (=) RetailX 2022

Population growth



Source: RetailX, drawing on data from UN



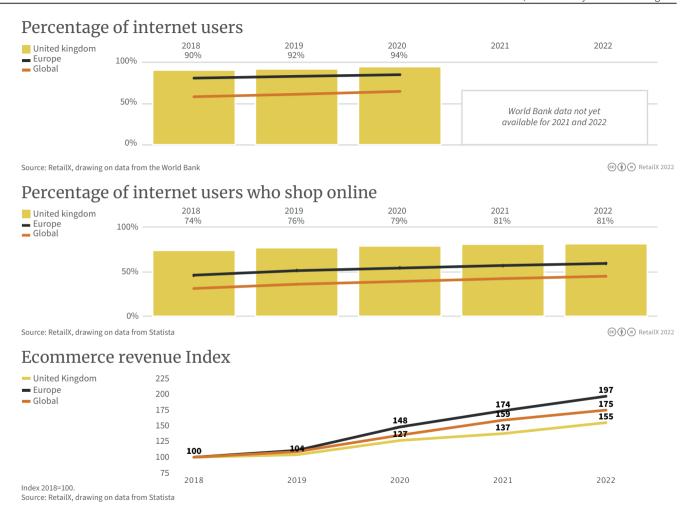


In less extraordinary times, the country might have been better placed to withstand such a shock. But **Brexit** arrived in the wake of years of austerity and was followed by the pandemic, the war in Ukraine and the return of inflation. It is hardly surprising that, as we went to press, more moderate Conservatives were flying a kite for the idea of a "Swiss-style" deal with the EU.^[2]

This idea has been officially rejected and causes apoplexy among certain Conservatives, yet it's difficult to see how the current situation is sustainable. Polls suggest that 56% of voters, including one in five who voted for Brexit, now think it was a mistake to leave the EU. However, because of the political climate, it seems likely any changes to the status quo will be after the next election, which can be held no later than January 2025.

In the meantime, it is worth remembering that the UK remains one of the world's biggest economies. Although inequality is an issue, GDP per capita is relatively high, at \$45.9k against an overall European figure of \$31.2k. Turning specifically to multichannel retail, the country has been an innovator. **Among the 98% of the population that's online, 81% also shop online.** While few would doubt the UK faces huge challenges, it has underlying strengths too.

[1] www.theguardian.com/business/2022/nov/13/truss-brexit-covid-who-is-really-to-blame-for-the-tories-fiscal-hole [2] www.theguardian.com/politics/2022/nov/23/jeremy-hunt-denies-briefing-that-uk-wants-swiss-style-ties-with-eu [3] https://yougov.co.uk/topics/politics/articles-reports/2022/11/17/one-five-who-voted-brexit-now-think-it-was-wrong-d



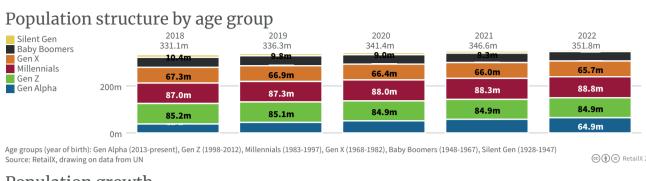
Middle East

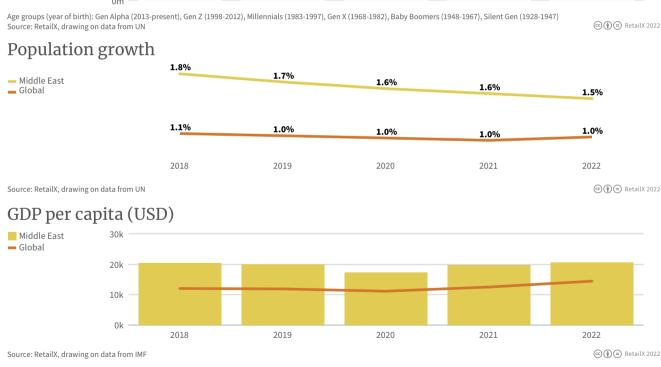
The move away from oil incomes and the changing attitudes of young people make change a constant factor in this region

The Middle East is a region of diverse languages, cultures and religions. The first impressions are of a rich region in which GDP per capita is above the global average. However, look at individual countries and it soon becomes clear that wealth is the Middle East is unevenly distributed. While those nations that have energy reserves are most likely to be richest, they are also the countries facing the near-future challenge of diversifying away from a reliance on receipts for oil and gas exports.

The Gulf States of Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates work together to foster economic and political ties under the flag of the Gulf Cooperation Council. Other countries are more insular, while some, such as Iran and Iraq, are antagonistic towards each other. Countries such as Syria and Yemen, neither of which we look at in detail here, have endured brutal conflicts in recent years.

Iran and Turkey are the most populous countries in the Middle East but are very different in character. Sanctions





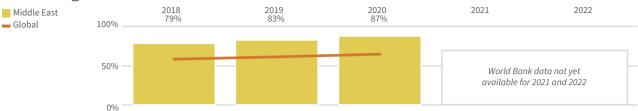
and government control restrict internet usage in Iran, a country where ongoing protests against women having to wear the hijab have shown signs of becoming a threat to the theocratic regime^[1]. By contrast, **Turkey's government and industries are looking overseas to expand trade,** although the country has its own ongoing political tensions rooted in urban opposition to the populist government of President Recep Tayyip Erdogan^[2].

Nevertheless, **global brands have a huge presence in the Middle East.** To understand why, consider how a country such as the United Arab Emirates has invested to build Dubai into an international centre. This is a country that has worked hard to attract foreign investment. It's also one of a number of nations in the region that relies heavily on foreign workers. This, in turn, helps explain why the UAE has its own Amazon store, amazon.ae, a marketplace that aims at both citizens and those living in the country looking to buy familiar brands associated with home.

Overall, the Middle East has a young population, with high numbers of Gen Z consumers and Millennials. **The internet usage across the region is relatively high and the adoption of ecommerce is growing rapidly.** Over the coming years, it will be intriguing to see how the more liberal attitudes of younger citizens are reflected in political developments in the region.

[1] www.bbc.co.uk/news/topics/cw97d85vjzmt [2] www.bbc.co.uk/news/topics/c207p54mdg3t

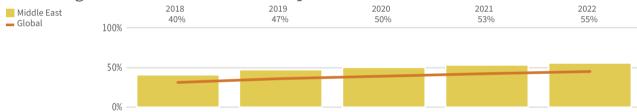
Percentage of internet users



The Middle East figures are an aggregate of the six countries profiled in this report

Source: RetailX, drawing on data from the World Bank. World Bank data for 2021 not available. RetailX creates forecast values by extrapolating the previous five years' growth.

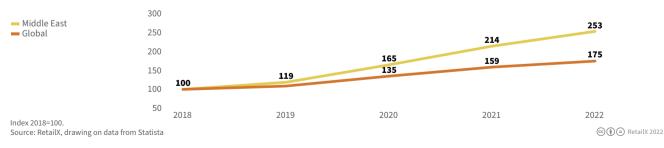
Percentage of internet users who shop online



The Middle East figures are an aggregate of the six countries profiled in this report

Source: RetailX, drawing on data from the World Bank. World Bank data for 2021 not available. RetailX creates forecast values by extrapolating the previous five years' growth.

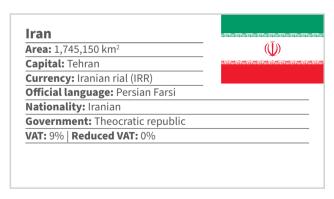
Ecommerce revenue Index



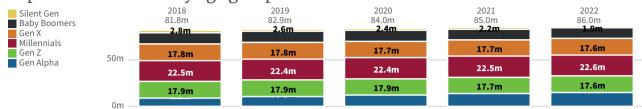
Iran

Ongoing political turmoil and a tendency to be inward-looking both make Iran a challenging country to do business in

Iran's population is growing steadily, increasing to 86mn in 2022 from around 82mn in 2018. **The majority of Iran's population is under 40**, so has grown up in a country governed as a theocratic republic, a situation that began with the 1979 Islamic Revolution. But for all that Iran has one of the largest populations in the Middle East, **GDP per capita is rising yet remains below that of the region as a whole**, at least in part because large sections of the world regard its regime with such suspicion that it is subject to US, UN and EU trade sanctions. In 2022,



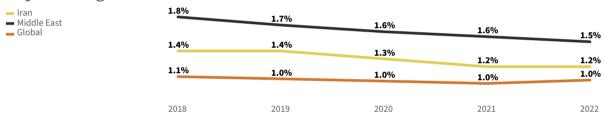




Age groups (year of birth): Gen Alpha (2013-present), Gen Z (1998-2012), Millennials (1983-1997), Gen X (1968-1982), Baby Boomers (1948-1967), Silent Gen (1928-1947) Source: RetailX. drawing on data from UN

(cc)(i)(=) RetailX 2022

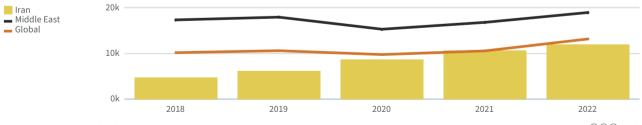
Population growth



Source: RetailX, drawing on data from UN



GDP per capita (USD)



Source: RetailX, drawing on data from IMF

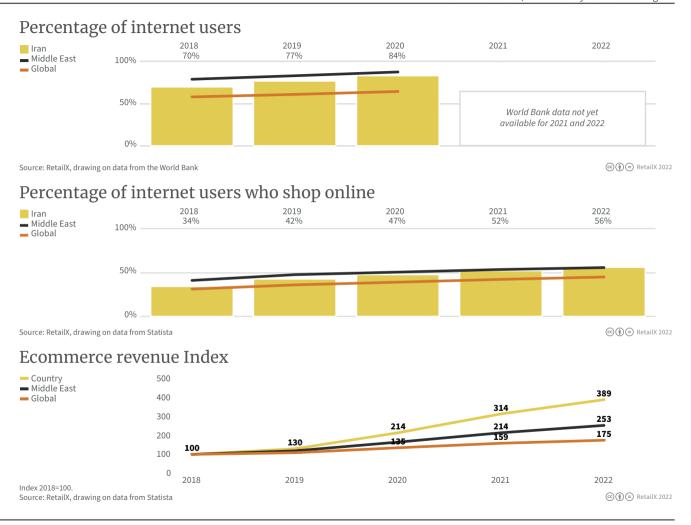
Iran's GDP stands at \$12.1k against a global figure of \$13.2k and a Middle East figure of \$19k.

While Iran has a larger proportion of the population using the internet than its neighbours, this has not translated through to ecommerce. In 2020, 84% of the population used the internet but just 47% of these users shopped online. By 2022, the proportion shopping online had risen to 56% – the average for the region as a whole.

While ecommerce is growing faster in Iran than in other countries in the region, the country has a very closed market, with **94% of traffic to Iranian websites originating domestically.** Even some companies that could, in theory, trade freely are wary of entering Iran. This extends to US tech companies that in September 2022 were told by the US Treasury Department they could trade with Iran if it would increase internet access for Iran's population.^[1]

The recent disturbances that followed Mahsa Amini's death seem set to be followed by further political upheaval and **one way the authorities have reacted to these protests is to restrict internet access**. While it is hardly the most important issue here, this has impacted on ecommerce. A clampdown on Instagram in September resulted in retailers losing both sales and a key marketing channel. [2]

[1] www.bbc.co.uk/news/technology-62996100 [2] www.iranintl.com/en/202210097430

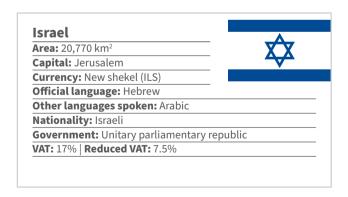


Israel

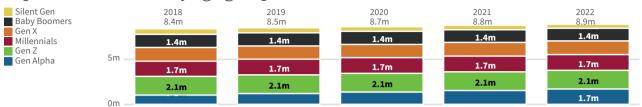
This advanced country with a thriving startup culture wasn't quick to embrace ecommerce yet is quickly catching up

The establishment of Israel in 1948 took place against a backdrop of civil war between the Jewish and Muslim populations of British-administered Mandatory Palestine. To a greater or lesser extent ever since, Israel's relations with its immediate neighbours, including those living in the de jure sovereign state of Palestine, have been tense.

Despite existing for long periods on a quasi-war footing, **Israel is both a liberal democracy** – albeit one where



Population structure by age group

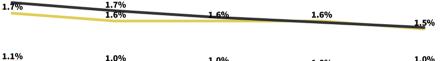


Age groups (year of birth): Gen Alpha (2013-present), Gen Z (1998-2012), Millennials (1983-1997), Gen X (1968-1982), Baby Boomers (1948-1967), Silent Gen (1928-1947) Source: RetailX. drawing on data from UN

(c) (i) (=) RetailX 2022

Population growth



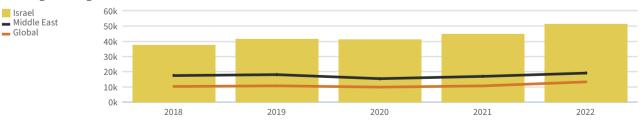




Source: RetailX, drawing on data from UN



GDP per capita (USD)



Source: RetailX, drawing on data from IMF

the government changes regularly as coalitions form and dissolve, most recently with the comeback of Benjamin Netanyahu^[1] – **and an advanced economy**.

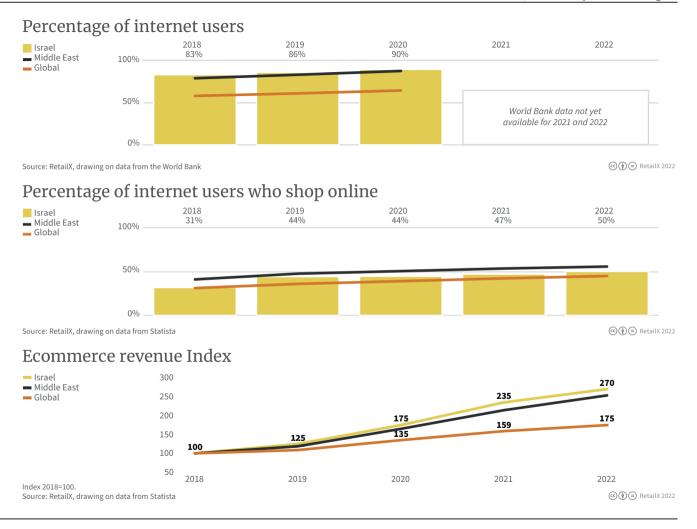
A little more than half of Israel's internet users shop online, with the number of e-shoppers rising sharply in recent years. Just 31% of Israel's internet users shopped online in 2018. Since then, the country has seen ecommerce growing at a rate faster than the wider Middle East region. Along with Turkey, Israel now has the highest proportion of GenZ consumers shopping online.

Israel has a strong startup community in the tech sector. It raised \$25.6bn in 2021, with high levels of investment continuing into the first quarter of 2022. Its digital technologies have gathered VC backing among international retailers. For instance, Flytrex is delivering takeaway food by drone in five US towns and is being tested as a way to speed up deliveries by Walmart. [2] Israel also attracts international companies, including Intel, Microsoft, Apple, IBM, Google, Meta and Cisco Systems, all of which have opened R&D facilities in the country.

Many Israeli consumers are happy to shop with foreignbased businesses, which makes the country an attractive market for international retailers. Indeed, **Amazon.com is the leading marketplace in Israel**.

[1] www.bbc.co.uk/news/world-middle-east-18008697

[2] https://wraltechwire.com/2022/09/28/want-lunch-flytrex-now-delivering-by-drone-in-durham-holly-springs



Qatar

With over 80% of its residents living in the capital Doha, this small desert nation is rich and highly urbanised

Qatar is one of the smallest countries in the Middle East but it holds the position of being the **richest in terms of GDP per capita. It also ranks in the top ten globally**. The majority of this wealth relates to oil and gas, the revenue from which makes up around 85% of the country's export earnings and 60% of GDP. Qatar has the world's third-largest natural gas reserves. As a result, the economy has recovered quickly from the impacts of the pandemic. **GDP increased by 4.3% in the first half of 2022**.

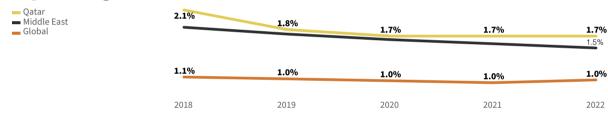




Age groups (year of birth): Gen Alpha (2013-present), Gen Z (1998-2012), Millennials (1983-1997), Gen X (1968-1982), Baby Boomers (1948-1967), Silent Gen (1928-1947) Source: RetailX, drawing on data from UN

(cc)(i)(=) RetailX 2022

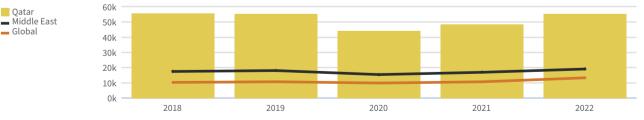
Population growth



Source: RetailX, drawing on data from UN



GDP per capita (USD)



Source: RetailX, drawing on data from IMF

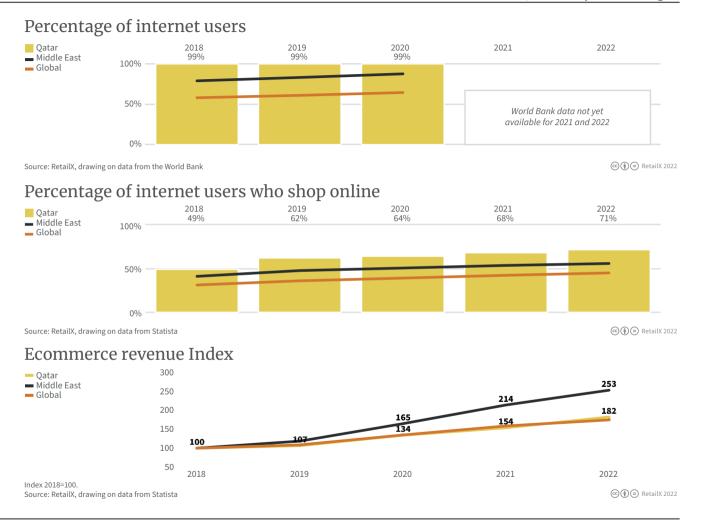
Most of Qatar's population has access to the internet and goes online regularly. This has been helped in recent years by government initiatives to improve digital infrastructure, to strengthen the regulatory framework and to promote ecommerce.

Qatar's National Vision aims to see the county becoming "an advanced society capable of sustaining its development and providing a high standard of living for its people". This modernisation programme includes expanding the use of digital services within government agencies and public bodies as well as in these bodies' dealings with the country's citizens.

In 2022, 71% of internet users shop online, a rise of 22 percentage points over the position in 2018, when less than half shopped online. However, ecommerce revenue has grown at a rate similar to that seen globally over the last four years rather than at the higher level recorded across the Middle East region as a whole.

At the time of writing, **Qatar is hosting the World Cup,** which has drawn the eyes of the world to the country. This has sometimes been an uncomfortable process for the Qatari authorities, as when security staff were pictured confiscating a shirt bearing Mahsa Amini's name from an Iranian fan.^[1]

[1] https://inews.co.uk/sport/football/world-cup-security-staff-mahsa-amini-iran-shirt-woman-wales-1993684

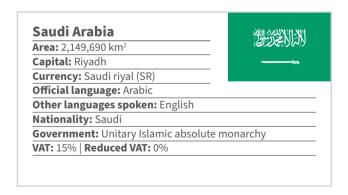


Saudi Arabia

Tourism and technical innovation will, it is hoped, wean this country off the vast incomes from its huge oil reserves

The Kingdom of Saudi Arabia occupies the majority of the Arabian Peninsula. At more than 2mn km², it is the largest country in the Middle East. It has a population of around 5mn, less than half that of Turkey or Iran, the most populous neighbours highlighted in this report. It is one of the least-densely populated countries of the Middle East.

Saudi Arabia is governed as an absolute monarchy under Salman bin Abdulaziz Al Saud. He appointed his



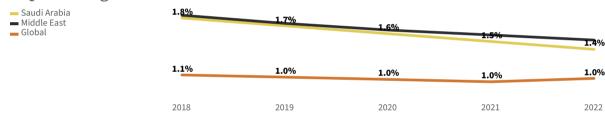




Age groups (year of birth): Gen Alpha (2013-present), Gen Z (1998-2012), Millennials (1983-1997), Gen X (1968-1982), Baby Boomers (1948-1967), Silent Gen (1928-1947) Source: RetailX, drawing on data from UN

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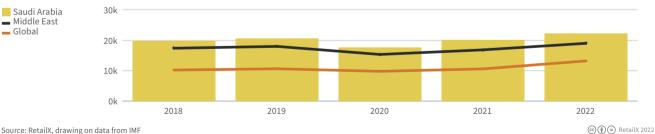
Population growth



Source: RetailX, drawing on data from UN

Global

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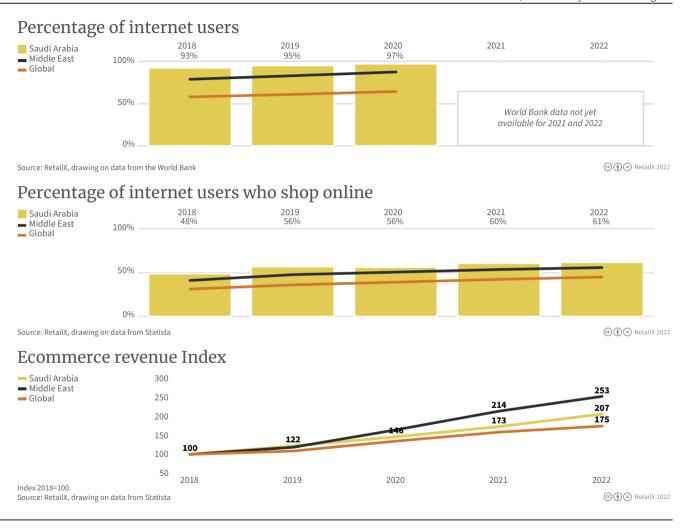
son, Crown Prince Mohammed bin Salman Al Saud, as Prime Minister in 2022.

A large part of the country's economy is based on fossil fuels. In 2016, **Saudi Arabia announced plans to diversify its economy in a bid to move away from its dependence on the fluctuating prices of oil and gas**. Saudi Arabia's Vision 2030 is aimed at unlocking growth and investment opportunities, increasing its citizens' quality of life, while also trying to change how the country appears on the world stage. ^[1] However, it is worth noting disquiet over the country's human rights record.

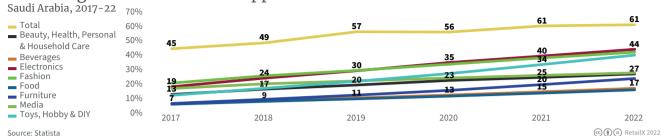
Vision 2030 emphasises the country's location at the heart of the Arab and Islamic worlds as well as its ability to connect Africa, Asia and Europe. Supply chain and tourism initiatives are being presented as opportunities for international businesses and consumers.

The International Monetary Fund (IMF) has praised the strength of Saudi Arabia's financial position and its recovery from recession caused by the pandemic. "The Kingdom's continued implementation of structural reforms will help ensure a strong, comprehensive, and environmentally friendly recovery," it has noted.

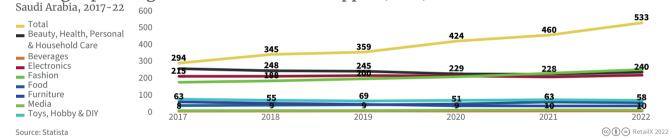
GDP growth is predicted to reach 9.9% in 2022, the highest rate among G20 countries, notes the Organization for Economic Co-operation and Development (OECD).



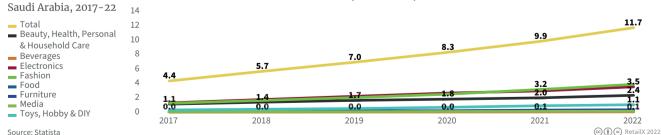
Percentage of ecommerce eshoppers



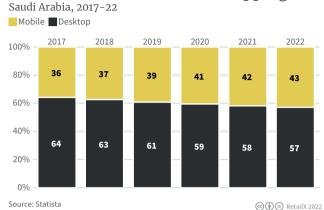
Average spending of the ecommerce eshopper (USD)



Annual revenue for the ecommerce market (bn USD)

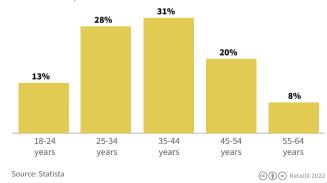


Preferred device for online shopping (%)

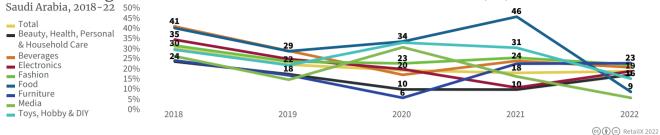


Age distribution of ecommerce eshoppers

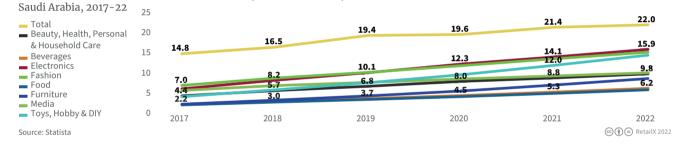
Saudi Arabia, 2021



Annual change in revenue for the online ecommerce market (%)



Number of ecommerce users (in millions)



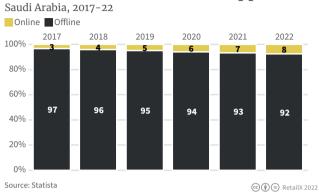
Saudi Arabia is becoming a **hub for innovation in city planning, technology and artificial intelligence**.

The Line, which is a mirrored, 200m wide, 170km long, zero-carbon settlement, currently under early stages of construction, is planned to become home to 9mn people. [2]

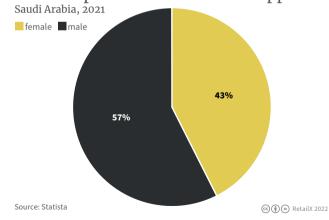
HRH Crown Prince Mohammed bin Salman has noted of the project: "The city's vertically layered communities will challenge the traditional flat, horizontal cities and create a model for nature preservation and enhanced human liveability. "With a growing online economy and 97% of the population using the internet, new digital initiatives in Saudi Arabia have the opportunity to showcase new forms of digital innovation. These will be needed if the country is to transition from an economy reliant on its energy reserves.

[1] www.vision2030.gov.sa [2] www.neom.com/en-us/regions/theline

Preferred shopping channel for ecommerce multichannel shoppers (%)



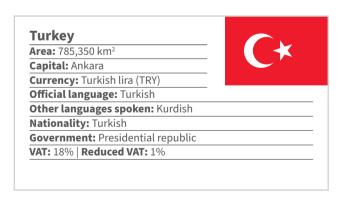
Gender split of ecommerce eshoppers



Turkey

Soaring levels of ecommerce are sending most Turkish online shoppers to homegrown websites and marketplaces

Turkey stands at the crossroads between Europe and Asia. It has a population of 85.6mn, 77% of whom are online. **51% of these consumers shop online, up from just 39% in 2019**. The pandemic accelerated ecommerce uptake, particularly among older demographics. There's plenty of potential for growth online, with existing players jostling for position and innovative pureplays disrupting existing categories. **In 2021, online orders rose by 46% year-over-year to nearly 3.35bn.**^[1]



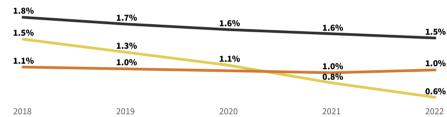


Age groups (year of birth): Gen Alpha (2013-present), Gen Z (1998-2012), Millennials (1983-1997), Gen X (1968-1982), Baby Boomers (1948-1967), Silent Gen (1928-1947) Source: RetailX, drawing on data from UN

CC (*) C RetailX 2022



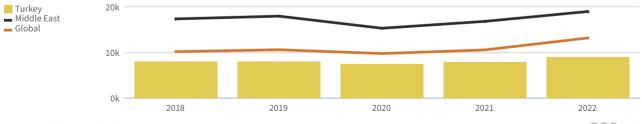




Source: RetailX, drawing on data from UN



GDP per capita (USD)



Source: RetailX, drawing on data from IMF

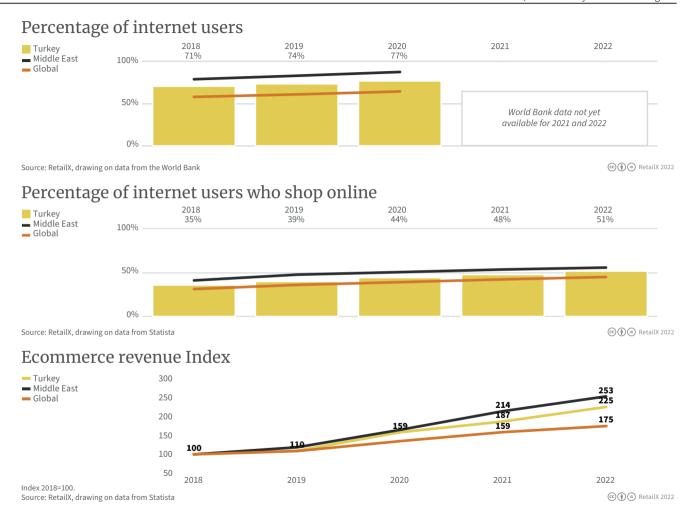
In 2022, ecommerce accounts for 18% of retail sales, with much of this dominated by local marketplaces such as Trendyol, Hepsiburada, Sahibinden, N11 and CicekSepeti. These major players are competing to become the "ultimate super app," according to Mine Ozmen, co-founder of commerce platform Rierino.

Turkey has an active startup ecosystem, with founders keen to secure their place in a growing ecommerce and omnichannel market. According to Halit Develiouglu, founder of fulfilment and robotics company Oplogsome, some pureplays overstretched themselves post-pandemic.

Although **Turkey** is expected to see GDP growth of **4.7%** in **2022**, its economy remains unstable. Economic activity is predicted to weaken in the later months of 2022, with GDP in 2023 reaching 2.7%. **Inflation is currently running high, having reached 73% in October 2022** after peaking above 80% in August. Interest rates are 13%.

This is affecting consumer spending as well as investment opportunities, resulting in **technology companies looking abroad for investment** and retailers expanding overseas. Russian marketplace Ozon has opened an office in Istanbul in order to attract local sellers to the marketplace while Hepsiburada has launched in Azerbaijan.

[1] www.dailysabah.com/business/economy/pandemic-driven-shift-lifts-turkish-e-commerce-volume-to-2587b

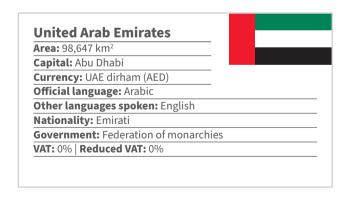


United Arab Emirates

Fashion, the internet and a fusion of the two – social media influencers – feel right at home in this oil-rich state

The Gulf state of United Arab Emirates is one of the richest countries in the Middle East, with an economy built on energy reserves. In recent years, the UAE has diversified and built up an international reputation, with Dubai becoming a centre for tourism and trade.

The Dubai International Financial Centre (DIFC) is a special economic zone and financial hub for the Middle East, Africa and South Asia. It is home to an internationally recognised,





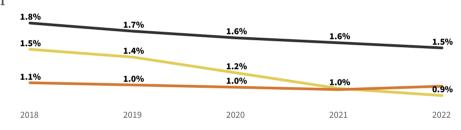


Age groups (year of birth): Gen Alpha (2013-present), Gen Z (1998-2012), Millennials (1983-1997), Gen X (1968-1982), Baby Boomers (1948-1967), Silent Gen (1928-1947) Source: RetailX. drawing on data from UN

(cc) (i) (=) RetailX 2022

Population growth

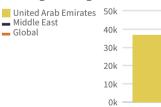
United Arab EmiratesMiddle EastGlobal

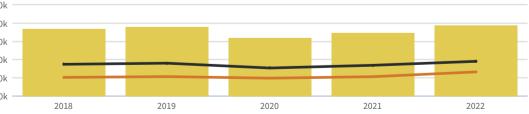


Source: RetailX, drawing on data from UN



GDP per capita (USD)





Source: RetailX, drawing on data from IMF

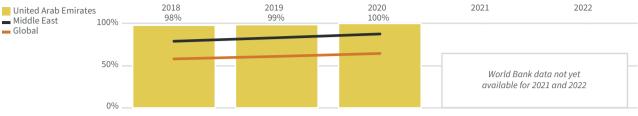
independent regulator and a proven judicial system with an English common law framework. It offers companies 100% ownership without a local partner.[1] Dubai attracts VCs, trade shows, retailers and social influencers.

Millennials make up the largest proportion of the UAE's citizens. With a GDP per capita of close to \$40k, many enjoy a high-spending lifestyle. Everyone is able to access the internet and 69% of consumers shop online.

Dubai has become synonymous with social media influencers in the fashion and beauty sectors. Some influencers have founded beauty brands in their own right, launching products for the global market or with ranges of more inclusive colour cosmetics for women of Middle Eastern heritage, or items certified as halal.[2]

UAE's ecommerce market is growing faster than any other in the region and is predicted to be the fastest **growing globally** over the coming year. Market Machine predicts growth of 23.11% for the UAE online market in 2022-23, with per capita spending rising by 22.32%. An initiative worth highlighting is the Dubai Metaverse Strategy, which aims to make the city a major hub for the global metaverse community.[3]

Percentage of internet users

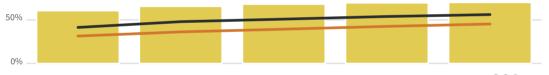


Source: RetailX, drawing on data from the World Bank

(cc)(i)(=) RetailX 2022

Percentage of internet users who shop online

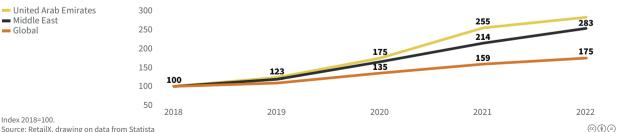




Source: RetailX, drawing on data from Statista

(cc) (i) (=) RetailX 2022

Ecommerce revenue Index



Source: RetailX, drawing on data from Statista

^[1] https://internetretailing.net/reports/retailx-country-reports/the-middle-east-2021-ecommerce-

^[2] https://internetretailing.net/reports/retailx-sector-reports/middle-east-beauty-2022ecommerce-region-report/

^[3] www.arabianbusiness.com/industries/technology/new-strategy-unveiled-at-dubai-metaverseassembly-to-place-emirate-as-major-hub

North America

US retailers lead the world, but the biggest growth in North American ecommerce is occurring in Mexico

If ecommerce can be said to have a spiritual home, it surely has to be North America – and in particular Silicon Valley. It's really not too much of an exaggeration to say that innovations in digital technologies in California have driven the spread of ecommerce around the world. Whether that will continue to be the case is another matter. Ecommerce is now an international business and, as we look at in our feature on emerging tech centres, other nations are proving to be just as innovative.

That said, the North American ecommerce market remains vibrant and hugely attractive to international brands hoping to secure sales. Larger US companies also heavily influence the ecommerce markets in foreign territories. In Israel, for example, many consumers choose to shop at Amazon.com, despite shipping costs and potential issues with shipping in items from abroad.

Overall, this is a wealthy region. The GDP per capita for North America is \$35.2k against a global figure of \$14.4k. However, to get a true picture of the relative

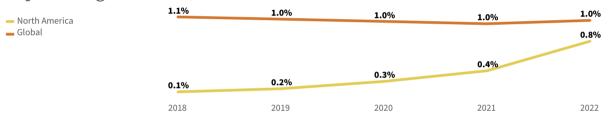
Population structure by age group



Age groups (year of birth): Gen Alpha (2013-present), Gen Z (1998-2012), Millennials (1983-1997), Gen X (1968-1982), Baby Boomers (1948-1967), Silent Gen (1928-1947) Source: RetailX, drawing on data from UN

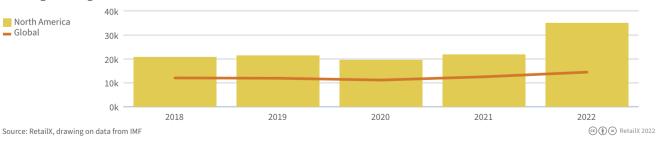
CC (i) (=) RetailX 2022

Population growth



Source: RetailX, drawing on data from UN

© (i) = RetailX 2022

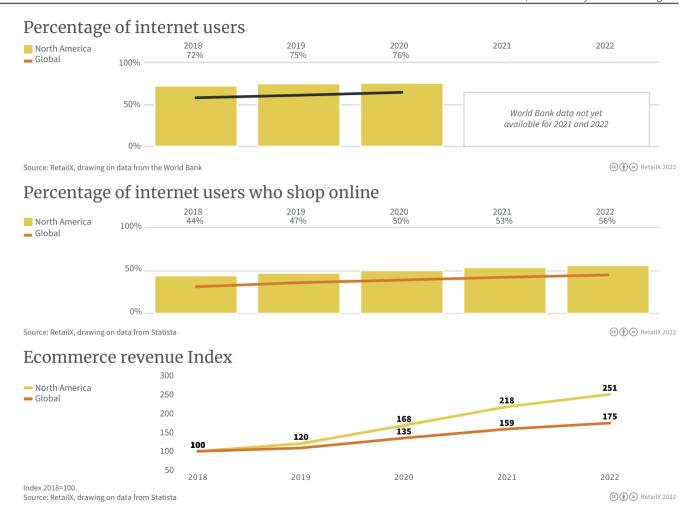


strengths of the three nations covered by the North American Free Trade Area, it helps to contrast the GDP figures in Canada and the USA, respectively \$51.1k and \$67.7k, with Mexico, where the figure is \$9.5k.

These figures help to explain why so much North American manufacturing now takes place in Mexico. Despite this, many retailers are now targeting Mexico. This is because, for all it is a developing country with many social issues – and moreover a country where drug cartels exert a malign influence – ecommerce is taking off in Mexico in earnest. If the USA and Canada are countries where retailers and brands have to look at making incremental gains, Mexico holds out the promise of high growth.

The politics of North America continue to be heavily influenced by events in the USA. Joe Biden's win in the 2020 presidential election delivered a USA that, internationally, has been less isolationist and more reliable than under Donald J Trump. The fact that a widely anticipated red wave failed to wash over the Democrats in the 2022 mid-term elections suggests that, even if the Republicans win the presidency in 2024, it may be with a less populist candidate. Indeed, there are reasons to be far more worried about the politics of Mexico, where the left-wing populism of President Andrés Manuel López Obrador is perceived as a threat to democracy.^[1]

 $\label{lem:condition} \begin{tabular}{ll} \end{tabular} I] www.economist.com/the-world-ahead/2021/11/08/mexicos-president-will-continue-to-damage-the-country-democracy? \end{tabular}$

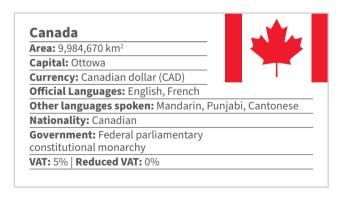


Canada

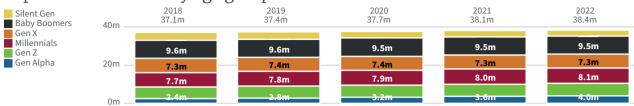
High internet user rates make ecommerce popular with Canadians, who favour online destinations in the USA

By area, Canada is the second-largest country in the world after Russia^[1], yet it's sparsely populated, with a total population of 38.4mn. **Most people live within 300km of its southern border with the United States** (a northern border also separates it from the American state of Alaska) in cities led in size by Toronto, Montreal (capital of Frenchspeaking Quebec), Vancouver and the capital, Ottawa.

Canada is part of the Commonwealth, a founding member of the UN and a member of the G7 group of





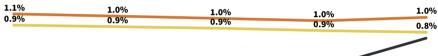


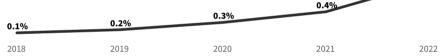
Age groups (year of birth): Gen Alpha (2013-present), Gen Z (1998-2012), Millennials (1983-1997), Gen X (1968-1982), Baby Boomers (1948-1967), Silent Gen (1928-1947)
Source: RetailX. drawing on data from UN

@(i) (=) RetailX 2022

Population growth

CanadaNorth AmericaGlobal



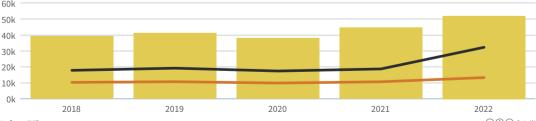


Source: RetailX, drawing on data from UN



GDP per capita (USD)

Canada 60k
North America 50k
Global 40k
20k
10k



Source: RetailX, drawing on data from IMF

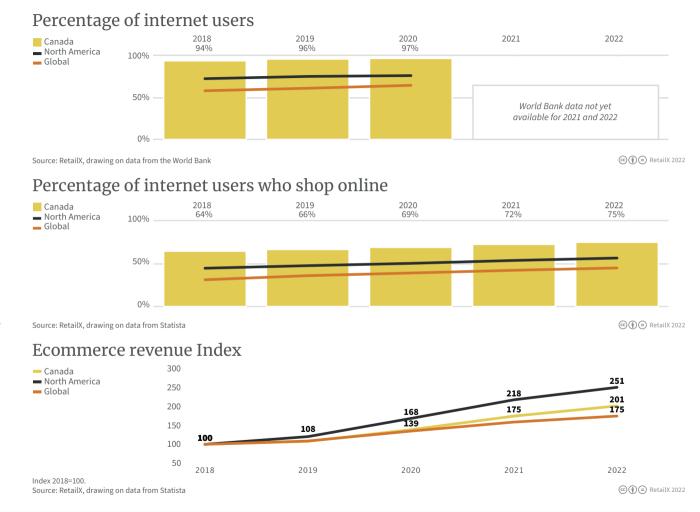
leading industrial democracies. The country is officially bilingual, speaking English and French. **Canada is ageing, with 19% of its population aged 65 and over in 2021**, according to census figures from Statistics Canada^[2], although 64.8% of its relatively slow-growing population are still of working age (15-64).

Key industries include the service sector, which employs 75% of working Canadians^[3], manufacturing – from aerospace technology to clothing – and natural resources. **The US is Canada's largest trading partner**, with free trade agreements in place since 1988.

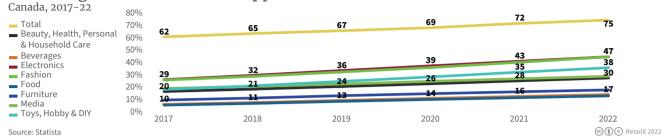
Almost all Canadians (97%) use the internet, while 75% also shop online. Just over half (51%) of online shoppers are female. Revenues from ecommerce have doubled in the last five years, with drinks, electronics and fashion amongst the most popular online purchases. Many of its most-visited online retailers hail from the neighbouring US. According to SimilarWeb analysis^[4]

Amazon and Walmart are among the top sites in a list that also includes local classifieds site, Kijiji and department store, Canadian Tire.

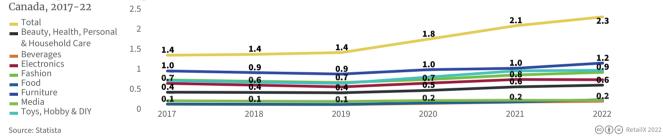
Some 18% of multichannel shoppers prefer to buy online, according to Statista research from 2022, a proportion that has grown steadily from 10% in 2018. 61% of Canada's online shoppers are under 44, while 18%



Percentage of ecommerce eshoppers



Average spending of the ecommerce eshopper (thousand USD)



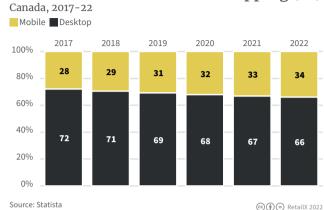
are between 55 and 64. Bank cards remain the most popular payment option, preferred by 52% in 2022, although e-wallets (23%) and bank transfers (8%) are quickly gaining traction.

Parcelmonitor analysis^[5] suggests that **Canadian delivery times are improving steadily**, with an average time of 2.7 days to first delivery attempt in the first quarter of 2022. However, this may be partly due to a declining proportion

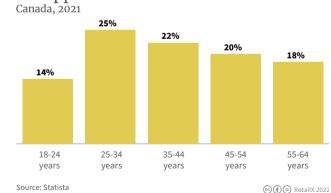
of online sales as shoppers return in-store. This in turn means there is likely less pressure on retailers' logistics infrastructure.

- [1] www.britannica.com/place/Canada
- [2] www.cbc.ca/news/politics/canada-working-age-poupulation-census-1.6432398
- [3] www.canada.ca/en/immigration-refugees-citizenship/corporate/publications-manuals/discover-canada/read-online/canadas-economy.html
- [4] www.similarweb.com/top-websites/canada/category/e-commerce-and-shopping/
- [5] www.parcelmonitor.com/insights/ecommerce-logistics-race-2022-canada-vs-the-united-states

Preferred device for online shopping (%)



Age distribution of ecommerce eshoppers



Mexico

As its consumers embrace online shopping, Mexico is emerging as one of the world's fastest-growing ecommerce markets

Post-pandemic, Mexico's ecommerce growth continues to be rapid, with the country cited as being one of the top five fastest-growing online retail markets globally. **Mexico currently has the second-highest rate of ecommerce growth in Latin America, behind Brazil**.

Only four years ago, just 32% shopped online yet today, that figure is almost half (48%). The country's ecommerce revenue index is also strong and at 343, it's above both the North America and global measures.



Population structure by age group

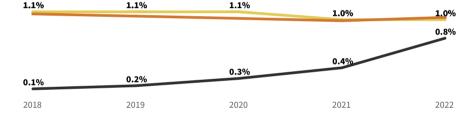


Age groups (year of birth): Gen Alpha (2013-present), Gen Z (1998-2012), Millennials (1983-1997), Gen X (1968-1982), Baby Boomers (1948-1967), Silent Gen (1928-1947) Source: RetailX. drawing on data from UN

(cc)(i)(=) RetailX 2022

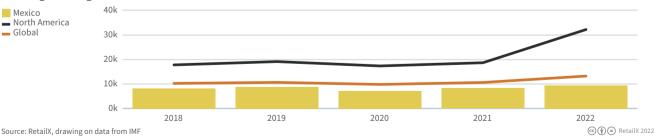
Population growth





Source: RetailX, drawing on data from UN

cc i = RetailX 2022

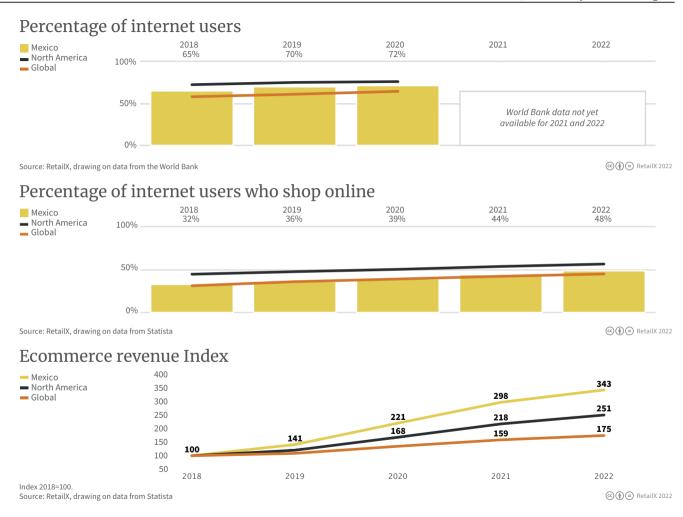


Between 2020 and 2021, the number of ecommerce shoppers rose 11% to 57.5mn^[1], with the domestic ecommerce market worth \$19.7bn in 2021, up 27% on 2020 according to the Mexican Online Sales Association. Part of this is likely due to the generational makeup of the country. Gen Z accounts for the largest share of the 131.6mn population in 2022, with 33.3mn Gen Z consumers. Millennials account for 30.3mn.

It's expected that more than 77.9mn Mexican consumers will be shopping online by 2025, making the market a magnet for international retailers, especially since Mexican consumers have a huge appetite for international brands. According to the Mexican Internet Association, half of Mexican online shoppers buy from international retailers, with nearly two-thirds (64%) of purchases from US sites.

Many buy from marketplaces and **Mercado Libre is the biggest ecommerce retailer in the country** with a 15.4% share $^{[1]}$, followed by Amazon, with 13.2% of the market. Food delivery led online purchases in $2021^{[2]}$, followed by fashion and electronics, then online purchases of appliances and furniture up 47% and 42% respectively.

The country's economy is projected to expand by 1.9% in $2022^{[3]}$, rising to 2.1% in 2023. The inflation rate of 6.9% in 2022 is expected to fall back to 4.4% in 2023.



^[1] www.statista.com/statistics/742821/leading-e-retailers-mexico/

^[2] www.trade.gov/country-commercial-guides/mexico-ecommerce

^[3] www.oecd.org/economy/mexico-economic-snapshot/

USA

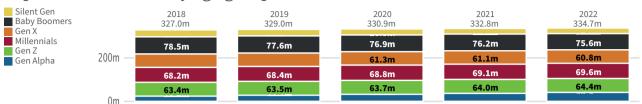
The USA is a world leader when it comes to ecommerce, with average spending expected to reach \$3,700 this year

The United States of America (USA) is the second-largest ecommerce market in the world, after China.

It is bordered to the north by Canada, with which it also has a further northern border between Canada and Alaska, and to the south by Mexico. **The US population of 334.7mn** has a large baby boomer contingent, with some 16.5% of the population are aged 65 or older according to the US Census Bureau in May 2022. [1] Key industries include healthcare, real estate and manufacturing.



Population structure by age group

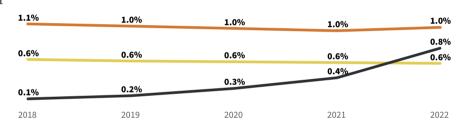


Age groups (year of birth): Gen Alpha (2013-present), Gen Z (1998-2012), Millennials (1983-1997), Gen X (1968-1982), Baby Boomers (1948-1967), Silent Gen (1928-1947) Source: RetailX. drawing on data from UN

@(i) (=) RetailX 2022

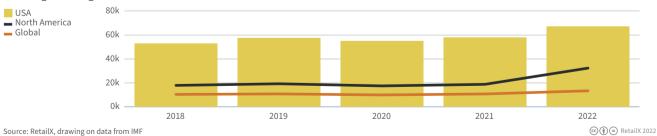
Population growth





Source: RetailX, drawing on data from UN

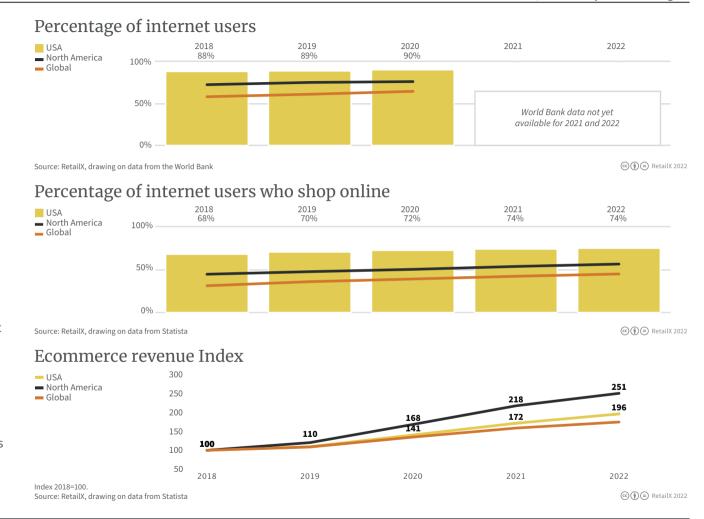
© (i) = RetailX 2022



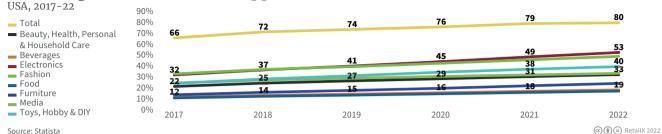
Nine out of ten people in the US the internet, according to World Bank figures, with 74% shopping online, and ecommerce revenues have almost doubled since 2018. Some 25% of shoppers who buy from a range of channels, favour online, while 75% prefer to buy in-store, according to Statista. **US shoppers are forecast to spend \$986.1bn online in 2022 – an average of \$3,700 each.** Just over a fifth (20.6%) of US retail sales took place online in the third quarter of 2022, according to Digital Commerce 360. [2] Sales through all channels grew by 7.7% in the same period, with online sales growing by 10.8% and in-store and other offline channels growing by 7%.

Key ecommerce categories include beauty and heath products, drinks, fashion, toys, hobby and DIY products. Around half (53%) of US online shoppers prefer to buy via desktop, while 47% favour mobile. Bank cards (37%) are most commonly used for payments. E-wallets are growing in popularity, (24%), while 13% favour direct debit payments, according to Statista. **More than 90% of US shoppers expect free delivery within two to three days of ordering**, according to McKinsey research^[3] – with one in five willing to pay slightly more for faster shipping.

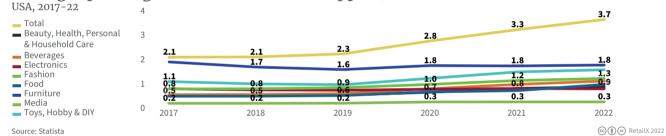
US retailer Amazon has set the pace here, making sameday and quick delivery available in many cities to members of its Amazon Prime subscription scheme. **Amazon is now operating its own shops in categories from grocery to books in the US, making it a multichannel retailer** in a



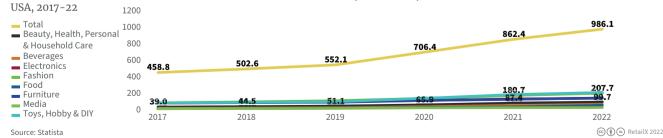
Percentage of ecommerce eshoppers



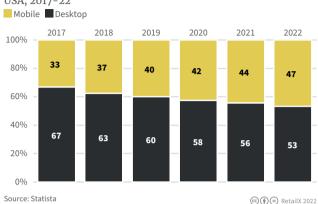
Average spending of the ecommerce eshopper (thousand USD)



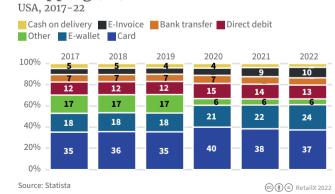
Annual revenue for the ecommerce market (bn USD)



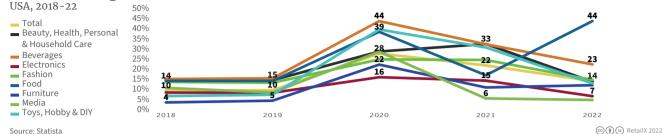
Preferred device for online shopping (%) USA, 2017-22



Preferred payment type for online shopping (%)



Annual change in revenue for the online ecommerce market (%)



Number of ecommerce users (in millions)



market where leaders also include Walmart, eBay, Apple and Home Depot. Buy online, pick up in store (BOPIS) gained popularity as a fulfilment method during the pandemic as shoppers opted for kerbside pick-up options. Shoppers are most likely to have returned clothing orders (26%) in the last year, according to Statista.^[4]

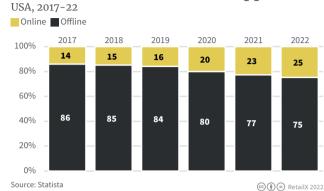
Black Friday hails from the USA, where it marks the day after Thanksgiving as the start of the festive shopping

season. It has become a date with particular significance for online shoppers. Younger shoppers are among those most likely to have used social media for inspiration when buying holiday gifts, says Parcelmonitor, citing Statista, especially among GenZ (84%) and millennials (81%). [5]

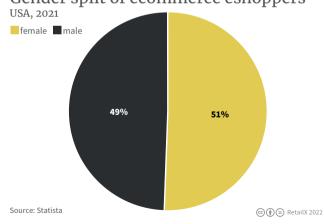


^[2] www.digitalcommerce360.com/article/quarterly-online-sales/

Preferred shopping channel for ecommerce multichannel shoppers (%)



Gender split of ecommerce eshoppers



^[3] www.mckinsey.com/industries/retail/our-insights/retails-need-for-speed-unlocking-value-in-omnichannel-delivery [4] www.statista.com/forecasts/997235/returns-of-online-purchases-by-category-in-the-us

^[5] www.parcelmonitor.com/insights/planning-for-peak-season-2022-ecommerce-shopping-trends-in-the-united-states

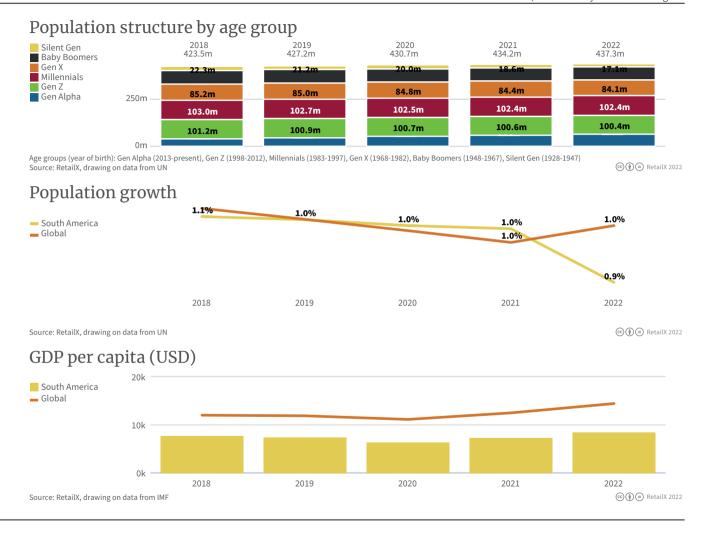
South America

The is huge potential for growth in South America, but the logistics of ecommerce remain an issue

Around the world, the pandemic led to a surge in the number of consumers using ecommerce. Yet **as lockdowns ended, retailers had to temper their expectations over the idea of consumers continuing to spend as much time shopping online.** Many who had been unable to leave their homes for long periods appeared more than happy to return to town centres, markets and shopping centres.

Nevertheless, the fillip given to ecommerce was real. There is plenty of anecdotal evidence to suggest this was especially the case in South America, something tragically not unrelated to the severity of Covid outbreaks on the continent, notably in Brazil where there have been more than 680,000 Covid-related deaths. **As Professor Pedro Hallal, the leader of the country's largest Covid study, noted in July 2021, "Everything that you should not do, Brazil has done."**[1]

A particular issue for South American retailers is around logistics. While the continent is home to global cities such

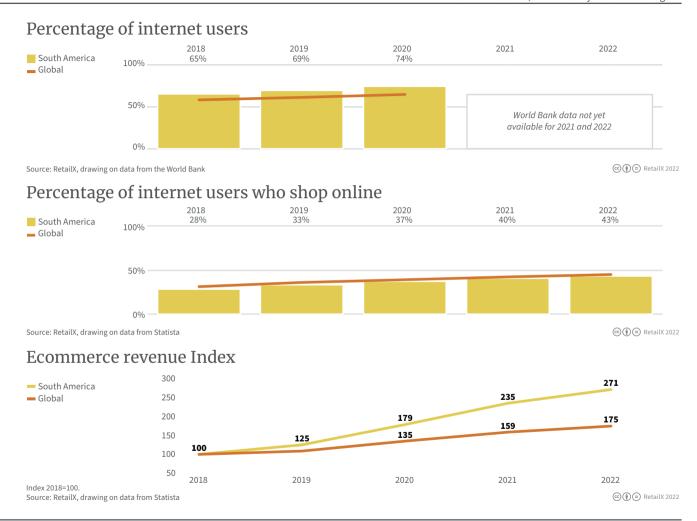


as Buenos Aires and Rio, vast areas are comparatively inaccessible: much of the Amazon, communities in the Andes and chilly Patagonia. This is reflected in the Integrated Index for Postal Development (2IPD), where all of the South American countries RetailX tracks are in the third and fourth quartiles.

That said, as the success of the Mercado Libre marketplace proves, there are opportunities in South America. **The size of the company, dubbed the Latin American can be gauged by its announcement in 2021 that it was to invest \$1.8bn in Brazil.** As the Argentine company, headquartered in Montevideo, Uruguay, has grown, it has moved into such ecommerce-related services as a payment platform, advertising and offering credit.

While parts of South America, notably in its urban areas, are highly developed, the overall GDP per capita of the countries RetailX tracks is comparatively low at \$8.5k, an increase from \$7.8k in 2018. The equivalent global figures are, respectively, \$14.4k and \$12k. **The population** of the continent is young, with the largest cohorts concentrated in Gen Alpha and GenZ. As younger consumers are more likely to shop online, this augers well for the sector. The number of internet users shopping online has increased by at least five percentage points in all of the past five years.

[1] www.bbc.co.uk/news/world-latin-america-57733540

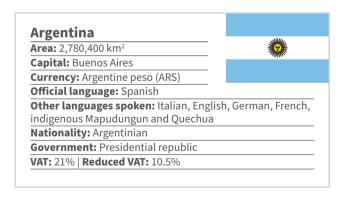


Argentina

Over half of all online sales take place on mobile phones, showing a clear future path for the country's ecommerce

Internet and mobile usage are both high in Argentina, helping to drive ecommerce and mcommerce adoption. **Likely now to be around 90%, the percentage of internet users is approaching levels of far richer nations.** Of these users, 58% shop online. Both figures are higher than the global and Latin American totals.

According to the Argentine Chamber of Information and Communications (CICOMRA)^[1], nine out of ten people have a mobile phone and access the internet through it.



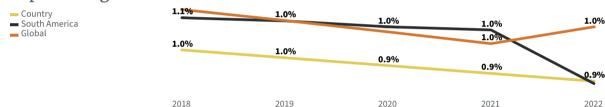




Age groups (year of birth): Gen Alpha (2013-present), Gen Z (1998-2012), Millennials (1983-1997), Gen X (1968-1982), Baby Boomers (1948-1967), Silent Gen (1928-1947) Source: RetailX, drawing on data from UN

(cc) (i) (=) RetailX 2022

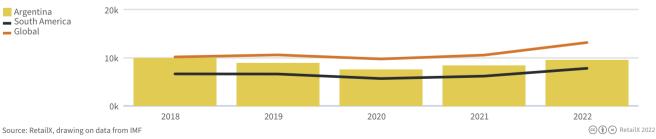
Population growth



Source: RetailX, drawing on data from UN



GDP per capita (USD)



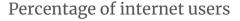
The Argentine Chamber of Electronic Commerce (CACE) is responsible for helping to promote the growth of ecommerce in the region and has carried out an annual study of the sector since 2010.

Its figures show that **ecommerce in Argentina grew by 68% in 2021 compared to the year before** ^[2] with 381mn units sold – a 52% increase on 2020. Its figures also show that eight out of ten transactions were made through a credit card.

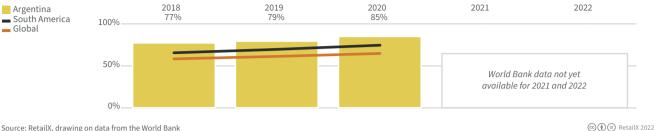
In 2021, mcommerce in Argentina overtook desktop commerce for the first time, according to CACE, with more than half (56%) of purchases made via a smartphone, as opposed to 41% via desktop.

Like many other markets in Latin America, growth is often concentrated in the more populated areas, such as the greater Buenos Aires region.

Argentina is the home of Mercado Libre, the biggest marketplace in the Latin American region, with Argentina making up 22% of the company's net revenue. The company's co-founder, chairman, president and CEO Marcos Galperin is the richest person in the country with an estimated net worth of \$6.1bn as of April 2021.[3]



Global

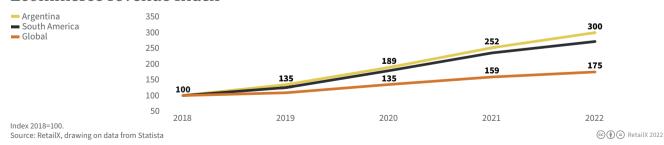


Percentage of internet users who shop online





Ecommerce revenue Index



^[1] www.trade.gov/country-commercial-guides/argentina-ecommerce [2] https://cace.org.ar/estadisticas/

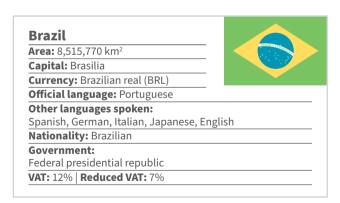
^[3] https://cace.org.ar/estadisticas/

Brazil

The use of ecommerce and multichannel retail looks set to rise in a market that is already the largest in the region

Pre-pandemic, Brazil was the largest ecommerce and multichannel market in South America. Its evolution during the pandemic saw it retail sector further hone its operations. In 2021, online sales more than doubled when compared to 2019 and were also 30% up on the previous year^[1]. Mcommerce has also grown strongly, and Brazil is the region's leader here too.

Approaching 90% of the population are internet users, but ecommerce adoption is lower with just over half

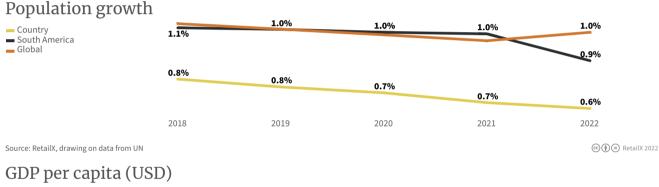


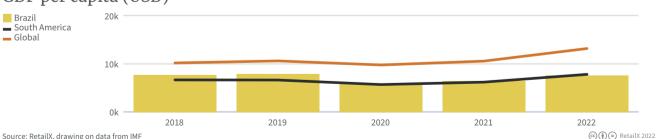
Population structure by age group



Age groups (year of birth): Gen Alpha (2013-present), Gen Z (1998-2012), Millennials (1983-1997), Gen X (1968-1982), Baby Boomers (1948-1967), Silent Gen (1928-1947) Source: RetailX, drawing on data from UN

(cc) (i) (=) RetailX 2022



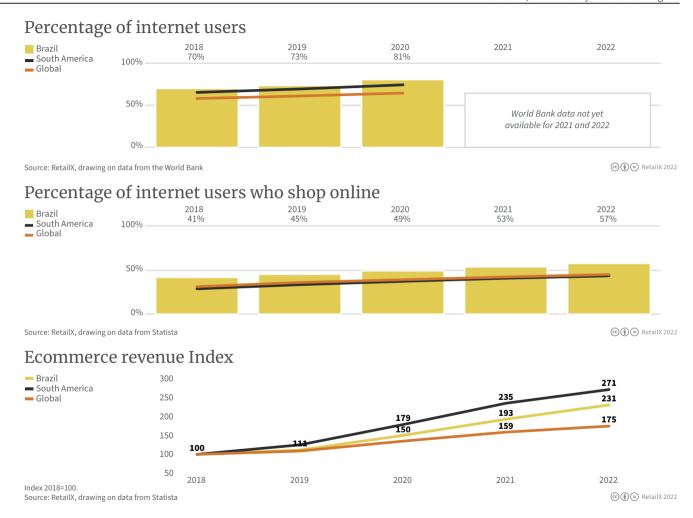


(53%) of internet users shopping online, up from 41% in 2018. Brazilian ecommerce shoppers tend to be younger with **just under half (49%) of Brazilian ecommerce shoppers less than 35 years old.** Only 9% are aged 55 or above. However, as this is a country with a relatively young population, ecommerce will likely continue to grow strongly over the years ahead.

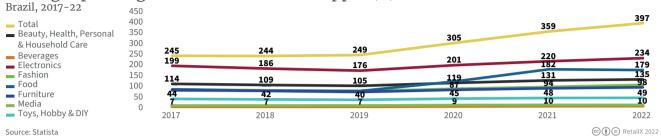
Online is now the preferred shopping channel for 6% of ecommerce multichannel shoppers, twice the number in 2019. As a result, ecommerce revenue has grown steadily, especially since the pandemic. **Ecommerce shoppers now spend an average of \$397 online versus \$245 in 2019.** Spend is highest in the electronics sector. Like many countries in the region, Brazil is dominated by ecommerce giant **Mercado Libre, which was the most-visited ecommerce website in the country in 2022.**

The country's politics remain volatile. **On 30 October, the left-wing candidate Luiz Inácio Lula da Silva narrowly beat the right-wing populist, Jair Bolsonaro, in a presidential run-off.** For Lula, jailed in 2018 over charges of corruption and money laundering, this completed a stunning political comeback. However, as with the USA, it leaves Brazil as a divided country where a significant percentage of the population is suspicious of the election result and is even contesting it.^[2]

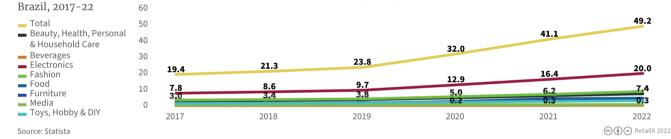
[1] www.statista.com/topics/4697/e-commerce-in-brazil/
[2] https://apnews.com/article/iair-bolsonaro-caribbean-brazil-b7c872b541371ff2925fae793007af87



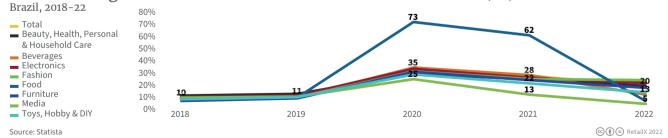
Average spending of the ecommerce eshopper (\$)



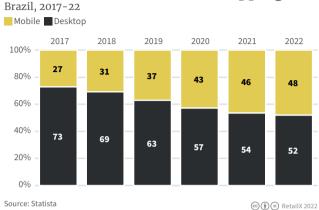
Annual revenue for the ecommerce market (\$bn)



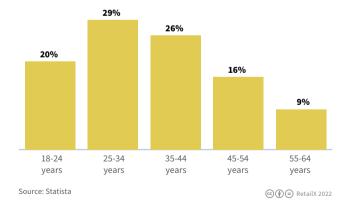
Annual change in revenue for the online ecommerce market (%)



Preferred device for online shopping (%)



Age distribution of ecommerce eshoppers Brazil, 2021



Chile

With government assistance, internet provision is being made to the many far-flung and mountainous areas of Chile

Linked to the country's relative wealth, Chile's ecommerce market is maturing quickly. **GDP per capita is well above the regional average.**

Internet usage in the country is now in excess of 90%. Of those online, 66% also shop online. At \$780 for 2022, the average spend of ecommerce shoppers in the country is high and more than double the likes of Brazil. This is less surprising when we see that 37% of Chilean ecommerce shoppers are high-income earners. In other countries



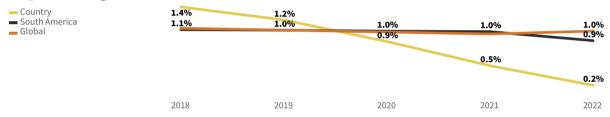
Population structure by age group



Age groups (year of birth): Gen Alpha (2013-present), Gen Z (1998-2012), Millennials (1983-1997), Gen X (1968-1982), Baby Boomers (1948-1967), Silent Gen (1928-1947) Source: RetailX. drawing on data from UN

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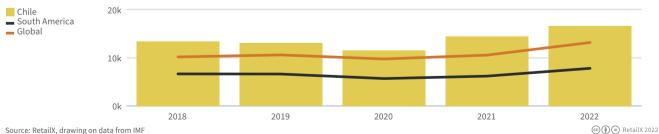
Population growth



Source: RetailX, drawing on data from UN



GDP per capita (USD)



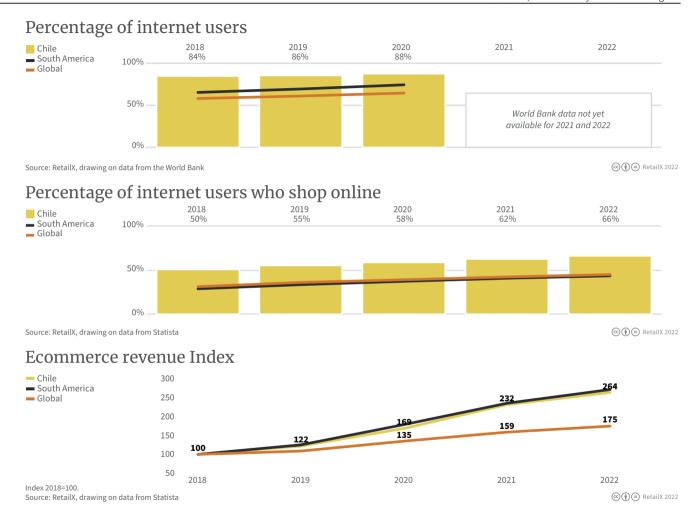
in South America, the split between low, medium and higher income earners is more evenly distributed. In part, this links back to uneven distributions of wealth that have endured since the Pinochet era, when the country was a military dictatorship, and even before that.

The online share of spending on food peaked during 2020 with a **79% change in revenue**. Although it has since fallen back, it remains above pre-pandemic levels.

In 2021, Chilean authorities published the Electronic Commerce Regulation. This is aimed at strengthening the transparency of information provided to consumers via ecommerce platforms around important elements such as price and product details. **Ecommerce development in the country is supported by Matrix Digital 2018-2022, a Chilean government roadmap on national connectivity** that aims to help the development of the digital economy.

At the end of 2018, nearly half (44%) of Chilean families didn't have ready access to fixed connection, so the high internet adoption rates seen today illustrate a dramatic change. [2] In this context, it is worth highlighting Chile's geography. With the Andes running through much of the country and a long Pacific coastline, it's a country with many remote regions and communities. Getting Chile online has certainly been challenging.

[1] www.dlapiper.cl/en/2021/09/24/alerta-legal-nuevo-reglamento-de-comercio-electronico/



Colombia

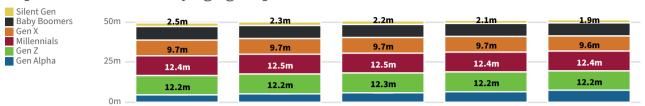
The country's poor transport is an ongoing problem for ecommerce retails, who struggle to get goods to customers

Greater accessibility online is helping to speed up the adoption of ecommerce in Colombia. **The country's multichannel retail sector is benefiting from improvements in banking and payment services.** The number of multichannel shoppers stating that online is their preferred shopping channel has tripled since 2017, albeit 91% still say they prefer to shop offline.

At \$5.7k, GDP per capita is below the South American average American average. This figure is a reflection of



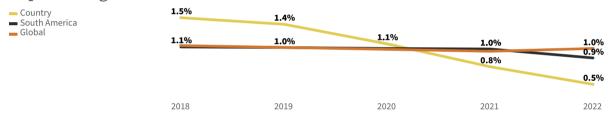
Population structure by age group



Age groups (year of birth): Gen Alpha (2013-present), Gen Z (1998-2012), Millennials (1983-1997), Gen X (1968-1982), Baby Boomers (1948-1967), Silent Gen (1928-1947) Source: RetailX. drawing on data from UN

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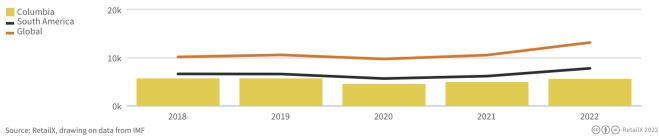
Population growth



Source: RetailX, drawing on data from UN



GDP per capita (USD)



the country's troubled history. While Colombia is far more stable than in years gone by, when drug cartels and guerilla groups exerted a malign influence, there are still vast swathes of the country that the UK government advises travellers not to visit unless the journey is essential.^[1]

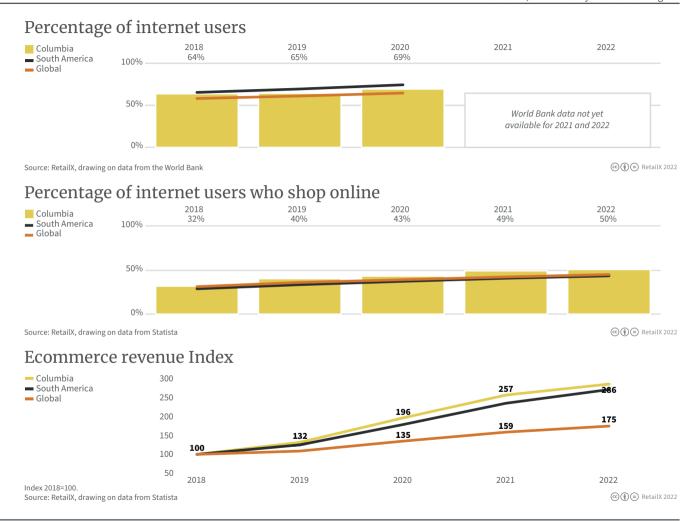
In 2020, a little more than two-thirds of the population was using the internet. Half of Colombians who use the internet also **shop online, up from 32% in 2018.** According to Statista figures, more than half (53%) of ecommerce shoppers are aged 34 or under.

Where other countries have seen a variety of peaks in changes in revenue across sectors, all ecommerce sectors in Colombia have followed a similar pattern. But despite the potential for ecommerce, **infrastructure is an ongoing issue for retailers**, impacting both supply chains and delivery. Transport networks are underdeveloped and inadequate for the level of demand, leading to extra costs and delays for both retailers and customers alike^[2].

This has made Colombia a focus for those looking to overcome such challenges. For example, in January, Mellon^[3], a Colombian startup that provides fulfilment and software services to SMEs in Latin America, announced it had raised \$20mn in a Series A funding round.^[4]



^[2] www.trade.gov/country-commercial-guides/colombia-ecommerce



^[3] www.melonn.com/que-hacemos

^[4] https://techcrunch.com/2022/02/02/colombian-e-commerce-enablement-startup-melonn-raises-20m

2021

2022

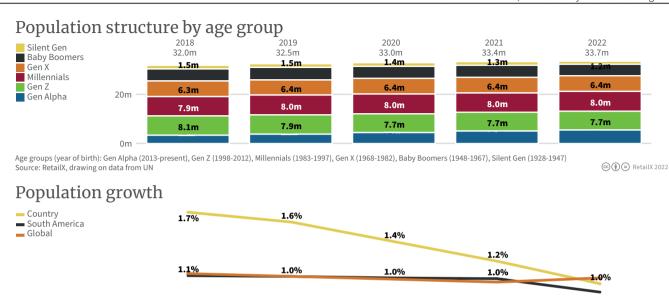
Peru

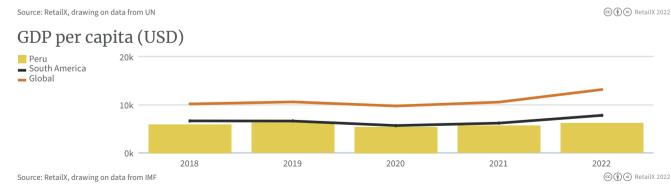
As in many developing countries, ecommerce in Peru is concentrated in the cities and mostly absent from rural areas

After a 2020 peak, which saw ecommerce grow by 50% during the pandemic compared to the previous year^[1], Peru's use of ecommerce has settled down, although the sector is still growing steadily. **The pandemic is reported to have seen a quadrupling of businesses selling online during 2020.** Overall, ecommerce in Peru is forecast to see a yearly growth rate of 8%^[2] between 2021 and 2025.

By 2020, around two-thirds of Peruvians were internet users. Of these consumers, 48% also shop online, a figure







2020

2019

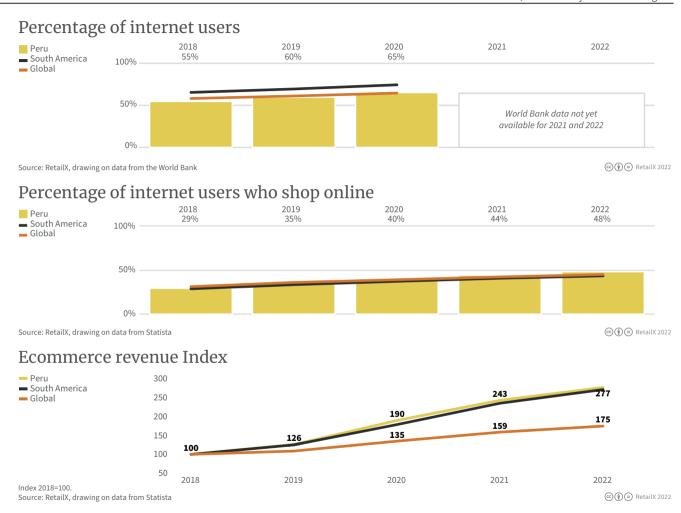
2018

that has been growing by 4% or more per year since 2018. The number of consumers shopping online has nearly doubled since 2017, when it stood at 25%, and the number of consumers expressing a preference for online shopping has tripled during the same period. A third (33%) of ecommerce shoppers in Peru are aged between 25 and 34 years of age, while only one in five (20%) are aged 45 or older.

According to the Peruvian Chamber of Electronic Commerce, CAPECE, nearly half (47%) of online purchases take place on marketplaces. This tallies with the situation in many developing countries, where retailers use marketplaces as a way to get online quickly.

While the long-term trends for Peruvian ecommerce are positive, the majority of buyers still live in the capital, Lima. As elsewhere in South America, there is an opportunity to build ecommerce in Peru's regions, although this comes with the huge challenge of reaching consumers in remoter parts of the country.

Peru's politics are currently volatile. As we compiled this report, the country's embattled president, Pedro Castillo, who came to power in 2021, was preparing to appoint his fifth prime minister in 13 months.



^[1] www.trade.gov/country-commercial-guides/peru-ecommerce

^[2] www.ecommercedb.com/en/markets/pe/all

^[3] www.capece.org.pe/

Global issues

Over the following pages, we look in more depth at some of the strategic issues that will be on the agenda for retailers in the months and years ahead

This section focuses on global challenges and opportunities facing ecommerce stakeholders. As with last year, we begin with sustainability, a recurring theme due to its growing importance. Our focus here is in part because consumers, who can see the evidence for climate change around them, seem to be ahead of politicians in worrying about such issues. We also return to the Covid-19 pandemic. What effects has it had on the development of multichannel retail and ecommerce?

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We also consider the return of inflation to the global economy. How will retailers cope with this development? We focus on logistics, so disrupted by the pandemic and, latterly, the war in Ukraine. We next focus in some of the digital innovation centres that may shape retail in the years

ahead, before turning our attention to the metaverse. Is it being over-hyped or is this the future of online retail?

Finally, we round up issues that, while they may not have an immediate impact on the bottom line, are certainly worth tracking by boards and senior managers.

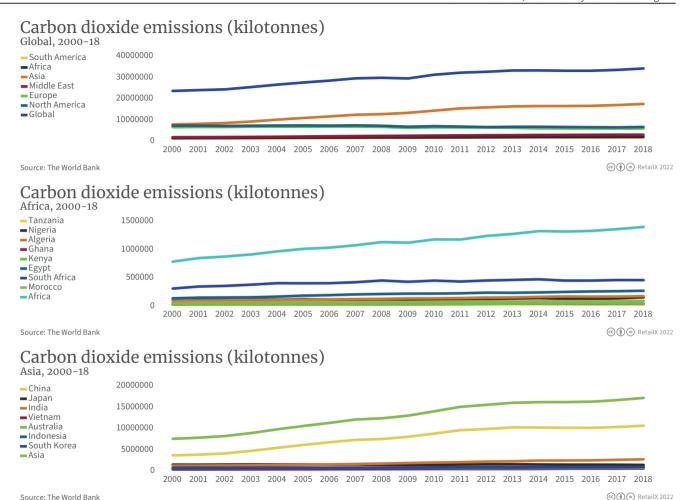
Climate pressures increase for retailers

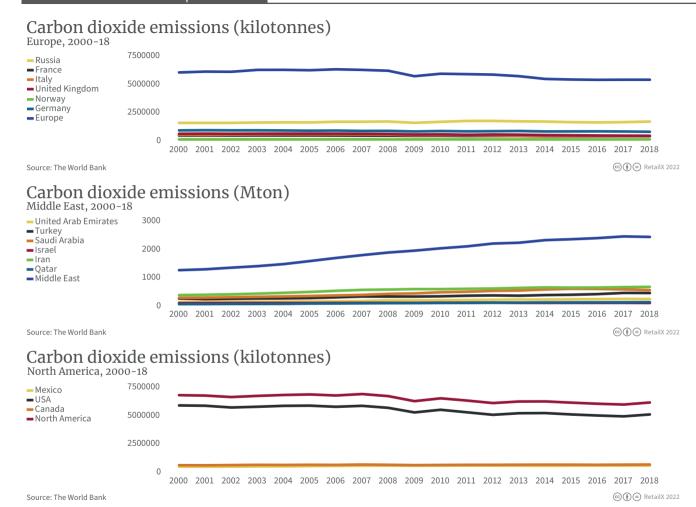
As the planet heats up, governments, retailers and consumers are all being called upon to act on climate change

Consumer and business concerns about the environment are growing. **Brands and retailers that operate on a global level are feeling the pressures of geopolitical and social changes**, as well as the impact of environmental devastation brought about by the changing climate.

Current projections put parts of the world at serious risk of increased **heavy rains**, such as the ones causing the recent **deadly floods** in Pakistan and South Africa. Yet elsewhere, extreme heat, **more frequent droughts** and a rise in the number of the most powerful category 4-5 tropical cyclones are all predicted, as are **rainfall increases in the tropics** and **rainfall declines in the subtropics**.

Such changes to the climate are **disrupting supply chains**, **halting production in the factories producing goods for global and local brands and affecting workers' lives**. Yet extreme weather events are predicted to get even worse. While 2022 is expected to finish as one of the hottest years





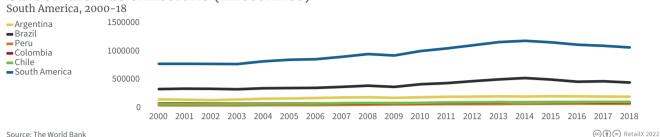
on record, the World Meteorological Organization (WMO) believes there's a 50:50 chance of the annual average global temperature temporarily reaching 1.5°C above preindustrial levels for at least one of the next five years.

1.5°C is the all-important temperature rise to which governments and companies are tying plans in order to restrict CO² levels. The Intergovernmental Panel on Climate Change says that climate-related risks for natural and human systems are higher for a global warming of 1.5°C more than present.

The WMO believes that there is a **93% likelihood of at least one year between 2022 and 2026 becoming the warmest on record**, dislodging 2016 from the top ranking. The chance of the five-year average for 2022-2026 being higher than the last five years (2017-2021) is also 93%, according to the Global Annual to Decadal Climate Update, which is produced by the UK's Met Office, the WMO lead centre for such predictions.

Dr Leon Hermanson of the Met Office led the report. He said: "Our latest climate predictions show that continued global temperature rise will continue, with an even chance that one of the years between 2022 and 2026 will exceed 1.5°C above pre-industrial levels. A single year of exceedance above 1.5°C does not mean we have breached the iconic threshold of the Paris Agreement but it does reveal that we are edging ever-closer to

Carbon dioxide emissions (kilotonnes)



a situation where 1.5°C could be exceeded for an extended period."

COP27 PRESIDENT CALLS FOR ACTION

Factors such as these will have been front of mind when world leaders, NGOs and businesses met at the global environmental conference, COP27. While 2022's COP26 was heralded as a success, Alok Sharma, UK President of COP26, closed the summit by proclaiming the 1.5°C target had been kept alive but "its pulse is weak and it will only survive if we keep our promises and translate commitments into rapid action."

Sharma's sentiment was seconded by the UN Climate Change secretariat. Its 2021 annual report marked the outcomes of COP26 as having signalled "a shift from negotiations and setting targets to implementing actions and raising ambition further."

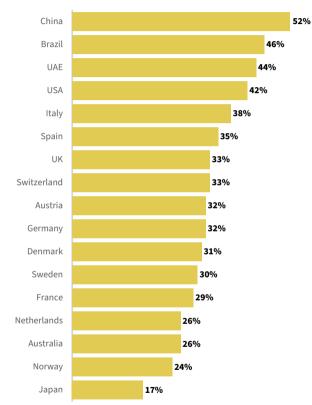
Accelerating progress, particularly in terms of finance, was a key theme for COP27, held in Sharm El-Sheikh, Egypt, in November 2022. It is hoped that this summit will be the turning point to the international community working for the common good of our shared planet.

Against this backdrop, Egypt is urging countries to upgrade their nationally determined contributions (NDCs) in accordance with the Paris Agreement and raise the ambition of their climate action to include **support and finance for developing countries reducing emissions** and adapting to the negative impacts of climate change.

Meetings before COP27, under Egypt's Minister of Foreign Affairs, Sameh Shoukry, hoped the event would "build on the outcomes from Glasgow and discussions during the first semester of 2022, recognising the new headwinds and tailwinds that the overall geopolitical situation in the world presents for global climate cooperation."

Consumers willing to pay a sustainability premium

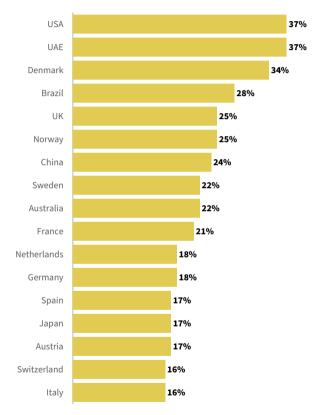
Selected countries, 2021



Source: Simon-Kucher & Partners, Global Sustainability Study 2021



Average sustainability premium consumers are willing to pay Selected countries, 2021

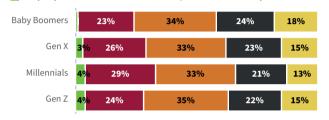


Source: Simon-Kucher & Partners, Global Sustainability Study 2021

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Current purchasing behaviour, by generation 2021

- Does not affect my purchasing behaviour
- Does not directly affect my purchasing behaviour, but aware if sustainable
- For certain categories, I only buy sustainable alternatives
- I always choose sustainable alternatives when available
 I only buy sustainable alternatives, if not possible I will not buy



Source: Simon-Kucher & Partners, Global Sustainability Study 2021

© (1) = RetailX 2022

TAKING RESPONSIBILITY FOR CHANGE

Consumers don't feel that governments should be working on climate change alone. A third of consumers in Asia believe that they can make as much of a difference as national governments, according to a study by strategy marketing consultancy, Simon-Kucher & Partners.

Consumers in Europe have more faith in their own actions than those of political actors while in North America, consumers believe for-profit companies can have the most impact (25%), compared to consumer action (23%).

Consumers around the world have concerns about sustainability that extends beyond weather patterns to care for the oceans, animal habitats and the welfare of

workers. While a small number have shifted their lifestyles around their ethical stance in the last five years, **the** majority of consumers have made either a "moderate" or "significant" change to how and what they buy.

Millennials are the most likely to have made changes to how they shop and the importance they place on sustainability as a purchasing criterion. Given the opportunity, 33% of millennials will choose a sustainable option of a product over one that's not. GenZ, which has grown up with sustainability front of mind, is becoming a driving force in sustainable consumption. In Germany, this group accounts for the largest share of the sustainable fashion market.

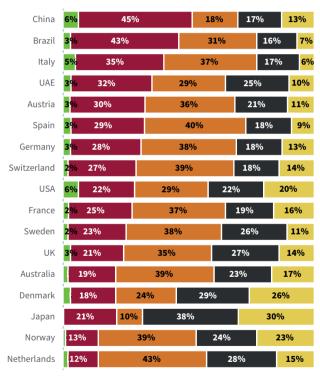
"Sustainability used to be pretty niche from a consumer standpoint and very Europe-centric," says Chip Bergh, President and CEO of Levi Strauss. "Now it's truly global and cuts across generations. The young consumer in particular is really focused on this. If you ask a teenager today, they will very likely say climate change is top of mind in terms of their concerns."

Overall, 41% of consumers in Brazil say that sustainability is an extremely important factor when shopping. A similar percentage of consumers in China say that it's "slightly important", with 30% believing sustainability to be an extremely important part of their purchasing criterion. UAE, with its high proportion of young, educated consumers and

Current purchasing behaviour

Selected countries, 2021

- Does not affect my purchasing behaviour
- Does not directly affect my purchasing behaviour, but aware if sustainable
- For certain categories, I only buy sustainable alternatives
- I always choose sustainable alternatives when available
- I only buy sustainable alternatives, if not possible I will not buy



Source: Simon-Kucher & Partners, Global Sustainability Study 2021

(cc)(i)(=) RetailX 2022

those with high incomes, has over a third of consumers (35%) saying sustainability is "extremely important".

Consumers are also willing to pay extra for products that are sustainable. While consumers in China are more willing to pay a premium, it is shoppers in the USA who are willing to pay the most. 52% of consumers in China will pay a premium, compared to 42% in the US, who are also willing to pay up to 37% extra.

Japanese consumers are the least-likely to worry about the impact of their purchases and, as such, only 17% say they would pay extra, according to Simon-Kucher & Partners. Italians, who are among the most environmentally conscious shoppers, will pay up to 16% extra for a product that has less impact on the planet.

With their stance of being proactive about sustainability, consumers will look for information about a product before purchasing and investigate the brand that produced it. This is true of 16% of consumers in China and in the US who "very often" look for information about lifestyle brands' sustainability practices. A further 40% in the US say they do this "somewhat often".

COMMUNICATING THE JOURNEY

This behaviour is highlighted not just in how brands and retailers behave but also in the ways they are presenting sustainability information to consumers on their ecommerce sites. Research conducted by RetailX^[1] finds that the majority of the world's leading brands and retailers online include messaging about sustainability on their consumer-facing ecommerce sites but very few go so far as to link to plans and policies from their homepage.

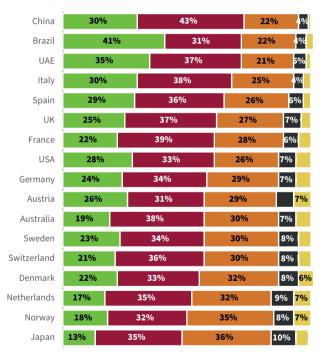
The RetailX investigation into the Global Elite 250, those brands and retailers that are market leaders in the RetailX Dimensions in multiple countries and regions around the world, shows that **just 10% of these companies link to full corporate social responsibility or sustainability policies from their ecommerce site homepages**. 48% of the 250 retailers outline their sustainability goals and commitments on their websites in a way that consumers can access, with 44% sharing their plans on how they plan on meeting their sustainability goals.

What is interesting to see in the investigations into the RetailX Global Elite 250 is the increasing number of companies sharing details of how products are made, the impact they have on the environment and working conditions across the supply chain. As the Levi Strauss CEO told delegates at the World Retail Congress: "It is no secret that the apparel industry is a bad guy when it comes to planet Earth. A lot of our products end up in landfill and that's not good. We also use a lot of chemicals, we use a lot of water, all of these are putting stress on the planet."

Importance of sustainability as a purchase criterion

Selected countries, 2021

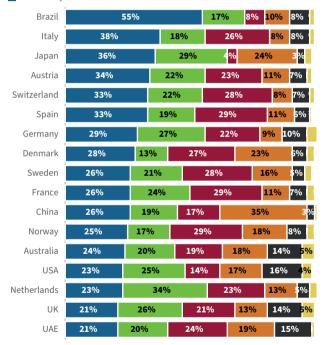
- Not important at all
- Slightly unimportant
- Neutral
- Slightly important
- Extremely important



Actors for positive change, according to consumers

Selected countries, 2021

- Others
- Non-profit organisations
- National political actors
- International political actors
- For-profit companies
- Civil society



Bergh explained that the global jeans company is working "flat out" to reduce its environmental footprint, using fibres such as hemp that are more sustainable as well as looking for ways to reduce water usage. "Sustainability has been a strategic issue for us," he said. "We weave it into everything we do. We drive our innovation programme around sustainability."

The past year has seen a huge increase in the number of brands providing proof of their actions and gaining certification in a bid to validate sustainability ambitions and avoid complaints of greenwashing. In 2021, B Lab, which certifies companies as B Corporations for putting people, the planet and profit on equal standing when making business decisions, received more than 6,000 applications for certification from businesses around the world. This is a 38% increase over 2018. The total number of companies certified for the first time rose by 18%.

[1] https://internetretailing.net/sustainable-ecommerce/sustainability-report-2022/



Source: Simon-Kucher & Partners, Global Sustainability Study 2021 © 🛊 😑 RetailX 2022

Source: Simon-Kucher & Partners, Global Sustainability Study 2021

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Covid-19 and ecommerce

After years of slowly attracting people to shop online, ecommerce became a vital lifeline overnight due to Covid-19 lockdowns. Paul Skeldon wonders this global pandemic has forever changed the world of retail

"The refrain of the pandemic has been that no one is safe until everyone is safe. The pandemic is not over but the end is in sight." So said Tedros Ghebreyesus, director general of the World Health Organisation (WHO) in late summer 2022. For retail, though, is the pandemic actually over? And if so, what state has it been left in?

There are two factors at play when it comes to looking at how the pandemic has impacted retailers. Firstly, has it changed how they do business and how shoppers shop? Secondly, might Covid-19 return in a different form, forcing shoppers and retailers to once again adapt?

CHANGING SHOPPING HABITS

In the early months of the pandemic, lockdowns forced shoppers to embrace ecommerce, whether they wanted



Even when lockdowns weren't in force, fears around crowds kept many shoppers out of high street stores

to or not. This caused online shopping rates to rocket. According to the UK's Office for National Statistics (ONS), by May 2020, **online accounted for 32.8% of all shopping, compared to around 20% pre-pandemic**. By January 2021, it hit just shy of 40%.

However, talk of ecommerce now being the only retail game in town seems to have been greatly exaggerated.

By October 2022, the proportion of online sales was back down to 24% – in line with the slow, almost flat, growth of ecommerce seen in 2019.

Undoubtedly, ecommerce is growing, yet it appears that as the pandemic subsides and we learn to live with Covid-19, it remains just one part of the consumer retail journey, just as the death of the high street remains an exaggeration. This picture appears to be global. According to figures from the IMF, the average online share of total spending worldwide rose sharply from 10.3% in 2019 to 14.9% at the peak of the pandemic, but then fell to 12.2% in 2021.

Although the latest **online share of spending is higher than before the pandemic started, it's only 0.6 percentage points (pp) above the growth trend** for ecommerce had the crisis not happened.

However, there are exceptions. According to the IMF's figures, ecommerce increased more in economies with a higher pre-pandemic share of online retail, exacerbating the digital divide across economies.

For example, **Singapore**, **Canada and the UK had high** shares to begin with and together saw the largest growth in ecommerce during the pandemic. On the other hand, Brazil and Thailand, which both had low online share pre-Covid-19, experienced less acceleration.

Perhaps more striking is that these spikes don't appear to have persisted. The IMF suggests that where the average online spending share peaked at 4.3pp above the level predicted pre-pandemic, now it sits at just 0.3pp above.

EMBRACING HYBRID RETAIL

This doesn't mean that ecommerce is slipping. Instead, what's changed is consumers being more inclined to use digital channels as part of their overall shopping journey.

A study by Mood Media of over 12,000 shoppers across the UK, US, France, Spain, Germany, the Netherlands and China, found that **30% of UK consumers are shopping in-store more often now than two years ago**.

However, a separate study of 3,000 European shoppers by messaging company Sinch discovered that **73% want to visit a store and then make a final purchase on their mobile** phones, often from within the store itself.



There is an ever-present threat that Covid-19 might never go away, forcing us all to live with it

WHERE COVID-19 GOES NEXT

The other factor that may yet see all this change again is where Covid-19 goes next. While heavily vaccinated countries seem to be bouncing back strongly, there is the ever-present threat that the virus will mutate enough to make this vaccine protection irrelevant, plunging the world back into a more rerstricted, even locked-down state.

This is one factor that no one can predict. It appears that Omicron is a more transmissible yet milder variant, so we are heading towards endemic status, where Covid-19 becomes more like a seasonal cold or flu. However, **since any future mutation could be more contagious yet also deadlier, all countries must remain vigilant**.

Until this feared event, the growth of ecommerce continues to slow, physical retail continues to see some expansion and shoppers continue to explore new, hybrid ways to shop.

Inflation

As geopolitical events continue to rock the world, ecommerce is taking a double hit from rising operating costs and budget-conscious consumers thinking twice before hitting the 'buy' button

Inflation rates continue to rise in many economies across the world, with food and energy prices hitting record highs, causing an ongoing global cost-of-living crisis. **This is impacting how consumers spend, particularly for lower-earners**, who are understandably restricting their spending to food and energy.

In June, the UK thought it had seen a recent record high when inflation hit 9.4%, the highest rate in 40 years. Yet by October ,it hit $11.1\%^{[1]}$, up from 10.1% the month before. This rate was 9.6% when housing is also factored in. Meanwhile, in the US, inflation slowed for a fourth month to $7.7\%^{[2]}$, the lowest rate since January and down from 8.2% the month before.

Globally, inflation is at levels not seen since the 1970s, when two major oil shocks caused it to spike. When we look by region, we see big differences in rates, though. In Europe, the Consumer Price Index is highest in Germany



With prices rising everywhere and all the time, shoppers are cutting back to essential purchases and looking for bargains both online and instore

while in Africa, it's highest in Ghana. In South America, Argentina's CPI is the highest while in the Middle East, it's Turkey. In Asia, India has the highest CPI and in North America, it's the USA.

As of November, more than two-thirds^[3] (69%) of 29 countries have high or very high inflation compared to their 50-year trends, according to the Office of National Statistics. Of these, more than three-quarters (79%) saw

12-month Consumer Prices Index (CPI) inflation rates above 6% in September 2022. The ONS says this is the most widespread inflation has been since 2008.

Consumers are, understandably, struggling. In its most recent global survey, EY's Future Consumer Index^[4] found that **92% of global respondents were extremely or moderately concerned by their country's economy**, while 87% were concerned by their finances, with plans to

cut their spending as a result. Consumers everywhere are cutting discretionary spend to cope and focusing instead on spending on the essentials such as food and fuel.

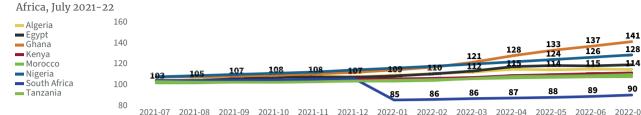
The survey shows that more than half (58%) of global consumers are very concerned about the rising cost of living, with **Japanese respondents the most concerned with affordability (41%)** compared to the countries where considerations about affordability are least. These include India (4%), China (6%) and Nigeria (11%).

It's been a frustrating time for retailers. Soaring inflation has been caused in part by the Russian invasion of Ukraine, particularly when sanctions imposed on Russia saw global energy prices rise. But **it's also been demand-driven, influenced by the pent-up consumer demand following the pandemic** that led to product shortages and subsequent price increases.

Traditionally, the ecommerce industry has avoided many of the impacts of inflation since its overhead costs have been lower than physical stores. This has meant that **consumers have always looked online for cheaper prices**, casting their search net worldwide.

However, the supply chain impact of the pandemic, the Ukraine war and rising oil prices increasing transport and distribution costs are all taking their toll. According to Statista, Amazon's median price increased by 11%

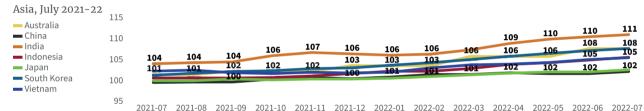
Indexed Consumer Price Index



Index January 2021=100. Source: Diverse National Institutes of Statistics

cc (i) = RetailX 2022

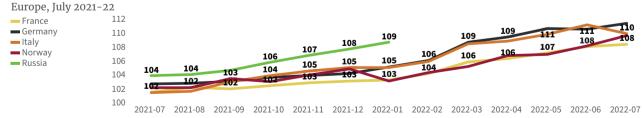
Indexed Consumer Price Index



Index January 2021=100. Source: Diverse National Institutes of Statistics

cc (i) = RetailX 2022

Indexed Consumer Price Index



Index January 2021=100. Source: Diverse National Institutes of Statistics

© (i) □ RetailX 2022

in beauty and 7% in electronics in August 2022 on the previous 12 months^[5].

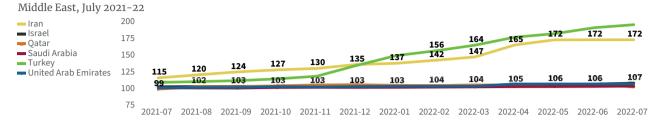
For ecommerce shoppers, this means a greater focus on the deals and offers that can be found online. In Chile^[6], for example, when inflation was at 2.9% in the first quarter of 2021, just over a third (37%) of digital shoppers felt that price was important in their online purchasing. A year later, though, and with inflation at 8.3%, more than half (55%) were keenly checking of prices and offers before buying online.

Such caution has given rise to new habits. According to Statista, inflation impacted on whether to buy and sell second-hand goods in the past 12 months for 93% of US consumers, while more than half (58%) plan to increase their use of recommerce in the next 12 months. The EY survey has similar findings, with 71%^[7] of consumers saying that they are not willing to buy new products when they can repair what they already own.

It's hoped that we've seen the worst, though. According to the IMF $^{[8]}$, global inflation is expected to rise from 4.7% in 2021 to 8.8% by the end of 2022 but then to decline to 6.5% in 2023 and to 4.1% by 2024.

- [1] www.ons.gov.uk/economy/inflationandpriceindices
- [2] https://tradingeconomics.com/united-states/inflation-cpi
- [3] www.ons.gov.uk/economy/inflationandpriceindices/articles/globalinflation/1970to2022
- [4] www.ey.com/en_gl/news/2022/11/ey-future-consumer-index-consumers-opt-for-caution-this-holiday-season-to-cope-with-rising-cost-of-living-and-environmental-concerns-new-data-finds
- [5] Impact of inflation on e-commerce statistics & facts | Statista
- [6] www.statista.com/statistics/1338133/price-importance-online-shopping-inflation-chile/
- [7] www.ey.com/en gl/consumer-products-retail/five-types-of-consumer-that-you-need-to-understand#1
- [8] www.imf.org/en/Publications/WEO/Issues/2022/10/11/world-economic-outlook-october-2022

Indexed Consumer Price Index

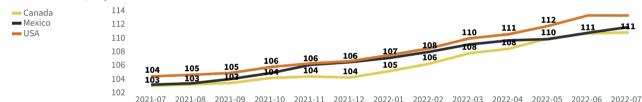


Index January 2021=100. Source: Diverse National Institutes of Statistics

(cc) (i) (=) RetailX 2022

Indexed Consumer Price Index

North America, July 2021-22

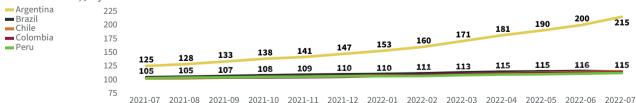


Index January 2021=100. Source: Diverse National Institutes of Statistics

©(i) (=) RetailX 2022

Indexed Consumer Price Index

South America, July 2021-22



Index January 2021=100. Source: Diverse National Institutes of Statistics

(cc) (i) (=) RetailX 2022

Logistics

Getting products into warehouses then out to customers has been a difficult challenge due to ever-changing geopolitical events. Could technology play a part in changing behaviours?

How to get your products to customers is a major concern when deciding whether to launch abroad, or even when you're a retail brand considering promoting yourself via marketplaces and concessions.

This is especially true following the coronavirus pandemic, which rocked the global supply chain networks in ways never seen before. Whole operations were shut down for weeks, or even months, while aftershocks to the system are still being felt and, in some areas such as China, lockdowns remain a reality. With new Covid-19 outbreaks in the East, there has been renewed strain on global supply chains compounded, of course, by recent geopolitics developments.

The Russia-Ukraine conflict, tensions between China and Taiwan and an economic slowdown are all negatively impacting supply chains across multiple sectors^[1]. **Prices are continuing to rise across numerous industries**, mainly due to shortages and restricted access to critical supply routes.



Following years of Covid-19 disruption, retailers are now facing supply chain problems caused by geopolitics events, so are looking for smart solutions

However, some argue that the supply chain crisis has created an opportunity for the ecommerce industry, since it has created a "sense of urgency" [2]. **Some businesses** have transformed bricks-and-mortar stores into microfulfilment centres, while others are now looking closer to home for manufacturing partners in order to avoid the stalling global supply chain. Others, Amazon included, have even taken control of their own global distribution in order to ensure that they can deliver.

Retailers large and small will need to be innovative if they want to survive the pending recession. However, **many** want to do more than survive – they want to expand and grow their reach internationally. Such businesses need to understand how easy, or difficult, it is to get products to customers on different continents.

[1] https://deliveryx.net/geopolitical-tensions-increasing-supply-chain-disruption-says-smart-cube/ [2] www.forbes.com/sites/theyec/2021/11/12/how-the-global-supply-chain-crisis-is-creating-opportunities

AFRICA

With over a billion people, almost 60% of who are under the age of $25^{[3]}$, the African continent has a huge consumer base that companies want to engage with. With a growing number of these people now online, there are huge opportunities for ecommerce to take off.

A recent report by online payment service provider PayU found that **South Africa has the continent's highest internet usage, at 56% of the population**, with Nigeria and Kenya at 46% and 31%, respectively. However, ecommerce uptake was only at 37% in both Nigeria and South Africa, and 25% in Kenya.

Further investment in infrastructure and logistics is needed to realise any potential, says Mahmood Al-Bastaki, chief operating officer of DT World, a subsidiary of DP World Group^[4].

"Ecommerce's continued growth cannot be feasible if logistics cannot support the increased movement of goods," he notes. "Supply chain optimisation is crucial, as poorly timed deliveries can lead to major monetary loss. Improving delivery routes, identifying the stumbling blocks in the supply chain and optimising shipping processes are not only cost-effective but also create a good customer experience and grow loyalty among consumers. Investing in physical and digital

infrastructure is a must for all online platforms that want to succeed."

One of the biggest challenges for the logistics industry in Africa is the lack of a unified address system. This leaves companies having to rely on customer descriptions and landmarks during the checkout process, with the driver required to keep in constant contact while en-route.

In a number of African countries, firms are repurposing 'Boda Bodas' – bicycles or motorcycles once used as taxis – for deliveries to deal with such challenges. Others are taking to the skies.

Zipline is a firm which designs, manufactures and operates drones from distribution centres in Rwanda and Ghana (as well as recently expanding into Japan). Growing from a medical essentials distribution startup, the company now uses autonomous drones to deliver grocery and ecommerce parcels direct to consumers.

For Africa's ecommerce sector and logistics industry to really take off, technology seems likely to play a part – whether on the ground or in the air.



Zipline has made nearly 450,000 commercial deliveries using drones

^[3] www.weforum.org/agenda/2022/09/why-africa-youth-key-development-potential [4] www.logupdateafrica.com/latest-news/growth-on-the-horizon-for-african-e-commerce-and-logistics-in-2022-134/197

ASIA

The pandemic resulted in a 'new normal' across Asia of social isolation, working from home and online shopping becoming the standard. As more people subsequently remained indoors over fears of the virus returning, consumers have turned to ecommerce for their everyday essential purchases, as well as retail and technology orders. It's therefore not surprising that the revenue from the ecommerce market in Asia is projected to reach \$2.093bn this year^[5].

The sheer size of the ecommerce market has resulted in a very competitive logistics sector, with worldwide players wanting in on the action. **DHL Express, FedEx and Best Express have all made strategic investments to establish logistics networks**, build new distribution centres or create smart warehouses across Asia.

It is now expected that Asia will account for 57% of the growth of the global ecommerce logistics market by 2025^[6]. Logistics firms have realised that Asia will likely be the single-most-important addition to their business portfolios.

This, in turn, has resulted in a race for warehouse space. "There's a land grab for space among all the carriers that's not going to end soon" notes Paul Good, owner of GL Terminal in Jakarta, Indonesia^[7].



FedEx has been growing its AsiaOne network for over 20 years

Due to the dense nature of many Asian cities, warehouses are going up rather than out, with multi-storey facilities becoming increasingly popular with developers. "These types of facilities appeal to logistics companies because they offer practical business solutions, especially for retail and ecommerce companies," says Stuart Ross, JLL China's head of industrial.

According to JLL data, three major multi-storey projects in Shanghai are running at 100% occupancy. With such a success rate, and the growing demand for ecommerce warehouse space globally, multi-storey facilities are certain to be a growing trend – and not only in Asia.

[5] www.statista.com/outlook/dmo/ecommerce/asia

[6] www.mckinsey.com/featured-insights/asia-pacific/asia-the-highway-of-value-for-global-logistics

[7] https://glginsights.com/articles/e-commerce-logistics-challenges-in-southeast-asia/

EUROPE

The UK, France and Germany are Europe's largest ecommerce markets and between them, in 2021, they totalled €477bn in ecommerce revenue^[8]. **UK retail** businesses alone receiving £2.8bn worth of website orders from EU-based customers in 2019, according to the Office for National Statistics.

This was, of course, prior to Brexit. **Experts in the industry are now seeing the negative impacts of the UK leaving the EU**. The ending of VAT exemption on low-value goods, increased paperwork requirements and rules of origin issues have all taken a toll on ecommerce logistics.

"For ecommerce sellers, Brexit basically means more bureaucracy and tax," says Richard Asquith, global vice-president of Indirect Tax at Avalara. Commercial property consultancy Knight Frank describes Brexit as creating "competitive challenges for UK ecommerce retailers selling to the EU and vice versa." It predicts tariffs and taxes will result in higher prices for cross-border ecommerce transactions.

Furthermore, delivery delays caused by the additional paperwork, border checks and stricter regulations are causing headaches for e-tailers. A recent survey by fulfilment firm Shipbob found that **UK brands saw post-Brexit red tape on EU shipments as a key risk to their growth**^[9].



Queues stretched for ten kilometres (six miles) west of Dover in early 2022

Such hurdles are already putting businesses off exporting between the UK and EU. German logistics firm Codept has reported the UK's total exports to the EU fell by 40.7%, while imports from the EU declined by 28.8% when comparing January 2021 to December 2020 figures^[10].

The additional charges, admin and delays will drive many shoppers to stay local, in turn driving retailers to

think more about manufacturing and shipping bases closer to home. While Brexit may slow cross-border trade, it does provide an opportunity for domestic ecommerce to grow in the long-term.

[8] www.statista.com/statistics/1113005/market-size-of-e-commerce-in-europe-by-country/ [9] https://deliveryx.net/shipping-costs-biggest-growth-risk-survey-finds/ [10] www.codept.de/blog/brexit-impact-ecommerce-logistics

MIDDLE EAST

The importance of shopping malls and the in-person experience in the Middle East had slowed the uptake of ecommerce in the continent for many years. Yet during the pandemic, consumers did move online in a shift that now seems unlikely to revert to the previous norm.

Growing wealth combined with digital-savvy shoppers across the region now provide an opportunity for e-tailers, especially those selling luxury goods. "The Middle East represents a big opportunity for luxury brands," says Herve Ballantyne, consumer and industrial products leader, Deloitte (Middle East).

The continent ranks 9th in the luxury goods market, with leather goods and shoes being key sellers and accessories topping the Middle East market share for luxury items.

The United Arab Emirates (UAE) alone features the market's greatest segment, with a market volume of \$553mn in 2020. **The UAE has become the heart of the luxury segment in the Middle East**, with a major share of population (almost 90%) residing in the urban areas and increased per capita income. Dubai and Abu Dhabi comprise of more than 50% of the country's entire population.

Furthermore, the geographical significance of the UAE – located between Oman and Saudi Arabia, on the



More than 80 million people visit the Dubai Mall annually

shores of the Arabian Gulf, and on the Arabian Peninsula – has enabled it to become a global logistics hub. The UAE can therefore act as a connection between the growing economies of Africa and Southeast Asia with the established markets of Northern America and Europe.

A large chunk of online shoppers in the Middle East have also begun accepting cross-border products.

Online shoppers in the UAE made 58% of their online purchases from overseas vendors in 2016^[11]. Improvements in gateway security, along with reliable

and free shipping methods, have largely persuaded many buyers to purchase products from outside the region.

Well-developed logistics infrastructure across the continent is also helping to sustain the growing ecommerce demand, with ease of obtaining licences and better warehousing facilities providing high investment potential. Deloitte concluded the region's ecommerce market looks poised for strong growth.

[11] https://www2.deloitte.com/xe/en/pages/about-deloitte/articles/we-are-25/e-commerce.html

NORTH AMERICA

The North America ecommerce retail market is anticipated to grow at a significant CAGR of 11.7% between 2022 and 2028^[12], with **high internet and smartphone usage in the region driving growth**.

It is also predicted that it will overtake Asia Pacific's current dominance in the market by 2026^[13]. This will no doubt be achieved through the region's technological advancements and the development of infrastructure in major economies such as the US and Canada.

Wide connectivity, not just online but also the continent's infrastructure of roadways and railways, is behind this prosperity. The railways of the US and Canada form one of the major railway networks across the region, providing a critical logistics network.

However, the high cost of logistics could put a spanner in the works. Costs of ecommerce logistics in the US increased from around \$117bn in 2017 to approximately \$196.2bn in 2020^[14]. The cost of reverse logistics in major countries of North America is also a concern for ecommerce companies. In 2021, retail merchandise returned in the United States accounted for \$761bn, a big increase from \$428bn reported in the previous year. Additionally, the Federal Reserve Bank of New York stressed earlier this year, in its latest Global Supply Chain Pressure Index^[15], that the increase



The Port of Vancouver facilitates trade to 170 world economies

in air freight costs is putting pressure on an already stressed supply chain.

While rising shipping costs and further supply chain disruption will impact on the North American logistics sector, **retailers, brand and delivery companies will turn**

to technology to ensure continued success, just as the consumers of North America have turned to using their mobiles to shop.

- [12] www.businesswire.com/news/home/20220908005919/en/North-America-e-Commerce-Logistics-Market-Report-2022-2028-High-Internet-and-Smartphone-Penetration-Driving-11.7-Growth---ResearchAndMarkets.com
- [13] https://finance.yahoo.com/news/global-e-commerce-logistics-market-113000176.html
- [14] www.technavio.com/report/e-commerce-logistics-market-industry-analysis
- [15] https://libertystreeteconomics.newyorkfed.org/2022/05/global-supply-chain-pressure-index-may-2022-update/

SOUTH AMERICA

National Geographic describes South America as a continent of extremes, home to the world's largest river (the Amazon) as well as the world's driest place (the Atacama Desert). There are similarly extreme hurdles to overcome for the ecommerce and logistics industries in the region.

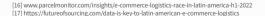
Many of the twelve sovereign states have their own currencies, taxation and customs authorities, which can cause problems. In addition to customs taxes, tariffs and fees, it can take up to a month for certain goods to be cleared through customs, especially in Brazil and Argentina.

The requirement by a number of destination countries – among them Peru – that any package being delivered features the recipient's tax ID number is a further hindrance. Brazil also requires a World Customs Organization Harmonized System (HS) code for the merchandise being shipped.

Such red tape can lead to delays, inventory buildups, rising costs and, ultimately, customers waiting longer for their products to arrive. Once through customs, there is then the issue of infrastructure. Roads remain the primary means of transportation yet 60% are unpaved, hampering the speed of delivery by truck to inland locations. And that is before considering the final mile, a timely first delivery attempt being very important in the ecommerce sector.

Could collection solutions offer a solution? In the first half of 2022, Brazil ranked top in the region, with around 5% of parcels delivered to collection points. While this may seem small, when compared to Argentina at just 1.5%, it hints at the developing collection movement in Brazil^[16]. If other South American countries looked at parcel locker networks, some of the continent's logistics headaches could be avoided.

Despite the obstacles, like all continents, the pandemic saw many shoppers turn to ecommerce who are unlikely to ever turn back. This has led to significant jumps in ecommerce sales. **Argentina was the fastest-growing with a retail ecommerce increase rate of 79%**, while Brazil's ecommerce growth rate was 35%^[17].





Parcel lockers and pick-up stations are growing in popularity across Brazil



Dr Chris Papanagnou is a lecturer in logistics engineering at Aston University

While supply chain disruption seems to be easing following the pandemic, geopolitical and macroeconomic issues are still ongoing. Should consumers and retailers expect more empty shelves and lengthy delays?

The recent geopolitical crisis shaped mainly by the Russia-Ukraine war has had an enormous impact on global supply chains. The flow of goods has been impeded, leading to cost increases and product shortages, which has a tremendous impact on consumers. The macroeconomic crisis that causes anxiety for millions of UK households and pressure on supply chains is set to last throughout 2022. Consumers will continue to experience shortages of some products along with price gouging, especially for imported products. The expectation is that fleet management and supply chain networks will continue to face disruptions and will become less responsive to increasing customer requirements.

Rising shipping costs are a concern for retailers selling online and looking to export. Can ecommerce retailers deal with these rising costs, or will they have to reconsider shipping abroad?

More than half of companies have changed their UKbased suppliers as a result of escalating supply chain issues, while 40% have switched providers outside the UK. With the prices of certain products going up even after the pandemic, the logistics sector faces new challenges as companies quit their existing distribution channels. Ecommerce has traditionally had a positive impact on direct exports and a negative influence on indirect exports. While ecommerce does help companies run resilient supply chains, these chains have a minor effect on indirect exporting. Therefore, companies may focus on to Directto-Consumer business models and ship goods without relying on traditional bricks-and-mortar storefronts or intermediaries. Companies should be aware, however, of the associated costs of shipping abroad and should always consider sea freight over air freight, compare shipping quotes and contact shipping companies well in advance.

As the number of people shopping online increases, how is the logistics sector adapting?

In emerging situations such as the Covid-19 pandemic, logistics managers should recognise the importance of developing and maintaining holistic technology-based management systems, tools and processes to address supply chain risk and disruptions. This constitutes a starting point for establishing robust models that will respond more effectively to changes in customer shopping behaviour, product ranges and value, model different risk scenarios and apply probabilities to provide a decision tree and likelihood of

'emergencies' affecting retail SCs. It is important to modernise the logistics sector by investing in data-driven digital transformation to prevent and mitigate risks. Furthermore, predicting the outcome of risk scenarios and the increase in home deliveries or sales of products can become very challenging. Therefore, logistics managers should actively develop intelligent decision-making models to cope with the unprecedented demand levels and elaborate agile supply chains to handle online deliveries in shorter times.

As many shoppers look to make more sustainable buying decisions, what is the logistics sector doing to ensure it is more environmentally friendly?

Companies should bring forward sustainability initiatives by investing in advanced technologies such as predictive analytics and the Internet of Things. Data analytics and acquisition technologies enabling data sharing and realtime communication across the supply chain have become essential elements to model risks and provide more environmentally friendly services, products and solutions. Logistics managers should also invest in digital skills and training for their employees to establish supply chain resilience efficiently. The logistics sector needs people in critical positions, such as at fulfilment centres, to have access to the predictive analytics skills needed to respond effectively to global events and move towards sustainable supply chain risk management.

Beyond Silicon Valley

The next generation of tech companies is as likely to emerge from an innovation park in Europe or India as it is from California, writes Paul Skeldon

Once known as the Valley of Heart's Delight due to its verdant orchards, today's **Silicon Valley is so** synonymous with the fruits of tech innovation that it has become shorthand for the tech industry itself.

Yet as the internet has spread around the world, propagated by those technologies created in Silicon Valley, so **innovation hubs have sprung up around the world** anywhere that young and creative workers, venture capital and manufacturing centres can all come together.

While there are many reasons why Silicon Valley has become a state of mind, a major one is that **the original Silicon Valley has priced itself out of the startup market**. As real estate in the region has become astronomically expensive on the back of skyrocketing demand, talent in the Valley has commanded an equally high price, leading to **a growing global demand for home-grown expertise and solutions** to meet the demands of local tech scenes.



Berlin is second only to London in Europe as a home to 'unicorn' startup businesses valued over \$1bn, having 11 compared to London's 45

Governments across the globe have regarded creating their own tech hubs as a vehicle for inward investment that, if successful, can at some point generate export revenue when sold abroad. It's both the entrepreneurial spirit and the end product of Silicon Valley being emulated.

Ecommerce, in particular, has created much of the impetus for this raft of 'The Silicon Valley of...' with the boom in online retail during the pandemic, along with associated payments, marketing, social media, marketplaces, logistics, cloud tech and SaaS, being ripe targets for innovation.

So where are these emerging tech centres and what do they offer their local markets? Equally interestingly, what can the original Silicon Valley learn from these young upstarts and imitators?

SHENZHEN, CHINA

China's Shenzhen is widely known as the "Hardware capital of the world" and it's where factories churn out iPhones along with many other high-end gadgets. It is also synonymous with rapid development and a can-do attitude, with 'Shenzhen Speed' coming to define the region's impressive tech capabilities. When, for example, Steve Jobs told manufacturers a month before launch that the iPhone was to have a glass screen, Shenzhen Speed made it happen.

The city of Shenzhen has grown at an equally blistering pace, rising from a population of 30,000 in 1979 to 13mn by 2020. This enormous workforce has kept pace with increasingly sophisticated manufacturing processes, attracting many tech giants to the area to tap into such localised innovation.

The city also has a staggering number of venture capital firms attracted by so many innovative startups. According to CrunchBase, there are 236 VCs in the city. By comparison, CrunchBase lists 707 servicing Silicon Valley.

In ecommerce, Tencent – originally a video games developer, now a multinational tech and media company – owns WeChat, an instant messaging, social media, mobile payment and ecommerce-led 'super-app'. **Tencent owns the closest thing to a Silicon Valley campus, only theirs is arranged vertically in twin beach-front towers**.

This has prompted an explosion of interest in ecommerce startups, with a raft of new companies extending ecommerce and mobile commerce tech development to service the Chinese ecommerce market both within and outside China. There is a growing number of ecommerce and 'super-app' developers spread across the city.

BENGALURU (BANGALORE), INDIA

Back in the day, India's undisputed tech capital of Indiait was the outsourcing capital of the world and the unseen power behind many leading Western companies. As the outsourcing model has matured, **Bengaluru has used** these links with Western tech giants to create its own thriving R&D centre, birthing many of India's – and the world's – latest unicorns and 'soonicorns', those companies worth more than \$100mn and likely to become \$1bn unicorns. Indeed, **Bengaluru is now the startup capital** of the world, with 14 unicorns based there, including Flipkart and ride-sharing app, Ola.

According to CrunchBase, **the city has 53 venture capitalists actively investing** and has spawned a raft of innovative apps, particularly around new models of online buying. These include OnceAgain, a pre-owned fashion site; Spoyl, an influencer-led fashion ecommerce platform that is taking India by storm; BuyHatke, an online shopping price comparison site; and Mesh, a product rental site.

The city has created many other apps and ecommerce tech companies, from those that offer technical integration and headless commerce, right through to job-hunting sites to leverage the growing and increasingly mobile tech workforce in India.

This raft of devs and investors, along with the city's general air of innovation, make this a place that Western

companies are returning to in order to outsource their work, only this time it's development and R&D very much on the terms of the Bengalurians themselves.

LAGOS, NIGERIA

Lagos is home to Nigeria's largest ecommerce company, Jumia. While ecommerce has come late to Africa, it has now exploded across the continent, with many domestic innovators looking to replicate the success of Amazon, Asos and more in their local regions. Nigeria is perhaps the preeminent African country for this innovation.

Until recently, Lagos' tech development sector was driven by fintech as a way to safely move money around the country and use smartphones to serve a population largely without access to traditional banks. Now that such fintech is largely in place and working well, innovators in Lagos are turning to the next logical step – ecommerce.

While Jumia currently dominates this space, there are also many startups centred around Lagos that are pushing services such as delivery carrier aggregation (Terminal), AI for ecommerce firms (ShareCube), and mobile commerce (HauteApp and Farmz2U). **Web design companies and payment players are also springing up** which, in turn, are attracting talent from the more mature fintech dev sector towards ecommerce and mobile app startups. The city has recently attracted the attention of numerous

companies from China, which are using Lagos as the dev base for expansion across African ecommerce.

Compared to Shenzhen and Bengaluru, there are more modest numbers of VCs in Lagos – CrunchBase lists 34. Yet **the city does have its own Silicon Valley of sorts in the form of the Co-creation Hub (CC-HUB)**. Based around the University of Lagos and the Yaba College of Technology in the Yaba district of the city, this areas has been dubbed 'Yabacon Valley'.

BERLIN AND MUNICH, GERMANY

Two of the fastest-growing tech hubs in the world can be found in Berlin and Munich in Germany. As of 2021, there were just under 2,000 verified startups in Berlin, 200 of which were formed in 2020 alone. These include handpicked grocery delivery firms Gorillas and Flink, e-bike rental company Dance, and **SellerX**, **which buys up businesses selling on Amazon.de and scales them for new markets**.

While Munich lags behind Berlin in terms of startup action, it is catching up fast. Customer-facing ecommerce newbies coming out of the Bavarian city include Jaimie Jacobs, with its customisable women's shoes and Glamloop's high-end fashion. Many of the ecommerce startups in and around Munich are focused on ecommerce tech. Parser.run, for example, focuses on data, Unu is

centred on mobility and connectivity for ecommerce, while Breezeup focuses on natural, close to consumer product recommendations.

Such is the level of growth in these two German markets that investors see them as hotbeds for unicorns. According to a 2020 Dealroom study, **there are 11 unicorns in**Berlin and nine in Munich, placing them second and third in Europe behind only London, which has 45. The two German cities have a potential 29 and ten further 'soonicorns' in the offing.

While these two German 'Silicon Valleys' largely service the expanding domestic ecommerce market, they are seen as fertile ground for acquiring developers and for establishing tech outposts by both European and furtherflung companies.

Into the matrix?

Our two experts debate whether the metaverse is pure hype or solid hit

The metaverse is the future of the internet, at least according to its proponents. In ecommerce terms, it's offering a new, user-friendly way to go shopping. Why go in person when your avatar can go for you?

Yet others aren't so sure, pointing out that virtual reality (VR) technology has been around for years but remains a niche offering for many reasons, not least the confusion that grips many users in virtual environments.

So who's right? We asked two of our experts to offer their personal takes on what's happening. Cam Winstanley, who takes a sceptical stance on virtual reality technology, is a video game expert and a former editor of Amiga Power, a magazine so irreverent it still has a cult following more than 25 years after its closure. Paul Skeldon, who takes a positive view of the metaverse, is a mobile expert and one of RetailX's most senior editors.



Access our forthcoming report on the metaverse, the first report to look at the technology in detail from a multichannel retail perspective.



The Meta Quest 2 is Meta's own stand-alone VR headset with hand-held controllers that currently sells for £400

What can the metaverse learn from VR gaming?

Video gamers have had VR headsets for a full decade now. Cam Winstanley asks whether metaverse ecommerce can learn anything from their experiences

Facebook's 2021 rebranding as Meta may have pushed virtual reality (VR) into the mainstream yet it's been a sci-fi concept for decades and a hands-on reality since 2012, when the game-changing Rift headset was released. The global gaming industry has always been a test-bed for, and driver of, digital innovation but **even after a decade in the mainstream, VR gaming remains a surprisingly niche pastime**. Let's find out why by looking at the factors that have limited its popularity. Let's also see how these same issues – including hard-to-overcome physiological ones – could limit Mark Zuckerberg's dream of the metaverse becoming the main way to immersively navigate Web 3.0.

WHAT'S VIRTUAL REALITY?

A VR headset works by tricking enough of a user's senses that they can believe they're standing inside a virtual world. In **a high-tech iteration of the Victorian era's stereoscopic viewers**, a screen in front of each eye shows a slightly differing images of the same computer-generated scene. The brain then merges them and interprets the scene as a single, 3D view.

Tilt switches and accelerometers – the same smartphone components that count steps and maintain the orientation of the screen – detect head movement so that as the user looks up, down or around, their view adjusts correspondingly. Finally, headphones create stereo sound from point sources, so, for example, users can hear a virtual river off to their right even before they turn to face it.

Yet such a virtual reality is far easier to describe that it is to create. A 1935 sci-fi short story, *Pygmalion's Spectacles*, describes VR glasses almost identically to William Gibson's 1993 cyberpunk novel, *Virtual Light*. But while warehouse-sized, computer-powered training simulators for aviation became widespread from the 1960s onwards, VR headsets have always struggled against the limitations of size and processing power. Cathode ray tube TV screens were always too bulky, hot and heavy to fit into headsets, while the computers capable of generating smooth, real-time 3D environments stubbornly remained too large and expensive for home use.

It took the disruptive power of the smartphone to make VR headsets a commercially attractive proposition. Launched by a Kickstarter campaign in 2012, **the Oculus Rift headset used smartphone flat screens, motion sensors and off-the-shelf processing power to create an incredible VR experience straight out of the box.** Just two years later, Facebook bought the company for \$2bn, with the likes of PlayStation, Microsoft quickly joining the VR party with their own headset and gaming offerings.

VR GAMING TODAY

Video games have been more profitable than Hollywood for many years. For comparison, *Avatar*'s \$2.85bn box-office receipts make it the biggest-grossing film of all time, yet *Grand Theft Auto V*, the 2013 console smash, has made over \$7.5bn, while the largely PC-based World of Warcraft has, to date, banked \$11.3bn^[1].

By comparison, **even the biggest VR games have notched up only modest sales and even smaller profits.** VR's number one game, the pop music/sword slashing combo *Beat Saber*, generated sales of \$97mm in 2021^[2] but due to high production costs, its Czechia-base developer saw profits of under \$3m. The second-best selling VR game, Valve's *Half Life: Alyx*, scored 93/100 on *Metacritic* and won Best VR/AR at the 2020 Game Awards. While it's made \$74mn since release in March 2020, that's just a fraction of the £720mn that Valve made selling 12mn copies of its non-VR prequel, *Half-Life 2*.

Why such a disparity? One reason is that computer and console gaming are mature markets, while the VR user base is still growing. Statista estimates that VR gaming sales will rise from \$12bn in 2022 to \$22bn by 2025[3].

But another reason is perceived value for money... or lack of. The Meta Quest 2 headset is a stand-alone system that costs £400. While that's about half the price of an entry level gaming PC, VR gamers can only choose from handful of top-tier games compared to the thousands available for PC. This is partly because games developed for a flat screen can span any genre and display them from any viewpoint, while the nature of VR restrict viewpoints to the first-person. When there's a real risk of a VR headset supported by just a few games becoming a seven-day wonder, it's no surprise that fewer people take the gamble.

There's one final reason though and it's the big one. Remember how we said that VR works by tricking the user's senses? The downside is that by doing so, VR makes a lot of its users sick. By 'a lot' we mean at least 10% of everyone. By 'sick', we mean actually nauseated. Sometimes for hours after the event.

THE DIZZYING WORLD OF VIRTUAL REALITY

Iterative redesigns and improving technology have mitigated many of the issues around VR headsets. Some headsets now accommodate spectacles, for example, while all are lighter and cooler than older versions,



While many VR experiences are simplified to encourage casual use, Half-Life: Alyx throws players into a tense, demanding and immersive top-tier video game

resulting in less neck strain and face sweat. Headsets now even work tirelessly to protect the user from bruised **shins** by letting wearers define a 'safe space' within a room, then employing outward-looking cameras to ensure they don't stray. Yet ticking off such problems has merely pushed the biggest issue to the front and it's one that

technology might never be able to solve entirely. The big problem is that human brains are just too good.

There's an evolutionary survival imperative to spotting when something's 'not quite right', whether that's an unexpected hand tremor warning of oncoming disease or a moving



Best Saber plays to the many strengths of VR by letting players crouch, duck and slash away with virtual swords to destroy music-times blocks, all from a safe, stationary position

shadow warning of an imminent saber-toothed tiger attack. So while VR has got good at fooling the eyes and ears of a user, the brain's not getting caught out any time soon. It recognises when something's 'not quite right' most of the time and when it does so, it howls in protest.

Motion sickness occurs when your eyes see a static cabin but your inner ear detects the ship's pitch and roll. Or when, as a car passenger, you try to read your texts on a winding road. **It's the same deal with 'VR sickness'** when a computer simulation displays motion that a user's brain knows isn't really happening.

Many can quell sea sickness by going on deck so the sight of the moving sea swell matches the motion. Most can

ward off car sickness by looking at the road ahead instead of their phone. Yet since VR cocoons the user in a virtual world, the only way to 'watch the road' is to stop playing.

Specific **triggers to VR sickness can often be addressed by reducing the mismatch of sensations between the virtual and real worlds**. For example, many users were struck down by early VR games by pointing at something but not seeing their hands inside the game view. The solution? To track hand movements using external controllers or cameras, then replicate them in-game.

Similarly, while **looking around in VR rarely causes sickness because it's intuitively controlled by actual head movements**, controlling in-game walking with a hand-held joystick makes many users feel they're constantly on the brink of falling flat on their faces.

Due to this phenomena, gamers have fewer problems with flight simulators since, just like their virtual 'other' strapped inside the cockpit, they are also sitting down. It's also why many current VR games opt to have players 'teleport' from one static location to the next rather than walk between them, since this significantly reduces discomfort.

How widespread a problem is VR sickness? A University of Minnesota kinesiologist told inside science.org^[4] that, "with contemporary commercially available VR systems, the incidence of motion sickness after only 15 minutes is

anywhere from 40% to 70%," with **common symptoms** being headaches, dizziness, nausea and fatigue that can last up to four hours after gaming sessions. Informal polls on games blogs put rates among regular gamers far lower at around 15%, with 40% experiencing no symptoms at all. This suggests that **VR sickness might affect** newcomers more than regular players, who perhaps simply learn get over it.

ECOMMERCE, THE METAVERSE AND YOU

Mark Zuckerberg has pinned the future of Facebook so closely to the metaverse that he's rebranded the company as Meta. If you watch only Meta's promotional material, **you could be forgiven for believing that the internet will soon only exist within virtual spaces**, with every online purchase, Zoom call and social media interaction via VR goggles. While we're not here to trash that vision, we are here to offer a reality check before you and your business pivots towards a VR-only future.

So let's assume that Intel's head of accelerated computer systems and graphics^[5] was being excessively gloomy when he said that the metaverse's "...persistent and immersive computing, at scale and accessible by billions of humans in real-time, will require a 1,000-times increase in computational efficiency from today's state of the art." And let's assume that Meta's \$15bn R&D spend on the metaverse alone (compared to Apple's \$4bn budget for all product research) has gone into producing some usable

products. What other factors might limit VR adoption at such a scale that in the next few years, it wouldn't seem out of place to see your mum in a headset shopping online?

Well, as long as they remain the size of cycling helmets, shoppers are unlikely to carry their own VR headsets to the high street. But since they can sweaty, they're unlikely to use instore headsets either. So how can the metaverse ever slot at scale into the instore physical sales journey? And will the general public ever enter the metaverse in a public space full of pedestrians and traffic?

Even if such issues go away due to a future generation of sunglasses-sized headsets with integrated situational awareness, what about VR sickness? **Any experience that leaves 10% of first-time users feeling dizzy is unlikely to ever achieve mass market appeal**. For ecommerce within the metaverse, ubiquitous VR would be a literal headache for businesses. It's easy for shoppers to browse webstores all night long on a screen, yet all-but the most dedicated VR gamer are fatigued by headsets after an hour.

Which raises the existential question – what is the metaverse for? If Web 3.0 is destined to become the single online 'third place' for users to meet, mingle, shop and interact, that doesn't automatically have to be in VR. Indeed, once you start to consider search, view and interaction use cases, a combination of current and augmented reality (AR) interfaces on existing smartphone



While Digital Combat Simulator is designed to run on the desktop screen of a high-end gaming PC, adding a VR headset immerses the 'pilot' in an incredibly realistic world

and computer screens seems to be a more user-friendly option than an expensive additional headset.

Everyone agrees that the metaverse is coming in some form or other, not least because Mark Zuckerberg has willed it so. But when a user base as dedicated as video gamers has largely ignored VR technology for **a full decade, it's hard to see it ever gaining public favour**. Viewed as a Venn diagram, the circles of 'regular ecommerce users' and 'dedicated VR headset users' seem unlikely to ever touch, let alone overlap.

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- [2] www.roadtovr.com/beat-saber-100m-revenue-2021/
- [3] www.statista.com/topics/2532/virtual-reality-vr/#topicHeader wrapper
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VR: headsets will roll

Virtual reality, pioneered in the gaming sector, is creeping into everyday life – so why aren't we all wearing headsets? Paul Skeldon shares his radical theory...

They look dorky, they are quite heavy, they are isolating and, for 10% of users, they can be disorientating. These are all reasons why we aren't already all wearing virtual reality headsets and immersing ourselves in the virtual world. That and the fact that, unless you're a purist, **you don't even need a VR headset to get into that virtual world**.

My daughter Catie, 11, and her friends spend much of their non-school time essentially in the metaverse. She is in there right in front of me now. She's not wearing a headset. Nor are any of her friends. They are all playing together in *Roblox* on their iPads, phones and laptops. **The experience** is semi-immersive – Catie is certainly engrossed – yet there is no need for specialist equipment.

This little vignette playing out in my living room demonstrates two things. Firstly, that **the metaverse** is already here and the consumers of tomorrow, our kids, love it. Secondly, the VR tech sitting behind it doesn't have to be different to the gadgetry any 11-year-old already has.



Is the online shared space of Roblox, where users can explore and interact via their smartphones, a more practical VR experience than one viewed through VR headsets?

WHAT IS VR REALLY?

Virtual reality already has a pretty solid definition: "VR is the simulated experience that employs pose tracking and 3D near-eye displays to give the user an immersive feel of a virtual world". This definition needs to change, though. In reality, if you'll pardon the pun, VR is increasingly becoming any sort of simulacrum of reality generated by computer. My daughter certainly sees it as something

she does on her iPad, not in a headset. What she experiences isn't reality. It isn't the internet through a browser, nor is it augmented reality that overlays stuff on the real world. What she and her friends are using is a sort of democratised, low-fi version of VR.

And that is all you need. While expensive VR headsets can deliver a mind-bending, vomit-inducing experience,



A generation raised on Roblox is likely to want interactions such as ecommerce to be comparable

anyone wanting to deliver VR to 'the kids' needs none of that. And if you want VR to take off, then it has to get away from the 'nerdy gamer' vibe.

In effect, what this 'VR lite' offers is a new way to interact with the internet. Looking over her shoulder at what Catie is doing, it does kind of make the browser-based experience seem antediluvian. I mean, why am I typing when I could be pointing and clicking a virtual finger?

If you consider these 'flat' VR experiences as VR, as I do, then *Roblox* alone, which is enticing 47mn individuals a day to use VR, has nailed it – certainly into Gen Alpha's minds. This, like all the other sim-like games, I argue, is VR.

No, not the defined way they look at VR in the purist world, but a more popularist, consumer-led view of VR.

WHY DOES THIS MATTER?

It matters because VR, which is an immersive experience of a virtual world for individuals, is slowly becoming conflated and confused with the metaverse – and the metaverse has the potential to radically change how we interact with the internet.

Unlike VR, the metaverse doesn't really have a proper definition. It is a sort of virtual world, or worlds, where you can interact with other users and do – and buy – stuff. You create a version of yourself – an 'avatar' – and meet other avatars as well as interact with brands and games. All virtually.

Yes, you could do that with a headset, sick bag clutched in your real right hand, or you could do what my daughter does and just get on with buying stuff and playing and interacting with friends on her screen.

No, *Roblox* isn't the pinnacle of VR, nor of the metaverse for that matter, but it's the start. As the metaverse becomes more refined – and the graphics get better – Catie and her friends, who by then will be young consumers keen to spend their pocket money, will expect their shopping experiences and other interactions with online entities to be more like *Roblox*.

This will change how we interact with the web and **it will change what we think of as VR**, which will become that thing we do on our phones when we want to visit the virtual shopping mall.

This will also bring AR –augmented reality –to bear on the real world, creating an amalgam of VR and AR as the interface to the internet. **That is what the metaverse really is: an on-ramp to accessing the web in a more realistic, but totally virtual, way**.

Literally 'virtual' 'reality'.

Issues to track

We consider some of the areas that may turn out to be strategically important in 2023 and beyond

It's a thankless task to look ahead because, so often, it's the problems up ahead that we do not foresee that turn out to pose the biggest challenges. That said, it is one of the prime responsibilities of boards and senior managers at least to try to glean the opportunities and problems that may lie on the horizon, and each year we at least try to offer some input here.

Looking back to 2021, we identified seven areas to watch:

- Non-Fungible Tokens (NFTs): on the rise
- 5G: its rollout matters
- · Cloud-based technologies: how to balance core tech stacks and scalable services
- · Livestreaming: on the rise
- Social media: integral to our lives
- The metaverse: the future or a fad?
- Work-life balance: changing work patterns enabled by digital technologies

To revisit each of these briefly in turn, we saw the rise of NFTs as "evidence that the connection between physical Deelev Freed The Galleries, Bristol

The centre of Bristol may soon be the subject of major regeneration. Will the same be true of other city centres around the world?

object and ownership/collecting is breaking down". One year on, we would argue this is an ongoing process. As this report went to press, Christie's was preparing to sell more than 15 works via its auction platform, Christie's 3.0, as part of its Next Wave: The Miami Edit Sale.

5G rollout continues apace. Cloud-based technologies continue to become more and more integral to the technology stacks of the largest companies. Livestreaming is still important because, as we noted, it encompasses "the idea that retailers will increasingly have to move fast to make the most of the opportunities that digital commerce offers". Whether livestreaming has really taken off outside Asia is another matter.

Social media continues to fascinate and appal us in equal measure, meaning it continues to be a channel that retailers have to use while being aware of risks around

reputational damage. We cover the metaverse in detail elsewhere. Work-life balance in the post-pandemic age can be filed under things we're working out as we go along.

In short, these are all areas where retailers will likely monitor developments, and we would also add in four other areas too (in addition of course to sustainability, also dealt with in detail elsewhere).

THE CHANGING FACE OF TOWN AND CITY CENTRES In July 2022, plans were announced to demolish The Galleries shopping centre in the centre of Bristol. [1] In some respects, this was hardly surprising. The gravitational centre of retail in Bristol shifted in September 2008 with the opening of Cabot Circus, a state-of-the-art new shopping centre where House of Fraser was the anchor store. Across the road from this vast new development, the Quakers Friars area welcomed a new branch of Harvey Nichols.

Owners LaSalle Investment Management and the city council want to replace The Galleries with a mix of flats, offices, a hotel and bars as well as shops. The idea is to replace an increasingly tired-looking part of the city centre with a mixed-use development that better reflects the way people want to live in the city. Increasingly, this kind of redevelopment scenario will be played out across the world as the continuing rise of multichannel retail changes how we live in use town and city centres. It is yet another reason, if any were needed, for multichannel

retailers to look long and hard at their retail footprints. Although, as the CEO of RetailX has dryly observed, we may yet end up building shopping centres to cater for those moving into high-density, inner-city developments.

DON'T GET CAUGHT IN THE MIDDLE

We would argue it is not enough for multichannel retailers to think about how many shops to keep open and where to locate these stores. It's also important to ask what's the point of stores? At the risk of sounding like a retail fundamentalist, we either go shopping for essentials, for example, the day-to-day business of buying food or for fun, to buy clothes, books or hobby items.

As consumers, we want different experiences from these kinds of shopping. At the supermarket, we want items to be competitively priced. Or maybe we will just go online to buy these items. At a book or record store, by way of contrast, we want special events, expert staff who can make recommendations and a sense of theatre. Even if we buy online from these retailers, we very likely want to look forward to picking up items in person.

One way to read the fact that the UK lost 83% of its department stores in the wake of the collapse of BHS^[2] is to say these are retailers that got caught in the middle. No longer exciting places to visit, they didn't offer sufficient value for money either. Boards making decisions about retail footprints may be well advised to remember this.

PRIVACY MATTERS

Implemented on 25 May 2018, the effects of the European Union's General Data Protection Regulation have arguably been under-reported, perhaps because GDPR was not the Year Zero that many expected. Rather, as companies have grappled with its implications, **a slow realisation that data-driven retail may need to change has been coming to the fore.** In late 2021, the French data protection authority, CNIL, fined Google €150mn because it was too difficult for users to refuse to allow cookies when accessing google.fr and youtube.com.^[3]

You could argue that such fines are a price of doing business. However, that's an argument that's easier to make when economies are booming, which is certainly not true at the moment. Arguably more seriously, such stories damage consumer confidence.

VIRTUAL CURRENCY WOES

The recent collapse of FTX may not directly affect many retailers, but it does serve as a warning over the dangers of accepting inadequately regulated cryptocurrencies. Looking further ahead, though, an interesting question is whether such problems will lead to more oversight of the sector, which means that in turn more people will actually use cryptocurrencies.

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Conclusion

We hope that you have found our research and analysis to be of interest and commercial value. We would be very pleased to hear from you with questions, suggestions or comments, and in particular we would like to hear about any areas you think we should include in the 2023 report. Please get in touch via: research@retailx.net

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