The Statista Digital Market Outlook provides essential data for 8 digital markets in 150 countries

About the Statista Digital Market Outlook (1/2)

What is the Statista Digital Market Outlook?

The Statista Digital Market Outlook is a tool that provides key market indicators, independent forecasts, and detailed market insights for the most relevant markets of the digital economy. Digital market data is often available in inconsistent forms, scopes, and segmentations, which makes it impossible to get reliable comparisons between two or more data sets. Our goal is to simplify your research and planning by providing all the necessary data for 6 digital markets in 150 countries with a clearly defined market scope.

The Statista Digital Market Outlook is built on resources from the Statista platform as well as in-house market research and analyst experience. We evaluate the status quo, monitor trends, and create an independent forecast of market developments of the global digital economy.

The tool provides data on financial operating figures (revenue or comparable KPI) and user-related figures (number of users, user penetration, average revenue per user (ARPU)) - on the platform and in multiple download format.

The data for each market is updated twice a year and our analysts create Outlook Reports for all markets and segments, giving an extensive overview of the current state of the market and its latest trends.
The key to our data is independent market modeling and primary research

About the Statista Digital Market Outlook (2/2)

The data of the Statista Digital Market Outlooks is composed of countless pieces of information. Our analysts build on Statista primary research, relevant market data taken from independent databases, various market and macroeconomic indicators, historical developments, current trends, reported performance indicators from the key market players, and Statista interviews with market experts. Continuous market monitoring allows us to detect and consider relevant changes along the value chain of the digital economy.

The market estimates for our 46 core countries, the world’s largest economies, such as the United States, China, and Germany, are derived from bottom-up market modeling based on the data from a broad range of industry-specific and national sources, the Statista Global Consumer Survey, and our industry knowledge. Demographic user data on digital markets in core countries has been collected from the Statista Global Consumer Survey.

For the 104 non-core countries, we apply algorithmic data analysis, based on macroeconomic indicators and market drivers. Normalized indicators allow realistic assumptions and comparisons (per-capita-spending, penetration rates, etc.) even for countries with low data availability.

Statista Global Consumer Survey

Explore and analyze how consumers think

The Statista Global Consumer Survey offers a global perspective on consumption and media usage, covering five of the consumer. It is designed to help brands, product managers, and brand managers understand consumer behavior and develop strategies and tactics to drive sales.

The Statista Global Consumer Survey was conducted in 46 countries. The basic version of the survey includes a minimum of 2,000 interviews per country. The detailed version covers at least 10,000 interviews per country. The following countries were covered:

- North America
- Central and Western Europe
- Northern and Eastern Europe
- Latin America
- Europe
- Africa
- Asia & Oceania
- Southern Europe
- Middle East

46 countries covering 30% of the global GDP

The Statista Global Consumer Survey is a worldwide online survey exclusively carried out by Statista in 46 countries and covering more than 400,000 consumers in 2019. The digital economy part of the survey exactly matches the Statista Digital Market Outlook market scopes and thus gives us first-hand information on technology adoption and user penetration in each market.

Source: Statista Digital Market Outlook 2020
Digital Market Outlook provides market data for 150 countries and in-depth analysis of 46 core countries

Country coverage (1/2)

Statista Digital Market Outlook coverage

Core countries

Core country
Non-core country
Not covered

Europe
- Austria
- Belgium
- Czechia
- Denmark
- Finland
- France
- Germany
- Greece
- Ireland
- Italy
- Lithuania
- Netherlands
- Norway
- Poland
- Portugal
- Russia
- Serbia
- Spain
- Sweden
- Switzerland

Asia
- China
- India
- Indonesia
- Japan
- Pakistan
- Saudi Arabia
- South Korea
- Thailand
- Vietnam

Americas
- Argentina
- Brazil
- Canada
- Chile
- Colombia
- Dominican Rep.
- Mexico
- Peru
- United States

Australia & Oceania
- Australia
- New Zealand

1: Core country: country where an in-depth analysis is carried out
Source: Statista Digital Market Outlook 2020
The Statista Digital Market Outlook now covers 150 countries and 24 regions

Country coverage (2/2)

<table>
<thead>
<tr>
<th>Europe</th>
<th>Central &amp; Western Europe</th>
<th>Americas</th>
<th>Caribbean</th>
<th>Southeast Asia</th>
<th>Australia &amp; Oceania</th>
<th>Africa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Southern Europe</td>
<td>Austria</td>
<td>Cuba</td>
<td>Brunei Darussalam</td>
<td>Australia</td>
<td>Algeria</td>
<td>North Africa</td>
</tr>
<tr>
<td>Albania</td>
<td>Belgium</td>
<td>Dominican Republic</td>
<td>Cambodia</td>
<td>Fiji</td>
<td>Egypt</td>
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<tr>
<td>Bosnia and Herzeg.</td>
<td>Czechia</td>
<td>Haiti</td>
<td>Indonesia</td>
<td>New Zealand</td>
<td>Morocco</td>
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<tr>
<td>Croatia</td>
<td>France</td>
<td>Jamaica</td>
<td>Laos</td>
<td>Papua New Guinea</td>
<td>South Africa</td>
<td>South Africa</td>
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<td>Cyprus</td>
<td>Germany</td>
<td>Chile</td>
<td>Malaysia</td>
<td>United Arab Emirates</td>
<td>Central Africa</td>
<td>Angola</td>
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<td>Greece</td>
<td>Hungary</td>
<td>Colombia</td>
<td>Myanmar</td>
<td>Iran</td>
<td>Cameroon</td>
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<td>Italy</td>
<td>Iceland</td>
<td>Ecuador</td>
<td>Philippines</td>
<td>Iraq</td>
<td>Chad</td>
<td>Chad</td>
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<tr>
<td>North Macedonia</td>
<td>Ireland</td>
<td>Guyana</td>
<td>Singapore</td>
<td>Jordan</td>
<td>Equatorial Guinea</td>
<td>Equatorial Guinea</td>
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<tr>
<td>Malta</td>
<td>Luxembourg</td>
<td>Paraguay</td>
<td>Thailand</td>
<td>Kuwait</td>
<td>Gabon</td>
<td>Gabon</td>
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<tr>
<td>Montenegro</td>
<td>Netherlands</td>
<td>Peru</td>
<td>Timor-Leste</td>
<td>Lebanon</td>
<td>Republic of the Congo</td>
<td>Republic of the Congo</td>
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<td>Portugal</td>
<td>Poland</td>
<td>Suriname</td>
<td>Vietnam</td>
<td>Oman</td>
<td>Benin</td>
<td>Benin</td>
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<tr>
<td>Serbia</td>
<td>Slovakia</td>
<td>Uruguay</td>
<td>Vietnam</td>
<td>Qatar</td>
<td>Burkina Faso</td>
<td>Burkina Faso</td>
</tr>
<tr>
<td>Slovenia</td>
<td>Switzerland</td>
<td>Qatar</td>
<td>Vietnam</td>
<td>Saudi Arabia</td>
<td>Gambia</td>
<td>Gambia</td>
</tr>
<tr>
<td>Spain</td>
<td>Ukraine</td>
<td>United Arab Emirates</td>
<td>Uzbekistan</td>
<td>Ghana</td>
<td>Ghana</td>
<td>Ghana</td>
</tr>
</tbody>
</table>

Full list of countries and regions covered in the Statista Digital Market Outlook

Europe

Southern Europe
- Albania
- Bosnia and Herzeg.
- Croatia
- Cyprus
- Greece
- Italy
- North Macedonia
- Malta
- Montenegro
- Portugal
- Serbia
- Slovenia
- Spain
- Turkey

Eastern Europe

- Armenia
- Azerbaijan
- Belarus
- Bulgaria
- Georgia
- Moldova
- Romania
- Russia
- Ukraine

Central & Western Europe
- Austria
- Belgium
- Czechia
- France
- Germany
- Hungary
- Ireland
- Luxembourg
- Netherlands
- Poland
- Slovakia
- Switzerland
- United Kingdom

Northern Europe
- Denmark
- Estonia
- Finland
- Iceland
- Latvia
- Lithuania
- Norway
- Sweden

Central America
- Belize
- Costa Rica
- El Salvador
- Guatemala
- Honduras
- Nicaragua
- Panama

North America
- Canada
- Mexico
- United States

South America
- Argentina
- Bolivia
- Brazil
- Chile
- Colombia
- Ecuador
- Guyana
- Paraguay
- Peru
- Suriname
- Uruguay

Asia
- Bangladesh
- Bhutan
- India
- Nepal
- Pakistan
- Sri Lanka

East Asia
- China
- Hong Kong
- Japan
- Mongolia
- South Korea

Central Asia
- Kazakhstan
- Kyrgyzstan
- Tajikistan
- Turkmenistan
- Uzbekistan

Caribbean
- Cuba
- Dominican Republic
- Haiti
- Jamaica

Southeast Asia
- Brunei Darussalam
- Cambodia
- Indonesia
- Laos
- Malaysia
- Myanmar
- Philippines
- Singapore
- Thailand
- Timor-Leste
- Vietnam

East Africa
- Angola
- Cameroon
- Chad
- Equatorial Guinea
- Gabon
- Republic of the Congo

Central Africa
- Burundi
- Ethiopia
- Kenya
- Madagascar
- Malawi
- Mozambique
- Rwanda
- Seychelles
- Tanzania
- Uganda
- Zambia
- Zimbabwe

Source: Statista Digital Market Outlook 2020
MARKET SIZING
We use a bottom-up approach for our status quo market sizing

Market sizing (1/3)

**Detailed status quo analysis in selected core countries**

The Statista Digital Market Outlook data for our core 46 economies, such as the United States, China, and Germany, are subject to an in-depth analysis of each of the markets. To evaluate the markets, we use the latest data from various country-specific sources and industry associations, survey results from our primary research (e.g., the Statista Global Consumer Survey), third-party studies and reports as well as our industry knowledge. Because of the amount of individual information, interpretation, and analysis that flow into the Statista Digital Market Outlook, a detailed representation of the data sources for each data point is not possible.

Market sizes are determined with a bottom-up approach based on an individual logic for each market segment. Demand-side factors, such as the number of users, are linked to performance factors like user penetration or average customer turnover. This data is calculated from market-specific input, such as product prices, purchase/usage frequency, and customer churn rates.

Demographic user data on digital markets originates from the Statista Global Consumer Survey, that completely matches our market definitions and scopes. We use it to calculate the user penetration for each of the markets and provide the split between male/female users at low/medium/high income levels for the different age groups. This gives us an insight into the user behavior of 30 different demographic sets.

**Underlying data**

**Market research**
- Digital consumer profiling – the Statista Global Consumer Survey
- Exclusive representative ad hoc surveys in selected countries on specific current topics

**Key player analysis & monitoring**
- Company profiles and key performance indicators
- Product and price monitoring
- News and trends

**Macroeconomic indicators**
- Country-specific statistical offices and census data
- International organizations and associations

**Studies & third-party data**
- Market analysis and analyst opinions
- Annual reports and industry analysis
- Academic studies
**eCommerce market as an example: Bottom-up approach**

Market sizing (2/3)

<table>
<thead>
<tr>
<th>Online revenues</th>
<th>Retail apparel revenue</th>
<th>Retail footwear revenue</th>
<th>Retail bags &amp; accessories revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>eCommerce share of purchases</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Online users</th>
<th>Share of online apparel shoppers</th>
<th>Share of online footwear shoppers</th>
<th>Share of online bags &amp; accessories shoppers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Internet penetration</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Population</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Sources and benchmark:**

Validation through third-party studies

- [https://ecommercedb.com/](https://ecommercedb.com/), national statistics, third party studies, expert interviews
- National statistics, primary research, third-party studies, expert interviews
- [Statista Global Consumer Survey](https://www.statista.com/)
- National statistics
- National statistics

Note: In countries in which no surveys were conducted or missing values appear, we have calculated user and ARPU figures with a driver-based projection method.

Source: [Statista Digital Market Outlook](https://www.statista.com/) 2020
We estimate the potential of non-core countries with the help of macroeconomic and infrastructural drivers

Driver-based transfer of the market data to non-core countries

The market data for non-core countries is generated in algorithmic models. To compensate for the lack of available data and evaluate the country’s potential, we use the performance ratios from the core countries with similar infrastructure and development conditions as benchmark values. Then we apply an algorithm-based calculation to create market KPI estimations, using the country’s key market indicators as drivers.

Over 100 driver datasets for 150 countries have been collected from a variety of sources including the International Monetary Fund (IMF), International Telecommunication Union (ITU), the World Bank, and many others. The datasets either include a forecast from the source or are forecast by Statista using trend analysis and prediction techniques based on historical data from 2000 to 2018. The drivers are categorized and assigned to the markets, so that the top three best correlating drivers can then be selected for each market segment.

The chosen drivers not only have the best mathematical fit but must also have actual influence on the performance of the markets. If specific drivers are not available for one country, they can be replaced with a set of backup economic development drivers of more general nature.

Non-core country market sizing on the example\(^1\) of the Hungarian Fashion eCommerce market in 2018

**Step 1:** Choose reference core country\(^2\)  
<table>
<thead>
<tr>
<th>Core Country</th>
<th>Non-Core Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poland</td>
<td>Hungary</td>
</tr>
</tbody>
</table>

**Step 2:** Compare key market indicators\(^3\)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Core Country</th>
<th>Non-Core Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>38.1m</td>
<td>9.7m</td>
</tr>
<tr>
<td>Internet penetration</td>
<td>71.4%</td>
<td>70.6%</td>
</tr>
<tr>
<td>Consumer spending per capita</td>
<td>US$8,174</td>
<td>US$7,542</td>
</tr>
<tr>
<td>Consumer spending on clothing, footwear</td>
<td>US$435</td>
<td>US$294</td>
</tr>
<tr>
<td>Fashion share of consumer spending</td>
<td>5.3%</td>
<td>3.8%</td>
</tr>
</tbody>
</table>

**Step 3:** Apply an algorithm to estimate market KPIs, using data from the core country as base and the country’s key market indicators as drivers

**Result:**

<table>
<thead>
<tr>
<th>KPI</th>
<th>Benchmark</th>
<th>Estimated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apparel ARPU</td>
<td>US$151</td>
<td>US$70</td>
</tr>
<tr>
<td>Apparel user penetration</td>
<td>37.8%</td>
<td>42.3%</td>
</tr>
</tbody>
</table>

1: Simplified illustration 2: Several core countries are used to get the final results 3: Further key market indicators were used in the final algorithm

Source: [Statista Digital Market Outlook 2020](https://www.statista.com)
FORECASTS
Our market growth forecasting is based on parameterized forecasts

Forecasting (1/3)

To create forecasts for up to 5 years in the future, we combine trend scouting with statistical and mathematical forecasting techniques.

Digital products and services are not embraced by all individuals at the same time but in a time sequence. The market maturity can be evaluated according to Bass diffusion model, that describes how new products are penetrating the market. The users can be classified into categories based on how long it takes until they will adopt the new product. This technology penetration lifecycle can be represented as a graph:

The Bass model is suitable for making predictions for all products despite possible differences in product characteristics and complexity – the curve can shift in time and its steepness might differ, but its shape is always similar.

Once the status quo has been established, we assess the recent market growth and the macroeconomic environment of the country and its region. Then we move on to trend scouting, looking out for the business-critical developments in the industries that provide the basis for the future growth of the markets.

A market growth forecast is generated with the help of our tool that combines historical market data with predicted development of key market drivers by creating an S-curve function. The S-curve as a special case of the logistic function is well suited to forecast digital markets due to non-linear growth of technology adoption.

The result is an algorithm-backed forecast, based on relevant market drivers (e.g., internet penetration, consumption spending, infrastructure development, share of urban population, etc.) and the technology adoption lifecycle in the given market. We validate our data through collaboration with other Statista teams, third-party forecasts, regional comparisons, and analysis of development cycles in different markets.

Source: Statista Digital Market Outlook 2020
Online Food Delivery market growth as an example of Bass innovation diffusion model application

Forecasting (2/3)

**Innovation diffusion curve 2018**

The diffusion of innovations graph shows successive groups of consumers adopting Online Food Delivery (for this the graph above shows the penetration rate of selected countries). Diffusion is the rate and volume at which innovations spread among their users (an adoption rate of 100% is theoretically possible but not realistic). Considering the already high diffusion rates, Online Food Delivery is likely to grow slower in the next years.

Source: Statista Digital Market Outlook 2020
Parametrized forecasts: S-curve function

Forecasting (3/3)

Parameters that determine the projected market development

- **A: Base Level** - starting point of market development / known threshold
- **G: Jumping Height** - remaining potential until maximum market penetration
- **T: Symmetry** - progression of market diffusion
- **k: Steepness** - development speed / intensity of growth
- **M: Inflection Point** - point of transition to starting market saturation

\[
y = A + \frac{G}{1 + T \cdot e^{-k \cdot (x-M)}}^{1/T}
\]

1: Depending on the forecast market, a market maturity metric might be user penetration, revenue, saturation, etc.
Source: Statista Digital Market Outlook 2020
COVID-19 IMPACT
We currently expect a V-shaped recovery – pre-crisis estimates will be reached again in 2023

COVID-19 impact (1/4)

Global real GDP\(^1\) forecast in trillion US$

We believe that a swift V-shaped recovery can happen under specific circumstances

- Initial restrictions reduce infection rates to manageable levels
- Increased knowledge about the virus and its spread allow for more targeted measures and a modicum of normalcy
- Psychological shock effects subside, and consumer confidence returns
- Vaccines and/or medications are widely available within 12-18 months
- No additional financial crises are triggered
- Governments cooperate and assist businesses/consumers

We do not anticipate a reversal of long-term trends but a dissipation of the pandemic-induced shock

We will likely see an intensification of existing long-term trends (e.g., digitization)

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1: Gross domestic product in constant 2017 prices, converted from local currencies using the annual average exchange rates of 2017
Source: Chart data based on IMF, World Economic Outlook, April 2020, own calculations and estimates
Currently, the main drivers for adapted revenue forecasts are industries, not countries

COVID-19 impact (2/4)

Country specific differences are still small

- Most countries are affected and implemented restrictions
- Through the connection of the globalized markets with each other, even countries with limited restrictions are hit
- Country specific impact is not clearly seen yet

Industries are very differently impacted

Revenue adjustment of Statista Market Outlooks due to COVID-19 pandemic

<table>
<thead>
<tr>
<th>High impact</th>
<th>Medium impact</th>
<th>Small impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue loss &gt;10% in 2020</td>
<td>Revenue loss 5.1-9.9% in 2020</td>
<td>Revenue loss &lt;5% in 2020</td>
</tr>
<tr>
<td>Hardware</td>
<td>Software</td>
<td>Beauty &amp; Personal Care</td>
</tr>
<tr>
<td>Alcoholic Drinks</td>
<td>IT Services</td>
<td>Home &amp; Laundry Care</td>
</tr>
<tr>
<td>Event Tickets</td>
<td>Accessories</td>
<td>Media</td>
</tr>
<tr>
<td>Dating Services</td>
<td>Digital Advertising</td>
<td>Tobacco Products</td>
</tr>
<tr>
<td>Mat Drink</td>
<td>Apparel</td>
<td>Toilet Paper</td>
</tr>
<tr>
<td>Luxury Goods</td>
<td>Consumer Electronics</td>
<td>Toys &amp; Hobby</td>
</tr>
<tr>
<td>Mobility Services</td>
<td>Digital Advertising</td>
<td>Furniture</td>
</tr>
<tr>
<td>Motorcycles</td>
<td>Eyewear</td>
<td>Household Appliances</td>
</tr>
<tr>
<td>Non-Alcoholic Drinks</td>
<td>Hosiery</td>
<td>OTC Pharmaceuticals</td>
</tr>
<tr>
<td>Passenger Cars</td>
<td>Pantyhose</td>
<td>Smart Home</td>
</tr>
<tr>
<td>Traditional Advertising</td>
<td>Smart TV</td>
<td></td>
</tr>
<tr>
<td>Travel &amp; Tourism</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- From major losses to revenue boosts, a range of potential outcomes exists
- Some effects (e.g., tissue & toilet paper hoarding in March) are one-time only and will not dramatically change yearly revenue in 2020

Source: Statista Digital Market Outlook (May 2020 update)
Our COVID-19 forecasts build on extensive research

COVID-19 impact (3/4)

<table>
<thead>
<tr>
<th>Economic outlook</th>
<th>Directly affected markets</th>
<th>Indirectly affected markets</th>
<th>Shock dissipation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expected impact on general economy (GDP, consumer spending, investment, etc.)</td>
<td>Directly impacted by quarantine measures (e.g. Travel &amp; Tourism)</td>
<td>More moved by overall economic performance rather than pandemic-specific events and measures (e.g., most consumer products)</td>
<td>Revenues expected to return to long-term trend eventually</td>
</tr>
<tr>
<td>Based on current forecasts of IMF, statistical offices and our analysts</td>
<td>Recession reaction based on analyst assessments, benchmark forecasts, leading indicators, as well as our own surveys</td>
<td>Recession reaction modeled via regression of historical data (e.g., national accounts, household budget surveys, and similar statistics)</td>
<td>Recovery scenario in V-, U- or L-shape, depending on the market and country</td>
</tr>
</tbody>
</table>

**Pandemic outlook**

- Lock-down: Phase of general quarantine (4-10 weeks)
- Stabilization: Phase of local and individual quarantines, gradual re-opening of economy (12-18 months)
- Reconstruction: Phase after vaccines and treatments have become widely available (from mid to late 2021)

**Market environment**

**Market shock**

**Shock dissipation**

Source: Statista Digital Market Outlook (May 2020 update)
We handle uncertainty by releasing regular updates

- Currently, many things are unclear
  - Duration/type of restrictions in industries & countries
  - Size of government aid programs
  - Mid- to long-term changes in consumer behavior
  - Timing of medication/vaccine
  - Unemployment rate development
  - Impact on household budgets
- Also Q1 reports by companies only reveal the impact in March, we do not see detailed April / May reports yet
- We will check & potentially adapt our forecasts quarterly
- If major events happen or new information is coming to light, we will make ad-hoc changes to the affected markets

We note the update status in each chart

Updated revenues with date:
- Source: Statista (Forecast adjusted for expected impact of COVID-19), May 2020

Not yet updated revenues:
- Source: Statista (COVID-19 impact will be implemented in Q2 2020), April 2020

Source: Statista Digital Market Outlook (May 2020 update)
This appendix contains answers to the frequently asked questions about the general Digital Market Outlook methodology and presents deep dives into each of the digital markets.
FAQ: The Statista Digital Market Outlook

Frequently asked questions (1/2)

Which macroeconomic data was used to model the forecast?
You can find the key market indicators used for the forecasting at the bottom of the market and/or segment page.

What currency rates were used to recalculate the values in local currency into US$?
The Statista Digital Market Outlook uses the constant average currency rate for the first year shown in the tool. It can be found on the top right of each segment's page.

Do the markets break down by brands/companies?
The eCommerce market shows the top 5 online shops from the ecommerceDB. We also provide market/usage shares for eServices, Digital Media and Digital Advertising. For an idea on user shares, you can refer to the Statista Global Consumer Survey for all Statista Digital Market Outlook markets.

How often do you update the information?
We update data in our Market Outlooks twice a year. The updates are scattered throughout the year, so one market might be updated in January and July, while others are updated later. If something major happens that influences our estimations or if we find inconsistencies, we will update immediately.

Is this data comparable year over year?
Yes, that is the main feature of our Market Outlooks: comparability across markets, countries, and years. If we change market definitions to adapt to the ever-changing business models in the digital world, we adapt the whole market estimate and forecasts so that all revenue data aligns again with the new definition and is comparable year over year.

Is it possible to get the historical data for years prior to the data published in the tool?
Historical data for these years is rare and we would have to estimate it. The digital markets are still emerging and influenced by many unpredictable factors which were hard to capture in the past and therefore not easy to measure. That is why we only show the 'status quo' incl. a market sizing based on estimations and a forecast for the next years. By doing this, we can provide reliable data that fulfills our quality standards.
FAQ: The Statista Digital Market Outlook

Frequently asked questions (2/2)

The figures now differ significantly from those of the previous year. Why did the data change?

Approaches, assumptions, input data, and scope are improved from update to update. Therefore, data from previous updates might not necessarily be comparable with current data. In addition to that, our own primary research is expanding, and we are replacing third-party data sources with the data from the Statista Global Consumer Survey, which can lead to one-time significant changes in data.

The data in the download files or in the report differs from the data shown in the tool. Which is correct?

The data in the tool is always updated first. Due to limited IT capacity and a time lag, the data in the reports and in full-page downloads might arrive with some delay in time.

Can we download the information into Excel/ PPT?

The data in our Market Outlooks can be downloaded as Excel and PDF file. Our reports are available for download as a PDF file only.

How can I prove how reliable the data is? Do you have an indicator on how precise these forecasts are?

There is little data we can compare our forecasts to as no statistical office monitors digital markets yet and most sources differ in methodology. But we certainly compare against estimates from other companies, and in some cases, company reports and press releases give a good indicator.

Can I get the raw data or the original file where you modeled the market?

We don’t offer our working files for download.

Source: Statista Digital Market Outlook 2020
## eCommerce market model methodology explained via the Fashion eCommerce market

### eCommerce market model methodology (1/2)

### Sources and benchmark:

**Validation through third-party studies**

- https://ecommercedb.com/, national statistics, third party studies, expert interviews
- National statistics, primary research, third-party studies, expert interviews
- Statista Global Consumer Survey
- National statistics

### Table: Fashion eCommerce Market

<table>
<thead>
<tr>
<th>Source</th>
<th>Validation</th>
</tr>
</thead>
</table>

**Note:** In countries in which no surveys were conducted or missing values appear, we have calculated user and ARPU figures with a driver-based projection method.
Definitions

What is the methodology of the eCommerce market?

Our analysts build on Statista primary research (Statista Global Consumer Survey), bottom-up modeling, market data from independent databases and third-party sources, analysis of various key market and macroeconomic indicators, historical developments, current trends, reported performance indicators from the key market players, and Statista interviews with market experts.

What is the definition of the eCommerce market?

The eCommerce market includes the sale of only physical goods via a digital channel (from all types of devices) to a private end user (B2C). Cross-border purchases are attributed to the country of the buyer.

The following categories are not included in the eCommerce market: digitally distributed services (see instead: eServices), digital media downloads or streaming services (see instead: Digital Media), online booking of plane and concert tickets, etc. B2B eCommerce and purchase or resale of goods (reCommerce and C2C) are not included either.

Specials

What does revenue in eCommerce stand for?

All monetary figures refer to the B2C sales before the deduction of VAT and do not factor in shipping costs.

What is cross-border eCommerce?

In the case of cross-border eCommerce, the buyer and the seller are not located in the same country. Online trade within the European Union and other trade unions is also considered cross-border. The Statista Digital Market Outlook attributes cross-border purchases to the country of the buyer.

What is the definition of eCommerce users?

The user metrics show the number of customers (in the selected country or region) who have made at least one online purchase (in the selected market or segment) within the last 12 months.
eServices market model methodology explained via the Online Food Delivery segment

eServices market model methodology (1/2)

<table>
<thead>
<tr>
<th>Online GMV</th>
<th>Restaurant-to-Consumer Delivery</th>
<th>+</th>
<th>Platform-to-Consumer Delivery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price/average GMV</td>
<td>Average amount spent on</td>
<td>×</td>
<td>Average amount spent on</td>
</tr>
<tr>
<td>per user</td>
<td>Restaurant-to-Consumer Delivery</td>
<td></td>
<td>Platform-to-Consumer Delivery</td>
</tr>
<tr>
<td></td>
<td>orders</td>
<td></td>
<td>orders</td>
</tr>
<tr>
<td></td>
<td>Restaurant-to-Consumer Delivery</td>
<td>×</td>
<td>Platform-to-Consumer Delivery</td>
</tr>
<tr>
<td></td>
<td>orders placed p.a.</td>
<td></td>
<td>orders placed p.a.</td>
</tr>
<tr>
<td>Online users</td>
<td>Share of Restaurant-to-Consumer</td>
<td>×</td>
<td>Share of Platform-to-Consumer</td>
</tr>
<tr>
<td></td>
<td>Delivery users</td>
<td></td>
<td>Delivery users</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Internet penetration</td>
<td>×</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Population</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sources and benchmark:

- Validation through third-party studies, expert interviews
- Annual reports, national statistics, third-party studies
- Annual reports, primary research, third-party studies
- Statista Global Consumer Survey, web traffic and amount of app downloads
- National statistics
- National statistics

Note: In countries in which no surveys were conducted or missing values appear, we have calculated user and ARPU figures with a driver-based projection method.

Source: Statista Digital Market Outlook 2020
Definitions

What is the methodology of the eServices market?

Our analysts build on Statista primary research (Statista Global Consumer Survey), bottom-up modeling, market data from independent databases and third-party sources, analysis of various key market and macroeconomic indicators, historical developments, current trends, reported performance indicators from the key market players, and Statista interviews with market experts.

What is the definition of the eServices market?

The eServices market is defined by the sale of online services and digital goods via the internet. The definition includes event tickets (sport events, music events, cinema tickets), fitness apps and wearables, dating services (matchmaking, online dating, casual dating) as well as online food delivery (restaurant-to-consumer and platform-to-consumer delivery). The ticket reservation or purchase can be completed on a desktop PC or via mobile devices (smartphones or tablets). Prerequisite is an online checkout process.

The definition of eServices does not include media content acquired online (see: Digital Media) or the online sale of physical goods (see: eCommerce). Furthermore, no business-to-business segments are included, neither are revenues from online gambling, software downloads and services, or commission fees of price/product comparison sites.

Specials

What does revenue in the eServices market stand for?

All monetary figures refer to the gross merchandise/transactional value (GMV/GTV) and represent what consumers are paying for these services and products. Revenues do not reflect calculated profit margins, advertising, or any other revenue streams.

What is the definition of eServices users and the penetration rate?

The user metrics show the number of customers (in the selected country or region) who have made at least one online purchase (in the selected market or segment) within the last 12 months. The Penetration Rate box shows the share of active customers (or accounts) from the total population of the selected market (market segment, region) for each year. For the Dating Services segment and the Fitness App sub-segment, we also show paying and non-paying users.

Why do users of the included sub-segments in one segment don't add up to the total?

The total amount of users in a segment (e.g., Event Tickets) is not just all sub-segments summed up. Since consumers can be users of all sub-segments (e.g., Music Events, Sport Events, Cinema Tickets), they are counted only once for the total. We calculate the total with an aggregation share for each segment.

Source: Statista Digital Market Outlook 2020
DIGITAL MEDIA
Digital Media market model methodology explained via the Digital Music market

Digital Media market model methodology (1/2)

<table>
<thead>
<tr>
<th>Source and benchmark:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Validation through third-party studies</td>
</tr>
<tr>
<td>Third-party studies, analyst expertise, industry research</td>
</tr>
<tr>
<td>Third-party studies, analyst expertise, industry research</td>
</tr>
<tr>
<td>Statista Global Consumer Survey</td>
</tr>
<tr>
<td>National statistics</td>
</tr>
<tr>
<td>National statistics</td>
</tr>
</tbody>
</table>

## Digital Music market

<table>
<thead>
<tr>
<th>Total revenue</th>
<th>Music Streaming revenue</th>
<th>+</th>
<th>Music Downloads revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average spending per user</td>
<td>Average price per month</td>
<td>×</td>
<td>Average price per download file</td>
</tr>
<tr>
<td></td>
<td>Average subscription time p.a.</td>
<td>×</td>
<td>Average download frequency p.a.</td>
</tr>
<tr>
<td>Paying users</td>
<td>Share of paying Music Streaming users</td>
<td>×</td>
<td>Share of paying Music Downloads users</td>
</tr>
<tr>
<td>Internet users</td>
<td>Internet penetration</td>
<td>×</td>
<td>Population</td>
</tr>
</tbody>
</table>

Note: In countries in which no surveys were conducted or missing values appear, we have calculated user and ARPU figures with a driver-based projection method.
Source: Statista Digital Market Outlook 2020
Definitions

What is the methodology of the Digital Media market?

Our analysts build on Statista primary research (Statista Global Consumer Survey), bottom-up modeling, market data from independent databases and third-party sources, analysis of various key market and macroeconomic indicators, historical developments, current trends, and reported performance indicators from the key market players.

What is the definition of the Digital Media market?

The Digital Media market includes spending on audiovisual media contents and applications that are distributed directly over the internet. This includes digital video contents (e.g., movies, series, and TV shows), digital music provided as download or internet stream, digital games for different devices, and electronically published content such as eBooks, eMagazines, or ePapers. User-generated content (UGC), physical sales, ad-supported content and services as well as free or open access content are not considered.

Specials

What does revenue in Digital Media stand for?

All monetary figures refer to consumer spending on digital goods or subscriptions in the respective segment. This spending does factor in discounts, margins, and taxes.

What is the definition of Digital Media users?

The user metrics show the number of customers (in the selected country or region) who have made at least one online purchase (in the selected market or segment) within the last 12 months.

Why are revenues in the Music Downloads segment decreasing?

As music streaming services like Spotify or Apple Music are offering unlimited access to huge music libraries for reasonable prices and (mobile) internet speed and penetration are steadily growing all over the world, downloading music, due to price sensitivity and technical restrictions, becomes increasingly obsolete.

How is the Gaming Networks sub-segment calculated?

For modeling this sub-segment, we relied on an intensive key player and price research to get an in-depth overview of this special market. In addition to that, we estimated the number of subscribers for each country or region by using a combination of macro-economic indicators and local characteristics.
DIGITAL ADVERTISING
Digital Advertising market model methodology

Digital Advertising market model methodology (1/2)

Sources and benchmark:

Based on third-party studies, analyst expertise, industry research, company data

Third-party studies, analyst expertise, industry research

Validation through third-party studies

Digital Advertising market

Total ad spending

=  

Search Advertising revenue + Social Media Advertising revenue +
Banner Advertising revenue + Video Advertising revenue +
Classifieds revenue

Internet users: national statistics

=  

Internet penetration × Desktop share × Mobile share

Population

Average ad spending

=  

Average Ad Spending per Internet User 

Desktop ad spending 

Mobile ad spending

Source: Statista Digital Market Outlook 2020
Definitions

What is the methodology of the Digital Advertising market?

With its B2B orientation, the Digital Advertising market is an exception among the markets in the Digital Market Outlook. Our analysts build on top-down modeling based on market data from independent databases and third-party sources, analysis of various key markets and macroeconomic indicators, historical developments, current trends, and reported performance indicators from the key market players.

What is the definition of the Digital Advertising market?

The Digital Advertising market includes spending on digitally played advertisements via different online channels and formats like Search, Social Media, Banner, Video, and Classifieds. It only covers ad spending placed by businesses (B2B) with exceptions to the Classifieds segment. The market is segmented into Desktop and Mobile revenues, depending on the delivery method such as desktop computers (incl. notebooks) or mobile devices (smartphones and tablet PCs). Advertising formats like e-mail marketing, audio ads, influencer marketing or sponsorships, product placement, and commission-based affiliate systems are not considered here. All shown figures refer to gross values.

Specials

What does revenue in Digital Advertising stand for?

All monetary figures refer to the gross spending for playing digital advertisements via online channels placed by businesses. Gross spending does factor in discounts, agency fees, margins, and taxes.

Why are there neither Digital Advertising users nor ARPs?

As the Digital Advertising market only refers to ad spending placed by businesses (B2B), a reliable estimation of user accounts is not feasible. Thus, the average revenue per user (ARPU) cannot be calculated. As an alternative, we show the Average Ad Spending per Internet User.

How is the Ad Spending by Industry calculated?

The calculation is based on the proportional spread of the economic power of specific industries in a location. The spread is adjusted for B2C spending and internet usage. The shown industry selection is intended to reflect the main industries of an average economy.

How is the Split – (Non-)Programmatic calculated?

The programmatic and non-programmatic split is resulting from allocating the individual market segments to either one of the forms on a percentage basis. For instance, Search Advertising and Social Media Advertising are contributing completely to the market's programmatic share, while all other segments contribute less.
SMART HOME
## Total number of Smart Homes in a country and segment shares

### Smart Home market model methodology (1/3)

#### Sources and benchmark:
- Validation through third-party studies
- Statista surveys, third-party surveys, interviews, project experience
- Validation through third-party studies
- Statista surveys, third-party surveys, industry research, expert interviews, project experience
- National statistics

### Table: Smart Home additions per segment

<table>
<thead>
<tr>
<th>Segment</th>
<th>Share</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control and Connectivity</td>
<td>×</td>
<td>Statista surveys, third-party surveys, interviews, project experience</td>
</tr>
<tr>
<td>Comfort and Lighting</td>
<td>×</td>
<td>Statista surveys, third-party surveys, interviews, project experience</td>
</tr>
<tr>
<td>Security</td>
<td>×</td>
<td>Statista surveys, third-party surveys, interviews, project experience</td>
</tr>
<tr>
<td>Home Entertainment</td>
<td>×</td>
<td>Statista surveys, third-party surveys, interviews, project experience</td>
</tr>
<tr>
<td>Energy Management</td>
<td>×</td>
<td>Statista surveys, third-party surveys, interviews, project experience</td>
</tr>
<tr>
<td>Smart Appliances</td>
<td>×</td>
<td>Statista surveys, third-party surveys, interviews, project experience</td>
</tr>
</tbody>
</table>

### Formula:

\[
\text{Number of Smart Homes} = \text{New-build households with Smart Home features additions} + \text{Upgraded Smart Home household additions}
\]

\[
= \frac{\text{Ratio of new-build households with Smart Home features}}{\text{New-build households}} \times \text{New-build households} \times \text{Households in a country}
\]

Note: In countries in which no surveys were conducted or missing values appear, we have calculated the number of Smart Homes and the Average Revenue per Smart Home with a driver-based projection method. Source: Statista Digital Market Outlook, 2020.
Smart Home revenues are calculated upstream as a sum of new product and replacement sales

Smart Home market model methodology (2/3)

<table>
<thead>
<tr>
<th>Product revenue</th>
<th>Sources and benchmark:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control and Connectivity product revenues</td>
<td>Validation through third-party studies</td>
</tr>
<tr>
<td>Comfort and Lighting product revenues</td>
<td>Price monitoring, other CE product benchmarks</td>
</tr>
<tr>
<td>Security product revenues</td>
<td>Statista surveys, third-party surveys, company data, industry research, expert interviews, project experience</td>
</tr>
<tr>
<td>Home Entertainment product revenues</td>
<td></td>
</tr>
<tr>
<td>Energy Management product revenues</td>
<td></td>
</tr>
<tr>
<td>Smart Appliances product revenues</td>
<td></td>
</tr>
</tbody>
</table>

Smart Home revenue

\[
\text{Smart Home revenue} = \text{Product price} \times \text{Sales in product units}
\]

Sales in product units

\[
\text{Sales in product units} = \text{Product new additions} + \text{Product replacements}
\]

Product new additions

\[
\text{Product new additions} = \text{Average number of devices per household} \times \text{Adoption shares for product in segment} \times \text{Household additions per segment}
\]

Product replacements

\[
\text{Product replacements} = \text{Product durability} + \text{Share of replaced products}
\]

Note: In countries in which no surveys were conducted or missing values appear, we have calculated the number of Smart Homes and the Average Revenue per Smart Home with a driver-based projection method. Source: Statista Digital Market Outlook 2020
FAQ: Statista Digital Market Outlook – Smart Home

Definitions

**What is the methodology of the Smart Home market?**

Our analysts build on Statista primary research (Statista Global Consumer Survey), bottom-up modeling, market data from independent databases and third-party sources, analysis of various key market and macroeconomic indicators, historical developments, current trends, reported performance indicators from the key market players, and Statista interviews with market experts.

**What is the definition of the Smart Home market?**

The Smart Home market is defined by the sale of networked devices and related services that enable home automation for private end users (B2C). It includes devices that are connected directly or indirectly via a so-called gateway to the Internet. Their main purposes are the control, monitoring, and regulation of functions in a private household.

The remote control and monitoring of individual devices and, if applicable, their direct communication with one another is an essential component of intelligent home automation. Therefore, services that are necessary for the maintenance or control of the household network are also considered, e.g., subscription fees for control apps or external monitoring services. Devices whose primary function is not the automation or remote control of household equipment, e.g., smartphones and tablets, are not included here. Similarly, devices that relate to household connection and remote control only to a limited extent, such as smart TVs, are not included either.

Specials

**What is the Smart Homes box showing?**

The Smart Homes box shows the number of existing Smart Homes (single-occupant homes and households in multi-unit dwellings) of the selected market (market segment, region) in millions for each year.

**Which Smart Home products can be found in which segments?**

**Energy Management:** connected thermostats, radiator controls, temperature/wind/humidity sensors, weather forecast services

**Comfort and Lighting:** connected smart lighting/bulbs, window/door sensors, shading devices, garage door controls

**Home Entertainment:** various connected multiroom entertainment systems, streaming devices, entertainment remotes

**Control and Connectivity:** gateways/hubs that are capable of controlling devices of all segments, smart speakers, control buttons and smart plugs/sockets

**Security:** motion sensors, door locks, security cameras, surveillance services, hazard prevention devices like water, smoke, or gas sensors

**Smart Appliances:** connected large appliances, such as fridges, washing machines, and dish washers, and connected small appliances, such as coffee machines, microwaves, and vacuum and mowing robots

Source: Statista Digital Market Outlook 2020
FINTECH
The FinTech market unites several segments with different methodologies

FinTech market model methodology (1/3)

<table>
<thead>
<tr>
<th>Transaction value</th>
<th>Digital economy trans. value¹</th>
<th>POS trans. value</th>
<th>Outgoing remittances value</th>
<th>Reported amount of AUM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Digital Payments</td>
<td>Mobile POS Payments</td>
<td>Digital Remittances</td>
<td>Robo-Advisors</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Users/Accounts</th>
<th>Digital Payments user share</th>
<th>Mobile Payments user share</th>
<th>Online transfer user share</th>
<th>Robo-Advisors user share</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Digital Commerce</td>
<td>Mobile POS Payments</td>
<td>Online value share</td>
<td>Population</td>
</tr>
</tbody>
</table>

¹: Transaction value, includes eServices, eCommerce, Digital Media, eTravel, and other digital services

Note: In countries in which no surveys were conducted or missing values appear, we have calculated user and ARPU figures with a driver-based projection method. The following drivers were considered: population, GDP per capita, online banking penetration, payment transactions at terminals, etc.

Source: Statista Digital Market Outlook 2020

Validation through third-party studies

Sources and benchmark:

- **Statista Global Consumer Survey**: company data, industry research, expert interviews
- **Statista Global Consumer Survey**: third-party surveys, company data, industry research, expert interviews, project experience
- National statistics
The FinTech market unites several segments with different methodologies

FinTech market model methodology (2/3)

<table>
<thead>
<tr>
<th>Transaction value per user/campaign/account</th>
<th>Alternative Lending</th>
<th>Alternative Financing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount funded p.a.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amount funded p.a.</td>
<td>Marketplace Lending (Consumer)</td>
<td>Crowdfinancing</td>
</tr>
<tr>
<td>=</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Number of loans</td>
<td>Number of loans</td>
<td>Number of campaigns</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sources and benchmark:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Validation through third-party studies</td>
</tr>
<tr>
<td>Company data, third-party valuations, industry research, expert interviews</td>
</tr>
</tbody>
</table>

Note: In countries in which no surveys were conducted or missing values appear, we have calculated user and ARPU figures with a driver-based projection method. The following drivers were considered: population, GDP per capita, online banking penetration, payment transactions at terminals, etc.

Source: Statista Digital Market Outlook 2020
FAQ: Statista Digital Market Outlook – FinTech

FinTech market model methodology (3/3)

Definitions

What is the methodology of the FinTech market?
Our analysts build on Statista primary research (Statista Global Consumer Survey), bottom-up modeling, market data from independent databases and third-party sources, analysis of various key market and macroeconomic indicators, historical developments, current trends, reported performance indicators from the key market players, and Statista interviews with market experts.

What is the definition of FinTech?
The general concept of financial technology is characterized by a rapidly growing number of business models and services. The Statista Digital Market Outlook scope in FinTech currently includes Digital Payments, (Mobile POS Payments and Digital Commerce), Digital Remittances, B2C and C2C Alternative Lending and Financing, and Robo-Advisors.

The following subjects are not included in the current market definition: agency commissions via metasearch engines, business-to-business payments, API management, agencies and external credit scoring, cryptocurrencies (including Bitcoin), and complementary services such as online identification or account management.

Specials

What does transaction value in FinTech stand for?
All monetary information in the FinTech section of the Digital Market Outlook refers to the potential transaction volumes of the respective segments and not corporate revenue.

Why is there no total transaction value for the FinTech market?
Due to the major differences among the FinTech products, e.g., different nature of loan origination volume in Alternative Lending versus assets under management in Robo-Advisors, products across different segments do not add up and no total transaction value for all segments can be calculated.

What is the definition of FinTech users?
The user metrics show the number of customers (in the selected country or region) who have made at least one transaction in the selected market or segment within the last 12 months.
Get in touch with us - We are happy to help

**UNITED STATES**
Hadley Ward
+1 212 419-8286
support@statista.com

**LATIN AMERICA**
Catalina Rodriguez
+1 212 419-8277
support@statista.com

**EUROPE**
Lodovica Biagi
+44 208 189 7000
eu.support@statista.com

**GERMANY**
Jens Weitemeyer
+49 40 28 48 41 0
kundenservice@statista.com

**ASIA**
Ziyan Zhang
+91 804 901 6428
asia.support@statista.com