Big Data Statistics You Must Learn: 2020/2021 Market Share & Data Analysis

Information is power. But only in so far as the insights they reveal.

The 2.5 quintillion bytes of data we create every day is useless unless we crunch it using big data analytics. This is where things get exciting for businesses as we can now predict market behavior with laser-focus accuracy at a personal level. We know data will only get bigger and tech more sophisticated as the months—not years—roll in.

You either get up to speed with big data statistics or run the risk of living under a rock.

Here then, is Financesonline big data report 2020/2021, comprising the key big data statistics and trends to keep you afloat and relevant in the years ahead, all culled from various big data market research labs all over the world.

3 Key Big Data Statistics You Should Know

1 Big data impact on savings and profits

$1 TRILLION

Savings by businesses through IoT by 2020.

$1 BILLION

Saved by Netflix using big data to improve customer retention.

8–10 %

Increased profits by businesses that use big data.

$119 BILLION

Big data global revenue by 2025.

2 How do businesses leverage big data?

through some form of shared analytics resources	85%
measure ROI of investments	80%
drive growth using analytics	75%
implement predictive analytics capabilities	60%

0%   20%   40%   60%   80%   100%

3 Top benefits of data analytics

25% faster innovation cycles

17% improved business efficiencies

13% more effective R&D

12% better product/service

1. State of Industry Statistics

While the big data market size and market share only indicate numbers by the billions, their total effect on the global economy easily ranges in the trillions. The path to growth is open in all directions, and market forecasts and industry projections easily confirm where big data is heading—spearheaded by its twin, business analytics, and the **best business intelligence software** applications that it spawns.

This is evident in both pre-pandemic and post-pandemic forecasts. If anything else, the COVID-19 outbreak accelerated the adoption of Big Data technologies. It's because agility in the business and public policy sphere has been in high demand when it comes to decision making. And, having all the data you need at your fingertips helps a ton.

Pre-Pandemic State of Big Data and Outlook

- $189.1 billion – projected worldwide revenues for big data and business analytics (BDA) solutions for 2019. (**IDC**)

- 12% – the rate of increase for big data and business analytics use from 2018 to 2019. (**IDC**)

- $274.3 billion – projected worldwide revenues for big data and business analytics (BDA) solutions by 2022. (**IDC**)

- 13.2% – projected compound annual growth rate (CAGR) of BDA within the five-year period, 2018-2022. (**IDC**)

- $77 billion – projected big data market size by 2023. (**Entrepreneur**, 2019)

- $103 billion – projected value of the big data analytics market by 2023. (**TechJury**, 2021)

- 20% – projected growth rate of the big data market in 2019. (**TechJury**, 2021)

Pre-Pandemic Drivers of Big Data Growth

Big data exponentially grows with the increasing use of more powerful technologies. This is more so as businesses and institutions pursue competitiveness in all matters digital.

- Digital transformation is a key driver of BDA growth. (**IDC**)

- In terms of big data market share, IT services will have the largest category of the BDA market in 2019 ($77.5 billion), followed by hardware purchases ($23.7 billion), and business services ($20.7 billion). Combined, IT and business services will account for more than half of all BDA revenues throughout the forecast and will be among the categories with the fastest growth. (**IDC**)

- In terms of deployment, on-premises solutions will take more than 70% of BDA software revenues in 2019. However, revenue for BDA software delivered via the public cloud will experience remarkable growth over the five-year forecast (32.3% CAGR). This represents more than 44% of the total BDA software opportunity in 2022. (**IDC**)

Big Data and Top Companies: State of Adoption 2019

- 59.5% of executives state that they are driving innovation using data. (**NewVantage Partners**, 2020)

- 47.6% compete on data and analytics. (**NewVantage Partners**, 2020)

- 46.9% state that they manage data as a business asset. (**NewVantage Partners**, 2020)

- 31% say that they have created a data-driven organization. (**NewVantage Partners**, 2020)

- 28.3% claim that they have forged a data culture. (**NewVantage Partners**, 2020)

Big Data and Top Companies: State of Adoption 2020

- 64.2% claim that they use data to drive innovation. This is a 4.7 percentage point increase from the past year. (**NewVantage Partners**, 2020)

- 45.1% claim that they are competitive on data and analytics. This is a 2.5 percentage point drop from the previous year. (**NewVantage Partners**, 2020)

- 50% state that they manage data as a business asset. This is a 3.1 percentage points increase from 2019. (**NewVantage Partners**, 2020)

- 37.8% managed to create a data-driven organization. This is a 6.8 percentage points increase from 2019. (**NewVantage Partners**, 2020)

- 26.8% claim that they have forged a data culture; a 1.5 percentage points drop from last year. (**NewVantage Partners**, 2020)

Big Data & Business Analytics Solutions Worldwide Revenues

(Projected in US$ B, 2019-2022)

$274.30

$189.10

2019

2022

Source: IDC

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2. Big Data Cost & Benefits Statistics

Cutting-edge **customer service software** can already work through massive amounts of data to profile customer needs and behavior. This helps agents engage with customers better and add more value to the overall customer experience. CRM solutions deal with its own data sets to improve the profiles of both leads and customers. The leading **marketing software** can gather crucial information about leads and customers, allowing marketers to increase their sales leads and conversion. These and other examples show how big data address business challenges from multiple fronts.

Principles for AI/Big Data Investments in 2020

- 53% cite transformation as the main driver for AI/Big Data investments. (**NewVantage Partners**, 2020)

- 26.8% cite innovation as their main driver for investments. (**NewVantage Partners**, 2020)

- Other drivers for investment include competition (8.5%), cost-savings (6.1%), and regulation (4.9%). (**NewVantage Partners**, 2020)
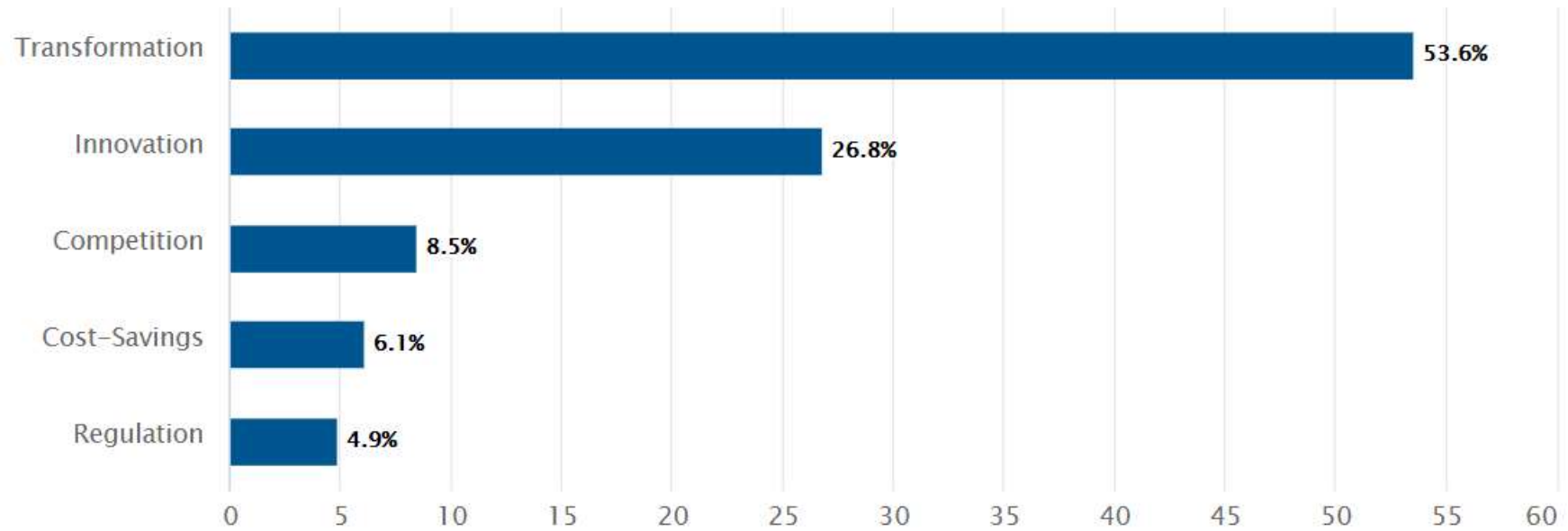
Benefits of Big Data

- Using big data, Netflix saves $1 billion per year on customer retention. (**TechJury**, 2021)

- $1 trillion – the amount businesses will save from IoT by 2020. (**Grazitti Interactive**)

- $40 billion – the projected financial impact of AI by 2025. (**Informa**)

- 8–10% – profit increase for businesses that use big data. (**Entrepreneur**, 2019)

- Data wrapped in stories are 22x more memorable than bare facts. (**Chicago Analytics Group**)

- 70% of businesses believe that data warehouse optimization is critical to their success. (**Forbes**)

- Data analytics top 4 benefits: 25% faster innovation cycles; 17% improved business efficiencies/higher productivity; 13% more effective R&D; and 12% product/service. (**Chicago Analytics Group**)

The Cost of Big Data

- $3.1 trillion a year – the cost of poor data quality to the US economy. (**IBM**)

- 91% of companies feel poor data wastes revenue. (**Chicago Analytics Group**)

- 79% of enterprise executives say that not embracing big data will cause them to risk competitive position and face extinction. (**Forbes**)

- 83% of enterprise executives are pursuing big data projects to gain a competitive advantage. (**Forbes**)

- 10% – reduction in overall cost for businesses that use big data. (**Entrepreneur**, 2019)

Principles for AI/Big Data Investments in 2020

Category	Percentage
Transformation	53.6%
Innovation	26.8%
Competition	8.5%
Cost-Savings	6.1%
Regulation	4.9%

Source: NewVantage Partners, 2020

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Most Popular Business Intelligence Software

1. **Sisense** is a business intelligence software that provides enterprise-grade analytics. Perfect for data engineers, developer, and analysts, it has white-labeled BI apps and interactive dashboards based on industry best practices.

2. **Looker** is a secure and governed platform that offers smarter data experiences. It leverages a multi-cloud strategy to support multiple data sources.

3. **Periscope Data** is a business intelligence and data visualization platform that provides modern businesses with valuable analytics insights. Using SQL, Python, and R, it easily explores and analyzes data.

4. **ReportPlus** is a self-service business intelligence tool assisting businesses to make data-driven business decisions. It lets you create, view, and share data visualizations.

5. **QlikView** is an end-to-end data integration and analytics platform that leverages machine intelligence for smarter insights. It collects data from any location and provides you with analysis-ready discoveries.

3. Big Data Global Penetration Statistics

Nothing keeps big data statistics analysis churning in any part of the world like social media and mobile devices. With these, billions of users and thousands of businesses interact daily to produce a staggering amount of data. Only the best-designed data mining and business intelligence could hope to process these. Add to that the myriad **social media management tools** diving into the data pool and you see data is truly fueling businesses, now and for years to come.

- Every day, we produce 2,500,000,000,000,000 bytes of data. That's 2.5 quintillion or 2.5×10^{18} bytes of data (2.3 trillion gigabytes). (**IBM**)

- 40 zettabytes (43 trillion gigabytes) of data will be created by 2020, up 300% from 2015. (**IBM**)

- 90% of the total amount of all data ever made on Earth was produced by humans in the last two years alone. (**Forbes**)

- 1.7 megabytes – new information created every second by every human being. (**Grazitti Interactive**)

- 6 hours and 42 minutes is the average number of hours per day users spend on the internet. (**TNW**)

- 1.2 billion years – number of years humanity will collectively spend online in 2019. (**TNW**)

- 44 zettabytes (44 trillion gigabytes) – the volume of global IT traffic projected by 2020. (**Grazitti Interactive**)

- 50 billion – number of smart connected devices in the world by 2020, collecting, analyzing, and sharing data. (**CISCO**)

The Dead Figures in Big Data

How does big data figure in big data accounting? Many die while their social accounts remain active. Multiply that by the years ahead, and you get the picture. Of course, that does not take away from how many of the current world population make it into the big data numbers.

- 181 million – number of years it would take an individual to download all the data from the internet. (**IOP**)

- 50 years from now – when the dead may outnumber the living on Facebook. (**Phys.org**)

- 7.697 billion global population (urbanization 56%). (**We Are Social**, 2019)

- 5.110 billion unique mobile users (66% penetration). (**We Are Social**, 2019)

- 4.437 billion Internet users (58% penetration). (**We Are Social**, 2019)

- 3.499 active social media users (45% penetration). (**We Are Social**, 2019)

- 3.429 mobile social media users (45% penetration). (**We Are Social**, 2019)

Data Footprint of Humans

44 zettabytes
Projected volume of global IT traffic by 2020

40 zettabytes
Volume of data created by 2020, up 300% from 2015

2.3 zettabytes
Volume of data that humans produce every day

Source: IBM, Grazziti

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4. Big Data Business Application Statistics

US companies are storing big data at a mind-boggling rate. However, data is almost evenly split between structured and unstructured/semi-structured data. That means there is a lot of work ahead for vendors and their clients to fully maximize big data. And they may be falling behind the race as we see even faster big data traction. These are all thanks to technologies like cloud computing, augmented reality (AR) and artificial intelligence (AI).

- 100 terabytes – volume of data stored by most US companies. For perspective, a year of it is enough to fill ten thousand Libraries of Congress. (**IBM**)

- 1 terabyte of trade information – average volume of data captured by the New York Stock Exchange each trading session. (**IBM**)

- 45% – the percentage of companies that run big data workloads in the cloud. (**ZDNet**, 2019)

- 100 sensors – average number of sensors used by modern cars to monitor items such as fuel level and tire pressure. (**IBM**)

- 51% of data is structured, 27% of data is unstructured, and 21% of data is semi-structured. (**TCS**)

How big data will look for companies and employees

- 30% of web browsing will be done without a screen by 2020. (**Grazitti Interactive**)

- 220 million – number of connected cars by 2020. (**Grazitti Interactive**)

- 100 million consumers will shop via AR by 2020. (**Grazitti Interactive**)

- 1 billion – number of global workers whose behavior will be altered by algorithms. (**Grazitti Interactive**)

- 40% of employees can cut their healthcare costs by wearing fitness trackers. (**Grazitti Interactive**)

- $9 billion – data investments in the financial services industry in 2018 alone. (**Research and Markets**)

- 97.2% of organizations are investing in big data and AI. (**TechJury**, 2021)

- By 2020, the customer will manage 85% of relationships with an enterprise without interacting with a human. (**Chicago Analytics Group**)

- By 2020, self-service spending on data tools will grow 2.5x higher than traditional data tools spending. (**Chicago Analytics Group**)

- In 2019, there are 2.3 billion active Facebook users, and they generate a lot of data. (**TechJury**, 2021)

Top Industries Served by Big Data and Analytics

- 32% – Media, Advertising, and Entertainment (**Insights Association**, 2020)
- 31.4% – Healthcare Products, Services, OTC Medicines (**Insights Association**, 2020)
- 12.1% – Consumer Durables, Non-Durables (**Insights Association**, 2020)
- 10.2% – Government, Associations, Non-Profits, Public Service (**Insights Association**, 2020)
- 5% – Technology (**Insights Association**, 2020)
- 4% – Financial Services and Insurance. (**Insights Association**, 2020)
- 3% – Telecommunications. (**Insights Association**, 2020)
- 2.5% – Consulting (**Insights Association**, 2020)
- 1.9% – Automotive (**Insights Association**, 2020)

- 1.7% – Retailers/Wholesalers (**Insights Association**, 2020)
- 1.2% – Education (**Insights Association**, 2020)
- The following have less than 1%: restaurants, utilities, hospitality and tourism, agricultural, and political/legal. (**Insights Association**, 2020)
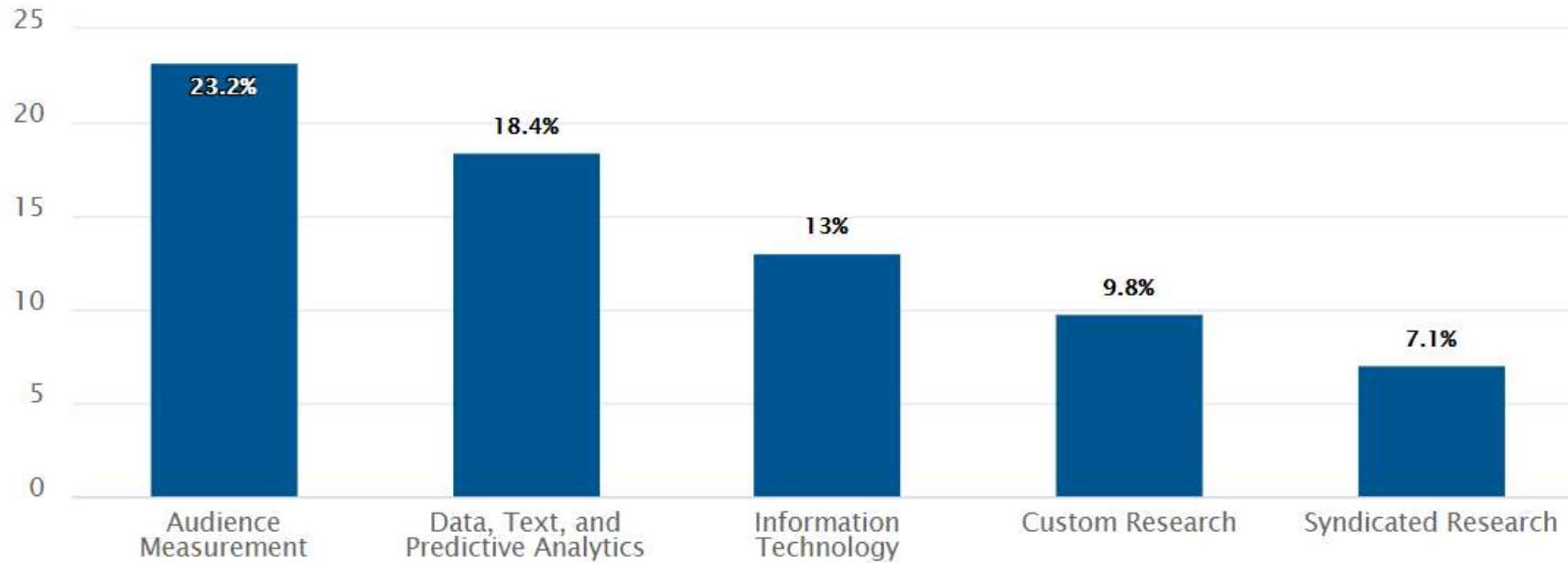
Top Big Data and Analytics Services by Revenue

- 23.2% – Audience Measurement (**Insights Association**, 2020)
- 18.4% – Data, Text, and Predictive Analytics (**Insights Association**, 2020)
- 13% – Information Technology (**Insights Association**, 2020)
- 9.8% – Custom Research (**Insights Association**, 2020)
- 7.1% – Syndicated Research (**Insights Association**, 2020)

Companies still need to address big data challenges

- 88% of data is ignored (**Big Data Made Simple**)
- Most companies only analyze 12% of their data. (**Big Data Made Simple**)
- 40% of businesses say they need to manage unstructured data frequently. (**Forbes**)
- 95% of businesses need to manage unstructured data. (**Forbes**, 2019)
- 27% of people are uncertain about the accuracy of their data. (**IBM**)

- 80% of leaders measure the impact of data analytics investments. (**iView Systems**)

- 60% of leaders have predictive analytics capabilities. (**iView Systems**)

- 85% of leaders have some form of shared analytics resources. (**iView Systems**)

- 99% of organizations think data is essential to marketing success. (**Chicago Analytics Group**)

- Leaders are 166% more likely to make most decisions based on data. (**iView Systems**)

- 75% of leaders cite growth as the key source of value from data analytics. (**Chicago Analytics Group**)

- Leaders are 2.2x more likely to have a formal career path involving analytics. (**iView Systems**)

Top Big Data and Analytics Services by Revenue Share 2020

Audience Measurement	23.2%
Data, Text, and Predictive Analytics	18.4%
Information Technology	13%
Custom Research	9.8%
Syndicated Research	7.1%

Source: Insights Association, 2020

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