

**DATA ANALYTICS AS A FIELD: DEVELOPMENT PROCESS AND STATISTICAL INDICATORS****Shakirova Nigora Axralovna**Tashkent State University of Economics  
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**Abstract:** This article presents the development processes and statistical indicators of data analytics as a field. The study provides a detailed analysis of factors contributing to the development of data analytics, including the digital economy and innovative environment, government support and incentives, the integration of artificial intelligence (AI) and machine learning (ML), the growth of Big Data volume, and the skills and expertise of professionals. Additionally, the article highlights current challenges in the field of data analytics and ways to address them. Moreover, the article discusses the progress of data analytics and its future prospects.

**Keywords:** Data Analytics, Statistical Indicators, Economy and Innovation, Government Incentives, Artificial Intelligence, Machine Learning Integration, Big Data.



**Introduction**

In recent years, alongside the rapid development of information technologies worldwide, the volume of data in various sectors has also increased significantly. According to global research, the volume of data was 33 ZB (zettabytes) in 2018, and it is projected to reach 181 ZB by the end of 2025. Therefore, the collection, processing, and extraction of meaningful insights from large volumes of data have become critically important. Data analytics is one of the most in-demand fields today, enabling the analysis of such processes.

Data analytics serves as a crucial tool for organizations, enterprises, companies, as well as small and medium-sized businesses, government institutions, banks, educational and healthcare sectors, supporting strategic decision-making, understanding customer needs, and anticipating market changes. According to international statistics, between 2020 and 2025, the number of job postings requiring data analysis skills increased by 30%, with employment opportunities in IT-related areas growing rapidly.

This article covers the factors driving data analytics development, global and market statistics, job opportunities, and future trends. The article is based on international literature, scientific sources, and practical experience.

**Key Factors in the Development of Data Analytics**

**Economy and Innovation:** In recent years, the expansion of online services, social networks, mobile applications, and cloud technologies has led to a sharp increase in data volume. Consequently, data analytics serves as a critical tool for introducing innovations in the economy of enterprises and countries. Through data analytics, business processes can be organized more efficiently, and productivity can be improved. Data analytics also lays the foundation for the development of new products and services, helping organizations maintain competitiveness and develop innovative strategies.

For example, the study “Big Data Analytics Capability and Firm Innovativeness: The Moderating Effect of Data-Driven Culture” emphasizes that the capability to work with large datasets (Big Data Analytics) significantly enhances firm innovativeness and competitiveness.

**Government Incentives and Support:** Currently, various developed and developing countries offer different incentives to promote the development of data analytics. These include tax benefits, grants, and subsidies for innovation. In addition, special technology parks and supportive infrastructure for IT and data sectors have been established. These measures contribute to the growth of new startups and companies, the creation of new jobs, and the advancement of the digital economy.

**Integration of Artificial Intelligence (AI) and Machine Learning (ML):**

Data analytics is increasingly intertwined with AI and ML technologies. Storing large volumes of data alone is insufficient; it must be analyzed and used for decision-making. AI and ML integration—automated analytics, real-time processing, and predictive approaches—elevates data analytics to a new level. This integration enhances decision-making for governments and organizations, improves efficiency, reduces errors, and expands opportunities for innovation.

**Statistical Indicators:**

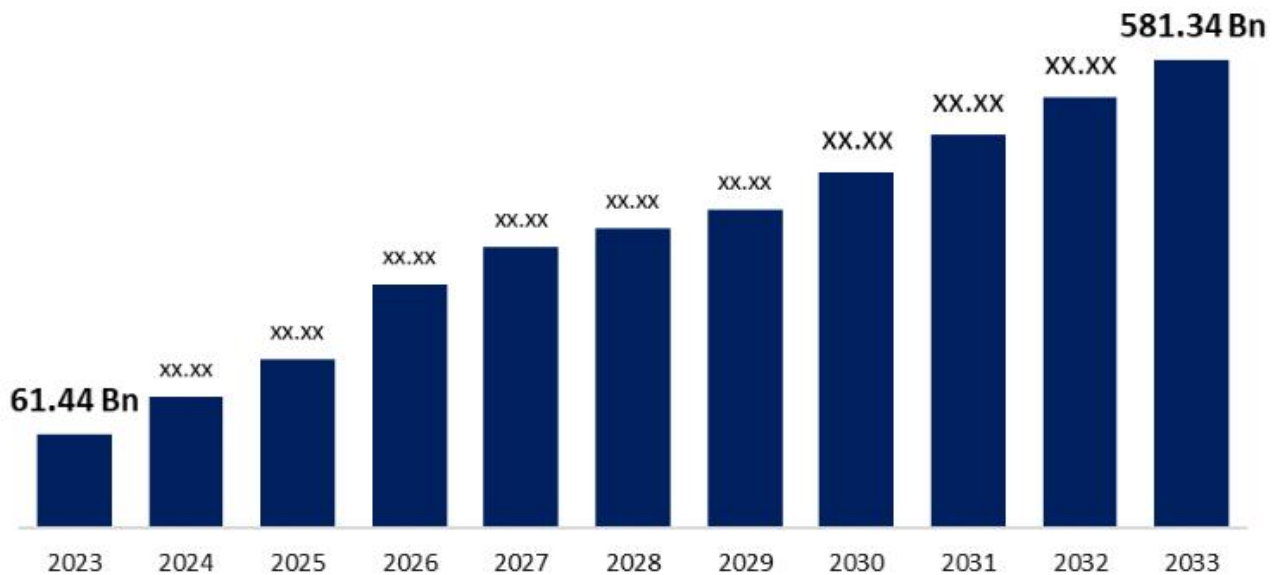
**Global AI (ML) Adoption:** As of 2024, at least one business function in 72% of organizations uses AI. Furthermore, AI has been implemented in two or more functions in approximately 50% of organizations, while generative AI (Gen AI) is regularly used in 65% of cases.

Indicator / Status	Value / Percentage
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Indicator / Status	Value / Percentage
AI used in at least one business function	72% (2024)
AI implemented in two or more functions	Approx. 50% (2024)
Gen AI regularly used	65% (2024)

**Global Data Analytics Market Size:** As of 2023, the global data analytics market was estimated at USD 61.44 billion. Over the next ten years, it is projected to grow significantly, reaching USD 581.34 billion by 2033, with a compound annual growth rate (CAGR) of 25.20% from 2023 to 2033. This indicates that data analytics is becoming a major driver of the global economy.

### Global Data Analytics Market



**Growth of Big Data and Market Potential:**

Currently, the global volume of data is increasing rapidly. Digital data is generated every minute, hour, and day. The following table shows the distribution of data volume over time:

Time	Data Volume
Daily	2.5 million terabytes
Hourly	104,000 terabytes

Time	Data Volume
Per minute	1,736 terabytes
Per second	29 terabytes

The rapid increase in these indicators drives the accelerated development of Big Data and data analytics.

In recent years, global data volume has increased sharply. In 2023, 120 ZB of data were generated worldwide, and it is expected to reach 181 ZB by the end of 2025. The annual growth rate (CAGR) is estimated at 22.5–23.71%. In 2025, an additional 27 ZB of data is projected to be

Year	Data Volume	Annual Growth
2025*	181 zettabytes	23.13%
2024*	147 zettabytes	22.5%
2023	120 zettabytes	23.71%
2022	97 zettabytes	22.78%
2021	79 zettabytes	23.05%
2020	64.2 zettabytes	56.59%
2019	41 zettabytes	24.24%
2018	33 zettabytes	26.92%
2017	26 zettabytes	44.44%
2016	18 zettabytes	16.13%
2015	15.5 zettabytes	24%

generated during the year.

**Trends in Big Data Volume:** In 1999, only 1 GB of data was considered “Big Data.” Today, global data volumes have reached the peta-, exa-, and zettabyte levels. By the end of 2025, Big Data volume is expected to reach 181 ZB, indicating the enormous scale of digital data worldwide.

**Future Prospects of Data Analytics:** Currently, the growing field of data analytics is closely linked with various sectors:

**Business and commerce:** optimizing marketing strategies, developing new products and services.

**Finance:** financial analysis, investment and credit risk assessment, fraud detection.

**Healthcare:** patient data analysis and disease prediction.

**Government administration:** reducing errors, improving efficiency, enhancing the effectiveness of social services.

**E-commerce and logistics:** demand forecasting, supply chain optimization.

**Conclusion:**

Data analytics is not only a critical field today but also for the future. Statistical data shows that demand for data analytics continues to increase annually, creating new jobs and enhancing efficiency across sectors. Integration with Big Data, AI, and ML technologies makes the field more strategic and innovative. Consequently, analytics professionals will continue to play a vital role in economic and social development.

In summary, studying and developing data analytics presents significant opportunities for today and the future.

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