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Abstracts

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Impact of Data Analytics on Labor Market and Business

In various public and private sectors, companies collect and store large amounts of data about their customers and the products and services they offer. To utilize technical data stored and maintained on various digital platforms such as databases and data warehouses a new field called Business Analytics (BA) has emerged in recent years. BA has evolved to become part of all important business decision-making processes and has the potential to transform businesses by providing data to decision makers and helping them make strategic, operational and tactical decisions. By implementing BA initiatives within their organizations, decision makers can integrate data sources, predict trends, improve performance, view key performance indicators, identify business opportunities, and make better, more informed decisions.

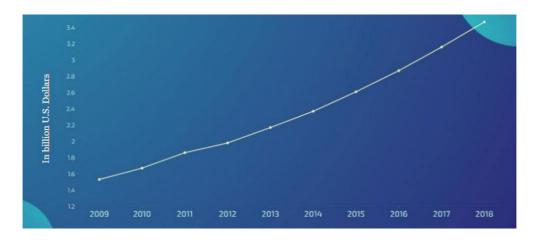


Figure 1. Revenue with business analytics (adapted from Centric digital, 2016)

Data analytics can drive the revenue growth of companies. For example, according to International Data Corporation report as a result of analytics projects for production function, the average ROI (Return on Investment) was 277%, financial management yielded 139% of ROI, and investment in analytic CRM (Customer relationship management) provided 55% [1].

Business analytics enables flexibility. It affects not only the revenue of companies, but also users' convenience and experience. Analytics includes a method known as machine learning that helps to provide more useful and relevant information for a particular user.

With the advent of business intelligence, fraud detection and prevention has undergone significant changes. Traditional manual approaches have often proven reactive and inadequate in the face of modern fraud schemes. However, using data-driven analytics, organizations can now proactively identify anomalies and patterns in real-time, strengthening risk management strategies. With machine learning and artificial intelligence, companies can detect unusual behavior, trigger alerts, and continuously adapt to changing fraud tactics. Data visualization tools further simplify complex information and accelerate decision making, while cross-departmental collaboration provides a holistic approach to risk mitigation. Business intelligence has become a critical weapon in fighting fraud, protecting finances, customer trust and overall business reputation.

In the digital transformation age, there are plenty of business analyst positions including Management Analysts, Operations Research Analysts, Market Research Analysts, Information Security Analysts etc. on the market. The number of annual openings for data analysts is growing. Data-driven decision makers, functional analysts, data systems developers, and analytics managers will be in demand in the near future.

In conclusion, data analytics has a great impact on the labor market and business nowadays. It shows a positive trend of development. Companies that make big investments in business analysis can optimize their operations and investments, set realistic targets, make informed decisions, effect changes, and improve outcomes.

References:

- 1. Saji K. Mathew (2018). Business analytics and business value: A comparative case study. URL:
 - https://www.sciencedirect.com/science/article/abs/pii/S0378720617301283
- 2. Tuncay Bayrak (2015). Review of Business Analytics: A Business Enabler or Another Passing Fad. URL:
 - https://www.sciencedirect.com/science/article/pii/S187704281503833
- 3. Dursun Delen, Sudha Ram (2018). Research challenges and opportunities in business analytics. URL:
 - https://www.tandfonline.com/doi/full/10.1080/2573234X.2018.1507324
- 4. D. J. Power, C. Heavin, J. McDermott, M. Daly (2018). Defining business analytics: an empirical approach. URL: https://www.tandfonline.com/doi/full/10.1080/2573234X.2018.1507605
- 5. BrainStation (2021). Are business analysts in High Demand? URL: https://www.nqr.gov.in/sites/default/files/Are%20Business%20Analysts%20 in%20High%20Demand_%20%282021%20Guide%29%20_%20BrainStati on.pdf
- 6. Centric digital (2016). 5 Reasons why business analytics will help drive revenue for your company. URL: https://www.centricdigital.com/blog/5-reasons-why-business-analytics-will-drive-revenue-for-your-company