

Current Trends of Business Intelligence



Florin - Cristi Movilianu – 2112865

Data Handling & Business Intelligence – LCBB5000

Lecturer – Gasso Mwaluseke

Abstract

This report examines the five most recent trends in the business intelligence (BI) market, with a focus on why companies in 2023 will need to adopt these developments. These trends include data security, mobile intelligence, cloud-based BI, data literacy and augmented analytics. Each trend is backed up by research articles from places like the Journal of the University of Shanghai for Science and Technology, Markets and Markets, IBM, Infragistics, and Forbes. The most common tools in my knowledge will also be highlighted.

Table of contents

ABSTRACT	2
INTRODUCTION.....	4
1. BUSINESS INTELLIGENCE TRENDS.....	4
<i>1.1 AUGMENTED ANALYTICS</i>	<i>4</i>
<i>1.2 CLOUD-BASED BI</i>	<i>4</i>
<i>1.3 DATA SECURITY.....</i>	<i>5</i>
<i>1.4 MOBILE INTELLIGENCE.....</i>	<i>5</i>
<i>1.5 DATA LITERACY</i>	<i>5</i>
2. BUSINESS INTELLIGENCE TOOLS	5
3. CONCLUSION	6
REFERENCES.....	8

Introduction

Over the last few years, Business Intelligence (BI) has been more important to those responsible for making important decisions. It has allowed businesses to become more data-driven and make better decisions based on facts and analysis. Over time, the BI environment has changed considerably as new trends and technologies developed to accommodate the dynamic nature of the business sector. In the following report, we will discuss the five most current trends in business intelligence that modern businesses have to use to remain competitive.

1. Business Intelligence trends

The term "business intelligence" (BI) refers to the process of excavating insights that may be used to make strategic choices. The data from the past and the present are analysed by the instruments that form business intelligence, and the results are presented in ways that are easily understood visually (Microsoft, no date).

According to Canvas Intelligence (2023), all businesses should give serious consideration to incorporating business intelligence into their operations. Some of the most significant trends that will emerge in the coming year include augmented analytics, data security, mobile intelligence, conversational intelligence, cloud connectivity, predictive intelligence and data literacy.

1.1 Augmented analytics

Augmented analytics is the most recent method of combining standard data analysis techniques with artificial intelligence and machine learning to extract data required for decision-making. This will utilise a range of ways to assist businesses in better understanding, analysing and gaining useful facts from their data. Augmented analytics uses automated algorithms and natural language processing to assist companies in detecting patterns and trends in their data and making better decisions (Vora et al., 2022).

1.2 Cloud-based BI

Cloud-based BI includes storing and processing data on distant servers, allowing firms to access insights and data from any location and at any time. Cloud-based BI solutions are less expensive, more flexible, and more scalable than on-premises systems. According to Markets and Markets (2020), the global cloud analytics market is expected to increase at a rate of 23% from \$23.2 billion in 2020 to \$65.4 billion by 2025. As a result of this trend, businesses can't

afford to ignore the advantages of cloud computing if they want to keep up with the competition.

1.3 Data Security

Data security refers to the measures taken to guard against the unauthorised disclosure, use, or modification of digital information. This concept incorporates not only the logical security of software and data but also the physical security of servers and data storage and the control of the access granted to users. Integration of AI will significantly boost the capabilities of a data security system since AI is able to handle enormous volumes of data and facilitates quick decision-making in times of urgent necessity (IBM, 2021).

1.4 Mobile Intelligence

Accessing BI-related data and doing analysis on mobile devices and tablets is what's meant by the term "mobile business intelligence" (BI), which stands for "mobile business intelligence." It simplifies the presentation of key performance indicators, company indicators and visualizations. Mobile business intelligence gives customers the ability to use and benefit from the identical functions and features that are available in desktop or app-based business intelligence tools (Infragistics, 2023).

1.5 Data literacy

Users should understand the strengths and limitations of the data at their disposal, how to access and combine data from different sources, best practices in handling data, how to organize and manipulate data before analysis, and how to perform more advanced visualisations and data analysis (Laney, 2020).

The ability to collect, organize, and analyse data is more crucial than ever as we enter the Fourth Industrial Revolution. Data literacy is becoming increasingly important to businesses throughout the world. According to Forrester's study, by 2025, 70% of workers, up from 40% in 2018, would spend most of their time working with data. In today's increasingly complicated global market, it's evident that companies that promote data literacy among their employees have a distinct advantage (Marr, 2022).

2. Business Intelligence tools

Businesses are now able to make better decisions because of the data-driven insights made possible by business intelligence (BI) systems. Businesses are using BI tools for everything from tracking sales to anticipating customers' next moves. Here are some of the most popular BI resources:

➤ **Microsoft Excel:** When it comes to implementing BI solutions, many firms choose Microsoft Excel because of how useful it is for data analysis and visualisation. Excel provides an abundance of tools for data manipulation and analysis, such as pivot tables and charts, through its extensive library of functions and formulas. Microsoft Excel is a powerful business intelligence tool that can perform everything from quick calculations to in-depth statistical research.

With over a billion users, Excel is by far the most popular analytics platform in the world. It's like a Swiss Army knife for data analysis. Excel is intuitive, user-friendly, robust, quick and highly adaptable. Excel is still in demand even when sophisticated data-finding technologies are employed (Underwood, 2017).

➤ **Power BI:** Power BI is a cloud-based business intelligence platform that allows users to explore data through dynamic charts and presentations. It allows users to link up with various data sources and generate easily shareable reports and interfaces. Natural Language Processing (NLP) features built into Power BI make it possible for users to make inquiries in common phrases and receive immediate responses and resolutions (Microsoft, 2022).

➤ **IBM Watson:** IBM Watson is a system that answers questions using computers that run in the cloud and has self-service analytics tools that let non-technical people examine data and generate findings. To find those, it employs machine learning methods. Watson was considered a revolutionary step forward in artificial intelligence when it was released in 2011 and it has subsequently found usage in many fields, including healthcare, customer service and finance (IBM, 2019).

When it comes to implementing BI solutions, companies may choose and select from a wide variety of analytical and machine learning tools, from Excel and Power BI to more sophisticated platforms. Businesses may use the data and analytics they collect using these technologies to make better decisions and accelerate expansion.

Now that natural language processing and artificial intelligence are becoming more widespread, many more technologies already exist and more will be developed in the future.

3. Conclusion

Implementing BI trends can provide a variety of benefits to businesses, including higher productivity, better decision-making, boosted competitive advantages, improved security of information and confidentiality and a better experience for customers. Key trends that firms should consider when implementing a BI strategy are augmented analysis, cloud-based BI, data security, mobile intelligence and data literacy, all of which are highlighted in this report.

In today's more data-driven business environment, companies that place a high value on BI and take advantage of these developments will be in a strong position to profit from the benefits of these trends.

References

- Canvas Intelligence (2023) Top Business Intelligence Trends for 2023. Available at: <https://canvasintelligence.com/top-business-intelligence-trends-for-2023/> (Accessed: 15 March 2023).
- IBM (2019) About Watson. Available at: <https://ibm.com/watson/about> (Accessed: 17 March 2023).
- IBM (2021) What is data security? Available at: <https://ibm.com/topics/data-security> (Accessed: 17 March 2023).
- Infragistics (2023) What Is Mobile BI & Why Is It Important? Available at: <https://revealbi.io/blog/mobile-business-intelligence-bi> (Accessed: 7 March 2023).
- Laney, D. (2020) Data Literacy: Self-Service Analytics Missing Link. Available at: <https://medium.com/swlh/data-literacy-self-service-analytics-missing-link-78c09098ff> (Accessed: 20 March 2023).
- MarketsandMarkets (2020) Cloud Analytics Market Size, Share, Growth, Industry Analysis by 2022-2030. Available at: <https://marketsandmarkets.com/Market-Reports/cloud-based-business-analytics-market-959.html> (Accessed: 5 March 2023).
- Marr, B. (2022) 'The Importance Of Data Literacy And Data Storytelling', Forbes, 28 September. Available at: <https://forbes.com/sites/bernardmarr/2022/09/28/the-importance-of-data-literacy-and-data-storytelling/> (Accessed: 17 March 2023).
- Microsoft (no date) What Is Business Intelligence. Available at: <https://powerbi.microsoft.com/en-us/what-is-business-intelligence/> (Accessed: 20 March 2023).
- Microsoft (2022) What is Power BI? Available at: <https://learn.microsoft.com/en-us/power-bi/fundamentals/power-bi-overview> (Accessed: 27 March 2023).
- Underwood, J. (2017) EMBRACING EXCEL IN AN ENTERPRISE BI STRATEGY. Available at: <https://xlcubed.com/resources/documents-and-white-papers/excel-in-enterprise-bi.pdf> (Accessed: 8 March 2023).
- Vora, S. et al. (2022) 'Augmented Analytics: From BI to Smart Analytics', Journal of University of Shanghai for Science and Technology, 24(12), pp. 82–92. Available at: <https://jusst.org/wp-content/uploads/2022/12/Augmented-Analytics-From-BI-to-Smart-Analytics.pdf> (Accessed: 26 March 2023).