



REPORT

Impact, Legal issues and usage

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WHAT IS BUSINESS INTELLIGENCE?

The tools, technologies, applications, and processes used to gather, integrate, analyze, and display an organization's raw data in order to generate meaningful and actionable business information are referred to as business intelligence (BI). BI is made up of various linked activities as a discipline and as a technology-driven process, including:

- Data mining
- Decision support systems
- Online analytical processing
- Online transactional processing
- Querying
- Reporting

BI uses software and services to turn data into actionable insight that helps businesses make strategic and tactical choices. To offer users with detailed insight about the condition of the business, BI tools access and analyze data sets and show analytical findings in reports, summaries, dashboards, graphs, charts, and maps. All of which Unilever's numerous goods and brands may employ to guarantee smooth operations while remaining careful and, above all, mindful of the drawbacks of any decisions they make. (Frankenfield, 2021)

WHY BUSINESS INTELLIGENCE?

Although business intelligence does not advise people what to do or what will happen if they follow a specific path, it is also more than just reporting. BI, on the other hand, provides a means for employees to study data in order to discover trends and develop insights.

When a firm like Unilever wants to improve its supply chain management, it requires BI skills to figure out where delays are occurring and where variances exist in the shipping process. Unilever may also utilize its business intelligence tools to figure out which items are the most frequently delayed, as well as which forms of transportation are the most frequently implicated in delays.

The possible applications of business intelligence (BI) go beyond the traditional corporate success measures of increased sales and lower expenses. One of the most notable instances of BI flaunting its wings was in Ohio, where a school system used BI tools to evaluate a variety of data points ranging from attendance rates to student performance in order to enhance student learning and high school graduation rates.

BI is still useful for a variety of reasons, despite the current focus on big data and advanced analytics, as well as the next step toward artificial intelligence and machine learning. (Frankenfield, 2021)

BUSINESS INTELLIGENCE SOFTWARE & TECHNICS

Data-driven Decision Support Systems are what business intelligence software is all about (DSS). Briefing books, report and query tools, and executive information systems are all terms that are occasionally used interchangeably with BI. Instead than waiting for IT to run complex reports, business employees can start evaluating data themselves using these tools.

This data access allows users to make business decisions based on real data rather than gut impressions and anecdotes.

Corporate intelligence software solutions give historical, present, and predictive perspectives of business operations, most frequently using data from a data warehouse or data mart, but also working with operational data on occasion. Reporting, interactive "slice-and-dice" pivot-table analysis, visualization, and statistical data mining are all supported by software pieces.

For objectives like as business performance management, applications tackle sales, production, finance, and a variety of other sources of company data. Benchmarking is the process of gathering information about other firms in the same industry.

The following are some of the most often used business intelligence tools:

Sisense - Sisense is a business intelligence platform that lets users join, analyze, and picture out information they require to make better and more intelligent business decisions and craft out workable plans and strategies.

Looker — Looker is a data platform with insights for every department. It's a data-discovery app that provides an intuitive approach to data exploration. It offers a web-based interface that business users can utilize to tap into the expertise of their data analytics team. They can build and share reports on the fly, so other functional groups can benefit from the questions they're asking and the knowledge they've created. Thus, Looker can help all companies use data to drive their business decisions and activities in the right direction.

Datapine - Datapine gives you BI and data visualization to help you makes sense of your organization's data. With its capabilities, you'll be able to unravel actionable so you can make smart business decisions, craft and implement effective strategies, and realize corporate goals in the most efficient manner.

Zoho Analytics - Zoho Analytics is the data analytics app in the Zoho software family. It was formerly known as Zoho Reports which was re-engineered into a more robust cloud-hosted platform which comes complete with online reporting, drill down analytics, and self-service business intelligence. The software is designed to process big data, track KPIs, identify trends, and discover insights.

Yellowfin - Yellowfin is a BI and analytics software built to speed up the process of providing you actionable insights and data-driven forecasts on your business' performance. The software offers three main tools Assisted Insights for automatically giving you're the reason why Yellowfin Signals that instantly notifies you if changes happen; and Yellowfin Stories which provides narrative and context that you can share. The BI solution helps you analyze data and discover actionable information for better understanding of your organization's processes and performance..

(Bortolus, 2021)

FACTORS OF BUSINESS INTELLIGENCE SOFTWARE

Data management tools, data discovery applications, and reporting tools, which include dashboards and visualization software, are the three major types of BI software. What BI tools you require are determined by how you presently handle your data and how you want to analyze it.

For instance, if it is presently dispersed over many transactional databases, you may need to create a data warehouse to consolidate it and invest in data management tools with Extract, Transform, and Load (ETL) capabilities to transfer and restructure it.

You may invest in data discovery solutions like Online Analytical Processing (OLAP), data mining, and semantic or text mining tools with the capacity to produce custom, ad hoc reports after your data has been given a common structure and format. Users may easily extract reports without affecting the functionality of the organization's software applications, such as CRM, ERP, and supply chain management systems, because the information is kept within the warehouse.

However, this isn't the only approach to bring BI into your company. ETL and data warehouses aren't essential if you're simply evaluating data from a single source. Alternatively, you may need several warehouses, which would need the use of different technologies to link data across these servers and other BI applications that require access to this data. (Bortolus, 2021)

TYPES OF BUSINESS INTELLIGENCE SOFTWARE

Data management software

Better data is the foundation for better decision-making. Data management tools support decision-making by cleaning up "dirty data," organizing information by giving format and structure, and preparing databases for analysis. They fulfill the following primary two functions:

- **Data quality management** - Aids in the maintenance of clean, standardized, and error-free data in companies. For BI solutions that combine data from a variety of sources, standardization is extremely crucial. Data quality management guarantees that future studies are accurate and can lead to business benefits.

- **ETL (extract, transform, and load)** - Gathers data from external sources, transforms it, and then loads it into the destination system (a database or warehouse). Because primary data is frequently structured in a variety of schemas or formats, analysts can utilize ETL tools to normalize it so that it can be analyzed effectively.

Data discovery software

One of the most compelling advantages of using business intelligence tools is the ability to filter through data and draw useful conclusions. Data discovery apps assist users in making sense of their data, whether through OLAP's rapid multivariate analysis or data mining's sophisticated algorithms and statistical computations. The following functions are performed by data discovery software:

- **Data mining:** classifies large amounts of data to identify new or unknown patterns. It is often the first step on which other processes, such as predictive analytics, are based. Databases are often too large or too complicated to find patterns with the naked eye or with simple queries. Data mining helps steer users in the right direction for more granular analysis by providing an automated method for uncovering previously neglected trends.
- **Online Analytical Processing (OLAP)** - allows users to quickly analyze multidimensional data from different perspectives. It generally consists of three analytic operations: data consolidation, data classification, and data classification and analysis from a particular perspective.
- **Predictive analytics** - Analyze current and historical data to make predictions about future risks and opportunities. An example of this is the credit rating, which is based on a person's current financial situation to make predictions about their future credit behavior.
- **Text and semantic analysis:** extract and interpret large amounts of text to identify patterns, relationships and feelings. For example, the popularity of social media has made text analytics valuable for companies with a large social presence. Understanding semantic trends is a powerful tool for organizations evaluating the purchase intent or customer satisfaction of users of these channels.

Reporting software

Reporting apps are a key tool for presenting data and communicating analytical results. Users of BI are increasingly corporate users who want fast, easy-to-understand information presentations. As a result, software providers have been striving to hide the programs' complexity and place a greater emphasis on the user experience. The following functions are performed by reporting tools:

- **Visualizations** - Helps users create advanced graphical representations of data through simple user interfaces. The ability to display information in a graphical format can help users understand the data in a more insightful way. Additionally, new interactive tools can give teams the ability to analyze and manipulate reports in real time.
- **Dashboards** - Dashboards often highlight key performance indicators (KPIs), which help managers focus on the metrics that matter most to them. Dashboards are typically browser-based, making them easily accessible to anyone with permissions.
- **Report Writers:** allows users to design and generate custom reports. Many CRM and ERP systems include built-in reporting tools, but users can also purchase separate applications, such as Crystal Reports, to create ad hoc reports based on complex queries. This is especially useful for organizations that constantly adjust analyzes and need to generate new reports quickly.
- **Scorecards:** Scorecards give numerical weight to accomplishments and chart progress toward goals. Think of it as panels that go one step further. In organizations with a strategic performance management methodology.

(Adair, 2021)

LEGAL COMMITMENTS TO AVOID EXPLOITATION OF BUSINESS INTELLIGENCE

Businesses must know what they are doing

This looks to be a simple statement in an economic theory based on the premise of rational actors. Companies are supposed to have defined data collecting and data utilization plans and operational procedures, i.e. their Business Intelligence. They know what they're doing, have checked with their attorneys, and have publicized the resultant, legally sound processes in the form of a privacy policy on a publicly accessible platform.

A user must be categorized by his/her own data only

The idea is typically translated into data protection, or more particularly, the protection of personal data, in numerous legislation and in the data mining community. Personal data is any information about a living person who can be identified. An identifiable individual is one who can be recognized, either directly or indirectly, using an identification number or one or more criteria related to his physical, physiological, mental, economic, cultural, or social identity."

A user must know what data they give, to whom, for what and why

It is also believed that users are reasonable information producers. They must be given a clear understanding of their privacy, including differing perspectives on what information they would or would not reveal, such as aliases, medical histories, credit card information, and so on. Avoid utilizing services that the general public believes have unclear or dangerous rules, such as providing fake information online or terminating transactions prematurely in response to perceived privacy breaches or risks.

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