

Table of Contents

What is Business Intelligence	1
Why Business Intelligence Matters	2
The Major Components of Business Intelligence (BI)	2
1- OLAP (Online Analytical Processing)	2
2- Advanced Analytics or Corporate Performance Management (CPM)	2
3- Real-time BI.....	2
4- Data Warehousing	3
5- Data Sources	3
Benefits and reason of Using Business Intelligence	3
5 Common Problems in Business Intelligence	4
Strategy	4
Bad Execution & Management Support	4
Subcontracting & Stakeholder Involvement	5
Business Intelligence Tools	5
Business Intelligence Applications	5

What is Business Intelligence

Today's businesses have access to more data than ever before. Companies produce, collect and store vast amounts of data, from customer feedback surveys to manufacturing and delivery statistics.

BI(Business Intelligence) is an umbrella term that includes set of processes, architectures, technologies , applications, infrastructure and tools, that convert raw data into meaningful information that drives profitable business actions .It is a suite of software and services to transform data into actionable intelligence and knowledge. Also is best practices that enable access to and analysis of information to improve and optimize decisions and performance, cut costs and help identify new opportunities and customers

For example:

- 1- Restaurants use it for everything from menu additions and deletions to negotiating food supplier contracts.
- 2- Professional football teams use it to select players, study possible game outcomes and guide the “total fan experience.”

- 3- Financial corporations often depend on it to help find the best customers and design offers that work.

Why Business Intelligence Matters

Business Intelligence helps business leaders use data in ways that are meaningful and powerful. Utilizing the tools derived from BI components, organizations can better leverage data for competitive advantages. Used properly, the data can drive business decisions that can proactively respond to market trends and other external factors. While businesses today collect and store copious amounts of raw data, few are actually harnessing the power of that data to drive business insights and transformations. The only true constant in business is that it's always changing. Business Intelligence provides methodologies and tools for today's business leaders to change effectively and lead their organizations with fact-based decisions and a more holistic view of growth potential.

The Major Components of Business Intelligence (BI)

Business intelligence is a series of methodologies that puts this data to work, helping businesses become more effective and increase profits. By using these methodologies and specific software analytics, savvy business executives can harness the power of raw data and leverage it to support strategic planning that can help an organization move ahead of the competition. Here's how it works:

The five primary components of BI include:

1- OLAP (Online Analytical Processing)

This component of BI allows executives to sort and select aggregates of data for strategic monitoring. With the help of specific software products, a certification in business intelligence helps business owners can use data to make adjustments to overall business processes.

2- Advanced Analytics or Corporate Performance Management (CPM)

This set of tools allows business leaders to look at the statistics of certain products or services. For instance, a fast food chain may analyze the sale of certain items and make local, regional and national modifications on menu board offerings as a result. The data could also be used to predict in which markets a new product may have the best success.

3- Real-time BI

In a mobile society, this particular component of BI is becoming increasingly popular. Using software applications, a business can respond to real-time trends in email, messaging systems or even digital displays. Because it's all in real-time, an entrepreneur can announce special offers that take advantage of what's going on in the immediate. Marketing professionals can use data to craft creative limited-time specials such as a coupon for hot soup on a cold day. CEO's may be

interested in tracking the time of day and location of customers as they interact with a website so marketing can offer special promotions in real-time while the client is engaged on the website.

4- Data Warehousing

Data warehousing lets business leaders sift through subsets of data and examine interrelated components that can help drive business. Looking at sales data over several years can help improve product development or tailor seasonal offerings. Data warehousing can also be used to look at the statistics of business processes including how they relate to one another. For instance, business owners can compare shipping times in different facilities to look at which processes and teams work most efficiently. Data warehousing also involves storing huge amounts of data in ways that are beneficial to different divisions within the company.

5- Data Sources

This component of BI involves various forms of stored data. It's about taking the raw data and using software applications to create meaningful data sources that each division can use to positively impact business. BI analysts using this strategy may create data tools that allow data to be put into a large cache of spreadsheets, pie charts, tables or graphs that can be used for a variety of business purposes. For example, data can be used to create presentations that help to structure attainable team goals. Looking at the strategic aspect of data sources can also help organizations make fact-driven decisions that take into account a more holistic view of the needs of the company.

Benefits and reason of Using Business Intelligence

- 1-** Harnessing the power of business intelligence is becoming a consistently high business priority. To increase satisfaction, leaders must champion BI as an important strategy to drive long-term business success and put measures in place to ensure alignment around goals. This opens the door for professionals with business intelligence education and skills who can meet today's BI challenges head-on and effectively resolve them.
- 2-** At a tactical level, getting accurate insights is a key challenge – which revolves around the quality of the data being used. As the basis of any business intelligence initiative, it's imperative that businesses ensure their data stores and warehouses operate optimally to avoid developing insights from data that is flawed.
- 3-** Another issue is a general lack of understanding of the components that comprise the various business processes. These include the activities involved, the way information and data flow across them and how people use this data to help them with their role in the

process. For improved performance, this understanding needs to be developed before BI projects begin, an important role of the BI professional.

- 4- Done right, business intelligence does render impressive results. The City of Albuquerque, for example, saved \$2 million over two years by employing business intelligence to hone in on opportunities to achieve operating efficiencies, like cell phone usage, overtime and other operations.
- 5- Business intelligence has always been a practice at some level at any smart business. At its heart, it's all about analyzing an organization's performance to find ways to improve, driving profitability and growth. Modern IT systems, the evolution of a digitally networked world and the resulting explosion in data have enabled BI to be performed at increasingly sophisticated and higher levels. The challenge for businesses is to discover how best to harness its power to achieve company goals.

5 Common Problems in Business Intelligence

BI helps marketing, sales, product development teams and human resource departments. Properly utilized, business intelligence (BI) can maximize their efforts. Some sources estimate that every \$1 spent on business data analysis can result in up to \$10.66 ROI on average. But just because a company uses BI is no guarantee that it will use BI effectively.

Strategy

One way businesses can fail is when they lack a strategy when developing BI projects. Questions businesses should ask typically include: Why is the data being collected and what kind of decisions will be made upon analysis? Who is going to get the data and what kind of problems are being targeted?

The strategy should drive the data collection process, as good planning can help determine which actions to take after the data is thoroughly analyzed. Poor data collection efforts can doom the best strategy. Not asking the right questions or asking them at the wrong time can create just as much confusion as an ambiguous or poorly worded question. Unfocused, bad or questionable data can also have a negative impact on business intelligence efforts.

Bad Execution & Management Support

Many BI projects can also fail because of poor execution on a well-intentioned plan. Execution failures can result from not enough employees with the right skills to deliver on time, or from

bad management, a shortage of sufficient funding or lack of executive support. If a company is not prepared to bring in the necessary talent and provide funding and support, they typically do not succeed in high-level data analysis tasks.

Subcontracting & Stakeholder Involvement

Outsourcing can also lead to failure. Data can come from many directions and is often stored in different places. Valuable data may be stored in an Excel file, or on a workstation operated by an individual who recently retired. The IT department may have a cabinet of hard drives filled with old databases. Outside talent may not know about these data repositories and others that might exist. Even when they know or suspect such data stores exist, their efforts to acquire them could be hampered for a number of reasons simply because they are external to the company.

Business intelligence projects are often complex and may need cooperation from a variety of groups within the organization. Without support, funding, talent and strategy they may become nothing more than another expensive project that ends in failure. End-users, management, and executives should recognize the vital role they can play in the process, and IT should begin to reach out and bring them into the process.

Business Intelligence Tools

Under the umbrella term of Business Intelligence, there are many tools that are used to analyze the various components of BI and construct them into actual problem-solving actions.

These specific business tools can help leaders look at components of their business in more depth and detail.

The most common tools in use today include:

- business and data analytics
- predictive analytics and data mining
- cloud technology
- mobile BI
- visual analytics and dashboards

Business Intelligence Applications

A variety of applications can fall under the BI umbrella. These include:

- Measurement programs, for business performance metrics and benchmarking of progress towards business goals.

- Analytics programs that build quantitative processes informing decision-making and assisting in business knowledge discovery. Analytics may involve data and process mining, predictive analytics and modeling, and prescriptive analytics, among others.
- Enterprise reporting, as opposed to operational reporting. These programs help build the infrastructure for reporting that supports strategic management decisions.
- Collaboration programs, geared to help different areas that are both inside and outside the business, working together through data sharing and electronic data interchange.
- Knowledge management programs, designed to identify, create, represent, distribute, and enable adoption of the insights and experiences that constitute business knowledge.