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## BUSINESS INTELLIGENCE FACTS OF BUSINESS

BIJAL BHATT

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**Abstract:** Business Intelligence is the combination of skills, applications and technologies with iterative, methodical exploration of an organization's data. Business Intelligence is used by companies as "Decision Support System (DSS)". The main purpose of business intelligence is to analyze your data is right way to get the decisions on time based on strong data warehouse.

**Keywords:** data analytics, business intelligence, reporting, business analysis.

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**Introduction:** The volume of data maintained by today's companies is enormous – and growing rapidly. A study conducted by a well known Information Technology magazine shows that approximately 2.5 quintillion bytes of data are generated on a daily basis. Ninety percent of the data that exists today, the report also claims, has been created in the last two years. Lack of integration among the systems that house this big data can make it difficult to manage operations, compliance, and risk across the business.

To take decisions in a same moment with a huge amount of data is itself a big task for any organization. In now a day's almost all companies have standard ERP which covers their business processes. ERP makes an organization in a well formed format, it organize a whole company with its standard functions, processes and business rules. A system which holds big amount of data in a standard way for reporting is known as Business Intelligence. Business Intelligence is a Data Warehousing and Data Mining technology.

**Business Intelligence:** Business Intelligence combines broad data access with unparalleled usability, scalability, and low cost of ownership, to make information and analytics readily available and easily consumable to an unlimited number of internal and external users.

Powerful business intelligence makes reports, queries, and dashboards available to power users, business users, and mobile users – so all stakeholders have real-time visibility into key activities from any desktop, tablet, or smart phone an Advanced analytics, such as predictive analytics, visualization, location intelligence, and enterprise search, make it easier to uncover, anticipate, and prevent potential risk factors

A comprehensive performance management platform blends risk and performance monitoring, helping companies to align strategies with KPIs and balance them against important threats robust financial and operational reporting.

Companies use business intelligence to improve

decision making, cut costs and identify new business opportunities. BI is not only for reporting, it is a strategy to increase a business and take decisions on right time.

### **Why Business Intelligence**

Many organizations have successfully implemented ERP and have ease of use in every department of organization. But in organization there are generally two types of users.

(A) Operational

(B) Reporting

**Operational Users:** Operational Users use ERP, make entries, do transactions, keep documents updated etc. In an organization there are many operational users who are having different roles and authorization to use ERP. They only do operational activities/transactions; they do not require any reporting, analytics, daily/monthly MIS.

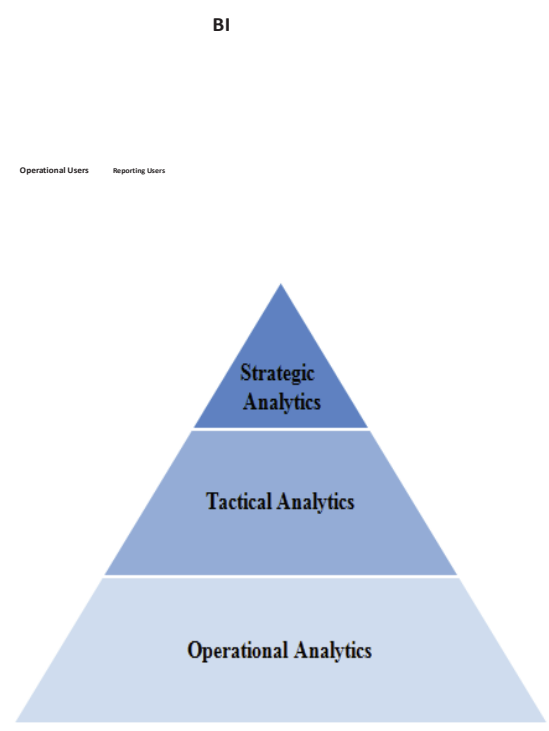
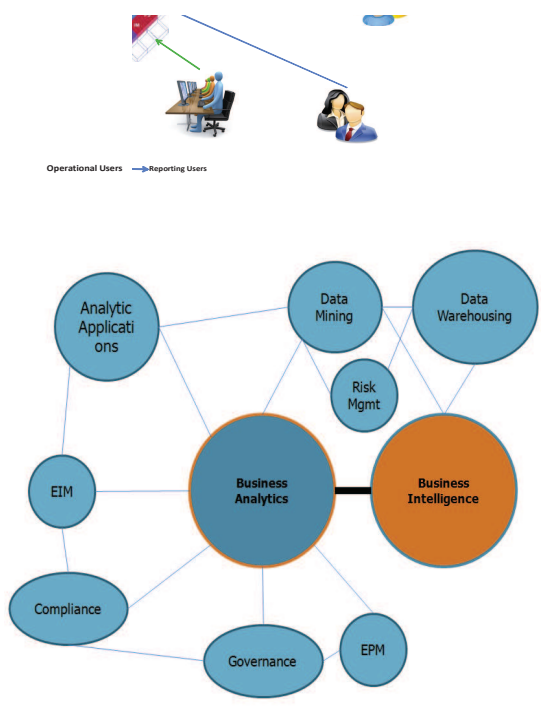
**Reporting Users:** Reporting Users do only reporting activities; make daily/monthly/quarterly/yearly MIS for different departments in an organization. For MIS they do analysis on data and for that they use ERP and make reports for senior management. They use ERP just for reporting purpose and make as much load as operational users.

From the above two figures, it is to be noticed that after implementation of Business Intelligence in organization number of users on ERP will be decreased, so that system can perform well and the reporting users can also do their reporting activity. Business Intelligence system is very useful where there are many users on transactions as well as reporting. Management Information System provides daily/monthly/quarterly/yearly reporting based on business intelligence. But only reporting will not help to an organization to take decisions. A system which is highly integrated with the organization's business process and gives right analysis on right time is called decision support system. A decision support system is totally based on business analytics.

**Business Analytics:** Business Analytics refers to enterprise information management, enterprise performance management, data warehousing,

analytic applications, business intelligence, risk compliance, and governance. Business intelligence (BI) is also an umbrella term, though it's a much more focused concept. When a business utilizes tools, infrastructure, applications, and best practices

that enable them to access and analyze data—which lead to improvements in optimization and performance—they're using business intelligence with analytics.



**Types of Business Analytics**

**(I) Operational Analytics:** Operational Analytics is about automating a piece of analytics to assist in a business as usual decision that will be repeated frequently. Each decision will probably not have a huge impact on the organization however by sheer weight of numbers any improvement in time or accuracy to each decision can add up to significant value. E.g. Daily Sales Report, Monthly Sales Report, Quarterly Sales Report etc.

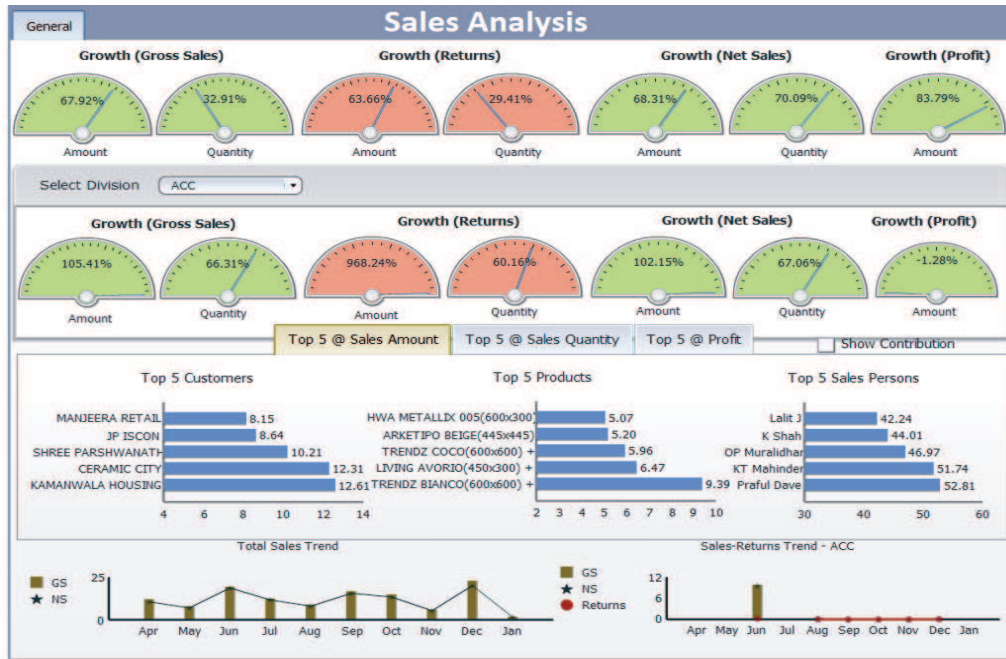
**(II) Tactical Analysis:** Tactical Analytics is longer term and is primarily to assist management in their decisions. An example may be the sales prediction of an organizations product for a particular one off event, so they can ensure sufficient stock is available. The payoff for this kind of analytics is considerably higher than for operational analytics when taken in isolation however they occur less often. E.g. Product Performance Report, Regional Sales Report. From Product Performance Report

**(III) Strategic Analytics:** Strategic Analytics is about performing some analysis that will assist in decisions affecting the strategic direction of an organization. This type of analytics is almost always bespoke and complex. For example; A new Indian online clothing store is considering starting a new courier division. It is proposed that it will handle the deliveries of its customer's purchases due to the unreliability of the local mail system. A vast amount of one off analysis must be taken into consideration when making this decision. The payoff or value placed on this one decision is much larger than decisions made that use tactical or operational analytics however it will only happen once. E.g. Sales Cycle Report, Purchase Cycle Report. In Sales Cycle Report customer/product wise sales order date, shipment date and delivery date analysis are there so from the ageing of order date to delivery date organization can indentified its sales cycle time.

In Strategic Analytics, summarized dimensions are there with major key performance indicators. Generally it will represent as Dashboard. Dashboard is a very easy to read, often a single page, real time user interface, showing a graphical representation of organization's current status as well as historical trends.

Sales Analysis Dashboard in below example shows Divisions' growth in gross sales, net sales and profit.

Top 5 customers, products and sales persons based on sales amount. Top 5 customers, products and sales persons based on sales quantity. Top 5 customers, products and sales persons based on profit. Divisions' Sales trend and Sales vs. Returns trend. Customers, Products, Divisions contribution in net sales and profit etc.



Sales Analysis Dashboard

Production Plan vs. Performance Dashboard shows operations, machines and products wise production analysis. Top 10 operations based on completed quantity and their planned vs. completed products @ operations, Top 10 operations based on completed quantity and their planned vs. completed products @ machines, Top 10 operations based on completed quantity and their planned vs. completed products @ products.

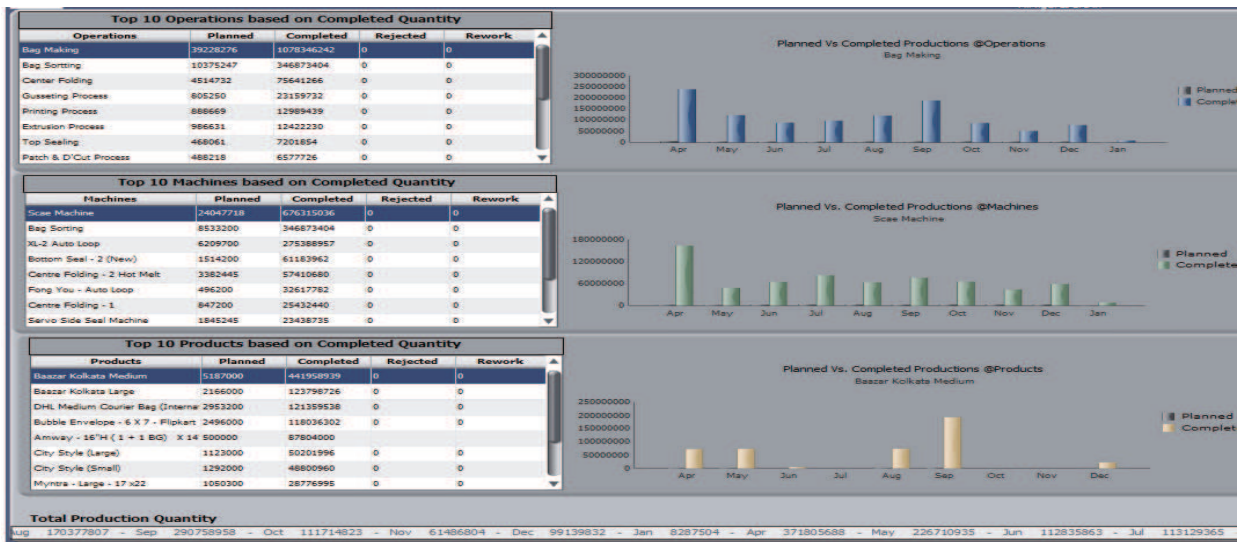
Customer Analysis Dashboard shows all analysis on customers only. Top 10 customers based on sales amount year till month and their quantity and amount trend with contribution and profit trend. State wise top 5 cities based on sales amount year till month and their quantity and amount trend with contribution and profit trend. Selected city's top 5 customers based on sales amount year till month and their quantity and amount trend with contribution and profit trend.

**Business Intelligence Tools:** Business is now mostly relying on the kind of information available and that can be collected through various sources

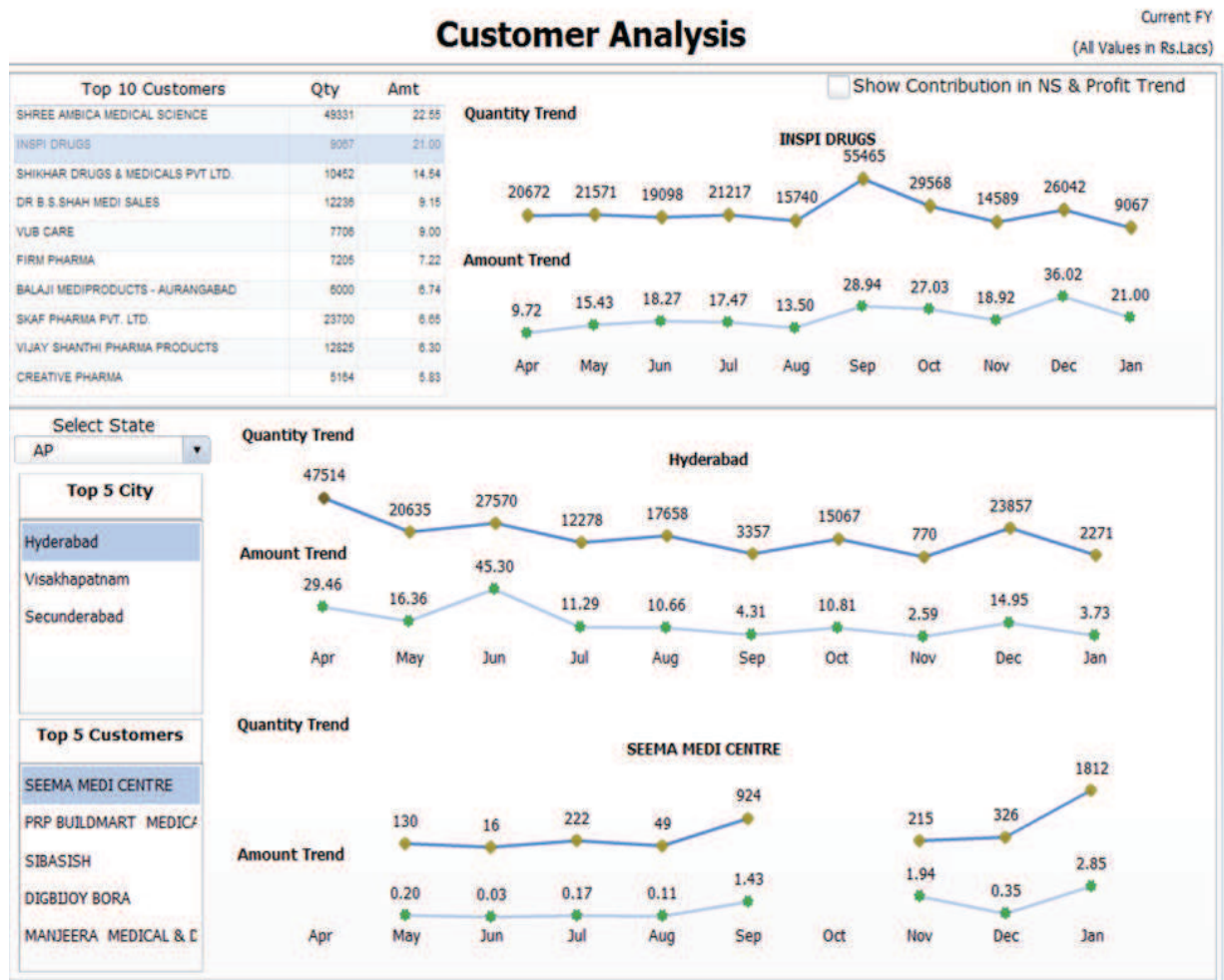
both inside the industry and outside through personal contact or taking the help of Internet. However, both collection and analysis of data takes time but are useful for long-term strategic decision-making. In case of short term goal companies often take business decision without experimenting or analyzing too much and here they only depend on intuition.

In IT industry there are many software companies which have either their own business intelligence tool or they provide consultancy for business intelligence. List of major business intelligence tools/platforms:

1. Oracle Enterprise BI Server
2. IBM Cognos
3. SAS Enterprise BI Server
4. Microstrategy
5. SAP Business Information Warehouse
6. SAP BusinessObjects BI Platform
7. Pentaho BI (Open Source)
8. Microsoft Business Intelligence
9. Informatica
10. QlikView

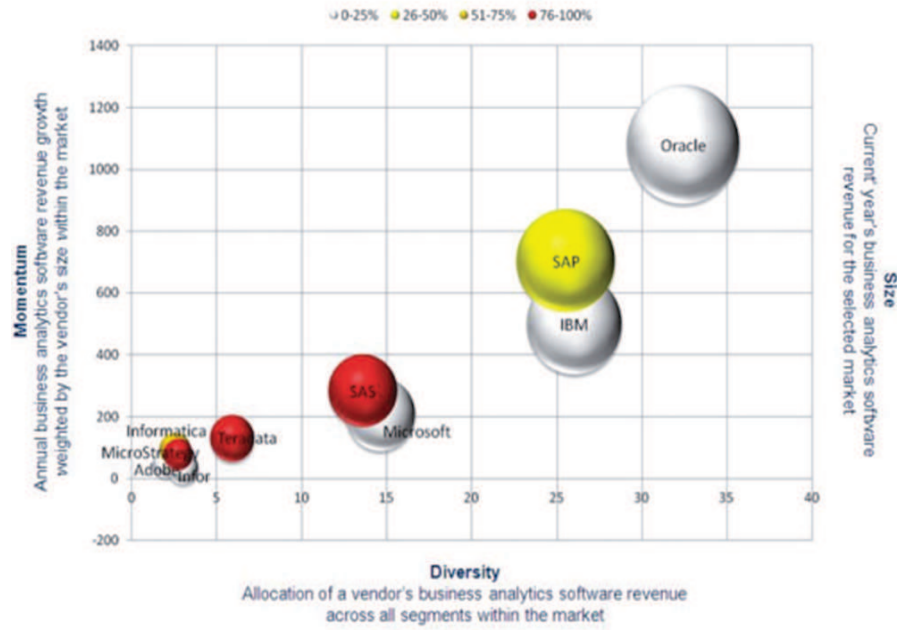


Production Plan vs. Performance Dashboard



Customer Analysis Dashboard





As per the market research (data gathered from internet and assumed on latest trend) Oracle, SAP and IBM are top competitors while Microsoft and Informatica are widely used in SMEs. SAS is also focusing on Big Data analytics with statistical

analytics. Open source business intelligence tools are also available in market e.g. SpagoBI, JasperSoft, and Pentaho BI etc. They are open source business intelligence suite which provides data warehousing, data mining, ETL and business analytics etc.

**References:**

1. All dashboards and reports have been taken from live project of business intelligence implementation and development.
2. The BI Tools market graph have drawn based on internet data based on latest trends and market research with some assumed data.
3. Data shown in all dashboards are just for practice purpose, it will not contain any official data from any organization.

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SAP BI Consultant, [bijalbhatt@live.com](mailto:bijalbhatt@live.com)  
 38 Tulsi Bungalows, Opp. Krishna Party Plot, Vandematrum City Road,  
 Ahmadabad – 382481, Gujarat, India.