

## Business Intelligence as a Tool for Managers Decision Making in Organization

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**Abstract:** Business intelligence process is applying collection of facilities for enhancing decision making in organizational all levels which is easily implemented. Nowadays, it can be said for sure that applying business intelligence increases the competition power of an organization and distinguishes it from other organizations. Leading organizations do not speak about CRM, ERP ... anymore. Organizational attitude is toward BI. They are looking for improving the process through evaluating and improving their own performance and dependent subsets. Nowadays, increasing efficiency has been more important.

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### 1. Introduction

Business intelligence is one of the nearly new issues in information technology and includes the process of data conversion to information and using abilities, technologies, instruments and strategies which help better understanding of managers about the business condition and removes the gap between middle and senior managers in terms of relationship and provides the data needed for managers in every level, moment and quality.

Business intelligence makes the organization able to analyze the data to have a correct understanding of the needed of the subsets and decide with maximum rate of information: processing on-line transaction, on-line analytical processing, database analysis, data mining, intelligent decision support systems, knowledge management systems, customer relationship management and dashboard management.

Business intelligence means having proper information by proper people at proper time for decision making.

What is business intelligence?

In present century which is the century of information exploitation, an organization can be successful that has the highest information with lowest error level. Business intelligence as one of the capable information systems can change the raw data to information file and then knowledge.

Business intelligence or Bi is a cycle in organizational process which answers a lot of ambiguous questions. For example in order to understand the rate of selling unit It from analytical data and their processing , does an analysis and gives the reports to the selling managers and answer the related questions.

Using the existed data in organization got increasing the strength of decision making is done so that first the information source is extracted and then analyzed and delivered to the business unit which

leads to decision making.

It must be mentioned that the subject of using database and business intelligence goes back to the beginning of 1990 but huge wave was after 2000. The leading company in this field which cover most of the world markets including: 1. Cognous 2. Business objects, 3. S.A.A, 4. Hyper Ion, 5. Micro strategy, 6. Oracle, 7. Microsoft, 8. S.A.P, 9. Informanica.

### Business intelligence Instruments

Bi is a collection of instruments which is given to the managers to finally result in correct decision making. Data are usually extracted from different domains and are dry and fixed. Bi knowledge introduces a solution for the problems. IT specialists deal with raw data and give them to special fields for analysis. After doing analysis on the data, they are delivered to the managers to be used in Bi. Bi specialists must recognize the business and techniques for planning and final stage is a stage in which mangers are present and need simple data to have better decision making. In other words, what Bi gives the managers is the analyzed data for decision making.

### BI subsets

Decision making fields in an organization must be in line with strategic goals of the organization to create added value. In other words BI must act strategically. Bi looks back and forth and contributes to realization of future goals of the organization and even predicts the created data by BI field which must be practical and timely and create added value and finally increase competitive quality of the organization.

There are some factors for realization of these goals and customers of the rival business and economic environment are among them. Nature of each organization is its customers and incentives for development and extension of each organization are its rivals. Moreover, business partners are other side

of this polygon which is in line with organizational strategies and economic context is also important factor. Finally other side of these professional goals and performances in organization form the business.

### **Data analysis techniques in BI**

One of the related instruments is analysis technique which is used for accessing information and organizational information. Raw and ambiguous data cannot be accessed and can be extended to all the society.

For example the measurement factor for a student is his GPA. So this index is the representative of his scores. This way, average daily or monthly sell is the representative of its performance and these data can be gathered.

In descriptive statistics, data are summarized in two ways:

- a) Using graphs (such as histograms, histograms, circle, surface, box, branch, leaf, etc.)
- b) Using indices of central tendency (such as mean, median, mode, variance, standard deviation, skewness and elongation).

The inferential statistical discusses data analysis including parameters such as population mean and variance, determining the confidence interval (1-a) percent confidence interval of the parameters of the distance from which it is called to accept or reject the statistical hypothesis test of population parameter, determining the relationship between variables coefficient correlation to determine the correlation regression line or line data to predict future data from past data and time series....

All of this analysis is for more convenient judges to be able to provide the raw data and the decision making. In other words, the aim of converting raw data is having knowledge for decision making.

In BI process, you can understand the events inside the organization by converting the data and this is a base for predicting the future events and in fact data analysis is nothing except discovering the existed relationships between the raw data by changing them into information and discovering this process answers a lot of questions such as:

What were the causes of success or failure of a plan?

How was the quality of services?

Did the organizational staff performed well?

What should be done to improve the customer services?

Solution of BI capabilities: business intelligence solutions are collection of tools to facilitate coordinated decision-making process at all levels of the organization which can be implemented by simplicity and low cost.

Data coordination: due to information depression in organizations, coordination strategy of BI provides

the possibility so that organized and centered information bank is built.

Data warehouse: as it was mentioned before, data dispersion is one of the problems in organizations and data warehouses provide the possibility to centralize the important data after passing a coordination stage in an information bank.

Report dashboard: there are various solutions for showing information in various report forms but this is only one part of business intelligence that an effective report should communicate well with the audiences and respond to their demand.

Monitoring: by monitoring one can control the important goals and their progress. For example one can compare the selling ratio of a month to real sell and decide about selling plan.

Analysis: receiving the data and presenting them in different forms is the first stage at business intelligence strategy. This strategy is a string tool for different groups and subjects.

### **OLAP:**

It is the capability that provides access to information for making reports and data analysis for non-professional users.

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