Big Data and BI²

HTC global services

Enabling Business through Business Intelligence and Business Informatics

The Futuristic Data Revolution with Business Intelligence and Business Informatics

The Internet and digital revolution have touched every area of our personal and professional lives. All business processes and operations are supported by information systems. Advanced technology has made the use of data to a business' advantage. There is no doubt that information technology will continue to aid data mining resulting in initiating, arranging and unwinding of goods and services by using the available data.

Business Intelligence (BI) technology engineers such as data analysts and data scientists create wonderful business opportunities and career opportunities with the help of BI. BI has evolved manifold in the recent past and has replaced loose interpretations of information. Data is now a big thing and provides for business operations and outcomes. Big Data Analytics enables identifying of more information and this often represents business more than BI.

Data engineering has a vast scope and is much in demand. Career perspectives are more in this domain with the ever growing data. Data engineering requires acquisition of big data, cleaning, converting, removing the ambiguities, de-duplicating and finally developing and deploying solutions. Informed decisions can be made by businesses after data is re-engineered. Data engineers play a vital role in business as support structures for data analysis that leads to vast improvement in business volumes.

BI Vs Big Data

BI is a technology infrastructure to optimize the available information from various data available to enhance the business processes. For several decades BI has been synonymous with technology and interestingly it handles large volumes of data from different sources similar to what current Big Data technology is addressing. BI has changed from a technical term to a business area term. BI nowadays is involved in everything that uses data in any form to make informed business decisions.

The fundamental difference between the two terms is that BI is about informing businesses while Big Data is about technology. BI and Big Data intersect heavily but they address completely different parts of the same problem.

BI helps find answers to questions you know. However, Big Data helps us to find the questions you didn't know to ask. The difference being that through the Big data processing we can now accomplish on a personal laptop what several servers accomplished 15 years ago.

Benefits of using BI

All BI programs have potential impact on accelerating and improving decision making and identifying the areas for optimizing internal business processes. There is an enormous room for improvement in operational

efficiency, identifying areas for generating or saving revenues and gaining competitive advantages over business process rivals. This helps the businesses to identify the market trends and to locate the business problems that need to be addressed. Management benefits in making continual improvement by identifying patterns and pain points periodically and gets to make educated choices by studying the metrics.

Hidden advantages of BI

With BI, a business can foretell events based on what happened earlier and what was the impact. Conventional BI suites provide reporting frameworks (such as KPIs, metrics) through Ad hoc querying of available business data in terms of OLAP (cubes, drilling, slice & dice models.) It also uses near real-time approaches through visually meaningful Dashboards or scorecards that act as Operational or real-time BI to facilitate Automated monitoring, Issue level classification or alerting on business functions.

Role of Business Analytics

However, when a business is working on big data, answering basic questions does not harness the power of information mining. To acquire more valuable information, some of the well-known advanced analytics can be involved to generate the business functional questions and answers to the questions as well. Parameters like what, why and when can be applied and measure the threshold of recurrence. We can find how these parameters are influencing the business and also add or remove parameters to find different results.

BA can throw light on various hidden things data can reveal. We can involve numerical or quantifiable analysis, analytics, predictive modeling and data mining. Big data analytics that involves Text analytics and Multivariate testing and so on in which we have experimented several of them and harnessed the power of using them on huge volume of data.

Usually the advanced analytics projects are piloted and managed by separate teams of statisticians, data analysts and data scientists, predictive modelers and other skilled data analysis & analytics professionals. However conventional BI teams oversee more straightforward querying and analysis of business data to gather useful information from the available data.

Business Informatics in today's business world

In present day context, we have a lot of BI tools incorporated with the options of using advanced analytics, such as predictive analytics, statistical analysis, data mining, text mining and even big data analytics.

After a well-structured and relatively quick engagement with Big data and data analytics, a business can have the clarity on the process that needs to be transformed in which the BI function as a true differentiator.

Business informatics can help the BI on defining Risk and show path for Risk Analytics and Risk Management in the current business model. It has the capability of identifying frequencies, impacts, expected and unexpected losses, and their related business parameters.

It reveals operational risk categorization and organizational modeling along with their frameworks that clearly define inherent and residual risks and also causal & secondary risks. It gives good room for identifying operational risk measurement

(ORM) in the current business model and scorecard methods. Effective benefits can be achieved while performing full fledge risk analysis using Big Data technique that facilitates to ask more questions on the identified risk trends. Through Big data processing, we can use the predicted outcomes that could be developed in the web-scale analytics context. Big Data analytics enhances the chances of performing aggregation-based analytic approaches while performing risk analytics.

Need for Business Informatics

Every business has an opportunity for continual improvement for which support operations become necessary to run a business product or process very smoothly without affecting the client's expectations and maintaining the contract. Since the support operation is critical in managing business processes, there are a huge number of employment opportunities for Business Informaticians across the length and breadth of all industry verticals and horizontals in manufacturing, service, financial and credit institutions, and processing industries.

HTC's role in BI[2]

HTC has both the thought leadership and execution leadership to make a difference in the big data domain. With ample experience of working directly with executive management in larger verticals and horizontals to bring their BI initiatives back on track, we operate from expertise on BI and Business Informatics.

HTC has designed and developed a corporate ERP portal that servers as a central spine for all the business needs. Several Terabytes are being generated to facilitate thousands of portal users for regular business related activities. BI methodologies are applied to get insights on conventional business activities and the Big Data analytic approach to get insights on the business activities that enable continual improvement opportunities on business operations. The answers and insights realized on Big data BI approach are used to provide business informatics that reveal the backlog in business.

Our ERP focuses on every important business function in our organization and has analytic readiness to industry best practices from people, business processes, day to day business operations, and technology perspective.

Abbreviations:

AI – Artificial Intelligence
BI – Business Intelligence
BI – Business Informatics

BPO – Business Process Operations
ERP – Enterprise Resource Planning
IT – Information Technology
KPI – Key Performance Indicator
KPM – Knowledge Process Management
ML – Machine Learning
OLAP – Online Analytical Processing

References

• https://en.wikipedia.org/wiki/Big_data

• https://en.wikipedia.org/wiki/Business_intelligence

• www.datamensional.com/the-10-most-important-benefits-of-business-intelligence

• searchbusinessanalytics.techtarget.com/definition/big-data-analytics

• https://en.wikipedia.org/wiki/Business_informatics

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