IBM Cognos Analytics: The Next Generation of Business Monitoring Designed for the Data-Driven Enterprise

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Abstract*: The research paper is based on IBM Cognos Analytics tools and how it solve the problem of the organizational data by highlight the problem and solution .It also provide analysis, reports and dashboard which helps the organizational to analyse the huge amount of data.*

Keywords: IBM Cognos

I. INTRODUCTION

Massive shifts within the digital business landscape are sparking immense opportunities and reshaping every sector. In some cases, complete change is happening at lightning-fast speed. In other instances, digital usage are stirring beneath the surface as organizations scramble to monitor vast volumes and variety of data in an effort to sharpen their competitive edge.

 Data is following rapidly from mobile devices and social networks, as well as from every connected product, machine and infrastructure. This data holds the potential for deep insights that can replace guesswork .

As the world is being rewritten in code, we can now pinpoint with a high degree of precision what customers want, where traffic will flow, how disease will progress and where risk is the greatest.

Introduction to IBM Cognos BI
IBM Cognos BI provides a unified workspace for business intelligence and analytics that the entire organization can use to answer key business questions and outperform the competition.
With IBM Cognos BI, users can:

- Easily view, assemble and personalize information
- Explore all types of information from all angles to assess the current business situation.
- Analyse facts and anticipate tactical and strategic implications by simply
- shifting from viewing to more advanced, predictive or what-if analysis
- Collaborate to establish decision networks to share insights and drive toward a collective intelligence.
- Communicate and coordinate tasks to engage the right people at the right time.
- Access information and take action anywhere, taking advantage of mobile devices and real-time analytics.
- Integrate and link analytics in everyday work to business workflow and process.
- Organizations need to make the most of a workforce that is increasingly driven to multi-task, network and collaborate. IBM Cognos BI delivers analytics everyone can use to answer key business question

II. BUSINESS INTELLIGENCE FOR ALL

IBM Cognos BI provides users with many options to access information. Each option uses common functions and interfaces.

Executives can take IBM Cognos Active reports offline to keep working while out of the office.

Consumers and executives can access reports, charts, and other business intelligence objects using dashboards from IBM Cognos Business Insight.

IBM Cognos Advanced Business Users and Professional Report Authors can use IBM Cognos Business Insight Advanced to create new IBM Cognos BI objects and to analyze information from any source and from new perspectives.

Users familiar with office productivity tools can use IBM Cognos Analysis for MS Excel to blend the power of IBM Cognos BI information with the personal workspace of Excel.

Users on the go can use IBM Cognos Mobile to stay connected to their IBM Cognos BI information.

IBM Cognos BI also provides tools to enable equal access to business intelligence information for users with physical disabilities.

III. DATA-DRIVEN DECISIONS

A new culture of data-driven decision-making is emerging, but making the right decision is only part of the equation. Decisions need to be made rapidly, often, in the moment of impact—when the customer is engaged online, on the phone or in person at a customer service counter. That requires the analytics tools to instantly turn data into insight and then to ensure that the right people have access to the right intelligence, removing all obstacles to clarity and consensus. Modernized analytics solutions are achieving this objective through the distribution of tailored reports and dashboard updates that shape, visualize and package a breadth and depth of organizational data according to prescribed metrics.

3.1. Data-Driven Characteristics provides
- Easy-to-use analytics with built-in intelligence.
- Multiple starting points.
- Access to all types of data—internal and external
- Tools that speed and facilitate every aspect of searching, investigating and collaborating.

IV. ANALYTICS AT WORK

The journey is toward cognitive analytics serving as an essential differentiator. It's expanding the expertise and improving the effectiveness of every business leader, stakeholder and individual contributor, with knowledge from data that enables continuous learning, adapting and outthinking the needs of the market.

New possibilities are emerging for leveraging structured data in all of its disparate formats and locations, along with the vast range of unstructured data—such as tweets, emails, Facebook posts, blogs, documents, audio recordings, photos and videos.

Until recently, this type of unstructured data was unreadable, and thus invisible to existing systems.

It now stands as the source of patterns, insights, intelligence and answers. Rapid access to the entire spectrum of enterprise data represents a new era in human and systems interactions—one in which technology enhances, accelerates and scales human expertise.

4.1. Features
1. It can be used to create a model which identifies various relationships among manufacturer to wholesaler to retailer and measure them.
2. It can be used to build a solution for planning aspect of an organization which are related to product flow and finance flow of an organization.
3. It can also provide solutions that focus on budgeting part of various organization functions and provides need to compare with actual data vs target data.
4. It can also provide solutions which typically involves monitoring and measuring various (Key Performance Indicator's) KPI's of an organization.
   Example- CEO dashboards, Supply Reports.

V. THE COGNITIVE DIFFERENCE

Deep and machine learning, in combination with natural language processing, serve as the technological foundations of cognitive solutions that understand, learn and interact with humans in a conversational manner

Cognitive systems process structured and unstructured data in order to form arguments and prioritize recommendations that support human decision-making.

5.1. IBM Cognos Analytics: Solving problems and raising profits.

Cognos Analytics helps solve business problems and show the profit ratio of the company with the help of past and present data.

- Find and reuse content created by others
- Easily upload data from multiple sources and shape it to create dashboards or reports that can be shared
- Search for patterns within the data, leveraging analytics to deepen the exploration process and help identify and understand drivers.

Another essential component of digital-age business intelligence solutions is a robust security framework that balances the agility that empowers business professionals to instantly get answers to thousands of questions.

Business intelligence creates the foundation for the operationalization of insights into business processes.

VI. NEW ERA FOR ANALYTICS

Data can be found infinitely faster than ever before with automated data preparation options, vastly accelerating the path from raw data to deep insight.

Data sets and dashboards can automatically be created from the content, along with informative visualizations that recommend the most impactful approach to presenting the information.

Interactive visualizations enable business users to communicate insights with others, which helps to fast-track decision-making.

As business users become increasinglyadept at exploring and engaging with data for new discoveries, IT is freed from the role of handling these types of requests on their behalf. As a result, IT is able to sharpen its focus on strategic issues and the bigger picture of enterprise technology.

At the same time, providing business users with a tool that's easy to learn and use for gaining access to multiple data sources, along with the agility to create great visual presentations, serves to diminish shadow IT.
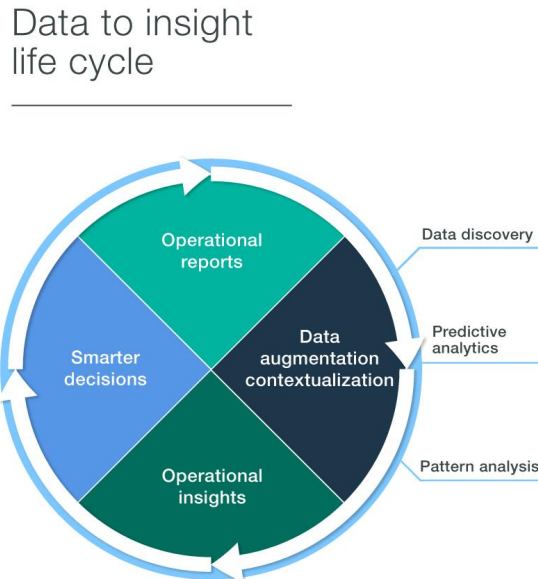
Fig. explains us the Data Mining technology, complex solution-support for forecasting the business, also called Business Intelligence.

VII. SOLUTIONS THAT CAN HELP THIS PERSONA

The following solutions can help the Advanced Business User meet the business needs:

- Create and change dashboards in order to organize the information; interactive exploration and analysis, apply filters, and sort and change the display type to discover meaningful details about the information and collaborate with insights about the business performance.
- Easily create new reports, perform interactive exploration and analysis, apply filters, sort, group data, add calculation and statistics, add external data, and create additional objects to existent reports.
- Easily create simple reports with relational and dimensional data models, using calculations, filters, groups, and sorting.
- Create professional reports with advanced features, such as prompts, multiple objects, and advanced queries.
- Easily perform interactive exploration and analysis on dimensional data models, slicing and dicing the information.
- Perform flexible, interactive exploration and analysis of multidimensional data into Microsoft Excel.
- Align tactics with strategy and monitor performance with scorecards.
- Consume reports and dashboards from a friendly interface on mobile devices.
- Insert and update plans and actual data.

VIII. CONCLUSION

IBM Cognos Analytics enables both business users and IT to explore the unknown, challenge the status quo, identify relationships in data and get a deeper understanding of outcomes. With minimal training required to uncover amazing insights, the journey from simple to sophisticated analytics is automatically tailored to accommodate individual usage. Cognos Analytics supports smarter self-service capabilities in which the ability to gain access to or interact with dashboards and reports, as well as external data, can be determined by role, department or user. Individual users can subscribe to reports pulled in from multiple sources, have them refreshed daily and set specific reports as their home page. IBM Cognos Analytics comes with smart data analysis and visualization capabilities that help business users discover the underlying patterns and meanings in their data.

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