

# Various Advance Business Analytics Tools

<sup>1</sup>Himani Deshmukh, <sup>2</sup>Prof. Dulari Bhatt

<sup>1</sup>UG Student, <sup>2</sup>Assistant Professor

<sup>1</sup>Information Technology Department,

<sup>1</sup>Gandhinagar Institute of Technology, Gandhinagar, India.

**Abstract:** In the information era, significant amounts of data have become available on hand to decision makers. Business analytics is combination of the fields of management, business and computer science. Business requires both a high-level understanding of the business as well as the practical limitations that exist. The analytical part requires an understanding of data, statistics and computer science. This combination of fields allows business analysts to bridge the gap between management and technology. Business analytics is believed to be a huge profitable factor for an organization since it helps offer timely insights over the competition, helps optimize business processes, and helps generate growth and innovation opportunities. Business Analytics Tools is made up of a set of solutions, methods, skills and practices used to gain insights for understanding current business realities and business planning. This paper aims to explain different business analytics tools present at our disposal and which one is most beneficial for us based on our organization size.

**Index Terms** – TIBCO, DUNDAS, SISENSE.

## I. INTRODUCTION

Business analytics is the repetitious, methodical scrutiny of an organization's data. Business analytics is preferred by companies that are committed to make data-driven decisions (Tuncay Bayrak, 2015). In such company's data is treated as a corporate asset, which can be used for their competitive advantages. Business analytical tools are types of application software which fetch data from many business systems and combine it in a repository, to be audited and evaluated.

These business analytics tools give the organization an in-depth view of the company to provide indispensable insights and understanding of business. Advanced business analytics tools not only collect and display comprehensive data but also report the result occurred to identify weak points, fix potential problems areas, alert decision makers and even forecast future result.

## II. LITERATURE REVIEW

### 2.1 BOARD

BOARD is a feature-packed data discovery platform, proposing users BI, business analytics and enterprise performance evaluation under the hood. IT has customizable and interactive dashboards which give users the ability to see a top-notch overview of their business, as well as drill down into their KPIs to assess business manifestation goals (Rouse, M., 2013).

This BA platform includes the Board BEAM automated predictive modelling function. With Board BEAM, users can create accurate forecasting and scenarios analysis by manipulating data fed into the scenarios. It provides a programming-free exploration, giving everyone access to powerful analytics data.

Additionally, users can enjoy the power of Board's statistics suite. BOARD offers a set of pre-built statistical component for determining traditional minimum and maximum values, average and standard deviation. It also offers algorithms specifically designed for business analysis such as frequency, recency, dormancy and nascency.

Serves medium to voluminous companies across various industries.

### 2.2 SISENSE

Sisense provides a vigorous and dynamic advanced analytics tool. Users can reshape unstructured text data into meaningful data for analysis through its text analytics capabilities. This platform is a business pioneering, analysis and intelligence software solution that offers a back-end powered by an in-chip technology (Sherman, R. 2015, June). This allows non-technical users to integrate and analyse large datasets from a range of sources.

It provides actionable insights, by analysing data trends and identifying patterns, users can make predictions and make business decisions based on facts. This can improve business practices, turn down oversight errors, boost ROI and streamline general business efficiency.

Supports collaboration so that users can share articles and make comments on them to collaborate on insights, KPIs and goals. All this happens through a reliable network, ensuring data security standards.

Also, as it is, an open API framework lets users customize the platform to meet their needs so they're only paying for features they'll use and getting exactly what they want out of a BI tool. It is comfortably suited for small to large companies.

### 2.3 SAS (STATISTICAL ANALYSIS SYSTEM) BUSINESS ANALYTICS

SAS Business Analytics is a full-featured solution from SAS. The product provides insights into business operations by integrating with big data, mobile devices, alternative data sources such as CRMs and more. The core feature of the system is its cross-functionality. Designed inside out to work for any situation in any business, SAS Business Analytics can strengthen customer value, compute risk and optimize networks (Frank Actio, Vijay Khatri, 2014).

Advanced Analytics of the system allows user to measure success and expose threats with the advanced analytics suite provided by the software. By influencing predictive, prescriptive and descriptive analytics, the yield enables risk takers to make data-informed decisions.

Data Management technique provides combining data access, blending, quality management and more into one interface (Huber man, A. M., & Miles, M. B., 1994). SAS Business Analytics is built around data governance and other conformity features. The product provides unique insights tailor-made for user-specific industries. Examples include credit risk, getting drugs to market faster and identifying opportunities in retail. Works finely from small to large companies.

## 2.4 MICROSTRATEGY

MicroStrategy Analytics supply advanced analytics ability enabling users to process unstructured text data into information ready for analysis through Text Analytics. The solution generates real-time forecasts by using advanced and native analytical capabilities, along with the option of third-party data mining building advanced statistical analyses.

Business insight feature benefits business by providing a clearer picture of their enterprise by pairing data with business operations, revealing efficiencies — and deficiencies.

Data can be shared with ease. Data without context is dead (Evan Stubbs, 2011). The software makes it easy for key decision makers to generate insights, create interactive dashboards and reports, and then share them with other decision makers.

The software is built around its mobile platform, with features that enable and sustain report-sharing and analytics on-the-go.

The product servers for desktop, mobile and web, the product offers a large-scale self-service BI solution for all levels of users. It can be used by small to large scale industries

## 2.5 DUNDAS BI

Dundas BI is a robust web browser-based business intelligence solution from Dundas Data Visualization.

The user can flexibly integrate data from any kind of source in real time due to its responsive design. Released back in 2014, it fuses BI and business analytics capabilities into a scalable solution attainable from any device (Hedgebeth, D, 2007).

Data can be collected from a range of database sources and generate intuitive visualizations in the form of graphs, charts and dashboards (Purba, H. R., Ray, S., & Kumar, P, 2013). Users can use these to analyse data, discover patterns and forecast trends in their business.

By discovering patterns, trends, using data history user can make more data-driven decisions about their business and implement best practices

Users can create an extensive range of report types easily with the Dundas BI interface. They can count on built-in formulas or create custom report to fit their needs through the simple, structured process provided by the BI dashboard tool. User can even use drag and drop option to create reports.

The recycle bin feature permits users to restore recently deleted folders, files or images. It is majorly used by small to large scale industries.

## 2.6 TABLEAU BIG DATA ANALYTICS

Tableau Big Data Analytics is an analysis and broadcasting tool from Tableau. With this system, users can be involved in platform variety and utilize popular frameworks such as Apache Hadoop, Spark and NoSQL. Due to optimized connections it generates reports for last-minute meetings in minutes — no coding needed. Some clients noted a more than 60% reduction in report preparation time, saving many hours and resources.

Tableau Big Data analytics displays all of user's data in the same view, therefore providing a sharper image of business and improvement needed areas (Daniel G. Murray, 2013). Tableau provides strong statistical tools to analyse and draw assumption from data.

It enables users to predict future trends, combining historical trends and current data analysis. It gives an in-depth analysis of social media performance to generate business insights. It integrates with Google Analytics, Google Big Query and Google AdWords thus supporting web analytics. It is best preferred by small and medium scale industries.

## 2.7 TIBCO SPOTFIRE

TIBCO Spotfire is TIBCO Software Inc. complete business intelligence and data recognition platform. Execute various functions, including in-depth analysis and performance visual reporting, all powered by artificial intelligence. TIBCO Spotfire is built for large organizations, and is built to handle the needs of large enterprises. It also scopes well to small organizations, keeping the software flexible and keeping users in control of their data. This software is built with the individual analyst in mind, with Spotfire desktop handling insights and data discovery versus an analyst deriving their own insights from INTEL.

## III. RESULTS AND DISCUSSION

This section discuss the details regarding all the latest tools which are useful for analytics purpose. Following Table deals with various such tools and their details.

Sr.NO	Name of the tool	Description	Industry Expertise	Industry size
1.	BOARD	Board allows you to create convincing visual analyses and analytical applications from raw data in a matter of seconds, without the help of IT.	Giant Brewages companies, US Navy	Medium to voluminous
2.	SISENSE	It is a Big Data analysis tool for data visualization that empowers business users, analysts, and data engineers to prepare and analyze terabyte-scale data from multiple sources – without any additional software, technology, or specialized staff	Government, Medical management, Marketing and manufacturing	Small to large
3.	SAS Business Analytics	enables you to quickly and easily access data from any source using native connectivity	World Wildlife Foundation, Nestle	Small to large
4.	MicroStrategy	It provides an extensive library of native analytical functions and scoring algorithms, along with an SDK to integrate with third-party and open source statistical and data mining products.	Finance and Manufacturing, Insurance	Small to large
5.	Dundas BI	You can visualize and analyze data from across the organization on your dashboard, helping you gain valuable insight and drive accurate decision making	Mining, transport and logistics	Small to large
6.	Tableau Big Data Analytics	It is a powerful and fastest growing data visualization tool used in the Business Intelligence Industry. It helps in simplifying raw data into the very easily understandable format.	IT space	Small and Medium
7.	TIBCO Spotfire	is an extremely powerful enterprise-grade analytical platform for deriving valuable business insights	Manufacturing, IT space, Insurance	Large

[Table 2.1 Tools Analysis]

## III. conclusion

This paper focuses on which tool can be useful for which scale of industry. Recent innovations and trends in business analytics and new technologies, user interface design, and system integration are all driven by business value. Business advancement is measured between the need of the user and the value and accessibility of analytical tools. To make analytics more useable to user make tools are being introduced in the industry but what makes a difference is the right choice of the tool for your domain and organization based on the size and usage. For comfortable, simple and more effective deployment, and optimal value, analytics are increasingly getting embedded in larger systems. A small-scale industry can comfortably try SAS Business Analytics as it not only provides insights in business but also provide cross functionality. For medium scale industry BOARD and Tableau Big Data Analytics are an appropriate choice. A large-scale industry can go for TIBCO Spotfire and Dundas BI.

## REFERENCES

- [1] Tuncay Bayrak (July 2015) A review of business analytics: A business enabler or another passing fad. Retrieved from *Procedia-Social and Behavioral Sciences* 195:230-239.
- [2] Rouse, M. (2013). Business Analytics (BA). Retrieved from: <http://searchbusinessanalytics.techtarget.com/definition/business-analytics-BA>
- [3] Sherman, R. (2015, June). Understanding BI Analytics Tools and Their Benefits. Retrieved from: <http://searchbusinessanalytics.techtarget.com/feature/Understanding-BI-analytics-tools-and-their-benefits>
- [4] Frank Actio, Vijay Khatri (2014). Business Analytics: Why now and what next? Retrieved from <https://doi.org/10.1016/j.bushor.2014.06.001>
- [5] Huberman, A. M., & Miles, M. B. (1994). Data management and analysis methods. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (p. 428–444). Sage Publications, Inc.
- [6] Purba, H. R., Ray, S., & Kumar, P. (2013). Business analytics: A perspective. *International Journal of Business Analytics and Intelligence*, 1(1), 1-12.
- [7] Azvine, B., Nauck, D. & Ho, (2013). Intelligent Business Analytics — A Tool to Build Decision-Support Systems for eBusinesses. *BT Technology Journal* 21, 65–71 (2003). <https://doi.org/10.1023/A:1027379403688>
- [8] Daniel G. Murray. (2013) Tableau your Data! Fast and Easy Visual Analysis with Tableau Software.

[9] Andrew Choo, Thorsten Saeger (2010). Data Analysis for Yield Improvement using TIBCO's Spotfire Data Analysis Software. Retrieved from: <https://csmantech.org/OldSite/Digests/2010/Papers/18.3.096.pdf>

[10] Hedgebeth, D. (2007), "Data-driven decision making for the enterprise: an overview of business intelligence applications", VINE, Vol. 37 No. 4, pp. 414-420. <https://doi.org/10.1108/03055720710838498>

[11] Evan Stubbs (2011). The value of business analytics: identifying the path to profitability. Published by John Wiley & Sons, Inv., Hoboken, New Jersey.

