Project 1 Report on

Business Analytics – an empirical approach

Submitted to

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Introduction

Data is an essential tool for an organization because the data itself is objective. This objectivity is most helpful in determining what decisions an organization needs to make in order to create maximum value.

Business analytics is one of the fastest-growing areas of our time. With the deadly combination of statistics and computer science, the scope of business analysis continues to expand. Market analysis is also important in marketing for the introduction of new products, and marketing analysis is also important for launching new market campaigns in order to show profits based on data from past campaigns. Business analysis uses the data to create mathematical models that help organizations make value-added or best-interest decisions. There is a lot of data available to an organization, but the data they choose and why they use it depends on the industry.

This evolution of business analysis has created different types of career opportunities. Therefore, it is very important to understand the meaning and importance of business analysis.

In this business analysis overview, you first need to understand the term "analysis." Nowadays, the analysis generally refers to the science of manipulating data by applying different models and statistical formulas to the data to generate insights. These insights are important elements that can help you solve a variety of problems. These problems can occur in many different ways, and when you use the data to generate insights and solve business-related problems, you're actually doing business analysis.

As organizations in all industries generate vast amounts of data, there is an increasing need for professionals who have data literacy and know how to interpret and analyze that information. Enterprises can build an analytical framework that can be used for everyday decision-making to help organizations succeed. This also leads to significant economic gains and operational efficiencies.

Objective of the study

The objective of the project is to research on real-world business analytics course assignments using numerous examples and case studies. For a better knowledge of real-world business analytics, our group focuses on learning about business analytics, its history, and the differences between conventional and contemporary analytics, so that our team could grasp past challenges and current advancements. Our goal was to comprehend and learn about the analysis of public data sources, which is extremely significant in the business environment, as well as the text analysis of business analysis definitions.

The objective of the project is -

- Defining Business Analytics – the transformation from manual labour to robotics. How business analytics has achieved a status of feature and domain-wide coverage.
- Attain the history of Business Analytics – The development of business analytics and the following practices over the period of time.
- Traditional vs Modern Analytics (prior analyses and business analytics) – how traditional methods became old-fashioned over the period, and the reason for the increasing number of firms shifting away from traditional, reactive systems and toward sophisticated analytics solutions.
- Understanding Analysis of public data sources
- Text analysis of definitions of business analytics – how text analysis and analytics go hand in hand while using text content and how text analysis became an important skill in today's generation.
- Examples of Business Analytics in use – how companies are looking to align with the trend of applying the data information for better decision making.

Background of the study

Business analytics has existed for a very long time and has improved as more advanced technology becomes available. Its origins can be traced back to operations research, which was widely used during World War II. Operations research was a method of analysing data in order to perform military operations. This technique gradually gained popularity and started getting utilized in the business world. Over time operations research evolved into management science which had the same foundations in data and decision making.

Management science evolved into business intelligence, decision support systems, and PC software, etc as economies began to expand and businesses grew more and more competitive.

Through this study, we aim to have a better understanding of Business analytics, its history, uses and significance in the contemporary landscape. We can achieve this by scrutinizing the way that analytics has evolved over time and learning from various examples of how it's used in the current environment. We also hope to learn about the various tool that is available in analytics.

Methodology

The focus of the entire project is to gather knowledge about business analytics from the initial phase till the present time and the various places where it is used, what sources and platforms are used in order to perform the analysis.

- All the research topics were equally distributed among the group members.
- Each group member prepared plagiarism-free content in order to keep the entire research work authentic.
- The entire research is based on qualitative data that has been collected from various sources such as –
  Internet reference sites
  Published Journals
  Research Papers
  E-books
- Practical examples and case studies are being used in order to support the entire research work.
- Each and every reference is being recorded in order to keep the work transparent.

Tools Used:

- MS Word
- Internet

An exploration of the history of Business Analytics

Business Analytics in a Barter Economy

Let's go back in time just to give a basic example. Think about how the early barter system would have been monitored without a pen or paper, let alone a computer. The first glimpse into the growth of business analysis is the numbers carved into the walls of the cave, trees and stones. Some tracking mechanism was needed to determine who had what when.

This is clearly oversimplified, but it helps to understand how and why business analytics have changed as the sector grows.

Business Analytics in the Industrial Era

The Industrial Revolution, which began in the mid to late 17th century, introduced new production methods based on water and steam, followed shortly by railroads, steel and oil. These are complex industries that have rapidly evolved from small stores to state-owned enterprises.

BA in the 1800's 'The need to stay ahead'

The date was originally used in 1865 to stay one step ahead of the opponent. During this period, Richard Miller Devens wrote in his book how banker Sir Henry Farney's stays one step ahead of the competition by actively seeking information and acting. This shows that experts like Sir Farnese rely on statistics and scientific evidence rather than intuition.

BA in the late 1800s The Advent of Scientific Management

During this time, Frederick Taylor established the first business analysis system in the United States. This was called scientific management. The purpose of this method was to reveal improved efficiency through analysis of the manufacturing process and worker body movements.

BA in the early 1900s The transformation of the Manufacturing Industry

Intrigued by Frederick Taylor's style of scientific leadership, Henry Ford hired Taylor as a consultant. Ford was willing to schedule the completion of all components of the Ford Model T on the assembly line. This degree changed his work and global industrial business.

BA in the 1950s The first hard drive disk by IBM

Computers were not widely used in the early 1900s, but were in high demand during World War II. Computers were relatively primitive, so punched cards or tapes were used to store information. However, the technology company IBM developed the first hard disk drive in 1956. This allowed users to store large amounts of data with greater flexibility.

Operational Reporting

For most companies these days, operational reports still serve as a daily overview of what's happening. However, for several years leading up to the digital and information revolutions of the second half of the 20th century, operational reports were known as highly segmented workflow analyses.

This means that information was collected and stored, but was often stored in information silos that were difficult to share within the organization. It wasn't anyone's goal, but it was a big problem, such

as updating and distributing a handwritten ledger to look up the company's daily reports. Due to operational reporting, there was little integration and little or no historical data. The organizational problem of knowledge sharing was serious. The more complex the data collection process, the bigger the company.

Data warehouses can accumulate over time and suddenly store previous computer data (market patterns, growth, prices) ready for data analysis. Revenue and investment reports are a common way to understand a company and have begun to facilitate business transactions, investments, and decision-making.

Meet Microsoft Excel

Microsoft Excel was developed on this DDS-type platform and released as a still popular product in 1985. Excel users can not only sort and filter the data, but also create formulas that combine and display the data as specified. When Microsoft Excel spreadsheets hit the market, the era of handwritten ledgers was over.

BA in the late 1900s The Emergence of Business Intelligence

With lower storage prices and improved databases, next-generation business intelligence systems are ready to take over. At that point, I had access to a fair amount of data, but there was no central place to store it. To solve this problem, Ralph Kimball and Bill Inmon have developed a similar data warehouse (DW) construction method.

Business Analytics in the Digital Age

Recall the 1970s when computers became commonplace in large organizations. During this time, the decision support system was in charge of Business Analysis (DSS). DSS has grown in popularity as it has helped executives make data-driven business decisions through an ever-growing amount of data sorting and filtering. The DSS system helped collect data from many areas of the company, including: B. Manufacturing and sales provide a bird's-eye view of the organization to key decision-makers in previously unavailable ways. Examining different slices of data using filtering techniques is a major shift in business innovation.

The following techniques are commonly used to control DSS analysis tools.

Automated Inputs → User Inputs → Outputs → Results

Throughout the information age, computers became more popular in the 1980s and 1990s (and arguably beyond). Originally, most of the material was historical. Technological growth in the information age has led to a significant increase in information storage capacity.

BA in the Millennium availability of different analytical solutions

Medium and large companies are already aware of the importance of business intelligence solutions at this point. Companies such as IBM, Microsoft, SAP, and Oracle have been at the forefront of providing such solutions to transform the way businesses work.

BA in 2005 Accessibility of data for the Common People

With the proliferation of data, companies have begun to focus on speeding up the acquisition of information. New business analysis tools have been added to allow both technical and non-technical staff to explore data and reveal insights.

Around this time, the increasing interconnectivity of the enterprise sector created a demand for real-time information. Around this time, Google Analytics was introduced. Google wanted to provide people with a free and easy tool for examining website data.

Not perfect, and probably not user-friendly, **Google Analytics** has long been screamed from the early days of Taylor and Ford's time and efficiency research. Google Analytics allows clients to dig deeper into the very detailed parameters that Taylor and Ford could only dream of. To get to know her. Google Analytics is a digital-focused service that allows website owners who upload specific lines of code to their website to see metrics such as:

- Audience demographics
- New vs. returning users
- Device type
- Time spent on site
- Bounce rate
- Digital advertising data
- Total visits, views, click-throughs, and more

Google Analytics is not a one-size-fits-all platform, but it has played a significant part in the growth of business analytics since it was one of the first of its type to provide quick access to every household and business with a computer and a website.

BA from 2005 to 2020 The Bread and Butter for companies globally.

As the Internet became available to virtually everyone and the amount of data increased, businesses needed a better way to store and analyze all their information. Many organizations couldn't build more memory and faster computers, so they decided to use more machines at once. This was the beginning of cloud computing.

Big data, cloud computing, and business analytics have become an integral part of almost every business in the last decade. Recent developments have improved this technology. Data analysis and science are widely seen as the future. These expressions are used in all industries, from advertising and marketing to recruiting and organizing operational tasks.

Defining Business Analytics

Humans have moved from manual labour to robotics without looking back. The digital age has begun, and all the last sparks of uncertainty about human destiny have disappeared. Business analytics, machine learning, artificial intelligence, deep learning, robotics, and cloud computing have transformed the way information is displayed, consumed, and processed. While some of these advanced topics are still evolving, business analytics has achieved a status of feature and domain-wide coverage. Analytics permeates every part of our lives. The giant wings of analytics influence everything from how to buy toothpaste to choosing a dating partner and living.

According to Gartner, "*Business analysis consists of technologies used to develop analytical models and simulations to generate scenarios, understand reality, and predict future conditions*." Includes data mining, predictive analysis, applied analysis, and statistics, and is provided as a business response. Solution. These analytics systems often contain packaged industry knowledge targeted to specific industry business processes (billing, underwriting, specific regulatory requirements, etc.). "

Business analysis and data analysis are terms that are used interchangeably. The main difference is that data analytics is the child of a data blast, while business analytics is a maturity that puts data insights at the core of business activities. Over the last five years, over 90% of all small businesses have developed analytical skills to stay relevant in the market and derive value from insights that can collect large amounts of data in the digital age.

The process of turning data into insights for better business decisions is known as business analysis. Business analysis relies heavily on **statistical, quantitative, and operational analysis, ultimately creating visualizations of the data to communicate findings and communicate business decisions.** Therefore, it is important to combine technical expertise with good communication skills to succeed in this area.

- At its core, business analytics entails a combination of the following activities:
- data mining to identify new patterns and relationships;
- quantitative and statistical analysis to design business models;
- A/B and multi-variable testing based on findings;
- predictive modelling to forecast future business needs, performance, and industry trends; and
- communicating your findings to colleagues, management, and customers.

The main components of a Business Analytics dashboard are:

Data Aggregation: Before beginning the analytic process, you must collect, organise, and filter data from transactional records.

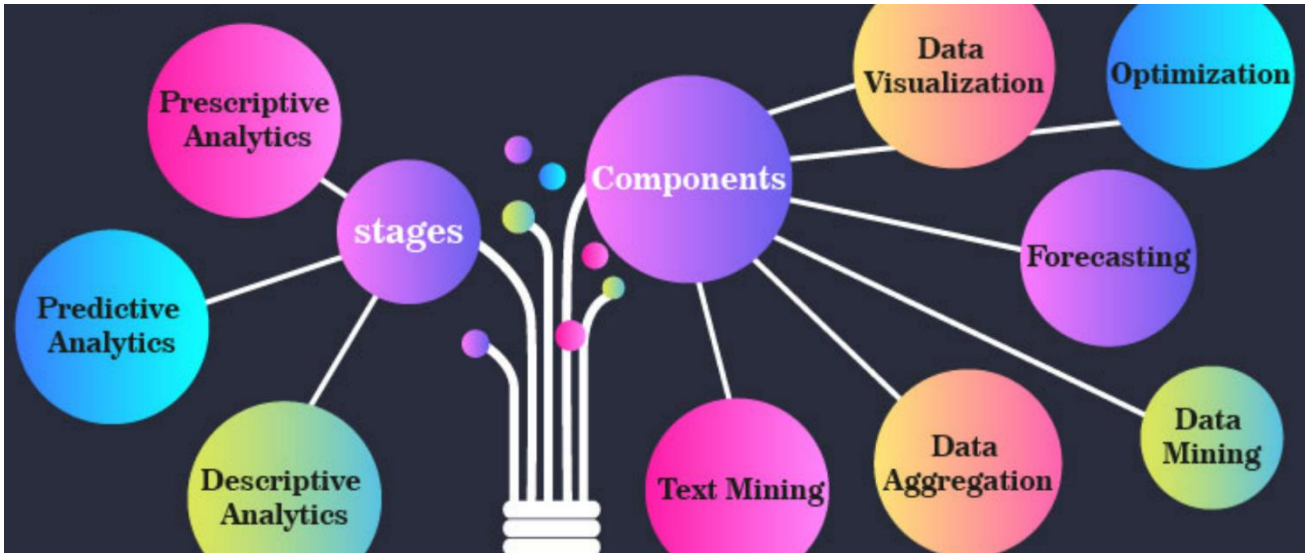
Data Mining: Data mining is the process of sifting through a vast amount of datasets using statistics and machine learning. This aids in the identification of trends and the formation of linkages.

Association and Sequence Identification: Then we must identify acts that are conducted in connection with other actions or in a certain order.

Text Mining: We can now study a huge number of unstructured text collections. This is done for qualitative and quantitative data analysis.

Forecasting: Forecasting is used to examine past data. This information might be from a certain time period. It enables us to make educated guesses and predict future behaviour.

Predictive Analytics: This enables us to develop a prediction model using various statistical tools and methodologies. This model pulls information from several datasets and offers pattern information.



Optimization: After identifying all trends and making all forecasts, organisations must participate in simulation approaches that allow us to test the best-case scenarios.

Data Visualization: gives visual representations in the form of charts or graphs This allows for rapid data analysis.

Business analysis is divided into four categories, each of which is gradually evolving. They bring us closer to real-time and future scenario insight applications. Each of these categories is described in detail below.

Descriptive Analysis

Summarize your organization's existing data to understand what has happened or has happened in the past. Descriptive analysis is the most basic type of analysis because it relies on data acquisition and mining techniques. This gives you better access to data from members of your organization, including investors, shareholders, marketing executives, and sales executives.

This helps identify strengths and weaknesses and provides insights into customer behaviour. This will help you develop a focused marketing strategy.

Diagnostic Analytics

This type of analysis helps shift focus from past performance to current events and identify the factors driving the trend. Use techniques such as data detection, data mining, and drill down to identify the root cause of the incident. Diagnostic analysis uses probabilities and probabilities to determine why an event occurs. Techniques such as sensitivity analysis and training algorithms are used for classification and regression.

Predictive Analytics

This type of analysis is used to predict the likelihood of future events using statistical models and machine learning techniques. Use descriptive analysis results to build a model that estimates the potential of things. Machine learning specialists are used to perform predictive analytics. You can achieve higher accuracy than just business intelligence. One of the most common uses is sentiment analysis. Use existing social media data to create a comprehensive image of your view. This information is analyzed to predict their emotions (positive, neutral, or negative).

Prescriptive Analytics

It goes beyond predictive analytics and suggests the best next steps. We recommend all positive outcomes based on a particular course of action and the exact steps necessary to achieve the desired outcomes. It is based primarily on two components: a powerful feedback system and continuous iterative analysis. Discover the relationship between actions and their consequences. This form of analysis is often used to create recommender systems.

Traditional vs Modern Business Analytics:

Traditional business analytics systems have historically relied heavily on hypothesis-based reporting based on historical data and past results to answer the question, "What happened?". Furthermore, they require the knowledge of a select few report developers—typically data scientists or data analysts—in order to produce reports that provide insights to a department or a whole enterprise.

Traditionally, business analysis is done in a linear manner, with a requirements document serving as the foundation for the development activity. Before work begins, the requirements paperwork is normally prepared.

Traditional data analytics is typically focused on dashboards comprised of visualizations. A dashboard is pre-defined and generated based on typical business questions. A new inquiry usually necessitates time and technical knowledge, frequently lasting several days (or weeks) and requiring the assistance of a data analyst.

These technologies are no longer sufficient to access all of the organization's data and derive insightful knowledge due to the growing volume and diversity of data. As a result, an increasing number of firms are shifting away from traditional, reactive systems and toward sophisticated analytics solutions.

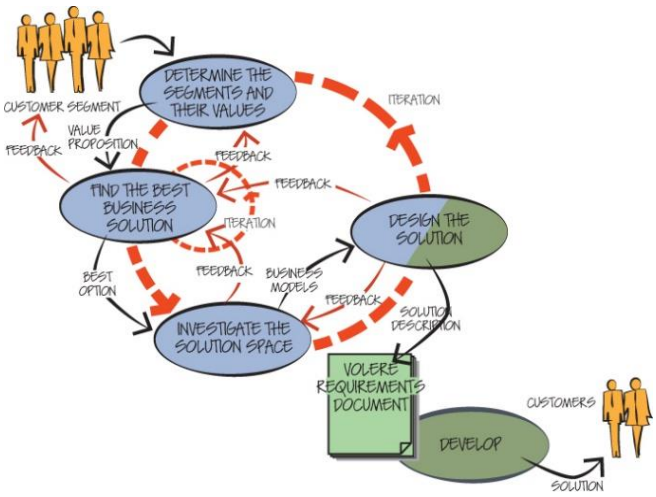
For decades, businesses across industries have used business intelligence tools to evaluate performance and power future advancements. Traditional services, however, do not cut it in a digital environment that is growing increasingly sophisticated and fast-paced.

The Differences

1). Ease of usage is increased

Traditional solutions supply firms with insights, but only after the data team works closely with them. This takes time, and burdens data experts with tiresome tasks, and restricted employees' autonomy.

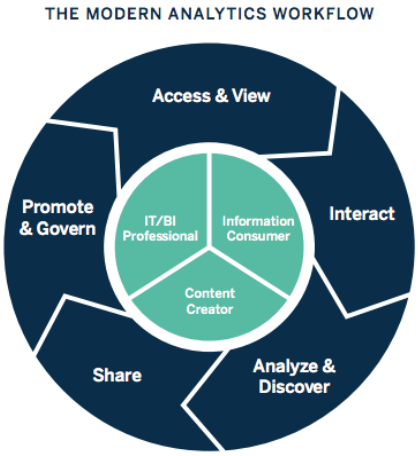
Modern methods allow anyone to be their own data scientist. A user may ask a service like ThoughtSpot their query and receive immediate answers through attractive data visualisations, saving them the time of waiting for a report to be created. These services can also be used by novice and casual users just as easily as an advanced user.



2). Multi-Cloud Support & Analytics Search capabilities

As one can predict, in the realm of enterprise data - collection and processing volumes will continue to rise. When it comes to connecting with different data sources, traditional business intelligence tools, often known as legacy or on-premise solutions, have generally fallen short. They were also not designed to handle enormous amounts of data, especially across different clouds sources.

By combining all data sources, whether on-premise or in the cloud, into a single analytical cache, modern BI solutions offer a more practical approach. New software available allow the platform to expand along with a company's user base and data volume without compromising search efficiency.



3). Using Voice recognition

Even though we've gotten used to typing our questions into search engines to find info, it's evident that using voice is the way of the future. Voice analytics, together with artificial intelligence (AI) and machine learning (ML) data applications, may be the most noticeable difference between old and modern business intelligence services. These Services facilitate data search via natural language processing (NLP), and users can search with voice on both pc and mobile devices.

4). The usage of Artificial Intelligence

Artificial intelligence is a major gap that is between traditional business intelligence and modern analytics. Traditional systems used to offer pre-set or manually adjusted insights that were managed by data scientists. This hindered production and limited the amount of insight a company could generate.

To get the most value (and money) out of data today, current business intelligence and analytics services must combine AI and machine learning. For each query, these AI engines can perform dozens of insight-detection algorithms on billions of rows of data. It assists in detecting key patterns, uncovering anomalies, isolating trends, and segmenting data to provide users with actionable information. It gets better at providing personalised results the more it is used.

Because AI analytics is a relatively new field of study, it can be challenging to determine its actual benefits or how much it differs from more traditional analytics. **These are the essential differences.**

I. Traditional analytics is static. AI analytics is dynamic

Dashboards with visualisations are typically the backbone of traditional data analytics. These dashboards are predefined and are based on typical business questions.

These dashboards are static and incapable of adapting to the changing needs of the business, as new difficulties arise in the ever-changing landscape.

In contrast, AI analytics enables users to dynamically request and incorporate information to answer business questions — all without the need for technical assistance.

Natural language processing allows users to ask questions in natural language in AI systems that support a conversational interface.

II. Traditional analytics answers “what.” AI analytics answers “why” and “how.”

Traditional analytics and AI analytics both try to answer critical business questions like “why are sales up?”

While AI analytics can directly answer these "why" questions. Traditional analytics provides answers to a number of "what" questions, but leaves it up to the user to conduct their own analyses to ascertain "why."

Dashboards can display the relevant information, such as the sales figures and any changes in those figures but are unable to comprehend these responses or put them in relation to one another. Instead, users download data from dashboards into spreadsheets. They then sort and filter the data, testing different hypotheses in an effort to determine what is causing the change in sales.

The majority of their time is spent on analysis rather than creating and implementing the action plan. These conditions make it difficult for businessmen to seize opportunities or deal with challenges.

These limitations of traditional analytics restrict growth while also raising costs as more analysts are employed to support the workflow.

AI analytics, on the other hand, automates the analysis process, essentially eliminating the need for manual tasks like downloading spreadsheets, filtering data, and testing hypotheses.

AI creates a data narrative in natural language rather than generating many graphics. This narrative provides an accessible explanation of "why sales are up" for businesspeople. By directly explaining “why,” AI addresses the part of work that machines excel at (computation, classification, regression, etc.).

This provides humans with more time to focus on the action plan, strategy, and creative thinking. Employees can determine which actions will have a meaningful impact once they understand the "why."

III. Traditional analytics is driven by hypotheses. AI analytics is driven by data.

As previously stated, dashboards are commonly predefined based on recurring questions or a specific perception of the business. Because they predetermine what is most important and only display the data that is relevant to that set viewpoint, these dashboards are inherently biased.

Furthermore, answering questions is based on hypotheses. These hypotheses will be influenced by the individual's experience as well as their time and energy constraints.

Conversely, AI analyses all data and produces unbiased answers based on exhaustive testing. Allowing the data to lead the analysis ensures that AI does not overlook important insights that are hidden beneath the superficial parameters & metrics.

Criteria	Traditional Analytics (BI)	Big data Analytics
Focus	Descriptive analytics and diagnosis analytics	Predictive analysis
Data sets	Limited data sets with structured data. Adoption of simple data models	Large scale data sets with more types of data. Adoption of complex data models
Analysis	Looks to what happened, and why?	Provide new insights and forecasts

Understanding Analysis of public data sources

Google

The biggest search engine in the world is Google. Google is a vast ocean of information about trends all types of online activities and billions of search terms. it also has a few major sources that provide publicly available data.

One such tool that provides statistical information for almost any term Is Google trends with data sets stretching back to almost the beginning of the internet.

Another search source created by Google is Google Finance

it provides the stock market information in real-time which is updated regularly and provides 40 plus years of stock market data.

In addition to this a great tool that allows to search and analyse the text which Google have in its repository containing data of millions of books Google book ‘ngrams’

Social media

One of the biggest Big Data sources is the channels provided by social media which include Twitter, Facebook and Instagram Which are very popular among corporations as well as individuals. Businesses can get a better understanding through social media profiles of their current and potential customers. potential is huge and significant for big data due to these social media platforms

Twitter alone has 320 million active users in this year's first quarter, while Instagram in early 2016 at 400 million active users as well as Facebook with 1.5 billion active users in April 2016 along with many other platforms like LinkedIn and Pinterest with a hundred million users and Snapchat with more than 200 million active users.

In addition to this, another tool is used to calculate the information shared on the platform Facebook and to aggregate the users’ range of details through the tool Facebook graph.

Social media provides both positive and negative feedback through data containing strong information about customer preferences, trends, insights and patterns of customer activity.

For example, a major shift of a large number of consumers towards a particular product can be known through big data provided by social media platforms and the business can now address the situation and provide the customers with a particular product in that part of the market.

Public government data

Companies can rely on social media for the necessary public data information but it is not the only source to pay attention to as several helpful information sources created by the Federal government provides a better picture of public data which can be relied upon by some of the best search sources are -

data.gov

The Federal government is part of the US government as promised to make available as much data as possible through the site. information can be found related to many fields like public safety, education, consumer, manufacturing, agriculture and much more which is available like a wealth of data for all companies who seek our information.

data.gov.uk – businesses which want to expand on a global scale can access the incredible amount of metadata provided by the UK Government some of which Even goes back to as early as 1950.

The US census bureau

it covers areas such as geographical information, details related to reaching education and a range of data available which covers the overall population is provided through the US census bureau in the online format.

CIA world factbook

This sort of provision of data related to infrastructure, history, Global population, economy, military and government covers these fields and provides information for 267 countries in total. The Central Intelligence Agency has made selected information accessible through its online platform Factbook.

Text Analysis of the definition of “Business Analytics”

There is no single explanation for the term “business analytics”. Business analytics can be described in various ways although the keywords remain the same. Combined with data visualization tools, this technique enables companies to understand the story behind the numbers and make better decisions.

In the above figure called the Word Cloud, the keywords are combined from meanings described by various websites like Gartner's on the topic of 'business analytics. The overall objective of these keywords is to provide a basic understanding of the topic and improve its concreteness. **The words "analytics", "analysis", "business" and "data" are highlighted in the word cloud as they are most frequently while searching and defining "business analytics".**

Examples of Business Analytics in use

More and more organisations are implementing analytics for generating business growth.

Companies looking to align with the trend of applying the data information for better decision-making.

Increasing productivity and collaborative output in Microsoft.

Microsoft the technological joint focuses on an innovative environment Understanding how face-to-face conversations among members increase employee efficiency and decrease cost.

The workplace analytics team at Microsoft planned to move a large group of employees into a lesser number of buildings and reduced the distance of travel between meetings this is done on the assumption based on the early study stating that better collaboration is acquired when the people are located closer to each other.

The analytics team saw the result of this study as Increasing productivity and decreasing time by 46% which would have been wasted in travel time for the meetings and resulted in a total of 100 hours conserved every week with an estimated savings of $520,000 per annum.

The analysis showed the importance of how thoughtful planning of personal interactions in the company can lead to using saving both in terms of cost and time.

Better customer service in uber

The top priority for this company is to provide a top-quality experience to the customer for which they developed a tool called customer obsession ticket assistant In early 2018 which uses natural language and machine learning to provide accuracy and improve the speed of responding to customer requests and problems.

The Uber company also integrated deep learning architecture and tested methods as a method of comparing different choices and outcomes. As a result of these tests. it resulted as a reduction of time by 7% due to More accurate and quick service Along with saving millions due to the success of these methods.

Predicting recipes and future orders at Blue Apron

Customer behaviour and preference play a crucial role in the success of a meal kit delivery service Blue Apron. Predictive analytics is used to provide the subscribers with a fixed menu of meals every week Available for purchase and analyse the demand forecast for fulfilment and avoiding spoilage.

Algorithms are used to achieve these predictions correctly by placing them into categories and considering variables It uses past data to describe a user's order requirements and frequency Along with recipe patterns to predict the upcoming means allowing the company to know which order the customer is likely to order. Another method using statistics, it examines the relationship of the variables through regression analysis showing the difference between the observed and predicted values Which indicates high levels of accuracy in forecasting and projecting future orders By using predictive analysis Blue Apron has identified the consumer preferences.

Consumer targeting at Pepsico

Pepsico’s success Multinational food and beverage organisation is built upon consumers in more than 200 countries worldwide through retailers in these countries To more than a billion people every day.

Use of big data and predictive analysis by Pepsico to ensure that various types of products are available to consumers in the right quantities at all locations.

Pep Worx is an analytics platform created by Pepsico on cloud-based data to make informative decisions and improve product merchandise. with this tool the company to identify people interested in a particular product for the Pepsico brand in the United States.

With Pep Worx the company identified the retailers which would target a particular audience and Households resulting in an 80% sales growth within the first 12 months of the product launch.

This is a prime example of how analysis of consumer data can drive the decision-making process and help two companies to maximize earnings and profit.

User applications of business analytics

With the brief idea of business analytics, let's take a look at how it is used in various fields with some more examples in the real world.

Business analytics in retail

Fast fashion addition by Zara

One of the leading fashion retail brands Zara does not follow a fixed strategy or budgeted marketing so how is it leading the fashion industry The Secret is to sketch, produce, design and send the garments for saving within 2 weeks while other brands are still planning these operations.

The use of Big Data Analytics through social media, Instagram and various surveys is used to collect order data which is stored to understand the fashion sensibility of customers with his analysed to process this data into new design creations. follow the fashion in Trend by knowing its customer better and reaching the stores sooner.

Business analytics in banking

Once a time-consuming process, with long waitings, dreaded customers and low-quality customer service has now changed the overall banking process by taking a virtual step toward serving its customers.

This is the strategy of the Bank of America as it identified that the customers mostly visit to get information about their transaction trees and upcoming payments true understanding of customer data. a virtual assistant has been set up by the bank to assist the customers' healthy activities and provide quick answers by using data to save the customer time.

Business analytics in the food and beverage industry

Mass personalization strategy shift from mass promotion by McDonalds'.
Fast food chains in today's world table to alleviate the Global customer experience digitally and increase without any negative effects. McDonald's has digital screens instead of regular menus where they show the customers that they have complete control now.

Business analysis is used to display the food and beverage information on the screen which provides considerable appeal two customers in terms of the relevance of the males according to the time of the day and individual choices or the trend, McDonald's is able to hold its market position by providing personalized offers and data-driven menus.

Business analytics in Human Resource Management

HR departments are now able to analyse and access the raw data in ways that would not have been possible a few years back by using the power of Data and following the trend in human resource Management as datafication.

Nissan is identifying top talent using data.

One of the biggest name is Nissan when it comes to the world of Motorsport by using anunconventional recruiting method they are able to recruit top talent best known for racing. a partnership with Sony has been created to find the best races in gaming as an annual contest designed to turn them into real-life racers through this recruitment channel.

The contest winners are selected by proving among thousands every year and an efficient recruitment channel has been created.

Business analytics in entertainment

Netflix is able to increase the watch time by using big data.
Netflix is the king of streaming services with a tally of 148 million paid streamers and subscribers worldwide in more than 100 countries.

Netflix's ability to edge out The competition like Amazon Prime video and stay ahead of the competitors by using methods on their platform to increase the average time watched by users. For example, a study by Netflix shows that it is 75% less likely that a subscriber will cancel if they watch more than 15 hours of content every month.

Netflix has enabled features that automatically plays the new episode unless the user chooses not to. this feature suggests and encourages where users to spend more on Netflix and help Netflix to understand the preference of the audiences.

Business analytics in e-commerce

Behavioural and predictive analysis is used by E-commerce Giants for a better understanding of customer requirements.
Amazon is enhancing customer satisfaction by using target marketing.

Amazon analysis product reviews, ratings, online shopping carts, product wishlist, purchase history and search history to get similar items recommended by the customers on the way. by using this Amazon encourages you to buy through the power of suggestion and creates an impulse to satisfy The shopping experience and increased sales leaving you to buy more items than you would normally have.

Business analytics in transportation

Uber identify fine to look like by using data.
Passengers having a similar to any can share the right it and paid less through algorithms terror identifying such rights having a similar pickup point around the same time which enables through the Uber pool feature thanks to which many people can be served at the same time and sure that the drivers are busy.

Business analytics in education

universities are using Data Analytics to update Student data profile which includes information regarding academics, demographics and financial information and more.

The University of Alabama has reduced the dropout rates by using predictive analysis by recognising students who request better academic and campus resources and providing them support which will ensure their stay.

Students who request copies of their transcripts are at a higher risk of Leaving college is calculated as a result of using analysis.

Conclusion

There are developing open doors for mining assessment-rich information from sources like personal blogs, social networks, news sites, and industry publications. Text analytics is the process of using computer systems and programs to read and understand human written text for business insights. This information continues to change consistently and it contains critical business intelligence knowledge that could shape business bearing. Therefore, businesses employ text analysis software to help them shift through the endless textual data streams and extract quality information.

Text analytics is the self-regulating process of translating large volumes of unformed text into quantitative data to uncover insights, patterns, and trends. Combining these with data visualization tools, provides a technique that allows companies to understand the story behind the numbers and statistics and make better decisions. Text analytics consists of certain concepts- text mining, data aggregation, association and sequence identification, predictive analytics, optimization, data visualization and text analysis. These are further divided into four categories- descriptive analysis, diagnostic analytics, predictive analytics and prescriptive analytics which have been explained before. These concepts are used to extract useful information and knowledge hidden in text content. Text analysis and text analytics often work hand in hand to provide a complete understanding of all kinds of text, like emails, social media posts, surveys, customer support tickets, and more.

No matter the size of your business or the industry, business analytics provides a variety of benefits. Business analytics helps to plan for the unexpected. Companies like Microsoft, Blue Apron, Uber and PepsiCo use BA model for trends in an organization's sales, profits, and other key metrics while projecting them for the future. Business analytics also allows these organizations to test new marketing campaigns and better understand the effectiveness of advertising campaigns on different audiences and demographics.

Modern business analytics for everyone offers features that traditional business analytics cannot match. It enables easy integration and understanding of data, enables everyone in the organization to find answers to even the smallest questions on their own, removes barriers to how and where to access statistics, enables users to base decisions on real-time information and opens the door to a transparent business ecosystem.

Overall, an organization that chooses to use business analytics must make better decisions about revenue, customer experience, and overall efficiency. Different methods of business analysis are often considered a hidden gem because they can reveal ways to gain an advantage over your competitors. It provides an overview, which is the highest form of data and filtered information. Business analytics is an important tool for today's business environment and is based on decision making, intuition, and experience along with evidence, research, data and statistics and utilizing these to the business's advantage can give the company a competitive edge over the competition regardless of the industry.

Appendices

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