

# Literature Survey

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## Global Sales Data Analytics

### 1. DATA ANALYSIS AND VISUALIZATION OF SALES DATASET USING POWER BI

Power BI has completely revolutionized the worlds of business intelligence, data visualization, and analytics. Power BI is an online service that allows users to search for data, transform it, visualize it, and share the reports and dashboards they create with other users in the same or different departments/organizations, as well as the general public. It is used by over 200,000 organizations in 205 countries as of February 2017. Power BI's Quick Insights feature is an innovative feature that is built on a growing set of advanced analytical algorithms. This function may be activated with a single click after uploading a data set to Power BI, and it generates a number of reports depending on the data's analysis without any need for human participation.

The pandemic of the corona virus has hastened the adoption of mobile-friendly analytics and business intelligence platforms. Companies all over the world now want their employees and customers to have access to data and analytics from any location. The mobile BI market will be worth more than \$20 billion by 2024, according to Mordor Intelligence. Furthermore, mobile devices such as smart phones and tablets are expected to account for more than 72 percent of all internet traffic. As a result, implementing mobile-friendly BI platforms across your organization in 2022 makes even more sense from a business perspective.

The purpose of this paper is to show how Power BI can quickly transform a piece

of research data into a set of shareable analytical reports and dashboards. We are all always thinking about the future and what is expected to happen in the coming weeks, months, and even years, and in order to do so, a look into the past is required. Businesses must be able to see their development and the factors influencing their sales.

## **2. Data Analysis and Visualization of Sales Dataset using Power BI**

Data analytics enables organizations to analyze all of their data to identify patterns and generate insights to inform and, in some cases, automate decisions by relating Smart and actionable. Today's best solutions support end-to-end analytics, from accessing, preparing and analyzing data to operating analysis and monitoring results. When analyzing data, the main task is defined objects to analyze and separate data time period analyzed, to ensure the eccentricity of data analysis results. Data is useless if it cannot be analyzed, understood and applied in context. A picture is worth a thousand words, and business analytics can help create a picture by visualizing data to provide retailers with business insights. With this information, businesses can make meaningful changes to their future plans to maximize profits and success. Most raw data, especially large-scale databases, are worthless in their unprocessed state. We can extract valuable insights from this bit store using Power BI tools. The main goal here is to read and analyze the available data sets to generate business insights and overviews. The success of any organization, company or business depends on its business division as it is. The importance of selling is as follows: Sales data is a broad word that includes many types of metrics, but in general if you can measure something based on sales process is the actionable sales data. Through visualization, data analysis helps students understand concepts. Much technology is available to perform business data analysis, but Power BI visualization technique is the most popular techniques to learn the basics of data analysis. With the help of visualization techniques, data interpretation and data representation can be done quickly and easily. This strategy is useful for a more solid conceptual design.

### **3. Survey on Growth of Business using Data Analytics for Business Intelligence in Real-Time world**

Data analytics strategies can screen developments and metrics data might in any other case be misplaced withinside the mass of facts. These facts can then be used to optimize procedures to growth the overall performance of a commercial enterprise or system. Data analytics is the technology of studying uncooked records to make conclusions approximately that factsData analytics is the technology of reading uncooked statistics to make conclusions approximately data information. The strategies and approaches of statistics analytics were computerized into mechanical approaches and algorithms data paintings over uncooked statistics for human consumption.

Data analytics assist a business optimize its performance. Companies everywhere in the international try and get the advantages from get entry to the statistics to improve their overall performance and boom their revenue, however processing heterogeneous varieties of information to extract the precious information is a massive hassle that many businesses try and solve. One of the most essential developments is “Big Data Analytics”, a generation for Storing, Processing, and analyzing the information, groups are Managing information to apply it in new ranges and direct decision-makers. Companies can use the insights they advantage from statistics analytics to tell their decisions, main to higher outcomes.

Data analytics removes lots of the guesswork from planning marketing campaigns, selecting what content material to create, growing products, and more. Data analytics additionally offers you beneficial insights into how your campaigns are appearing so that you could fine-track them for top of the line outcomes. Data analytics offer you with extra insights into your customers, permitting you to tailor customer support to their needs, offer extra personalization, and construct more potent relationships with them.

#### **4. IMPLEMENTATION OF BUSINESS INTELLIGENCE FOR SALES DATA MANAGEMENT USING INTERACTIVE**

Data Management is one of the crucial processes carried out at XYZ Store to get information about the sale of products. In carrying out its operational activities, XYZ Store uses the Smile Invent application to manage data on products sales transactions.

Still, this application has not been able to assist managers in producing the required reports. Therefore, one way to overcome this problem is by implementing the Business Intelligence (BI) application at the XYZ Store by using Interactive Dashboard Visualization.

In implementing the BI application, the BI Roadmap is used as a basis for conducting research starting from the identification of problems to be selected. After that, the planning phase is carried out by evaluating the infrastructure and planning projects.

Then the implementation phase is carried out, namely the selection and use of BI application tools to perform Data Visualization.

It is hoped that this research can produce reports in the form of Interactive Dashboard Visualization that can be used by store managers to make better decisions.

#### **5. DATA-DRIVEN SALES LEADS PREDICTION FOR EVERYTHING AS A SERVICE IN THE CLOUD**

A cloud platform website, offering a catalog of services, operates under a freemium business model or a free trial business model, aggressively marketing to customers who have previously visited. However, there are several limitations of existing approaches because of the following challenges heavy customer traffic flows, the noise in user behaviors, a lack of collaboration across stakeholders, class imbalanced customer data (few paying customers vs. high numbers of freemium or trial customers), and unpredictable business environments.

In this paper, we propose a data-driven iterative sales lead prediction framework for cloud everything as a service (XaaS), including a cloud platform or software. In this framework, from the BizDevOps process we collaborate to extract business insights from multiple business stakeholders.

From these business insights, we calculate service usage scores using our RFDL (Recency, Frequency, Duration, and Lifetime) analysis and estimate sales lead prediction based on the usage scores in a supervised manner.

Our framework adapts to a continuously changing environment through iterations of the whole process, maintains its performance of sales lead prediction, and finally shares the prediction results to the sales or marketing team effectively.

A three-month pilot implementation of the framework led to more than 300 paying customers and more than \$200K increase in revenue. Cloud services enable businesses to track and analyze customer behaviors more quickly and intelligently. However, to deliver the right data-driven business analytics, instead of just collecting data, we need to understand what data we are going to collect and how customers will use our cloud services. To understand consumer behavior properly, an inter- team collaboration among various stakeholders is critical.

The digital marketing organization within the business conducts user behavior analysis, the data science organization executes a data-driven sales lead analysis, and the sales organization performs the sales lead analysis.