

Ideation Phase
Literature Survey

Team ID	PNT2022TMID29201
Project Name	Global Sales Data Analytics

1. Data analysis and visualization of sales data - Mar-2016

Authors: Kiran Singh,Rakhi Wajgi

Data is being generated very rapidly due to increase in information in everyday life. Huge amount of data get accumulated from various organizations that is difficult to analyse and exploit. Data created by an expanding number of sensors in the environment such as traffic cameras and satellites, internet activities on social networking sites, healthcare database, government database, sales data etc., are example of huge data. Processing, analysing and communicating this data are a challenge. Online shopping websites get flooded with voluminous amount of sales data every day. Analysing and visualizing this data for information retrieval is a difficult task. Therefore, a system is required which will effectively analyse and visualize data. This paper focuses on a system which will visualize sales data which will help users in applying intelligence in business, revenue generation, and decision making, managing business operation and tracking progress of tasks.

2. Walmart's Sales Data Analysis - A Big Data Analytics Perspective - Dec-2017

Authors: Manpreet singh, Bhawick Ghutla, Reuben lilo Jnr, Aesaan F S Mohammed, Mahmaad A Rashid

Information technology in this 21st century is reaching the skies with large-scale of data to be processed and studied to make sense of data where the traditional approach is no more effective. Now, retailers need a 360-degree view of their consumers, without which, they can miss competitive edge of the market. Retailers must create effective promotions and offers to meet its sales and marketing goals, otherwise they will forgo the major opportunities that the current market offers. Many times, it is hard for the retailers to comprehend the market condition since their retail stores are at various geographical locations. Big Data application enables these retail organizations to use prior year's data to better forecast and predict the coming year's sales. It also enables retailers

with valuable and analytical insights, especially determining customers with desired products at desired time in a particular store at different geographical locations. In this paper, we analysed the data sets of world's largest retailers, Walmart Store to determine the business drivers and predict which departments are affected by the different scenarios (such as temperature, fuel price and holidays) and their impact on sales at stores of different locations. We have made use of Scala and Python API of the Spark framework to gain new insights into the consumer behaviours and comprehend Walmart's marketing efforts and their data-driven strategies through visual representation of the analysed data.

3. Implementation of Business Intelligence for Sales Data Management Using Interactive Dashboard Visualization in XYZ Stores - Oct-2020

Authors: Ricky Akbar, Mera silvana, Mahammad Hafiz Hersyah, Miftahul Jannah

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 analysis phase focuses on carrying out a detailed analysis of business problems and opportunities from BI implementation. Next is the design phase by carrying out the data warehouse design process and ETL using the Pentaho Data Integration (PDI). 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.

4. Research on Refined Sales Management, Data Analysis and Forecasting under Big Data - Oct-2020

Author: Wenhui Shan

This article analyses the key points of refined sales management under big data. The main points of sales management include how to establish a sales management organization, how to improve the sales management information system, how to improve the evaluation management system, and how to strengthen internal sales control. Combining the key points of data analysis under big data, the author studies the establishment of data warehouse, data cleaning and mining, the establishment of data prediction models, and the arrangement of model analysis results. The purpose of this article is to help people give full play to the advantages of big data technology applications and promote the healthy development of the enterprise economy.

5. Application of Tableau in Visual Analysis Data of a US Supermarket Sales - Nov-2021

Author: Yuto li

In today's large and complex data background, data needs to be properly interpreted and expressed in order to convey information more clearly. In this paper, a powerful visualization tool, Tableau is used to make visual analysis of online sales data of an American supermarket, the results can better understand the information of sales situation. This can better assist decision-making and provide decision support for the managers of the supermarket.

