

ESTIMATION  
OF  
BUSINESS  
EXPENSES

## DEFINE Problem / problem understanding

This report delves into the fascinating realm of business expenses and provides a visual explanation of the various expenditures incurred by different businesses. It showcases the distribution of expenses, identifies key cost drivers, and highlights areas of potential optimization or concern. The visual representation allow for intuitive analysis, facilitating a deeper understanding of expenditure patterns and their implications for business performance.

Decision-makers, financial analysts, and stakeholders can again valuable insight into the financial health of businesses, identify areas of inefficiency or opportunity and make informed decisions to optimize resources and drive growth. To extract the insights from the data and put the data in the form of visualizations, dashboards and story we employed Tableau tool.

- Specify the Business problem

- Business Requirements

The primary business requirements for this is to visualize and analyze business expenses, provide industry-specific insights, identify cost drivers, highlight outliers, and offer interactive functionality. Stakeholders need a visual representation of expenses to compare and analyze spending patterns across different businesses and industries. The report should facilitate key cost drivers, enabling stakeholders.

- Literature Survey

Cost drivers were a significant focus in the literature survey, with Researchers extensively investigating the factors influencing business expenses. Studies highlighted labour costs, materials costs, overhead expenses, and marketing expenditures as key drivers.



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The role of technology in expense analysis emerged as a significant theme. Researchers underscored the utilization of advanced data analytics tools and techniques, including data visualization platforms like Tableau, to enhance expense analysis and reporting. These technologies enable businesses to gain deeper insights into their spending patterns, identify trends, and make data-driven decisions for cost optimization.

Overall, the literature survey revealed a rich body of knowledge on business expenses, covering cost analysis methodologies, cost drivers, benchmarking approaches, and the role of technology. These insights serve as a foundation for our subsequent analysis and visualization of expenses. †

### Social & Business Impact:-

The analysis of Business expenses and financial management has a significant social impact.

It contributes to economic stability by optimizing costs and fostering long-term sustainability.

Effective expense management creates job opportunities and supports the workforce. It allows for better resource allocation, enabling businesses to invest in innovation and community engagement.

Responsible expense management aligns with societal expectations and promotes social responsibility. Non-profit organizations benefit from expense analysis enabling them to maximize their impact.

Overall, analyzing and managing expenses positively influences economic growth, employment, stakeholder well-being, and social responsibility.



Data collection & extraction from database:  
Data collection is the process of gathering and measuring information on variables of interest in an established systematic fashion that enables one to answer stated research questions, test hypotheses, evaluate outcomes, and generate insights from the data.

Download the data set.

Data set consists of 33 rows which correspond to 33 different business types and 29 columns that correspond to different operating expenses

- Storing data in DB & perform SQL operations:
- connect the MySQL database with Tableau desktop

Data preparation:

Data preparation is the process of preparing raw data so it is suitable for processing and analysis

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Data visualization:-

Data visualization is the process of creating graphical representations of data to help people understand and explore the information.

The goal of data visualization is to make complex data sets more accessible, intuitive and easier to interpret. By using visual elements such as charts, graphs and maps, data visualizations can help people quickly identify patterns, trends and outliers in the data.

Dashboard:

A dashboard is a graphical user interface that displays information and data in an organised, easy to read format.

Dashboards are often used to provide real-time monitoring and analysis of data and are typically designed for a specific purpose.



Story:

A data story is a way of presenting data and analysis in a narrative format, intending to make the information more engaging and easier to understand.

A data story typically includes a clear introduction that sets the stage and explains the context of data.

Performance Testing

The primary objective of performance testing in data analytics is to ensure that the data analytics system meets the required performance criteria and handle the anticipated workload.

By conducting performance testing organisations can identify potential bottlenecks, scalability issues.

Web Integration:

Helps us to track and monitor key performance metrics and to communicate results and progress.