



ESTIMATION OF BUSINESS EXPENSES

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TEAM PROJECT

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OVERVIEW

An overview about the project.

- ❑ Main objective of this project is to estimate the expenses data of business.
- ❑ The estimation of expenses are made using different types of visualizations and using tableau.
- ❑ The visualizations consisted mainly of bar chart, pie chart, line graphs, box plots and etc.,.
- ❑ All these are created with the help of tableau and published into tableau public.
- ❑ Expenses are estimated and outputs are also provided to the business.

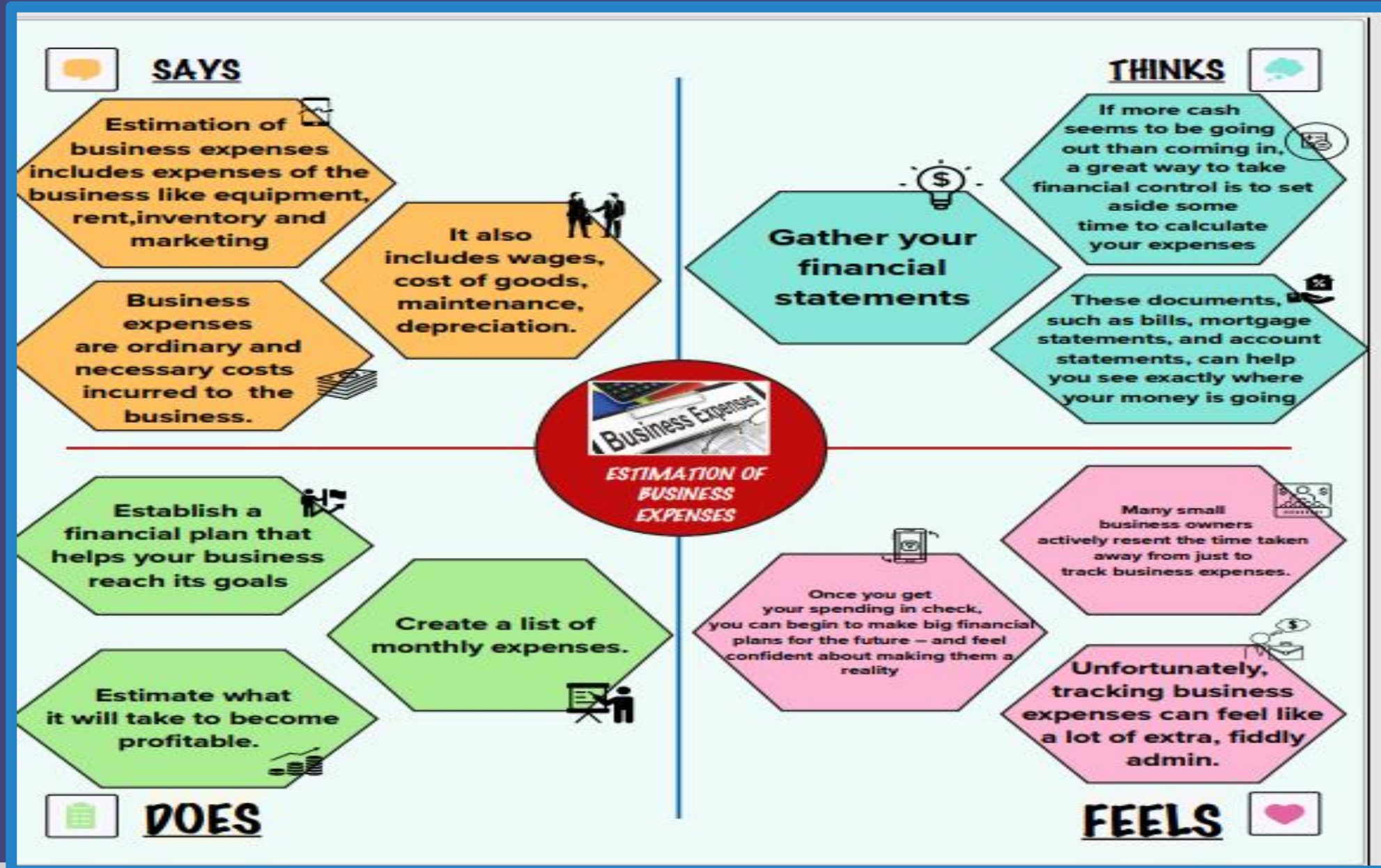


PURPOSE

What are the uses of the project?

- ❑ The main purpose of this project is to estimate the different types of business expenses.
- ❑ This project also used to learn how to maintain expenses every year with respect to some of the visualizations created using tableau.
- ❑ Tableau application is mainly used to estimate the business expenses.

EMPATHY MAP



BRAINSTORM AND IDEA PRIORITIZATION

PROBLEM STATEMENT

PROBLEM

What are the business expenses management challenges?

CHALLENGES

- Managing expense budgets
- No visibility into expense data
- Prevalence of human error
- Complicated approval work flows
- Inefficient expense reporting process
- Staying compliant with expense policies

BRAINSTORM

Managing expense budgets

- Keeping company spending within budget and managing that budget efficiently and effectively also falls among the most common expense management challenges faced by businesses.
- Allocating and dividing a budget into the various expense categories a business needs to make on a daily basis can be challenging.

Person 1

No visibility into expense data

- Lack of visibility can be a major problem in spend management. In order to manage a business effectively, you need to have complete visibility over exactly where your company's money is being spent and for what reasons.
- With a traditional, manual expense management system, you would typically have to wait till the end of a month or quarter before you get the full picture of company spending.
- This delay means you will be unable to take quick and responsive actions to optimize business spending.

Person 2

Prevalence of human errors

- Errors that are a result of human intervention present one of the most common expense management challenges. When you are managing your company's expenses manually there is a lot of human participation that is required.
- As a result of this human factor the system also has to suffer from the bane of intentional or unintentional human errors.
- In fact, human involvement can lead to errors in data entry, expense reconciliation, duplicate payments and so much more. These errors and the process of fixing them can cost your company a lot of time and money.

Person 3

Complicated approval workflows

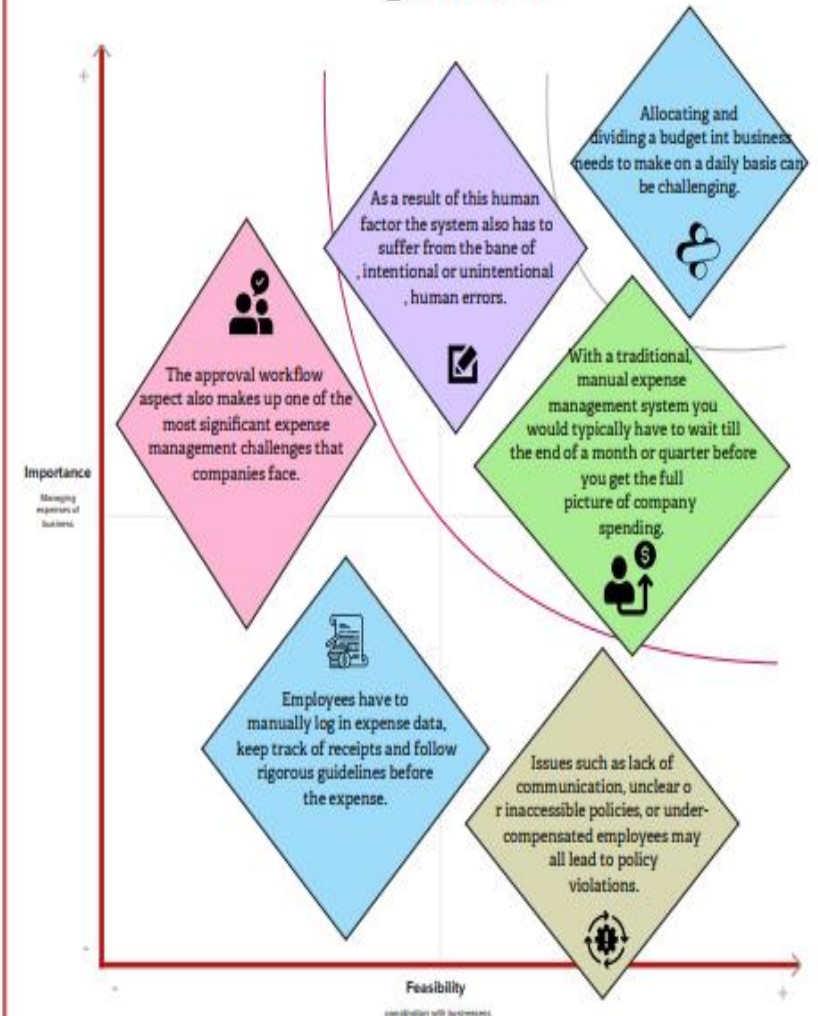
- The approval workflow aspect also makes up one of the most significant expense management challenges that companies face.
- The approval workflow essentially involves a process where a supervisor, manager, or approver must validate an expense claim so that it can progress to the settlement stage.
- The approval workflow plays a critical part in ensuring compliance and accountability in a company.

Person 4

GROUP IDEAS



PRIORITIZE



RESULTS

‘Annual payroll’ bar chart output of estimation tells about the variation of payroll expenses spent by various kinds of business. Retail trade is having a large payroll annually.

‘Expenses YoY’ visualize about the variation of expenses across all kinds of business. This shows that there is a lot of expenses made by ‘Accommodation and food services’ business unit.

Rental payment machinery’s box plot deliberately explains about the payments expensed for rent of machineries in business.

Lastly, Maintenance of buildings line graph provides insights about the amount expensed to maintain the buildings.

EXPENSE BREAKDOWN-INSIGHTS INTO DIVERSE BUSINESS COSTS

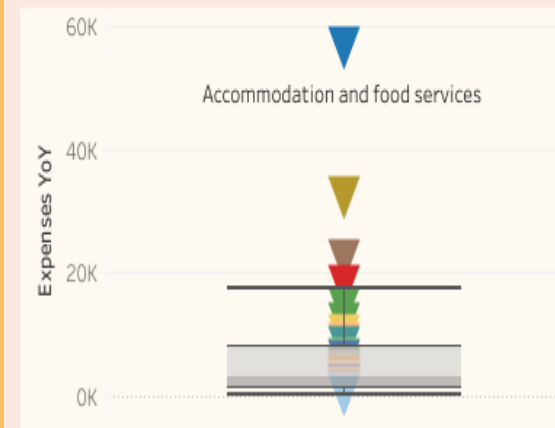
ANNUAL PAYROLL



MAINTENANCE OF BUILDINGS



EXPENSES YoY



RENTAL PAYMENT MACHINERY



RESULTS

From Employee cost or share expended for **‘Insurance and Pension’** separately are also depicted using a horizontal bar chart with comparison.

‘Equipment costs’ expenses are shown with the help of a starred line graph. This demonstrates that there is a large amount of costs spent by **Accomodation and food business** for purchasing equipment.

The expenses spent to **‘Taxes and licenses’** of the businesses are shown using a pie graph with top six quantities. **‘Retail trade’** has occupied nearly one fourth of the pie.

Expenses spent on **‘Power consumptions’** are also shown using a chart.

EXPENSE INSIGHTS

EMPLOYEE COST (INSURANCE vs PENSION)



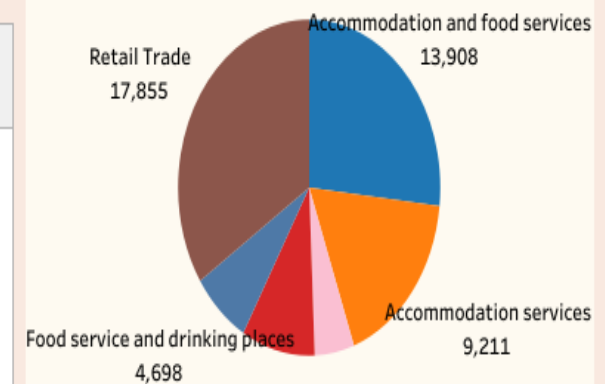
EQUIPMENT COSTS



POWER EXPENDITURE



TAXES AND LICENSES



RESULTS

From pie diagram created for the 'fuel expenses' made by business. Accomodation and food services expended much on fuel, Food and beverage stores expended very less in fuel.

'Transportation' expenses are given in the stack graph. The expenses reached peak with 16,392.

'Contract labour, Employees' salaries expenses are demonstrated as shown using vertical bar graph with comparison as kinds of business as common base to both.

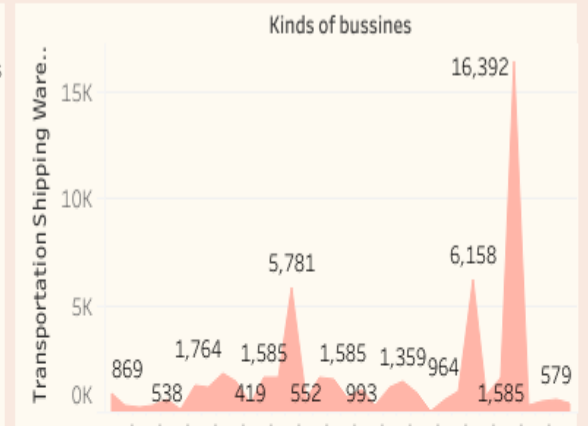
'Advertisement cost' expended are described using a bubble chart with labels. Retail trade has occupied the large bubble of all others.

BUSINESS EXPENDITURE OVERVIEW

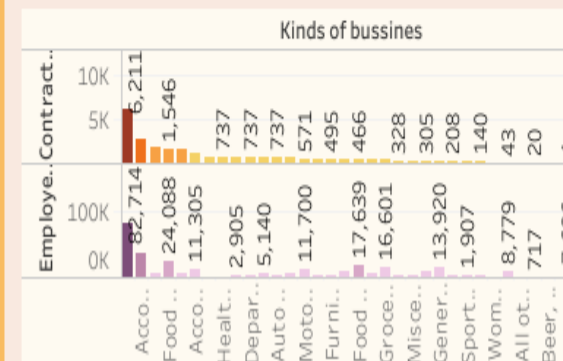
FUEL



TRANSPORTATION



CONTRACT LABOUR vs EMPLOYEE



ADVERTISEMENT COST





ADVANTAGES:

- From these types of visualisations, it is easy to find which business is expensing a lot and which is less expensive.
- It also provides us clear insights about the variation in the expenses across all the business in a single turn.

DISADVANTAGES:

- These types of visualizations tells about only the outliers of the expenses data and not the full term expenditure outputs.
- Deep learning about the data may not be fulfilled in these type of analysis of data.



CONCLUSION:

- ❖ From the visualisations and observations, it was observed that there is a lot of expenses have been made by “Retail trade” business section.
- ❖ A lot of fuel and transportation expenses are made by “Accommodation and food services”. There is an assumption that this may be due to delivery purpose of food.
- ❖ On looking at all these results of data analysis, it is evident that “Retail trade” business is on top of sales also. Because, the sales depends upon how much we spend on a business.