



LRG GOVT ARTS COLLEGE FOR WOMEN, TIRUPUR

Course Name: Data Analytics with Tableau

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A Project report entitled as
“ESTIMATION OF BUSINESS EXPENSES”

Work Done By

Univ.reg no	Naan Mudhalvan Id	Names	Class
2122A0042	148A92A5CF55E8FB82A41693D15402CB	BHUVANESHWARI V	B. Sc. Mathematics
2122A0043	F952A2C07AF3FCDA8DD478E66F72730A	DEVI SHREE R	B. Sc. Mathematics
2122A0072	B95EE947636B5F1BF3A4B297086171B2	DHARSHINI K	B. Sc. Mathematics
2122A0074	919009563413058BE494CD53FAC4E021	DURGA R	B. Sc. Mathematics
2122A0069	CC6C1E769D09B4FBE4E45D1FCC94641E	VIKASHINI R	B. Sc. Mathematics

TEAM ID: NM2023TMID01655

Under the guidance

Mr. S. ANANDHAKUMAR

Guest lecturer

Department of Mathematics

L.R.G. GOVT ARTS COLLEGE FOR WOMEN TIRUPUR.

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1.

INTRODUCTION

1.1 Overview:

- Estimation of business expenses is a crucial aspect of financial planning and management for any organization.
- It involves predicting and budgeting for the costs associated with running a business.
- Effective estimation of business expenses a dynamic process that requires attention to detail and a commitment to financial precedence . It helps business maintain financial stability and make strategic decision for growth and profitability .

1.2 Purpose:

1. Budgeting: Estimating expenses allows businesses to create a budget that outlines how much money will be allocated to each expense category. This helps businesses plan and allocate their resources effectively and ensures that they have enough funds to cover their expenses.

2. Financial forecasting: Estimating expenses helps businesses forecast their future financial performance. By analyzing historical data and market trends, businesses can predict their future

expenses and revenues, which in turn helps them make informed decisions about investments, pricing strategies, and profitability.

3. Cost control: Estimating expenses allows businesses to identify areas where they can reduce costs or improve efficiency. By comparing actual expenses to estimated expenses, businesses can identify any variances and take corrective actions to control costs and improve their financial performance.

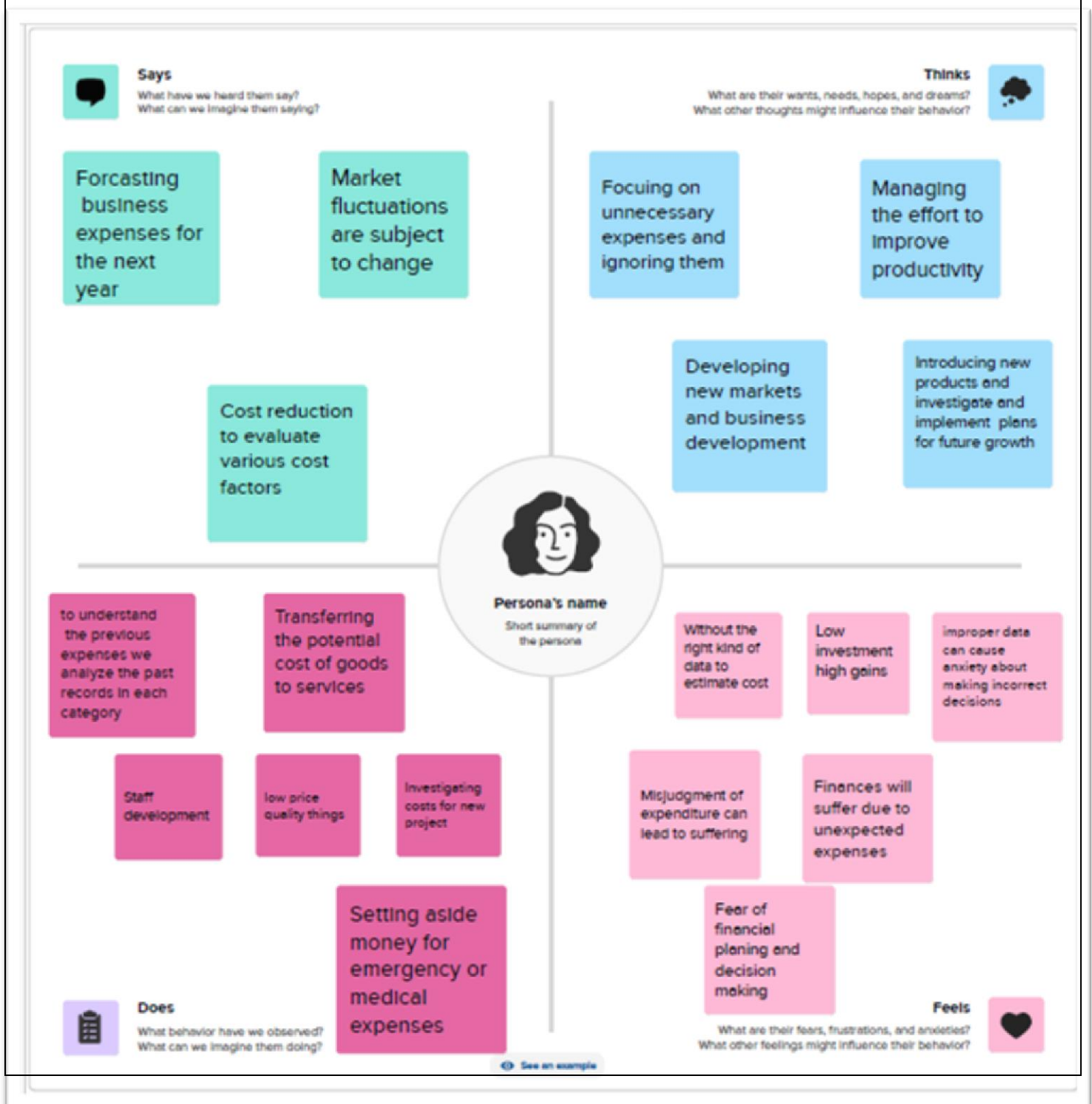
4. Pricing decisions: Estimating expenses is crucial for setting prices for products or services. By understanding the costs associated with producing and delivering their offerings, businesses can determine the appropriate pricing strategy to ensure profitability and competitiveness in the market.

5. Investment decisions: Estimating expenses helps businesses evaluate the financial feasibility of potential investments or projects. By considering the expected expenses and comparing them to the expected returns, businesses can assess the profitability and risks associated with a particular investment opportunity.

Overall, estimating business expenses is essential for effective financial planning, budgeting, forecasting, cost control, pricing decisions, and investment evaluations. It allows businesses to make informed decisions and optimize their financial performance.

2 PROBLEM DEFINITION AND DESIGN THINKING

2.1 Empathy Map



The diagram illustrates the Design Thinking process through three main stages, each with a corresponding template and worksheet.

Brainstorm & Idea Prioritization

Brainstorm & Idea Prioritization
Use this template in your next brainstorming session so your team can unleash their imagination and start shaping concepts down if you're not doing in the same room.

- 1. Worksheet ready
- 2. Team involved
- 3. All people encouraged

Before you collaborate

A series of preparation gives a strong start with the session. Decide what you need to do in advance.

- 1. Worksheet

Define your problem statement

What problem are you trying to solve? Frame your problem as a challenge to the team. This will be the focus of your brainstorm.

- 1. Worksheet

Brainstorm

Write down all ideas that come to mind. Use a sticky note for each idea.

- 1. Worksheet

Prioritization

Your ideas about what to do next are now more important. Use this template to help you decide which ideas to move forward with.

- 1. Worksheet

Business Canvas

Use this template to help you decide which ideas to move forward with.

- 1. Worksheet

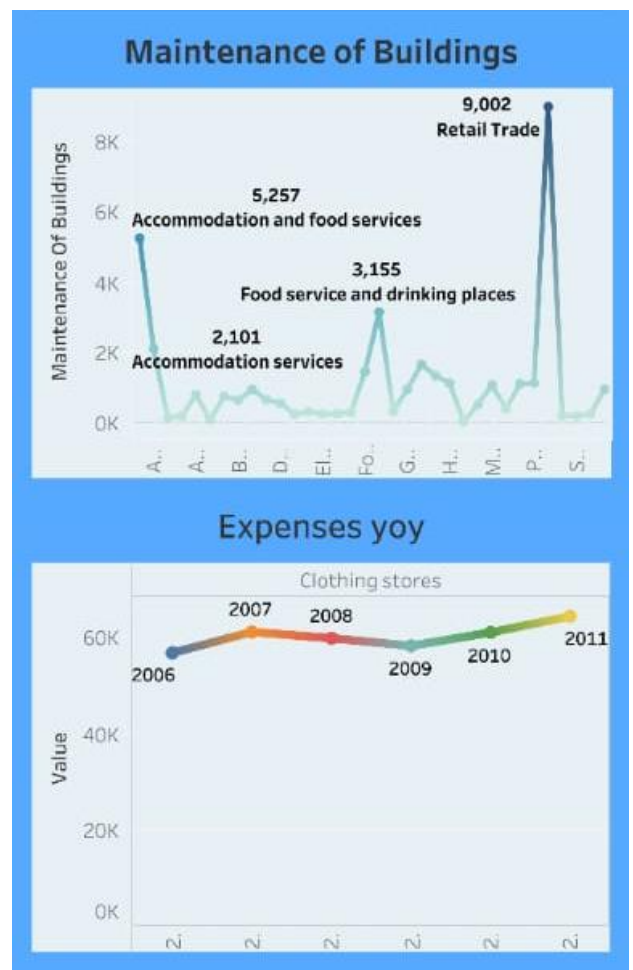
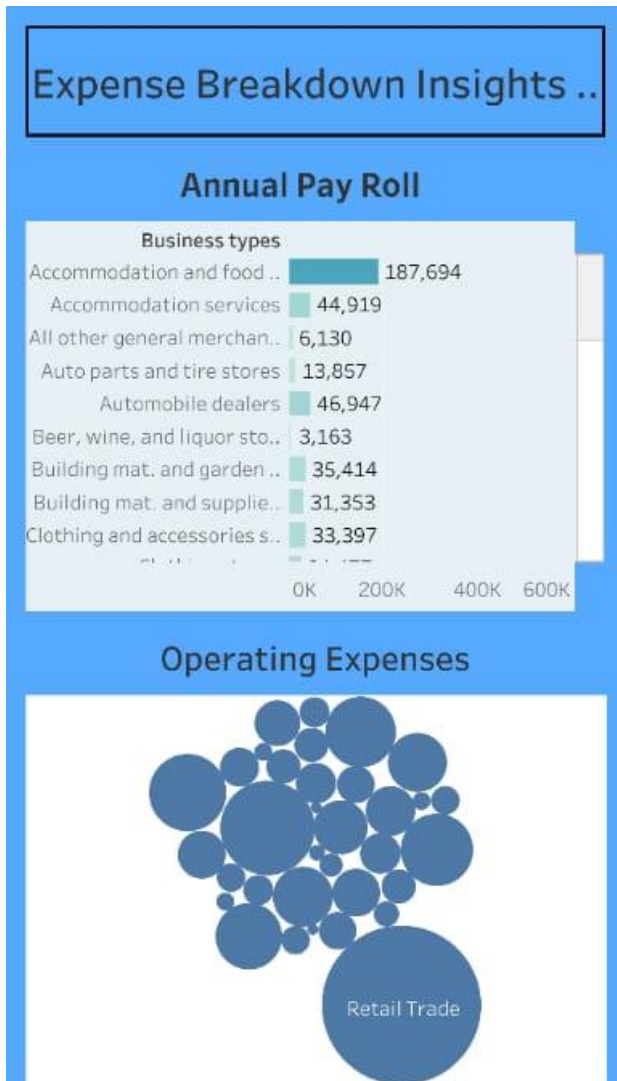
Summary of the Design Thinking Process

The Design Thinking process is a series of steps that help you solve problems. It is a process that is iterative and non-linear. The steps are:

1. Understand the problem
2. Define the problem
3. Brainstorm ideas
4. Prioritize ideas
5. Prototype ideas
6. Test ideas
7. Iterate

3 . RESULTS

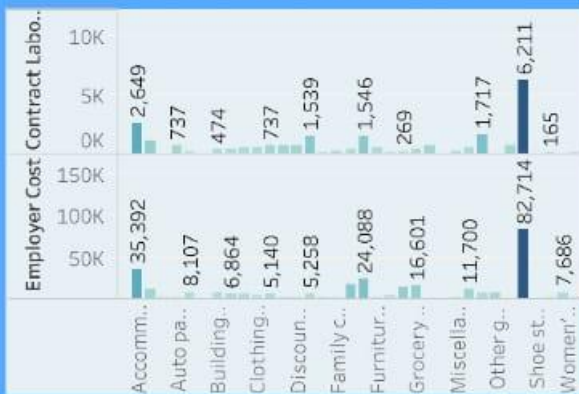
Dashboard 1:



Dashboard 2:

Business Expenditure Overvi..

Contract Labour vs Employee



Transportation and Warehousing



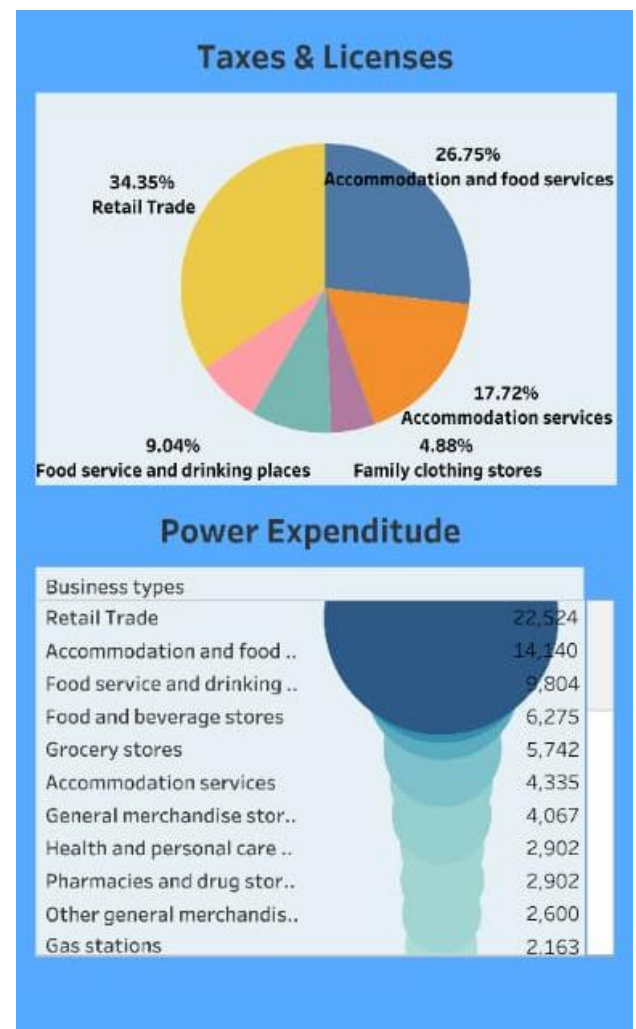
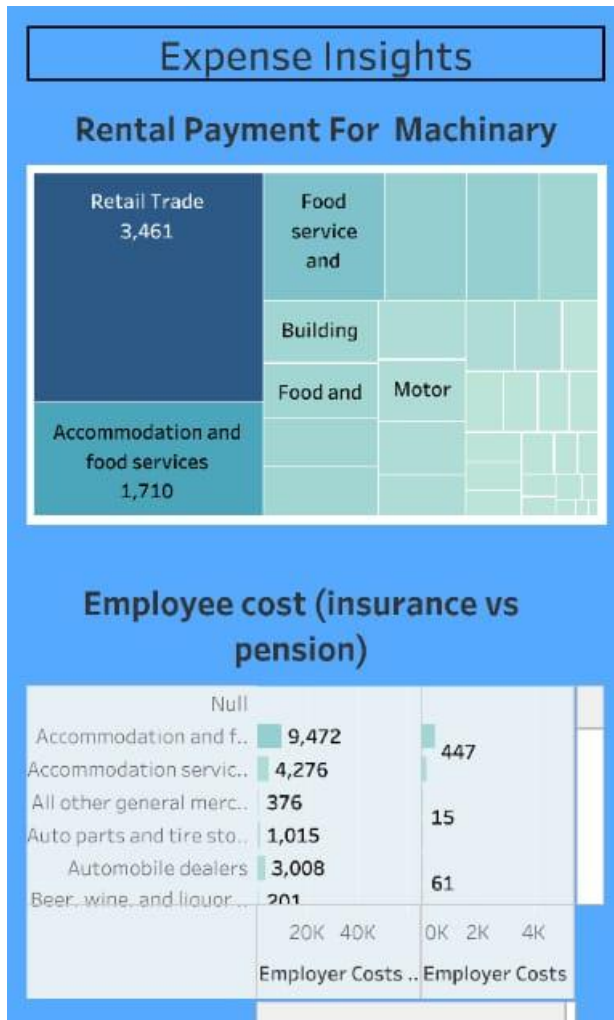
Fuel



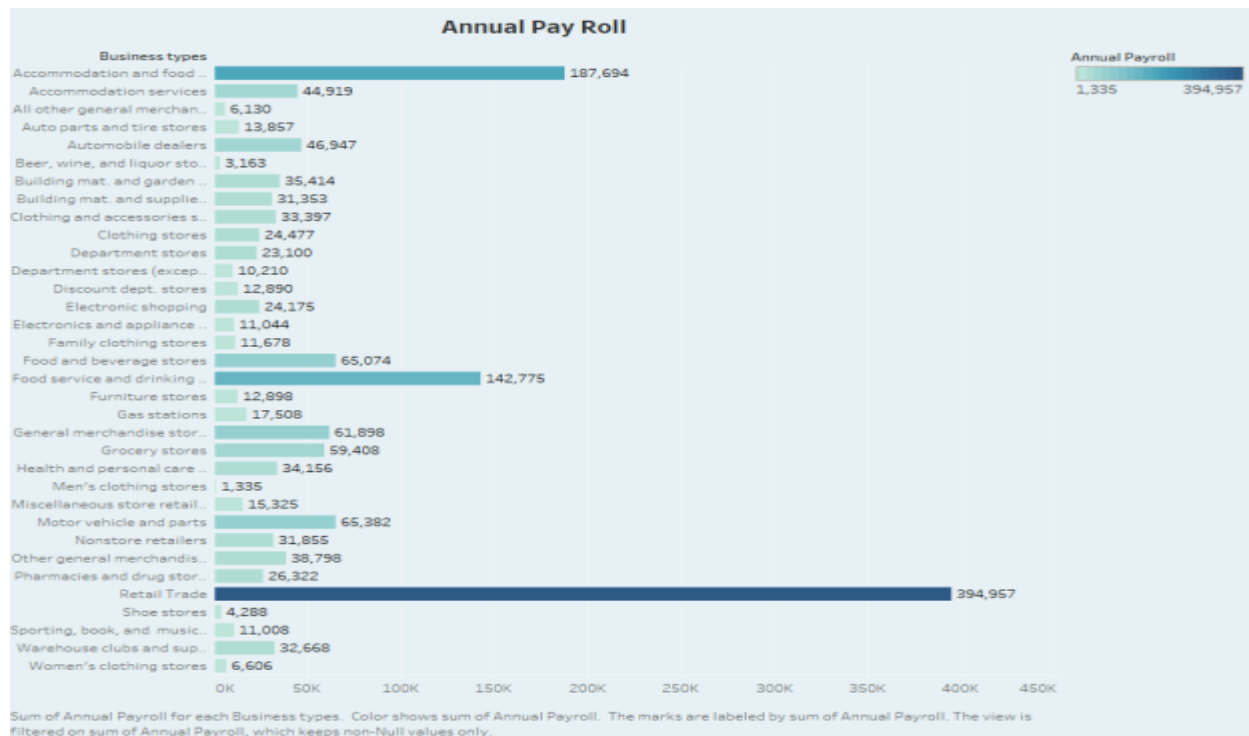
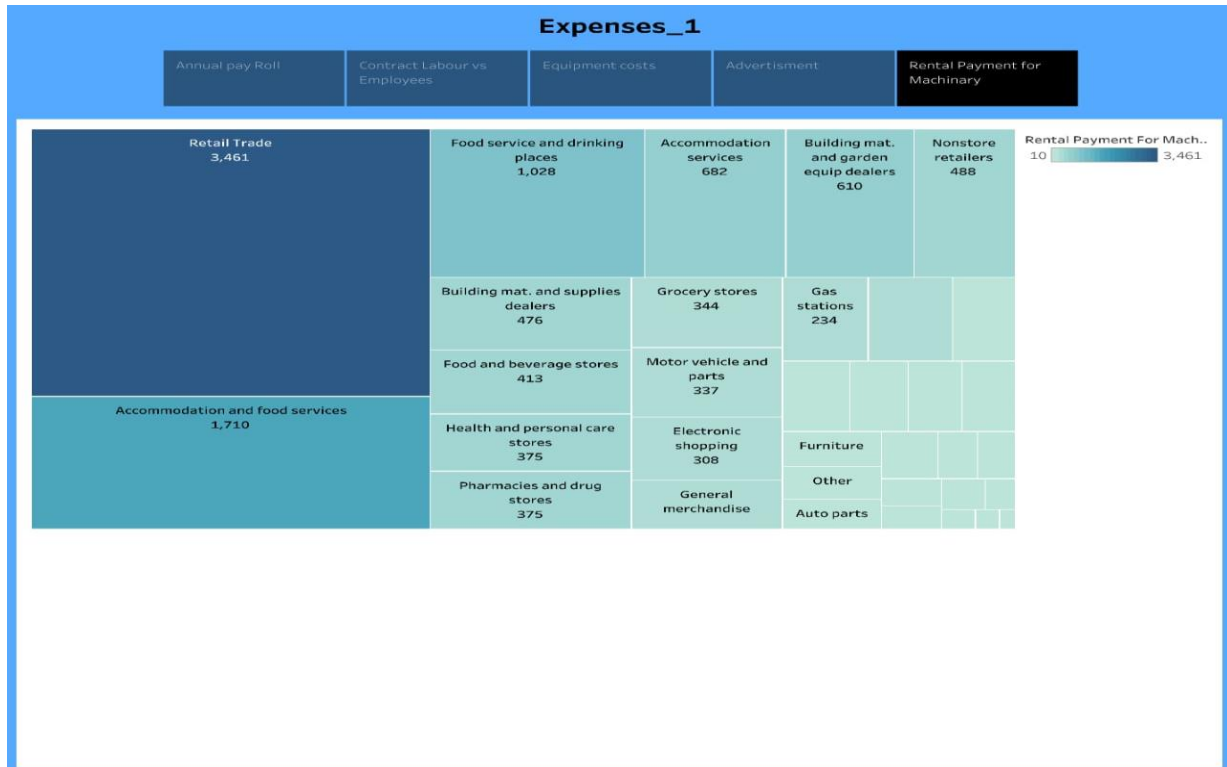
Advertisement Cost

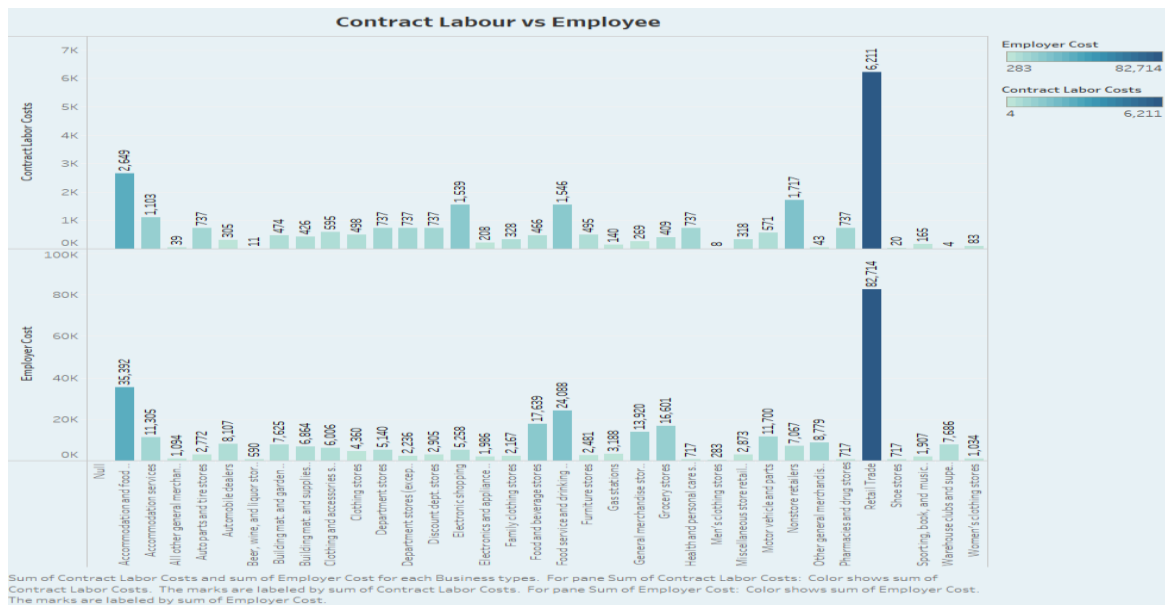
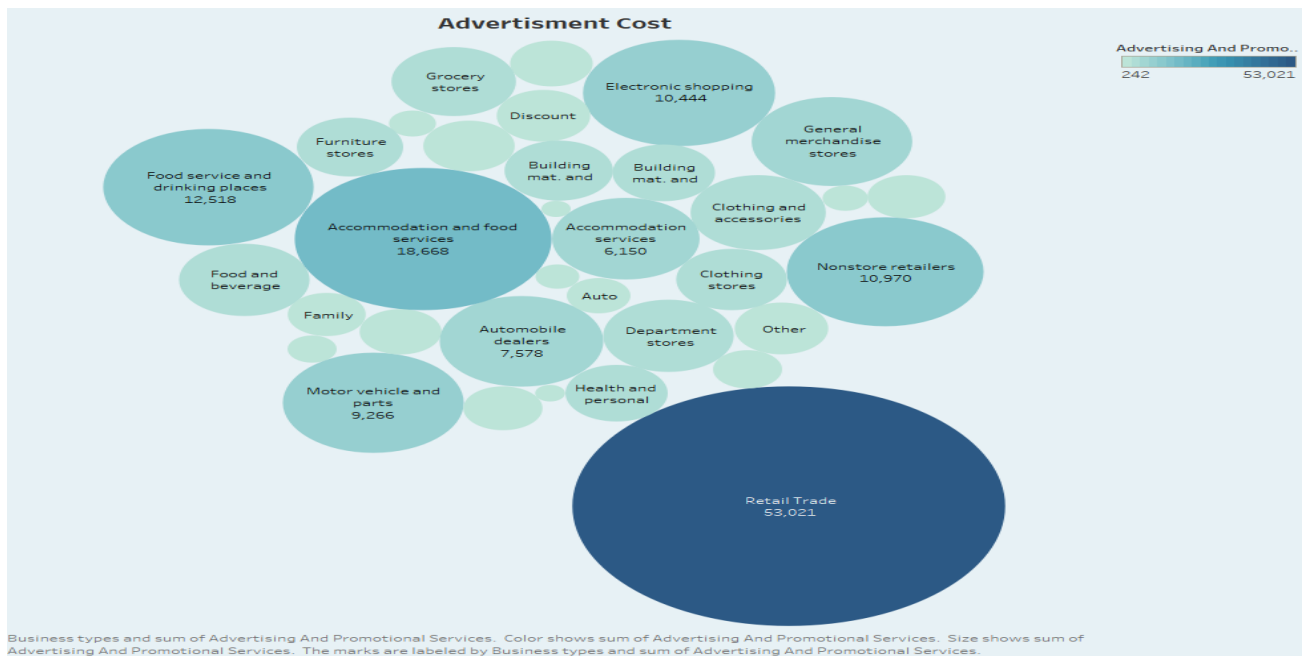
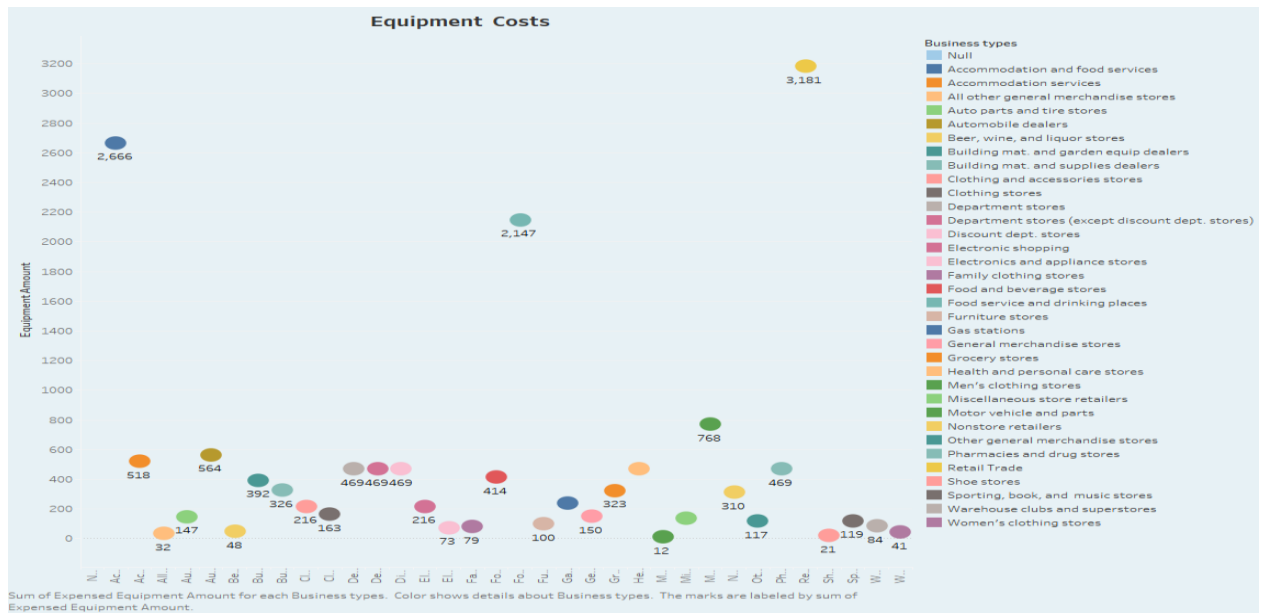


Dashboard 3:

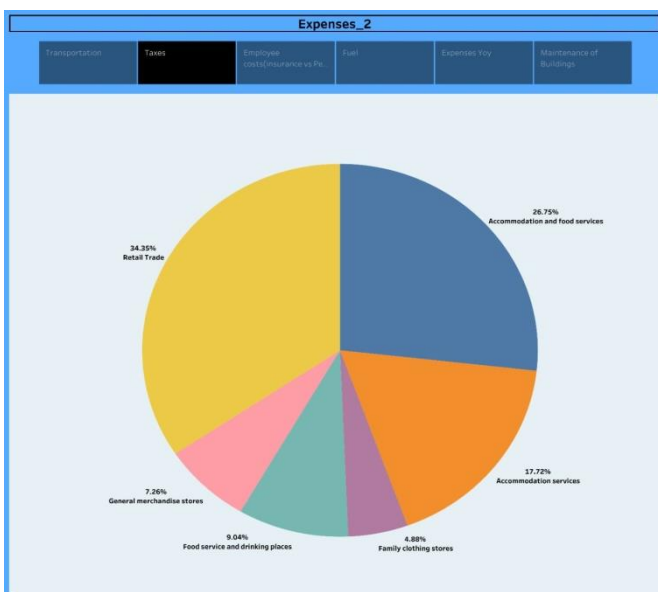
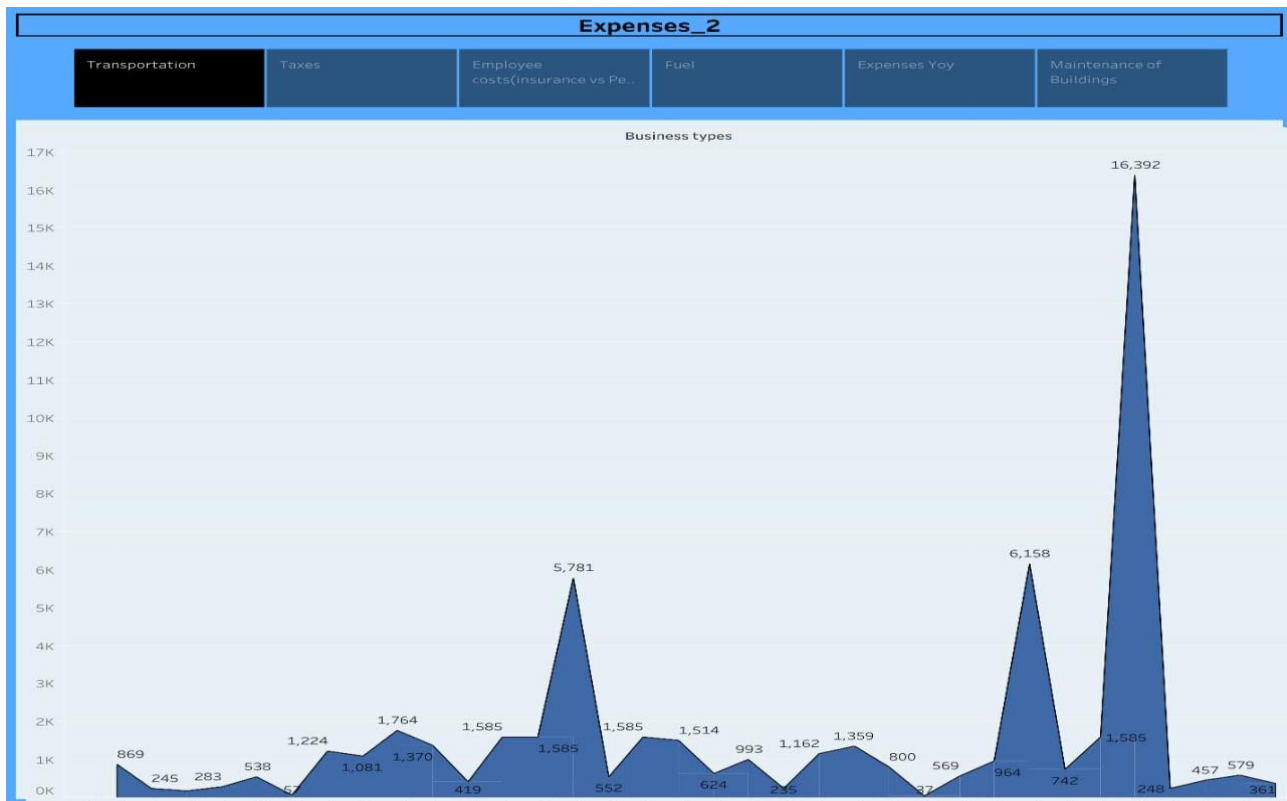


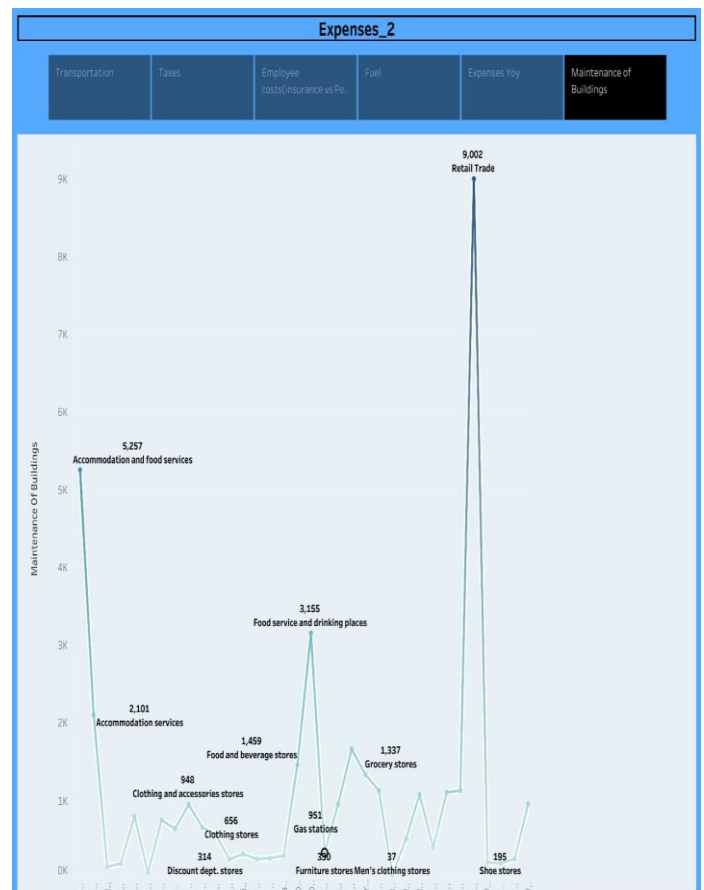
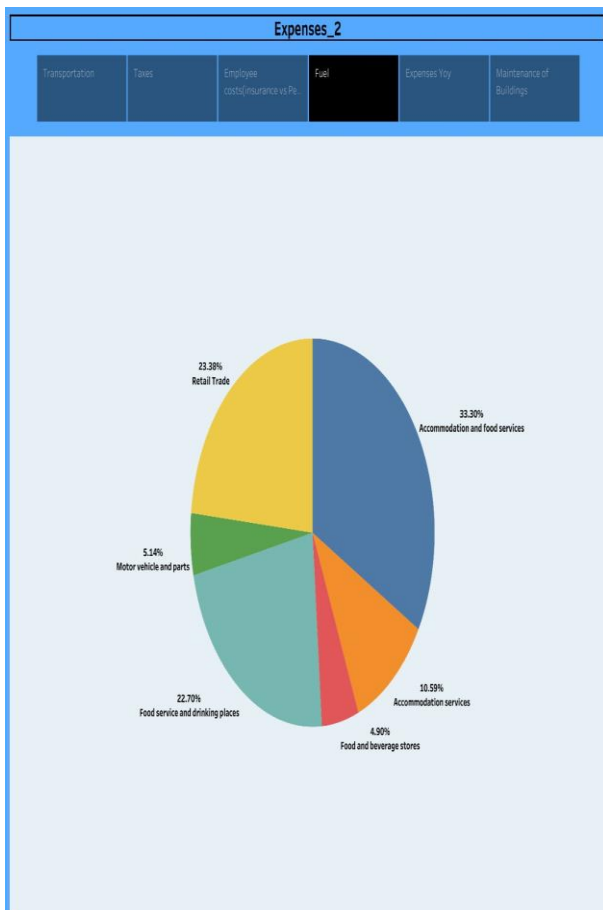
STORY 1:





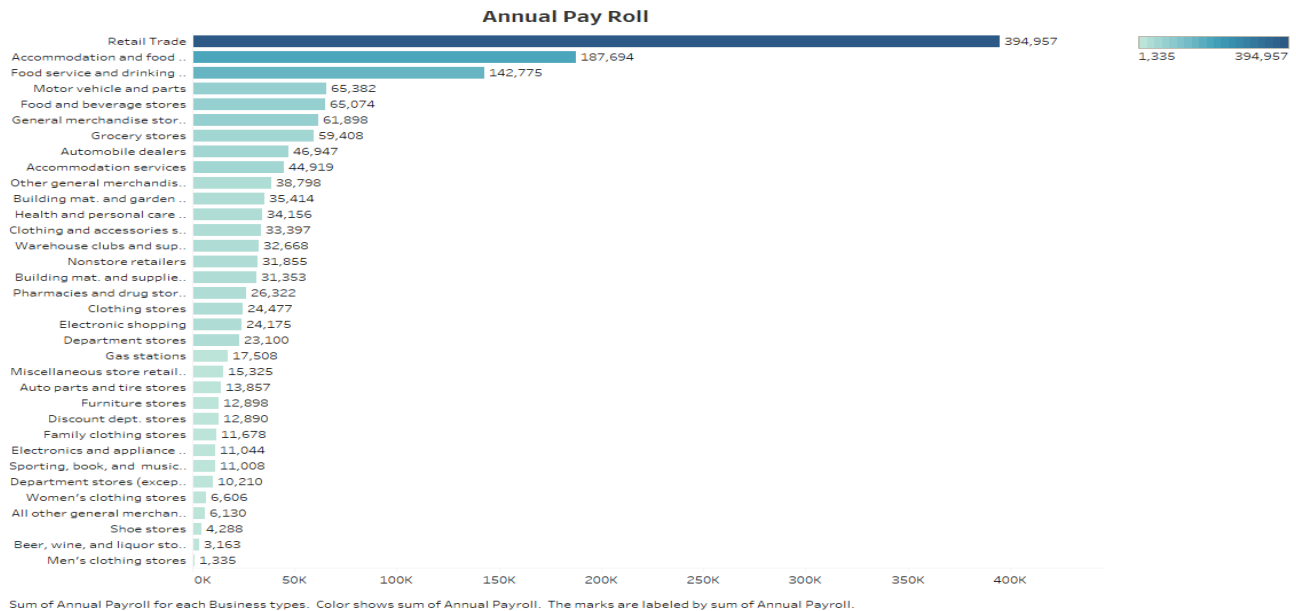
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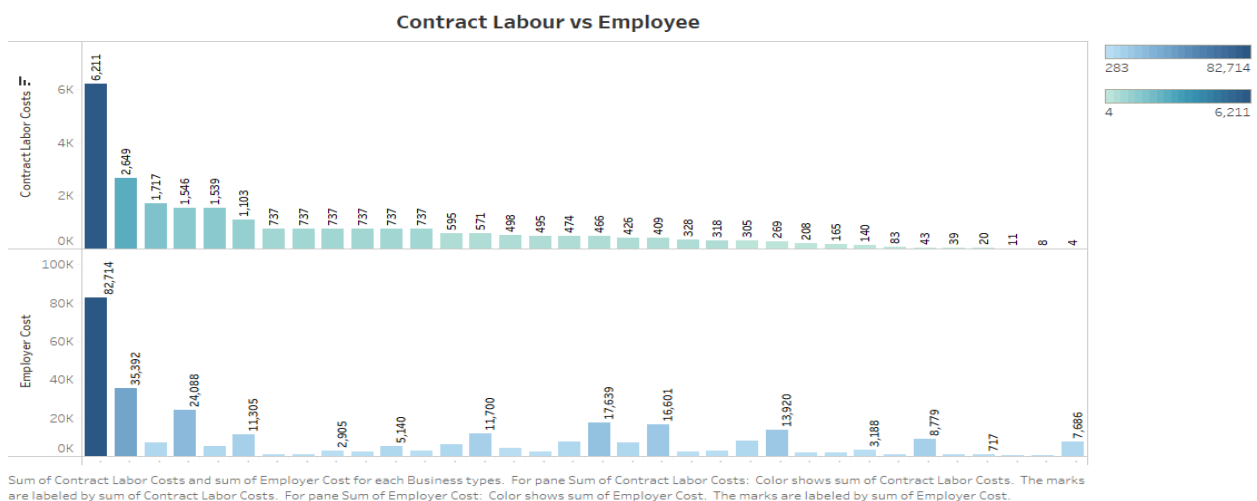


VISUALIZATIONS

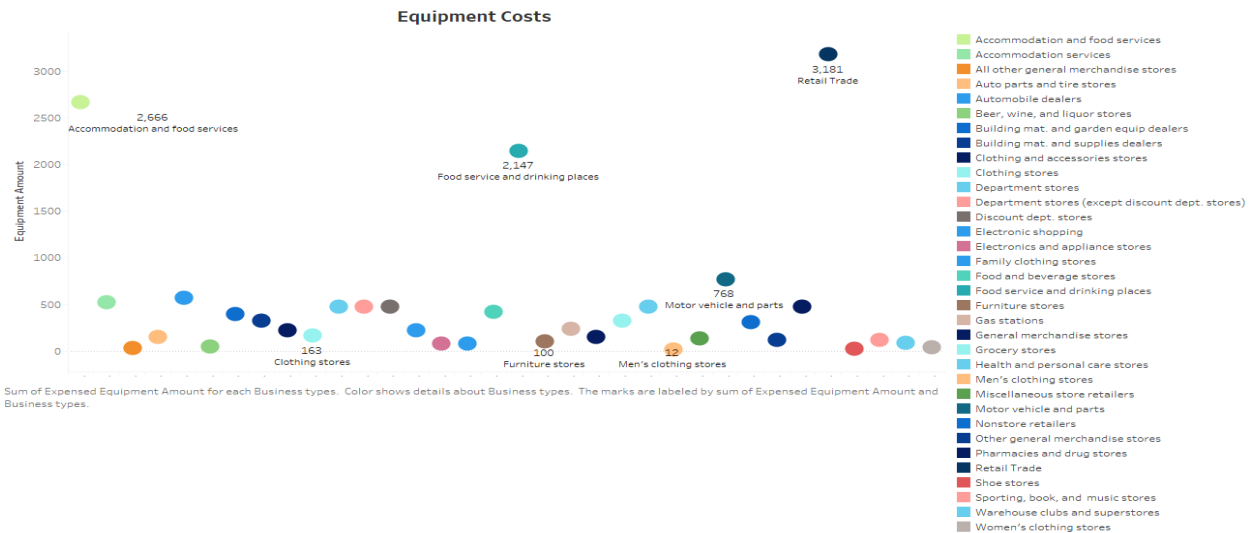
1. Annual Pay Roll:



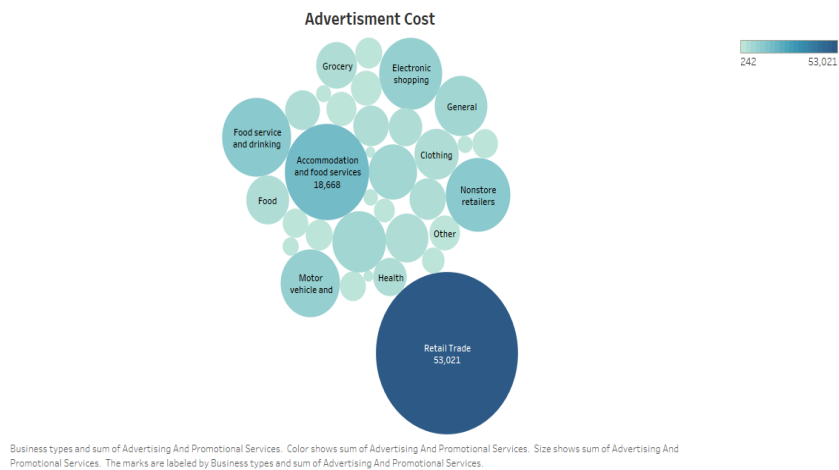
2. Contract Labour vs Employee



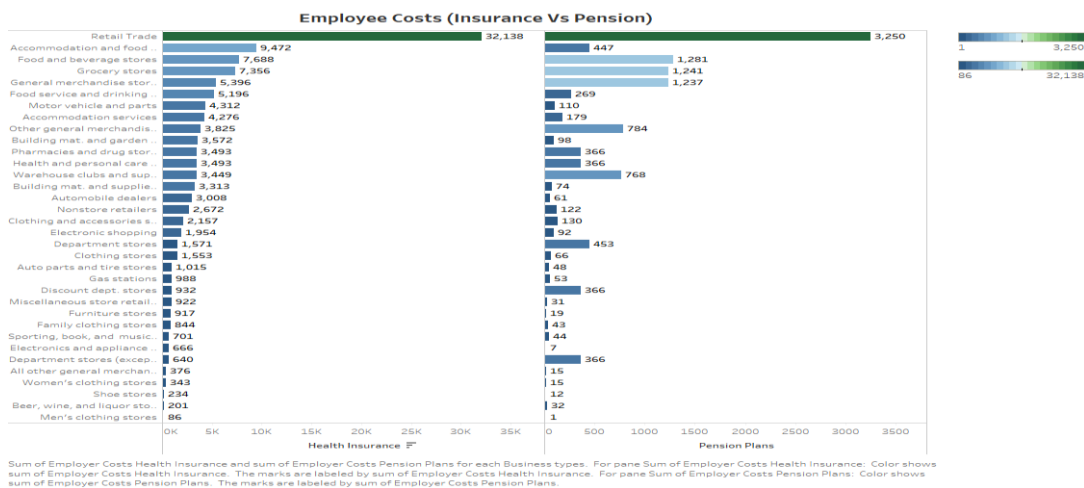
3. Equipment Costs:



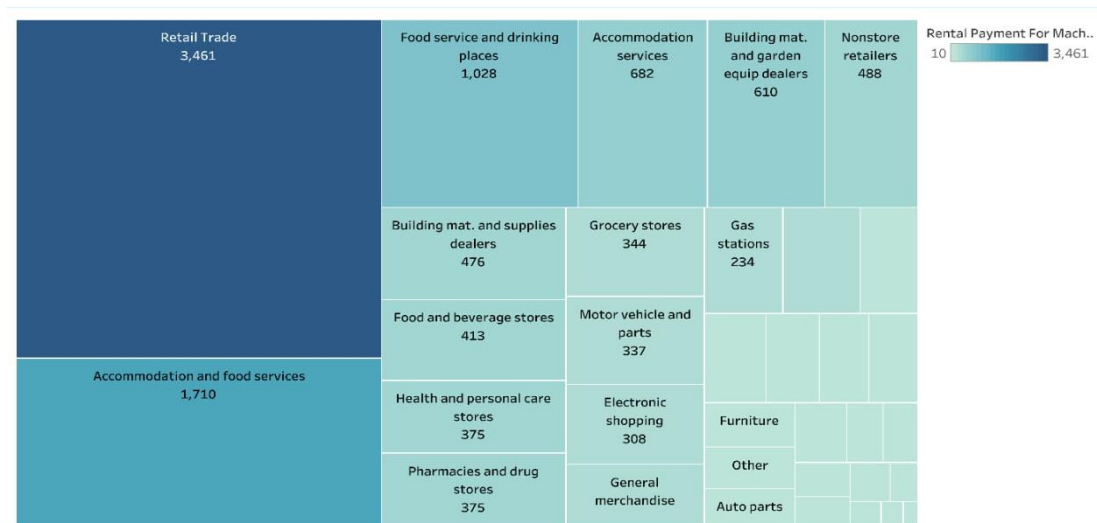
4. Advertisement Cost:



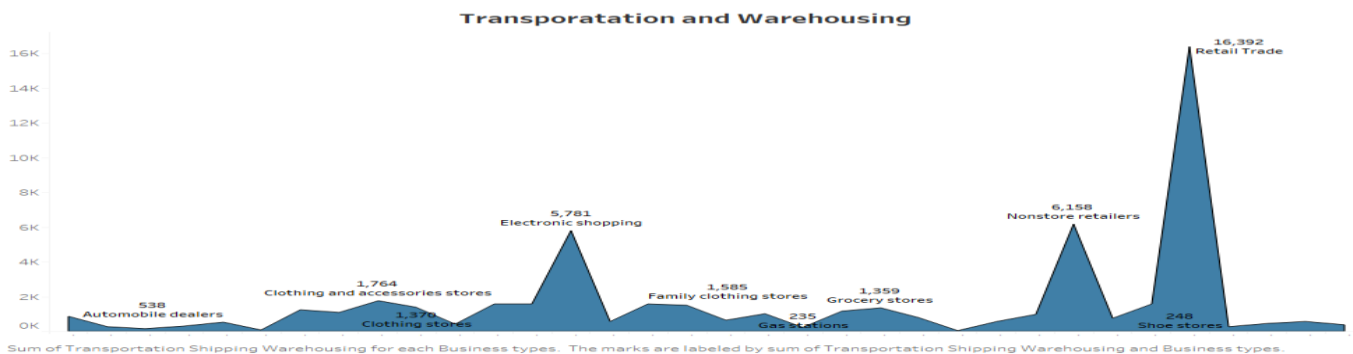
5. Employee Cost:



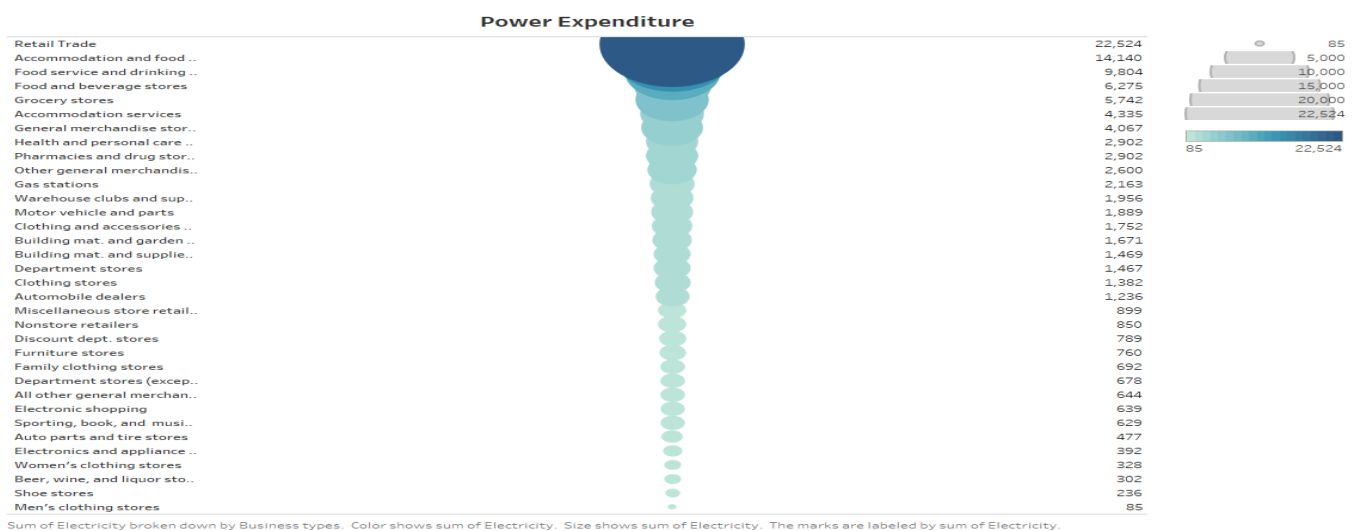
6. Rental Payment For Machinery:



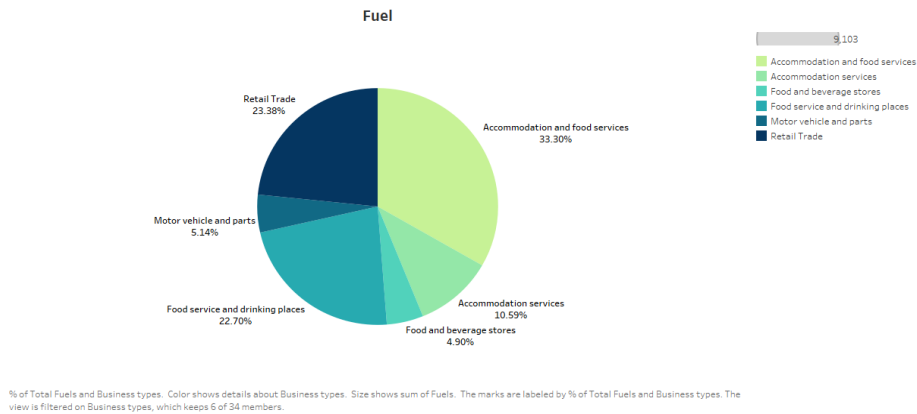
7. Transportation and Warehousing:



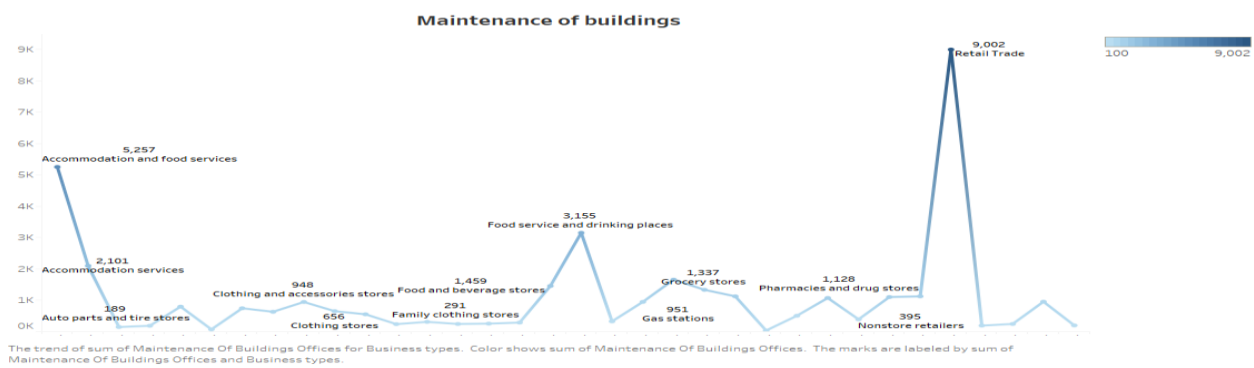
8. Power:



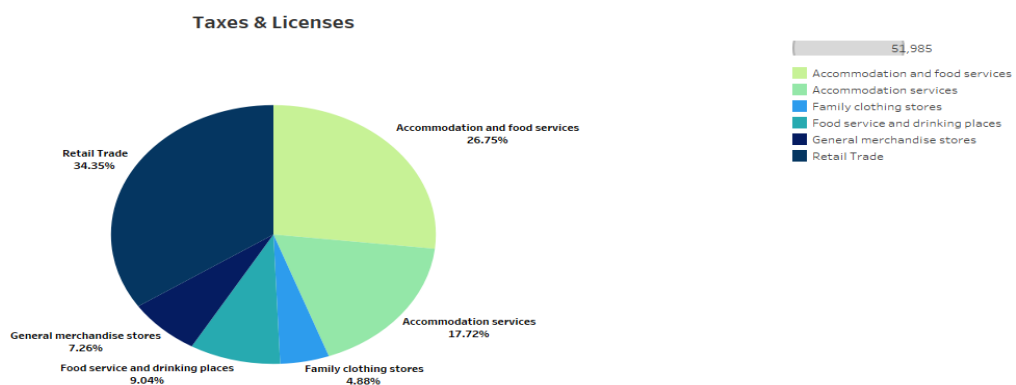
9. Fuel:



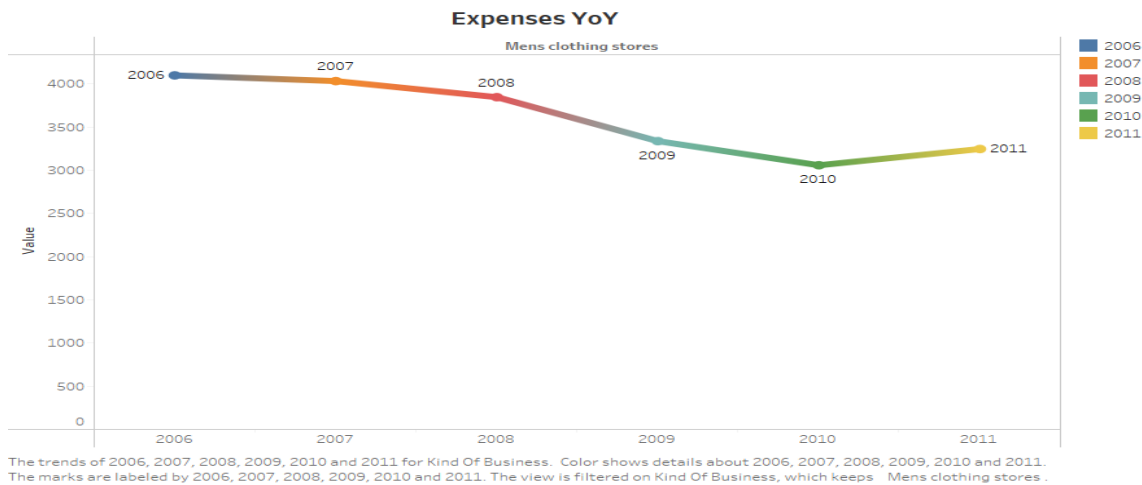
10. Maintenance of Buildings:



11. Taxes & Licenses:



12. Expenses y o y:



4. Advantages & Disadvantages

4.1 Advantages:

- ❖ **Financial Planning:** Expense estimation allows businesses to plan their finances effectively. It provides a roadmap for allocating resources, making strategic investments, and setting financial goals.
- ❖ **Budget Control:** By having a clear estimate of expected expenses, businesses can maintain better control over their budgets. This helps in avoiding overspending and ensures that financial resources are used efficiently.
- ❖ **Resource Allocation:** Businesses can allocate resources to different departments and projects based on expense

estimates. This ensures that each area of the business receives the necessary funding to operate effectively.

- ❖ **Risk Management:** Expense estimation includes the identification of potential risks and uncertainties. This allows businesses to prepare for unexpected costs and build contingency plans, reducing financial vulnerabilities.
- ❖ **Profitability Analysis:** With accurate expense estimates, businesses can calculate their expected profits more precisely. This is essential for setting pricing strategies and assessing the financial feasibility of new ventures.
- ❖ **Performance Evaluation:** Comparing estimated expenses with actual expenses enables businesses to assess their financial performance. Deviations from estimates can trigger further analysis and decision-making.
- ❖ **Investor and Lender Confidence:** Investors and lenders often require detailed financial plans, including expense estimates, before providing funding. Accurate estimates can instill confidence in stakeholders.
- ❖ **Tax Planning:** Accurate expense estimates help with tax planning. Businesses can maximize deductions and minimize

- [illegible]

4.2 Disadvantages:

- ❖ **Complexity:** Estimating expenses can be a complex process, especially for businesses with multiple cost categories or rapidly changing markets. Complexity can lead to errors or oversights in the estimation process.
- ❖ **Time-Consuming:** Preparing detailed expense estimates can be time-consuming, diverting resources from other critical tasks. Small businesses, in particular, may find it burdensome.
- ❖ **Changing Economic Conditions:** Economic conditions, such as inflation or sudden market shifts, can render expense estimates obsolete. This can make it challenging to adapt to unforeseen financial challenges.
- ❖ **Overly Conservative Estimates:** Some businesses may use overly conservative estimates to avoid financial risk. While this can prevent budget shortfalls, it may also stifle growth and innovation.
- ❖ **Underinvestment:** Conversely, underestimating expenses can lead to underinvestment in key areas of the business. This can hinder growth and competitiveness.

- ❖ **Resource Redundancy:** In an attempt to be prepared for contingencies, businesses may allocate resources to a contingency fund that could have been used for more productive purposes. This can result in resource redundancy.
- ❖ **Dependence on Historical Data:** Relying solely on historical data for estimation may not account for changing market dynamics or shifts in the business environment.
- ❖ **Lack of Flexibility:** Too rigid adherence to expense estimates can limit the ability to seize opportunities or pivot in response to changing circumstances.
- ❖ **Deteriorating Morale:** Overemphasis on strict cost control based on expense estimates can lead to employee dissatisfaction, reduced morale, and hinder creativity and innovation.
- ❖ **Inhibiting Long-Term Vision:** Focusing solely on short-term expense estimates might hinder the pursuit of long-term strategic goals and investments.
- ❖ **Stakeholder Expectations:** In cases where investors or lenders rely on expense estimates, failing to meet those expectations can harm relationships and trust.

5. APPLICATION:

- **Budgeting and Financial Planning:** Estimating expenses is fundamental to creating budgets, whether for short-term operational planning or long-term strategic financial planning. It helps allocate resources effectively.
- **Cost Control:** By estimating expenses, businesses can track and control costs more efficiently. This is crucial for maintaining profitability and preventing overspending.
- **Investment and Financing Decisions:** Expense estimates play a vital role in decision-making processes, especially when seeking investments or loans. Investors and lenders often require detailed financial projections.
- **Pricing Strategies:** Accurate expense estimates are essential for setting pricing strategies. Understanding the cost structure allows businesses to determine competitive and profitable price points for their products or services.
- **Performance Evaluation:** Comparing estimated expenses with actual expenses helps evaluate the financial performance of the business. Deviations from estimates can highlight areas for improvement.
- **Supplier Management:** Estimating expenses related to procurement and supply chain management aids in supplier negotiations, contract management, and inventory planning.

- Mergers and Acquisitions: Expense estimates are critical during mergers and acquisitions to assess the financial impact of the transaction and to plan for integration.
- Government Grant Applications: When applying for government grants or subsidies, businesses often need to provide detailed expense estimates to demonstrate the intended use of funds.

6. CONCLUSION:

Expense estimation provides a roadmap for allocating resources, setting budgets, and achieving financial goals. Accurate expense estimates help businesses control costs, maintain profitability, and avoid overspending. Estimations guide decisions related to investments, pricing, resource allocation, and strategic planning. Identifying potential financial risks and uncertainties through estimation allows businesses to prepare for contingencies and maintain financial stability.

The future of expense estimation lies in the integration of advanced technologies, such as AI, data analytics, and block chain, to improve accuracy and efficiency. Expense estimation will need to adapt to the changing business landscape, including the rise of remote work, sustainability initiatives, and global market dynamics.

7. FUTURE SCOPE:



The use of artificial intelligence, machine learning, and data analytics will become more widespread in expense estimation. These technologies will help in making more accurate predictions and automating aspects of the estimation process. With the growth of digital tools and real-time financial data, businesses will have the capability to monitor and adjust expenses in real time. This will lead to more dynamic and responsive financial management.

As sustainability and Environmental, Social, and Governance (ESG) factors gain prominence, expense estimation will increasingly include costs associated with eco-friendly practices, social responsibility, and compliance with ethical standards. Expense estimation will need to account for the complexities of operating in a global economy, including managing costs in multiple currencies and addressing the impacts of geopolitical and economic shifts. Following the disruptions experienced in supply chains, expense estimation will focus on building resilience by estimating costs related to inventory management, diversification of suppliers, and risk mitigation.

With remote work likely to remain a significant part of the work landscape, estimating expenses related to remote employees, including technology and connectivity costs, will continue to be relevant. The use of blockchain technology will provide transparent and secure expense tracking, ensuring the integrity and transparency of financial transactions. Expense estimation will need to incorporate costs related to regulatory compliance, including data protection, cybersecurity, and changes in tax laws.

Expense estimates will include costs associated with innovation, research and development, and intellectual property protection as businesses strive to remain competitive and innovative. As the business environment becomes increasingly uncertain, scenario-based planning within expense estimation will be vital, allowing businesses to prepare for various potential futures and unforeseen events. The growing use of digital payment systems and cryptocurrencies will require businesses to adapt their expense estimation methods to reflect the changing financial landscape.



8. APPENDIX

Github link:

<https://github.com/devishreerajan/Estimation of business expenses NM2023TMID01655>

Dashboard 1:

https://public.tableau.com/views/dashboard_16971010137140/Dashboard1?:language=en-US&:display count=n&:origin=viz share link

Dashboard 2:

https://public.tableau.com/views/dashboard2_16971011961050/Dashboard2?:language=en-US&:display count=n&:origin=viz share link

Dashboard 3:

https://public.tableau.com/views/dashboard3_16971015860030/Dashboard3?:language=en-US&:display count=n&:origin=viz share link

Story 1:

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Story 2:

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