Vyasa Arts & Science Women's College
Subramaniapuram
DEPARTMENT OF MATHEMATICS
2023-2024

A project documentation on the topic -
Estimation of business expenses

TEAM LEADER :

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TEAM MEMBERS:

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2. **Karthika.R**
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Estimation of business expenses

1. INTRODUCTION:

1.1 OVERVIEW

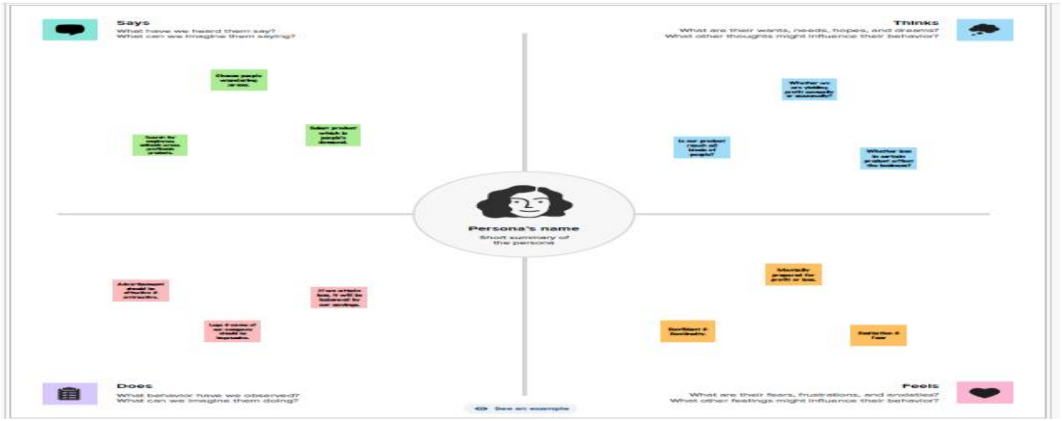
Business expenses provides a visual exploration of the various expenditures incurred by different businesses. It showcases the distribution of expenses, identifies key cost drivers, and highlights areas of potential optimization or concern. The visual representation allow for intuitive analysis, facilitating a deeper understanding of expenditure patterns and their implications for business performance. Decision- makers, financial analyst, and stakeholders can give valuable insights into the financial health of business, 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 visualization, Dashboards and Story we employed Tableau tool.

1.2 PURPOSE

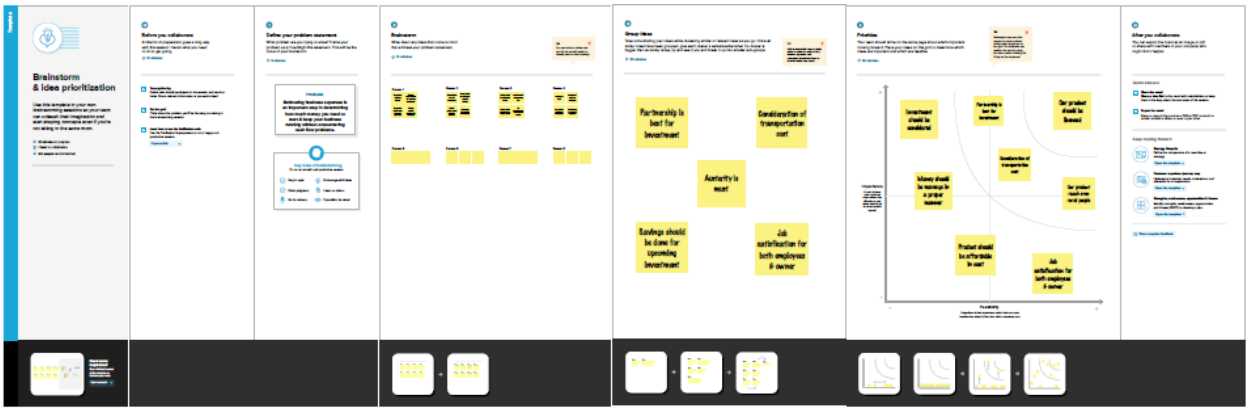
Provide a clear vision about expenditure. Encourage team work and co-operation when doing a partnership in business. By the way it makes us to analyse one's business with it's expenditure. Losses should be balanced by the savings which is also included on the expenses. It helps us to gain valuable insights into the financial health of business.

2.PROBLEM DEFINITION AND DESIGN THINKING:

2.1. Empathy Map:



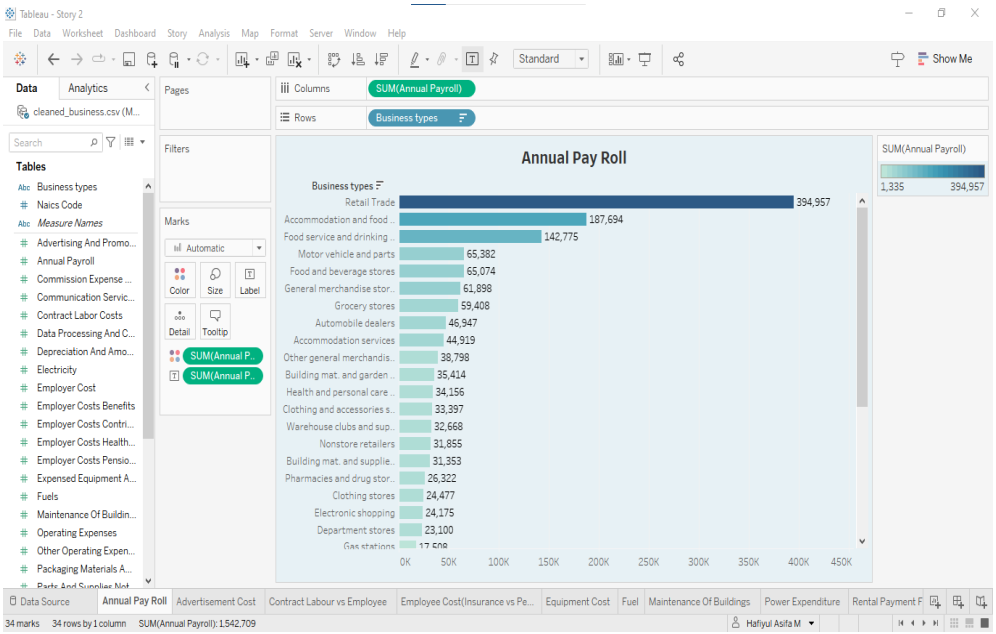
2.2 IDEATION AND BRAINSTORMING:



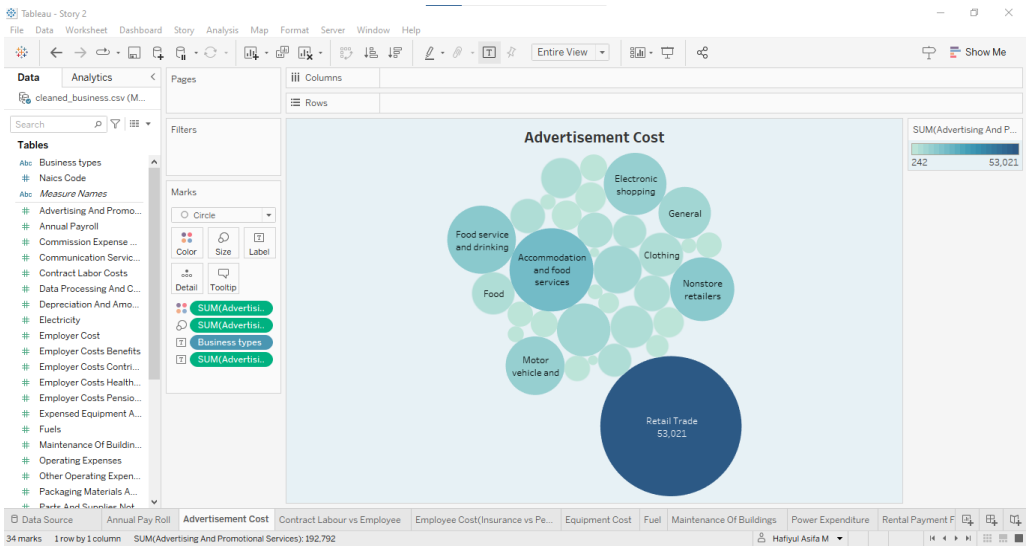
3.RESULTS:

3.1: Charts:

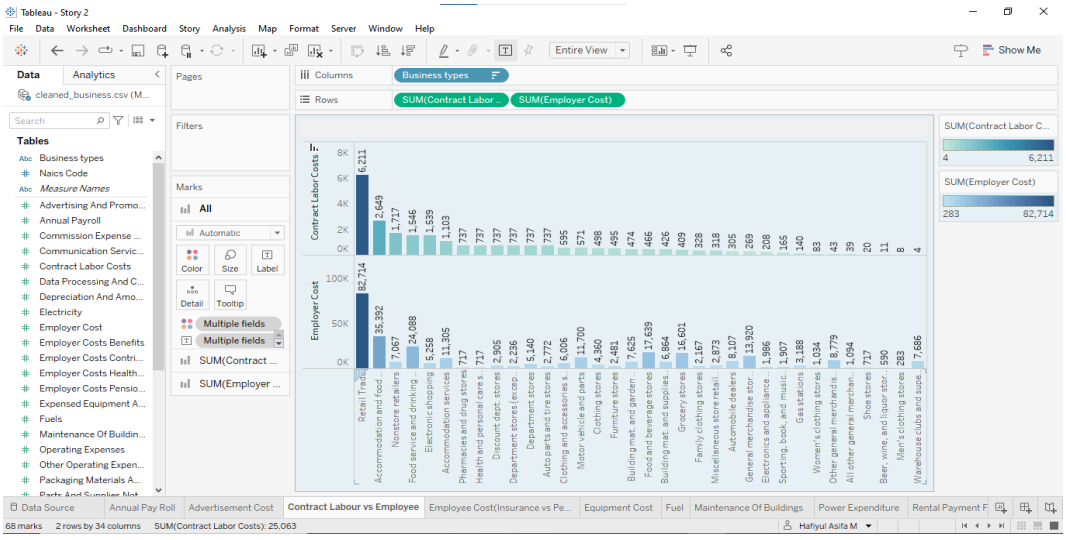
a)Annual Payroll



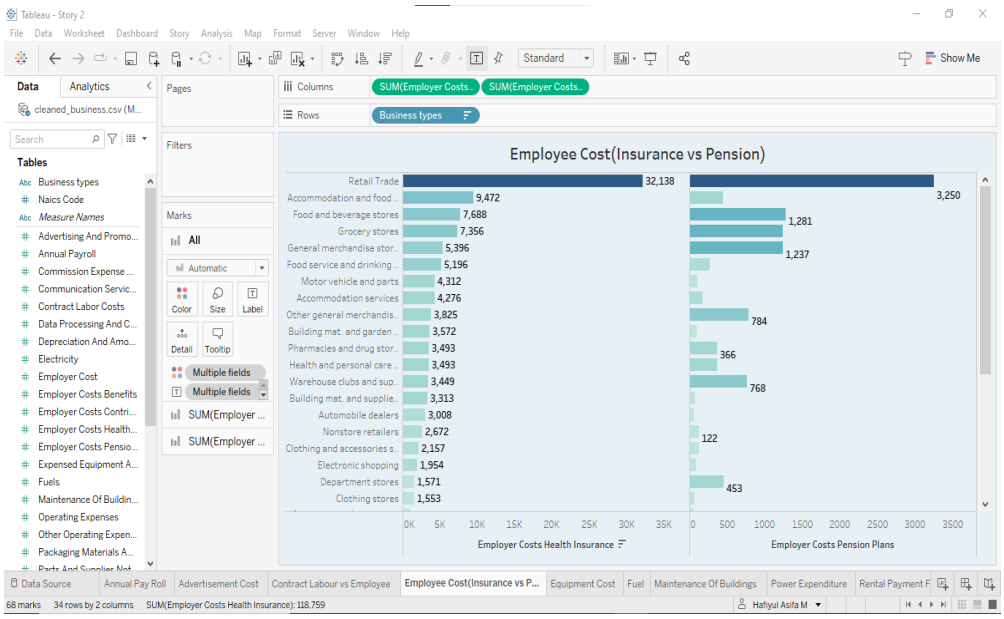
b) Advertisement Cost



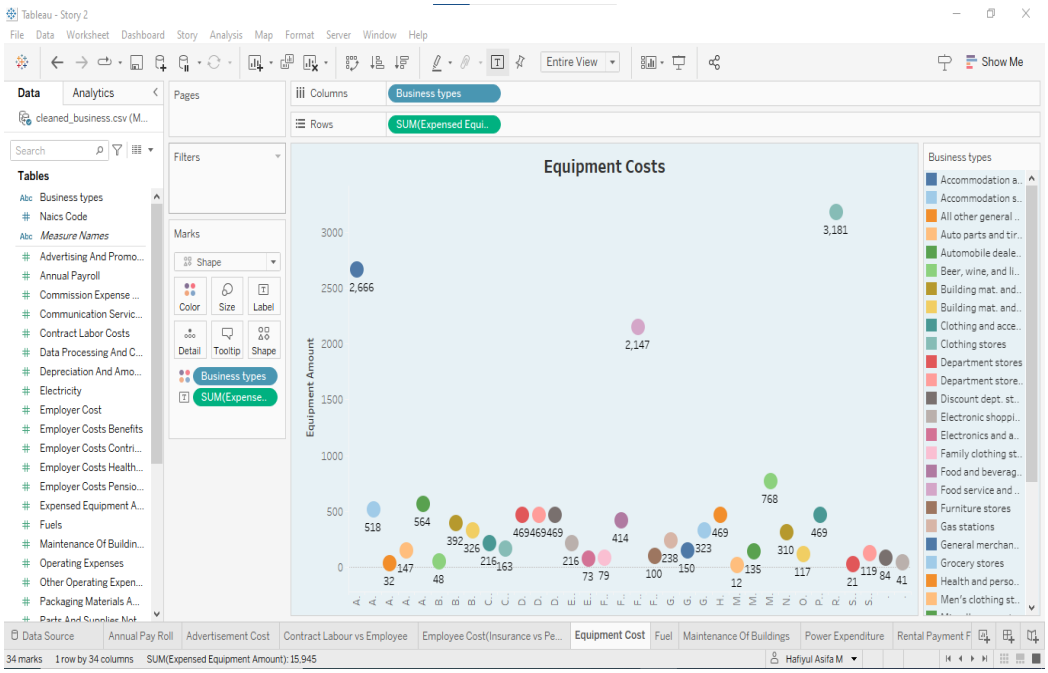
c) Contract Labour vs Employee



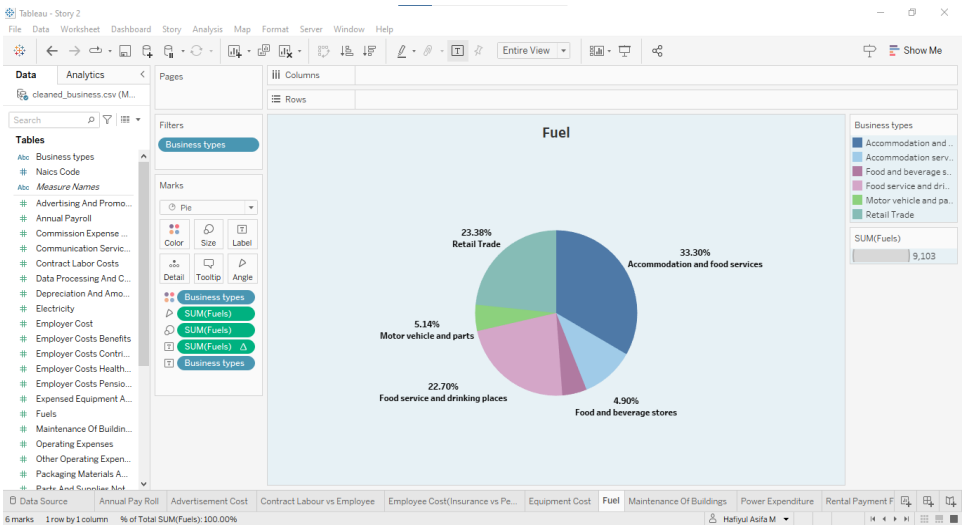
d)Employee Cost (Insurance vs Pension)



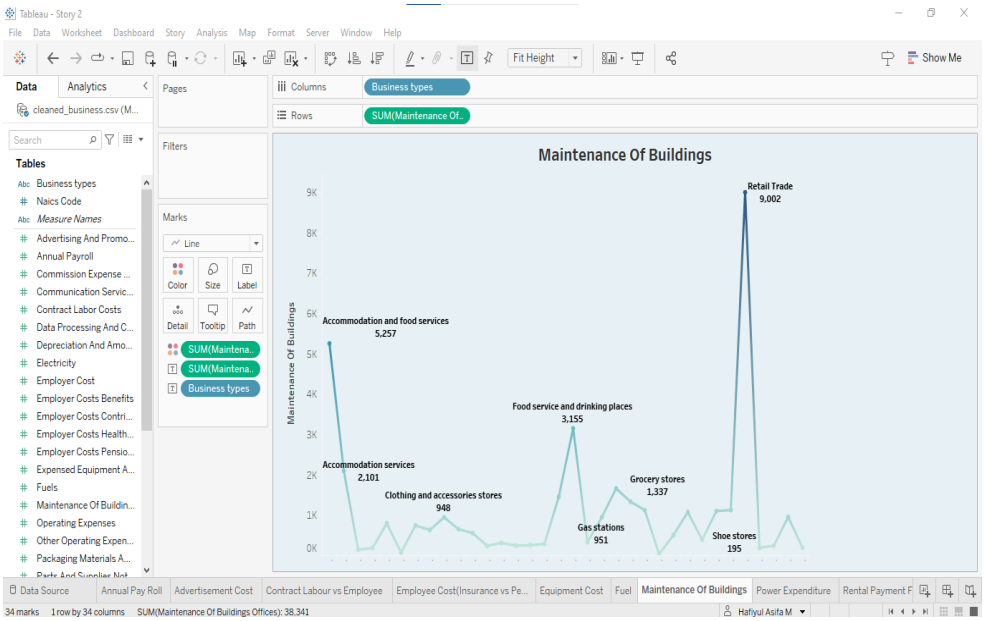
e)Equipment Cost



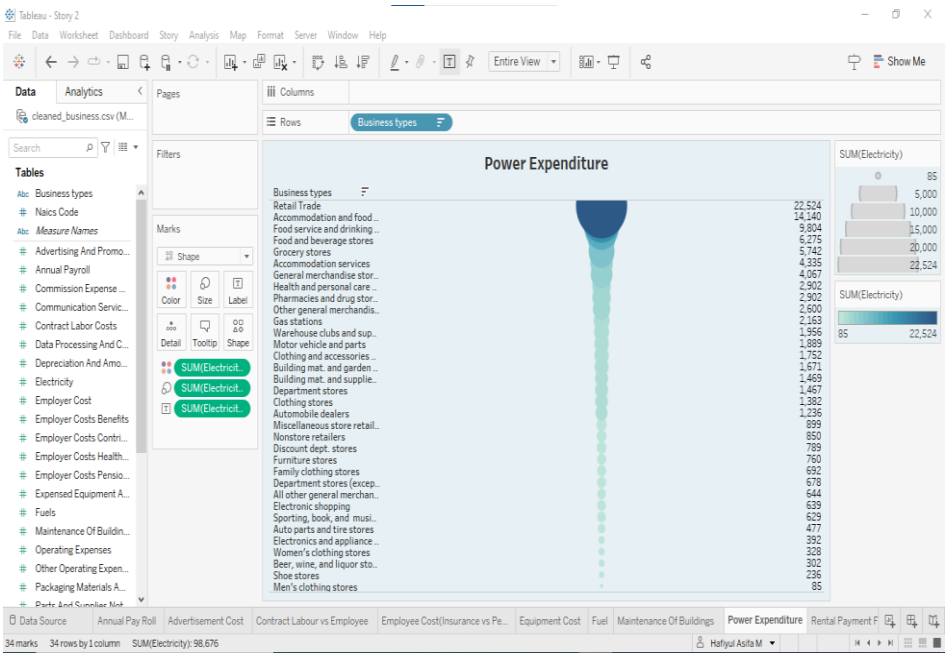
f)Fuel



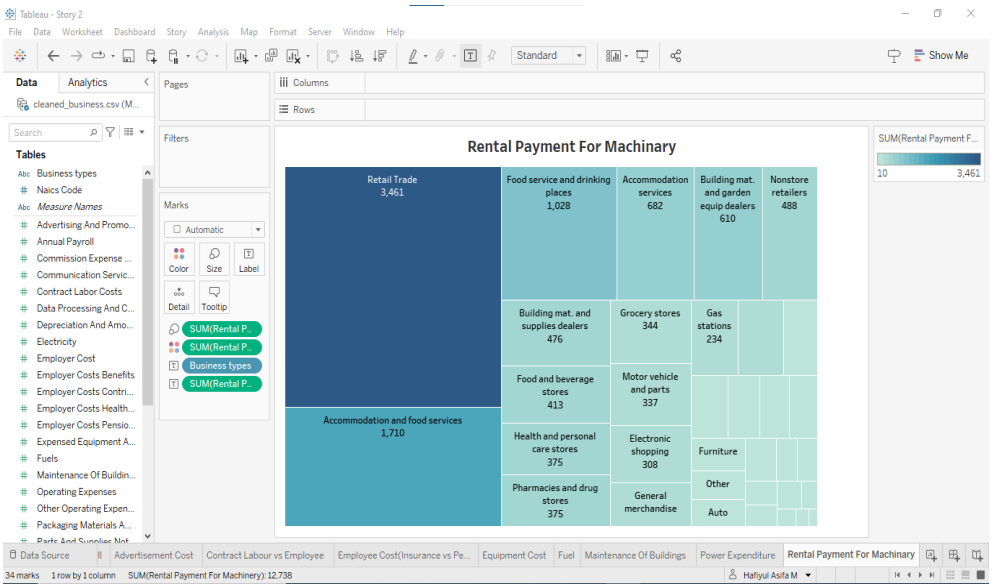
g) Maintenance of Buildings



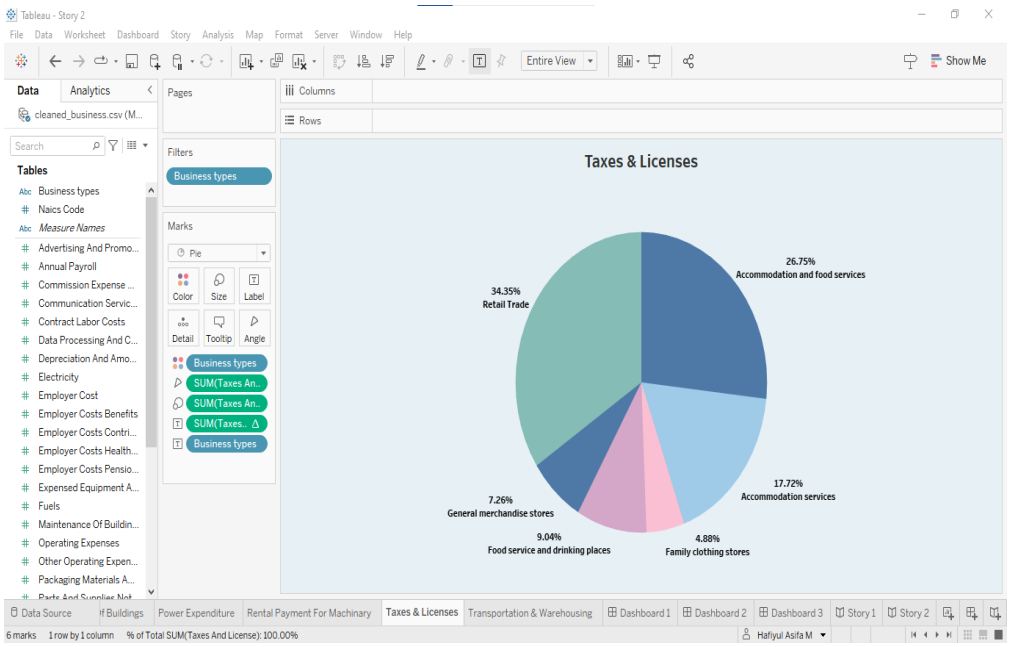
h) Power Expenditure



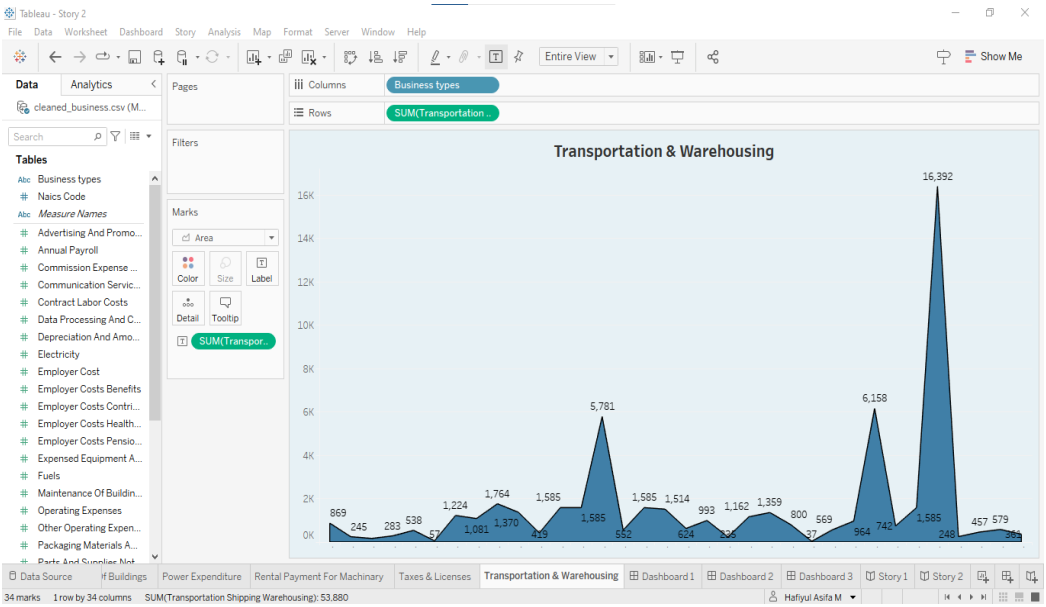
i)Rental Payment for Machinary



j)Taxes & Licenses

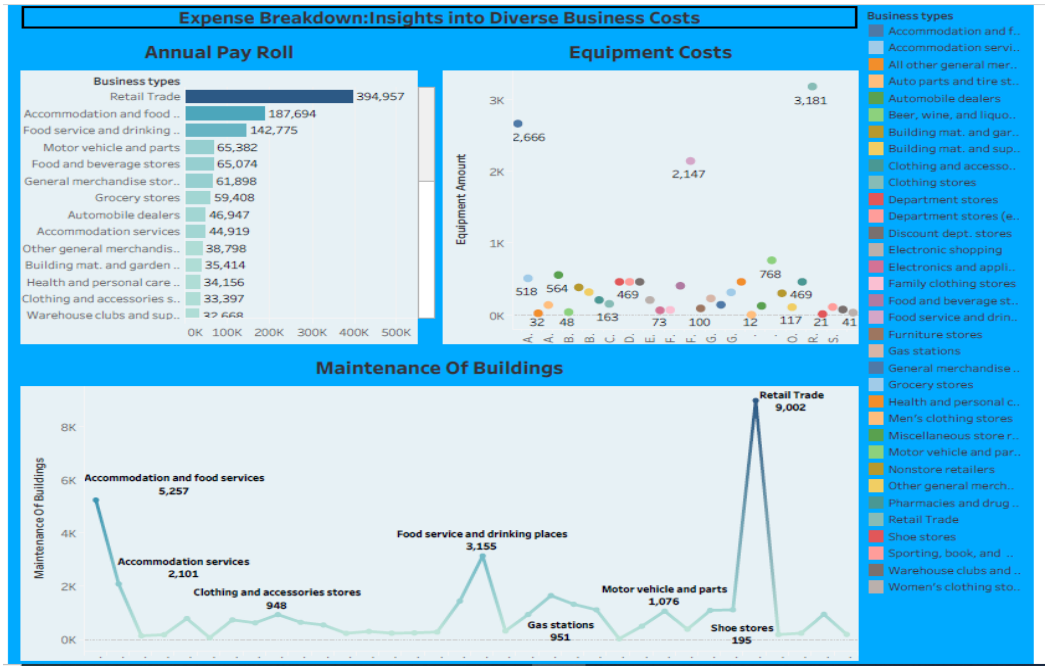


k)Transportation & Warehousing

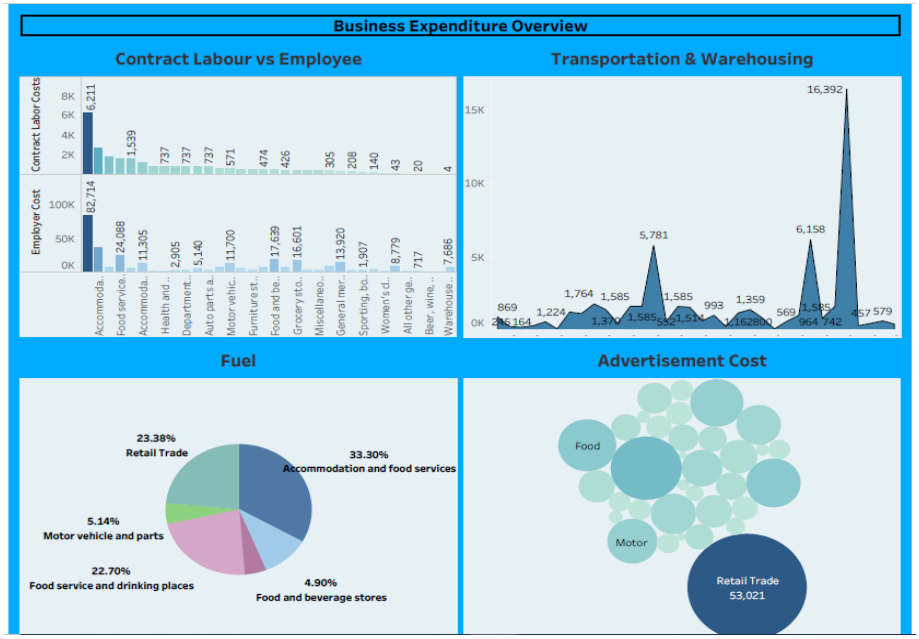


3.2 DASHBOARD

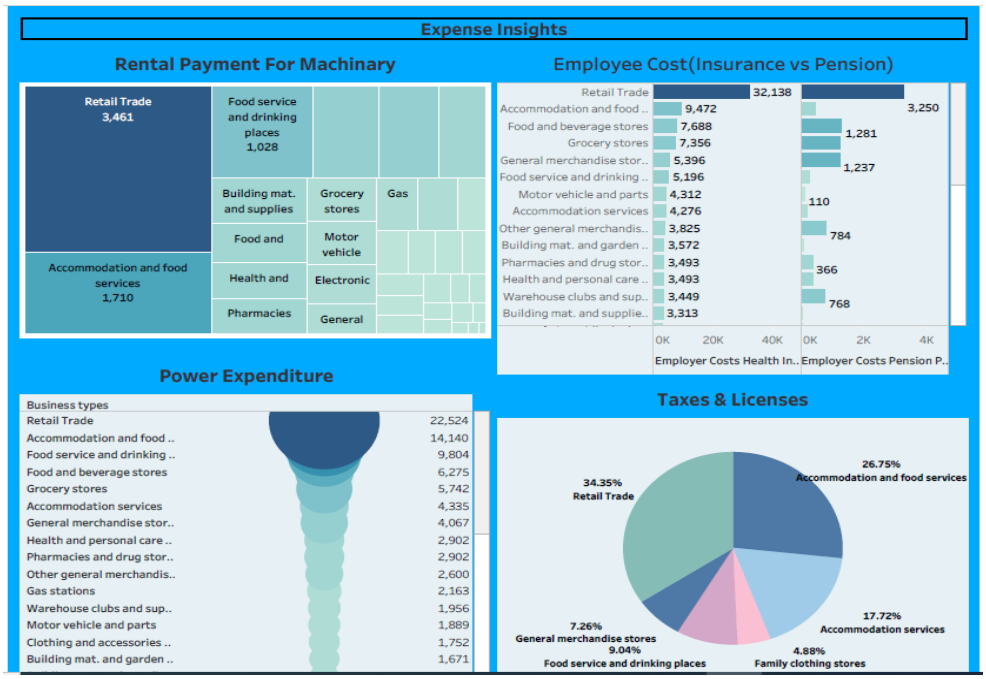
Dashboard 1



Dashboard 2

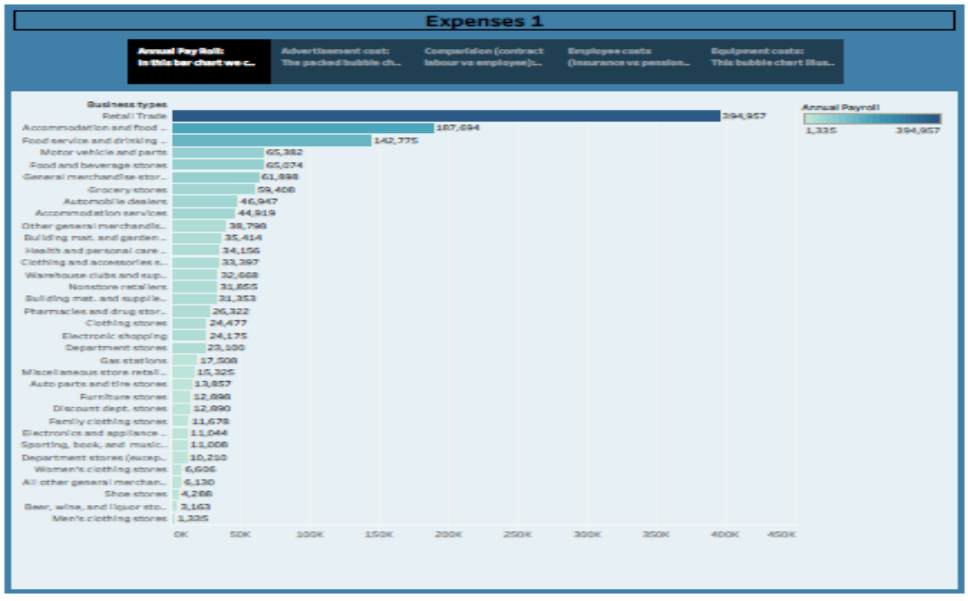


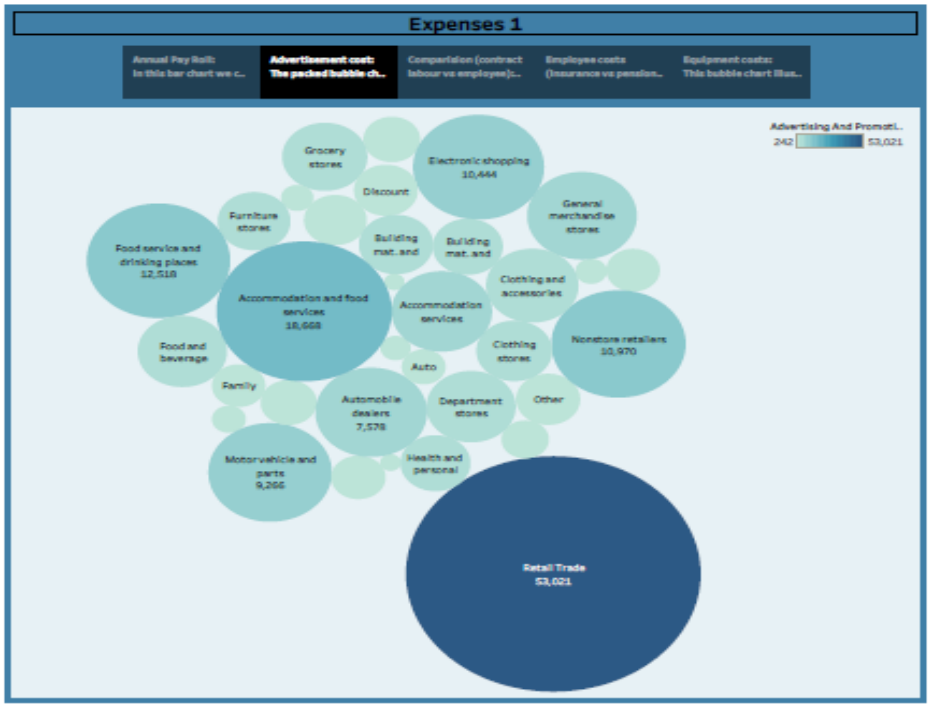
Dashboard 3

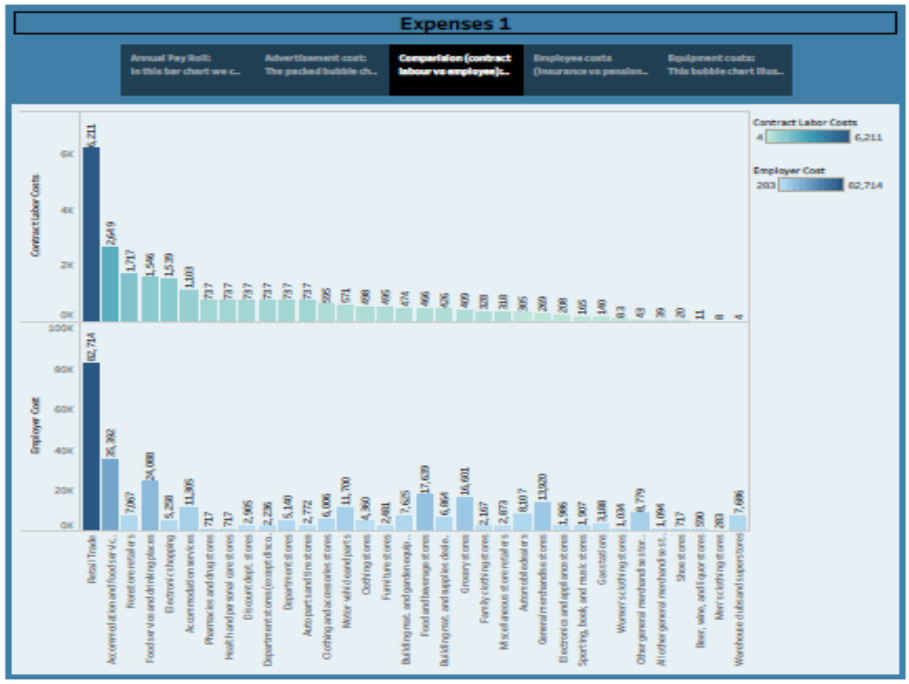


3.3 STORY

Story 1




Expenses 1
Annual Pay Roll: In this bar chart we c...
Advertisement cost: The packed bubble ch...
Comparision (contract labour vs employee)c...
Employee costs (Insurance vs pension...
Equipment costs: This bubble chart illus...
Advertising And Promoti..
242
53,021
Grocery stores
Electronic shopping 10,444
Discount
General merchandise stores
Furniture stores
Building mat. and
Building mat. and
Food service and drinking places 12,518
Accommodation and food services 18,668
Accommodation services
Clothing and accessories
Nonstore retailers 10,970
Food and beverage
Clothing stores
Auto
Family
Automobile dealers 7,578
Department stores
Other
Motor vehicle and parts 9,266
Health and personal
Retail Trade 53,021


Expenses 1
Annual Pay Roll: In this bar chart we c...
Advertisement cost: The packed bubble ch...
Comparision (contract labour vs employee)c...
Employee costs (Insurance vs pension...
Equipment costs: This bubble chart illus...
Contract Labor Costs
4
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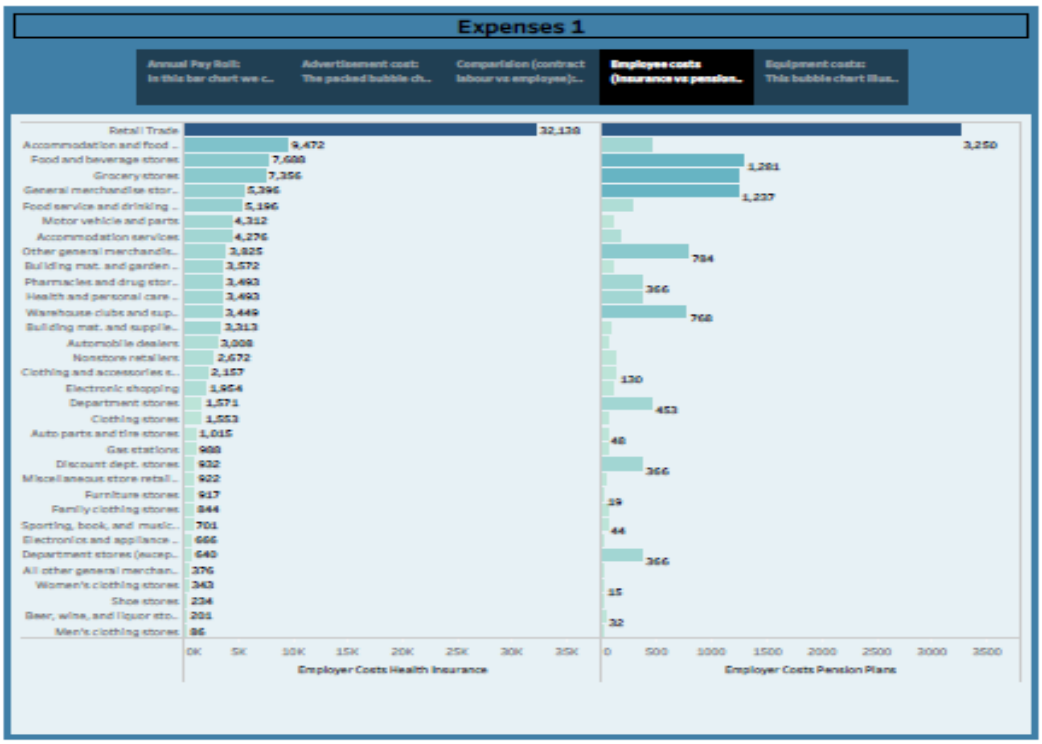
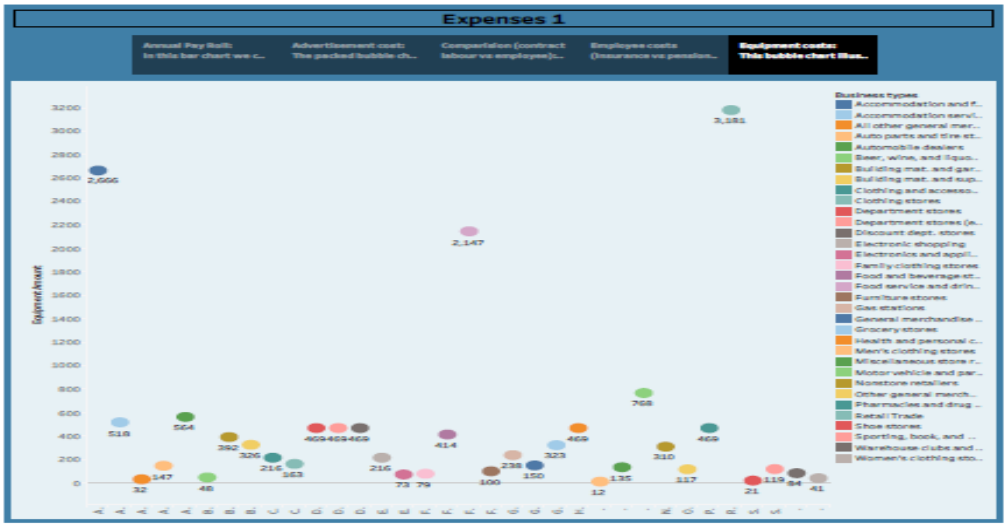
Employer Cost
283
82,714
Contract Labor Costs
Employer Cost
Retail Trade
Accommodation and food se...
Nonstore retailers
Food service and drinking pl...
Electronic shopping
Accommodation services
Pharmacies and drug stores
Health and personal care stores
Discount dept. stores
Department stores (except dis...
Department stores
Auto parts and tire stores
Clothing and accessories st...
Motor vehicle and parts
Clothing stores
Furniture stores
Building mat. and garden sup...
Food and beverage stores
Building mat. and supplies dea...
Grocery stores
Family clothing stores
Miscellaneous store retailers
Automobile dealers
General merchandise stores
Electronic and appliance stores
Sporting, book, and music stores
Gasoline stations
Women's clothing stores
Other general merchandise sto...
All other general merchandise...
Shoe stores
Beer, wine, and liquor stores
Men's clothing stores
Warehouse clubs and supercenters


Expenses 1
Annual Pay Roll: In this bar chart we c...
Advertisement cost: The packed bubble ch...
Comparision (contract labour vs employee)c...
Employee costs (Insurance vs pension...
Equipment costs: This bubble chart illus...
Retail Trade 32,138
Accommodation and food ... 9,472
Food and beverage stores 7,688
Grocery stores 7,356
General merchandise stor... 5,396
Food service and drinking ... 5,196
Motor vehicle and parts 4,312
Accommodation services 4,276
Other general merchandis... 3,825
Building mat. and garden ... 3,572
Pharmacies and drug stor... 3,493
Health and personal care ... 3,493
Warehouse clubs and sup... 3,449
Building mat. and supplie... 3,313
Automobile dealers 3,008
Nonstore retailers 2,672
Clothing and accessories s... 2,157
Electronic shopping 1,954
Department stores 1,571
Clothing stores 1,553
Auto parts and tire stores 1,015
Gas stations 988
Discount dept. stores 932
Miscellaneous store retail... 922
Furniture stores 917
Family clothing stores 844
Sporting, book, and music... 701
Electronics and appliance ... 666
Department stores (excep... 640
All other general merchan... 376
Women's clothing stores 343
Shoe stores 234
Beer, wine, and liquor sto... 201
Men's clothing stores 86
0K 5K 10K 15K 20K 25K 30K 35K
Employer Costs Health Insurance
3,250
1,281
1,237
784
366
768
130
453
48
366
19
44
366
15
32
0 500 1000 1500 2000 2500 3000 3500
Employer Costs Pension Plans


Expenses 1
Annual Pay Roll: In this bar chart we c...
Advertisement cost: The packed bubble ch...
Comparision (contract labour vs employee)c...
Employee costs (Insurance vs pension...
Equipment costs: This bubble chart illus...
Equipment Amount
3200 3000 2800 2600 2400 2200 2000 1800 1600 1400 1200 1000 800 600 400 200 0
2,666
3,181
2,147
768
518
564
392
326
216
163
469
469
469
216
73
79
414
100
238
150
323
469
12
135
310
117
469
21
119
84
41
32
147
48
Business types
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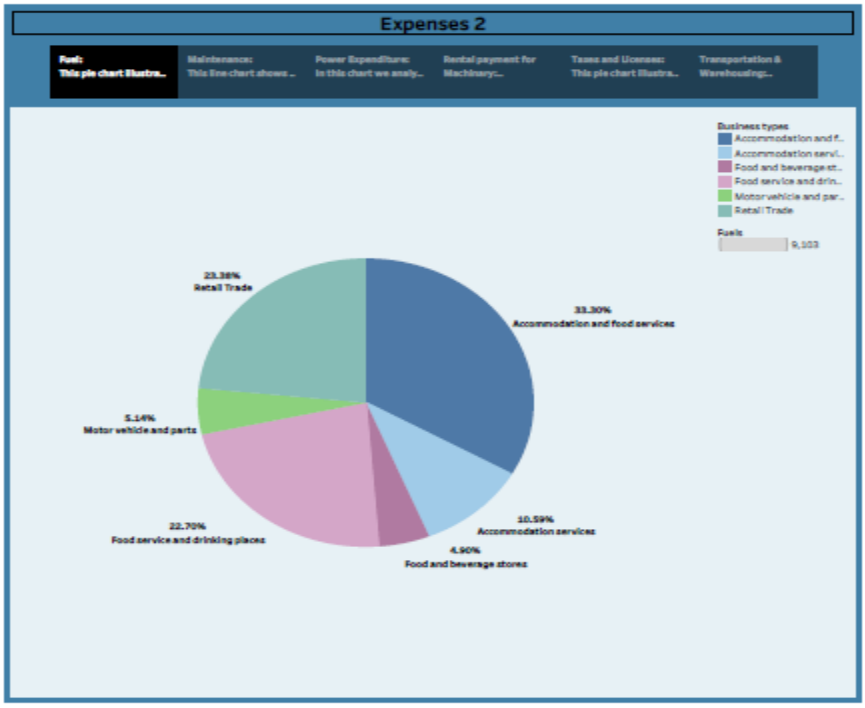
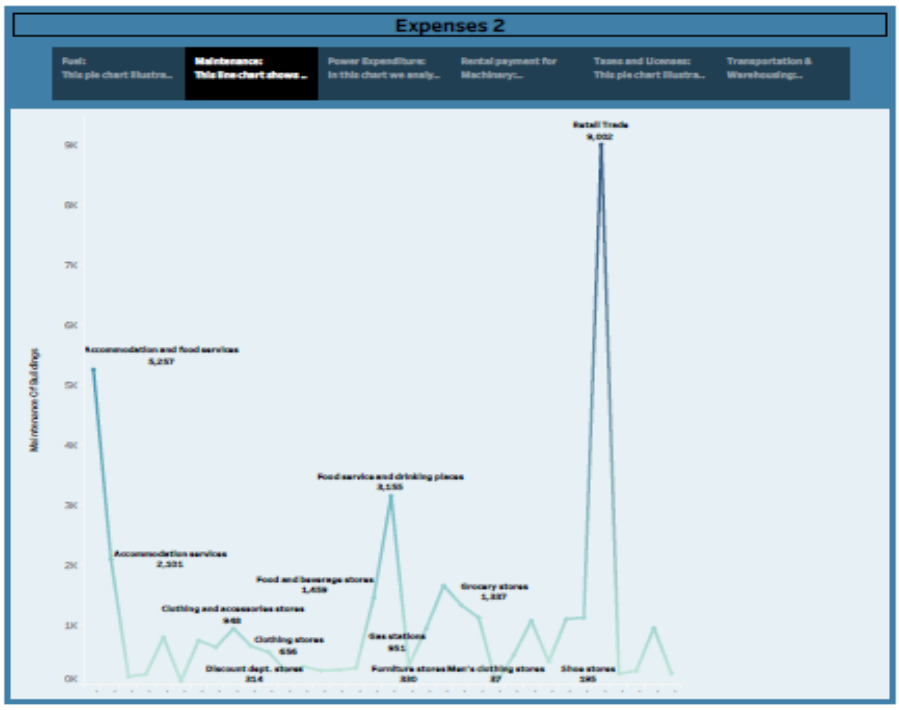
All other general mer...
Auto parts and tire st...
Automobile dealers
Beer, wine, and liquo...
Building mat. and gar...
Building mat. and sup...
Clothing and accesso...
Clothing stores
Department stores
Department stores (e...
Discount dept. stores
Electronic shopping
Electronics and appli...
Family clothing stores
Food and beverage st...
Food service and drin...
Furniture stores
Gas stations
General merchandise ...
Grocery stores
Health and personal c...
Men's clothing stores
Miscellaneous store r...
Motor vehicle and par...
Nonstore retailers
Other general merch...
Pharmacies and drug ...
Retail Trade
Shoe stores
Sporting, book, and ...
Warehouse clubs and ...
Women's clothing sto...

Story 2


Expenses 2
Fuel:
This pie chart illustra...
Maintenance:
This line chart shows ...
Power Expenditure:
In this chart we analy...
Rental payment for
Machinery:...
Taxes and Licenses:
This pie chart illustra...
Transportation &
Warehousing:...
Business types
Accommodation and f...
Accommodation servi...
Food and beverage st...
Food service and drin...
Motor vehicle and par...
Retail Trade
Fuels
9,103
23.38%
Retail Trade
33.30%
Accommodation and food services
5.14%
Motor vehicle and parts
22.70%
Food service and drinking places
10.59%
Accommodation services
4.90%
Food and beverage stores


Expenses 2
Fuel:
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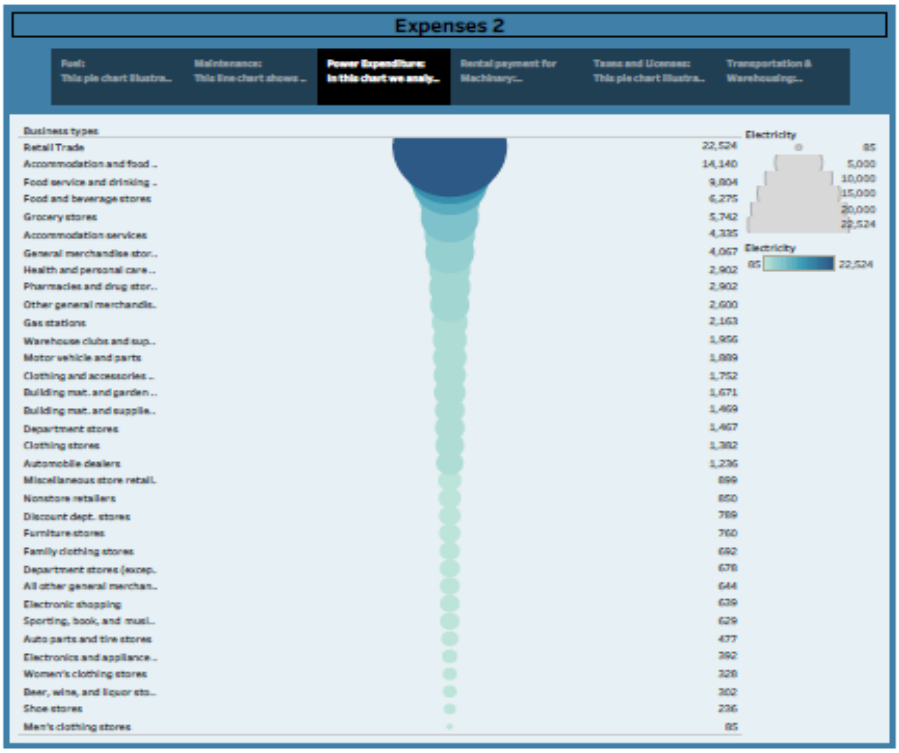
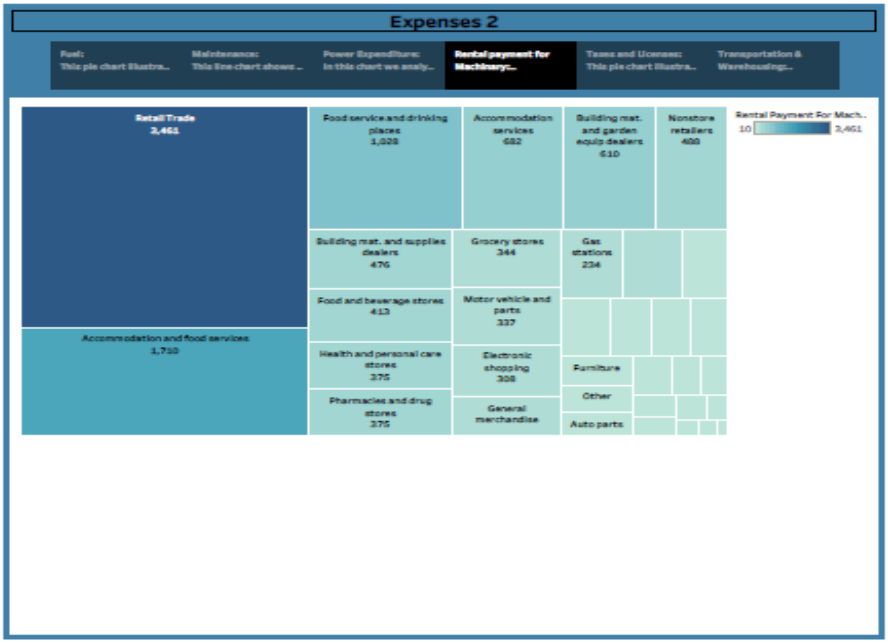
Power Expenditure:
In this chart we analy...
Rental payment for
Machinery:...
Taxes and Licenses:
This pie chart illustra...
Transportation &
Warehousing:...
Retail Trade
9,032
Accommodation and food services
5,257
Food service and drinking places
3,155
Accommodation services
2,101
Food and beverage stores
1,459
Grocery stores
1,337
Clothing and accessories stores
948
Clothing stores
656
Gas stations
551
Discount dept. stores
314
Furniture stores
330
Men's clothing stores
87
Shoe stores
195


Expenses 2
Fuel:
This pie chart illustra...
Maintenance:
This line chart shows ...
Power Expenditure:
In this chart we analy...
Rental payment for
Machinary:...
Taxes and Licenses:
This pie chart illustra...
Transportation &
Warehousing:...
Business types
Retail Trade 22,524
Accommodation and food ... 14,140
Food service and drinking ... 9,804
Food and beverage stores 6,275
Grocery stores 5,742
Accommodation services 4,335
General merchandise stor... 4,067
Health and personal care ... 2,902
Pharmacies and drug stor... 2,902
Other general merchandis... 2,600
Gas stations 2,163
Warehouse clubs and sup... 1,956
Motor vehicle and parts 1,889
Clothing and accessories ... 1,752
Building mat. and garden ... 1,671
Building mat. and supplie... 1,469
Department stores 1,467
Clothing stores 1,382
Automobile dealers 1,236
Miscellaneous store retail... 899
Nonstore retailers 850
Discount dept. stores 789
Furniture stores 760
Family clothing stores 692
Department stores (excep... 678
All other general merchan... 644
Electronic shopping 639
Sporting, book, and musi... 629
Auto parts and tire stores 477
Electronics and appliance ... 392
Women's clothing stores 328
Beer, wine, and liquor sto... 302
Shoe stores 236
Men's clothing stores 85
Electricity
85
5,000
10,000
15,000
20,000
22,524
Electricity
85
22,524


Expenses 2
Fuel:
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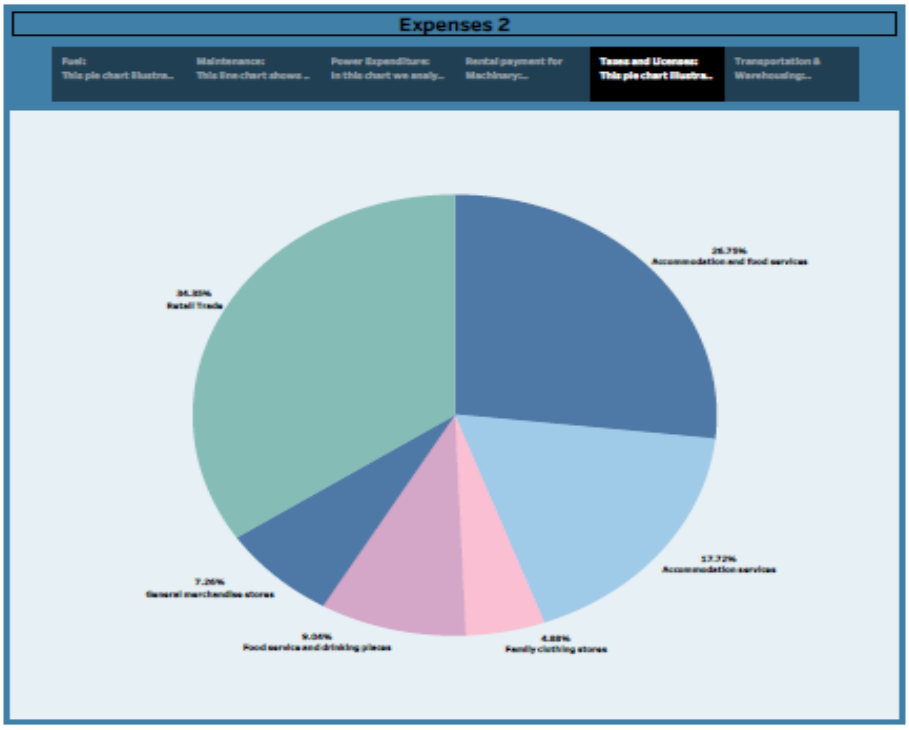
Maintenance:
This line chart shows ...
Power Expenditure:
In this chart we analy...
Rental payment for
Machinary:...
Taxes and Licenses:
This pie chart illustra...
Transportation &
Warehousing:...
Retail Trade
2,461
Food service and drinking places
1,028
Accommodation services
682
Building mat. and garden equip dealers
610
Nonstore retailers
408
Accommodation and food services
1,710
Building mat. and supplies dealers
476
Grocery stores
344
Gas stations
234
Food and beverage stores
413
Motor vehicle and parts
337
Health and personal care stores
375
Electronic shopping
308
Furniture
Other
Pharmacies and drug stores
375
General merchandise
Auto parts
Rental Payment For Mach...
10
2,461


Expenses 2
Fuel:
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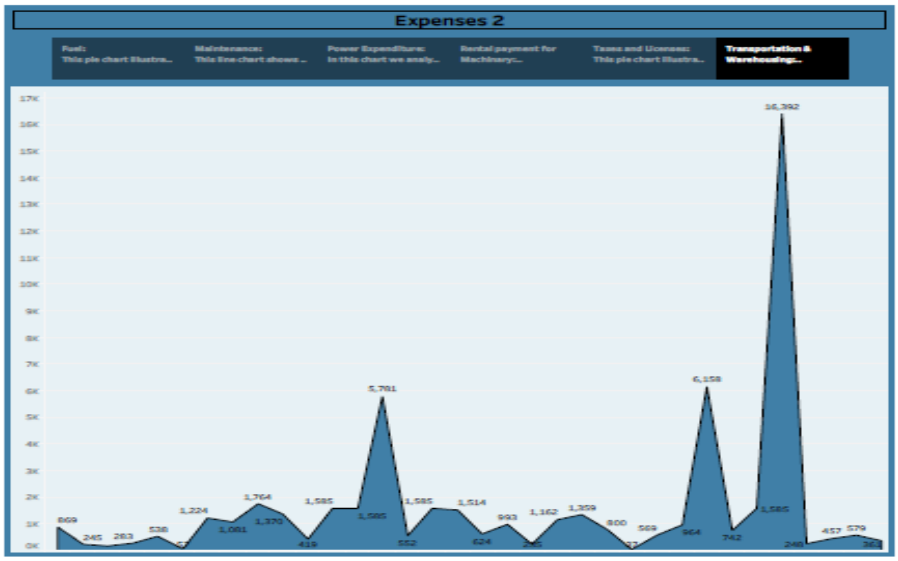
Maintenance:
This line chart shows ...
Power Expenditure:
In this chart we analy...
Rental payment for
Machinery:...
Taxes and Licenses:
This pie chart illustra...
Transportation &
Warehousing:...
26.75%
Accommodation and food services
34.35%
Retail trade
17.72%
Accommodation services
7.26%
General merchandise stores
9.04%
Food service and drinking places
4.88%
Family clothing stores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This line chart shows ...
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In this chart we analy...
Rental payment for
Machinery:...
Taxes and Licenses:
This pie chart illustra...
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Warehousing:...
17K
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6K
5K
4K
3K
2K
1K
0K
869
245
283
536
1,224
1,081
1,764
1,370
1,585
419
5,781
1,585
562
1,514
624
993
1,162
1,359
800
569
6,158
964
742
16,392
1,585
248
457
579

2. ADVANTAGES & DISADVANTAGES:

4.1 ADVANTAGES

- By analysing the data we may Increase the company profits..
- We can maintain the competitiveness.
- Highlights our profit according to the season.
- We can identify areas of insufficient.
- The process of estimate all of the cost associated with completing a project within scope and according to its timeline.

4.2 DISADVANTAGES

- It requires huge investment cost such as transportation,raw materials, employees etc.,
- Duplication of business ideas.
- Cost keep changing every interval.
- The accounting report is based on estimates.

3. APPLICATIONS:

- Versality of business.
- The information gathered from business loss analysis is used to improve our business profit.
- It's aim is to deliver good quality and quantity products which do not affect the business expenses.
- This estimation is often used to check the accuracy or correctness of the final answers.

4. CONCLUSION:

In this project estimation of business expenses is analysed with the help of tableau. For this, data are collected from various sources. At first,

we define the problem in the form of empathy map and brain storming. Then the collected data set are connected to the tableau and we created various charts like tree charts, donut charts,map charts. Finally, we create dashboard and story using three charts. Also from these charts we analysed the estimation of business expenses in various sectors.

5. FUTURE SCOPE:

- ➢ Business that are based on collaborative economy models will enjoy immense success in the next few years.
- ➢ Social impact investment fund will yield a very good profit in future.
- ➢ Expanding of business according to the business profit or loss.
- ➢ Opening many branches which is suitable to our expenses.