

TOPIC: FOODHUB ENTERPRISE TECHNICAL ANALYSIS REPORT FOR THE YEAR 2019.

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STUDENT ID: VEPH/20B/DA191

INTRODUCTION: This project seeks to analyse sales performance of Foodhub enterprise and the sales person, the products and the customers in the different region and yearly sales. This technical analysis seeks to improve the organisations productivity and boost revenue generation by looking into the regions, sales persons, product and quarters with poor sales with a potential recommendation.

The data set used include; product name, salesperson, region, year, income/revenue, customers etc. this data was analysed with use of Microsoft excel pivots and charts down to it visualisation.

Story of Data: This dataset was downloaded from Kaggle and it is a secondary data. The data, presented in rows and columns, tells a story of the different grocery products sold by the firm in different countries. It also highlights different quantities purchased, to ship used, and for shipping. It has the following in the column, product name, salesperson, region, year, income/revenue, customers.

Data Limitations or Biases:

Order ID	Order Date	Customer ID	Customer Name	Address	City	State	ZIP/Postal Code	Country/Region	Salesperson	Region	Shipped Date	Shipper Name
1001	01/27/14	27	Company AA	789 27th Street	Las Vegas	NV	99999	USA	Mariya Sergienko	West	01/29/14	Shipping Company B
1002	01/27/14	27	Company AA	789 27th Street	Las Vegas	NV	99999	USA	Mariya Sergienko	West	01/29/14	Shipping Company B
1003	01/04/14	4	Company D	123 4th Street	New York	NY	99999	USA	Andrew Cencini	East	01/06/14	Shipping Company A
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1017	01/10/14	10	Company J	123 10th Street	Chicago	IL	99999	USA	Laura Giussani	East	01/12/14	Shipping Company A
1018	01/10/14	10	Company J	123 10th Street	Chicago	IL	99999	USA	Laura Giussani	East	01/12/14	Shipping Company A
1019	01/10/14	10	Company J	123 10th Street	Chicago	IL	99999	USA	Laura Giussani	East	01/12/14	Shipping Company A
1020	01/11/14	11	Company K	123 11th Street	Miami	FL	99999	USA	Anne Larsen	South		Shipping Company C
1021	01/11/14	11	Company K	123 11th Street	Miami	FL	99999	USA	Anne Larsen	South		Shipping Company C
1022	01/01/14	1	Company A	123 1st Street	Seattle	WA	99999	USA	Nancy Freehafer	North		Shipping Company C

Data Splitting and Preprocessing:

After downloading the data, observation was carried out for duplicates, and inconsistency but the data was found to be clean already. There were no missing values, upon observation, the data that has stand-alone abilities where categorised as independent data like the salesperson, region, product name and those that depends on the above mentioned were classified dependent data.

The industry, is a grocery store (food and beverage) with revenue means, and the stakeholders are; Chief executives, Top managers, Investor, Customers and Product Consumers.

Value to the Industry: As a products and service organisation revenue and more revenue is the target while delivery services, so this project will help the organisation know the untapped areas, unreached costumers and redefine her revenue generation. Success means expansion to other countries for more revenue, success here is having multiple revenue means.

PRE-ANALYSIS:

Potential Analysis/ Questions

Best performing region by revenue generated, performance analysis of each salesperson by revenue generated, customer performance analysis by revenue, customer performance analysis by quantity purchased, payment type usage, best performing goods for the year by quantity. Best-performing month or week, region with most sales.

Initial/ Potential Insight

1. Finetune the best region and explore measures to gain more growth against competitors e.g. more advertising. We can also fine-tune the least performing region and implement measure done in the best performing region and ensure that these measures are kept in place e.g. transferring salesperson from the region with great sales to the region with low sales to ensure they enact measures enacted at the best performing region. Most used payment type, stocking most purchased goods, especially in regions where they are sold more, the countries that received more shipment in the period under review. The best category of products based on sales and the amount of revenue it generated, regional performance, monthly sales trend.

IN ANALYSIS INSIGHTS:

- Jan performed least for the year and i recommend to stakeholders that he should be retrenched or sent for some trainings on sales and customer retention and Nancy for promotion or bonus be given to her.
- Analyst team recommend Company D for discount or free nomination for company of the year award and marketer or promotion team be sent to educate lower performing companies.
- The data team recommend that measures used in December that yielded that sales revenue be repeated in January and ensure strict compliance.
- The measures used in the North region be repeated in West and if possible, move sales person from North to West for policy implementation.
- Products in the beverages category should be stocked more to avoid stockout and increase revenue. Products selling between 1000-2000 should be stocked more since it sold the highest.

- Set a sub headquarter in New York to ensure more customers get interested in lower shipping fee encouraging prior unacquired customers. region recorded the highest sales by revenue of \$141,660.34.

Analysis techniques: Pivot table, standard excel table.

- **Post-Analysis and Insights:** This analysis reveal a key correlation between the revenue generated, salesperson and region, it was discovered that best performing sales person had the highest revenue and belong to the best region too.
- **Data Visualizations & Charts:**

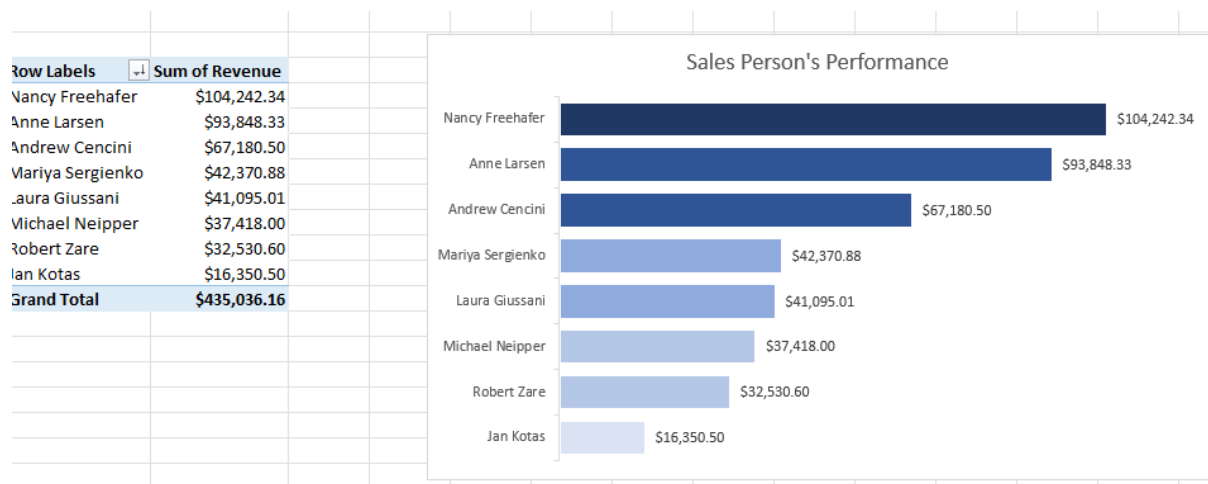


Chart 1 illustrates the salesperson performance for Foodhub enterprise

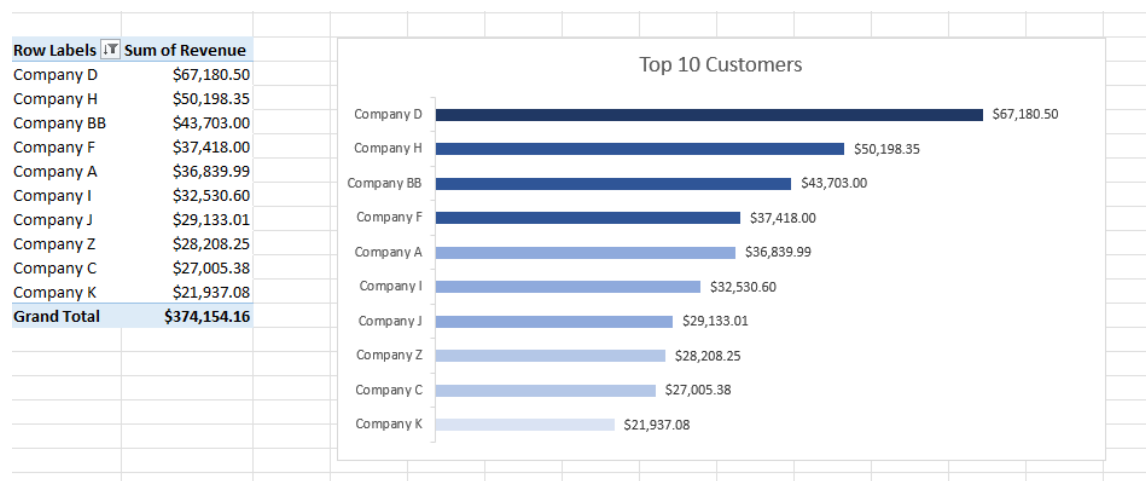


Chart 2: illustrates top 10 customers and the revenue each generated.

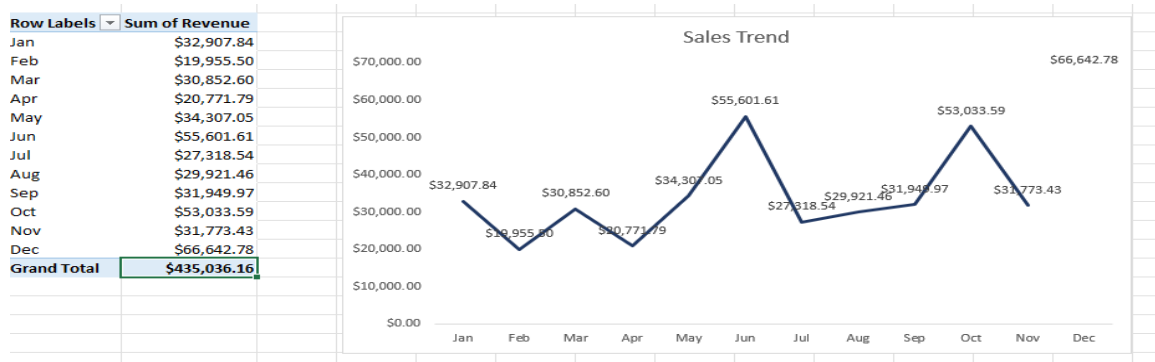


Chart 3 demonstrates the sales trend for Foodhub enterprise based on monthly income

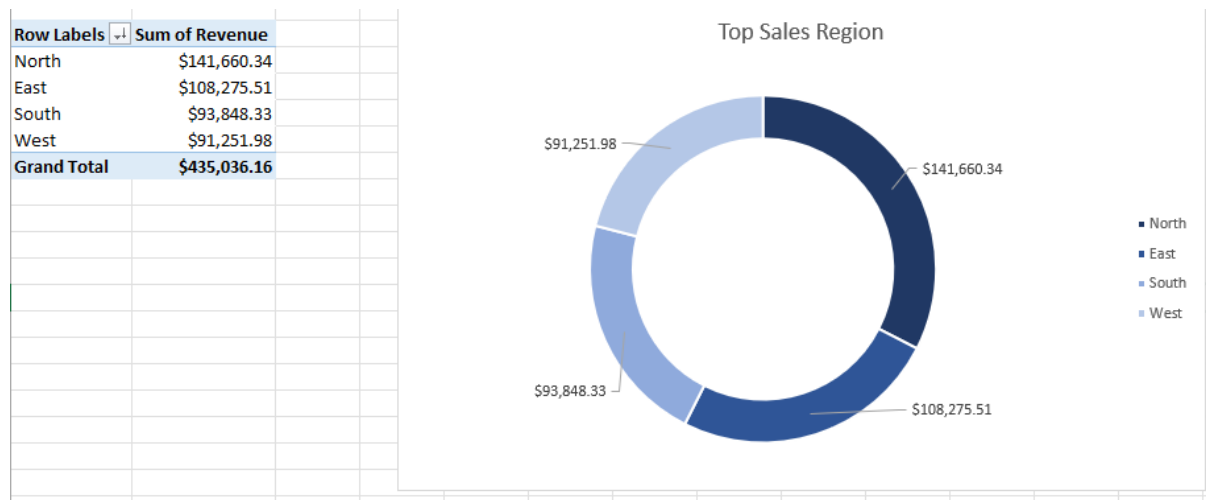


Chart 4 demonstrates the top sales region based on revenue generated

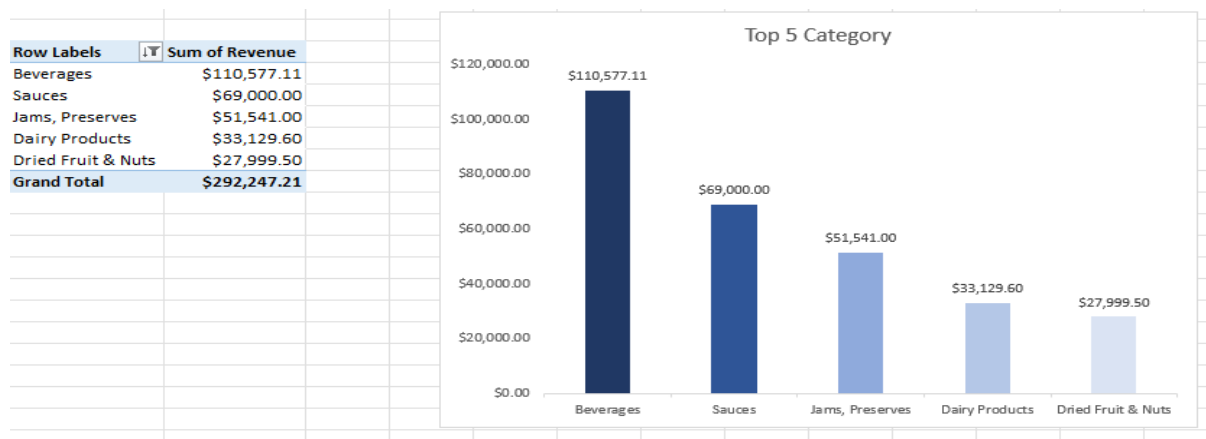


Chart 5 illustrates top five product category by revenue

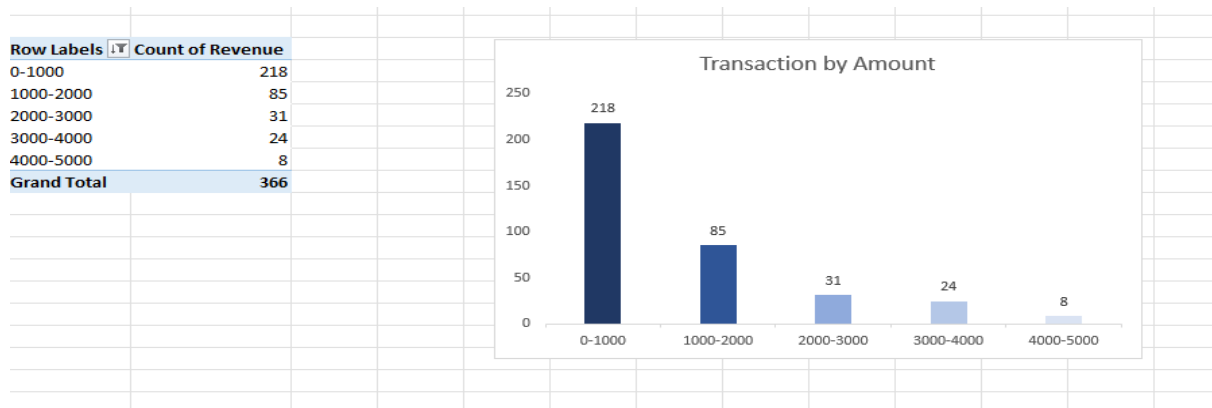


Chart 6 illustrates the top transaction for Foodhub at 218 for 0-1000

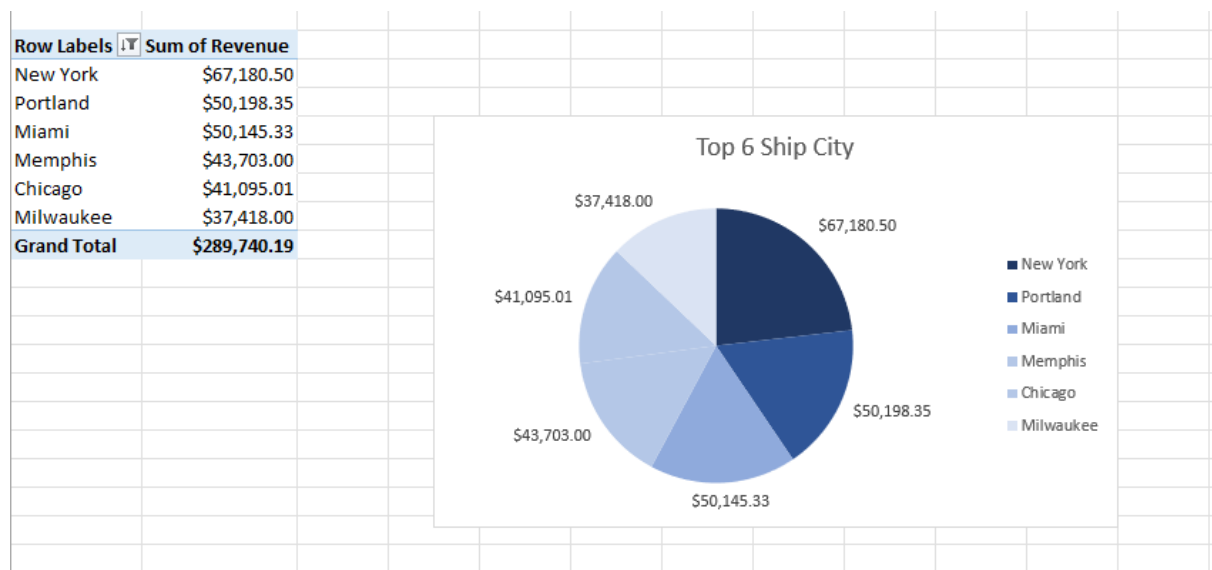


Chart 7 demonstrates the top six ship cities for foodhub enterprise and New York top the chart with \$37,418.00

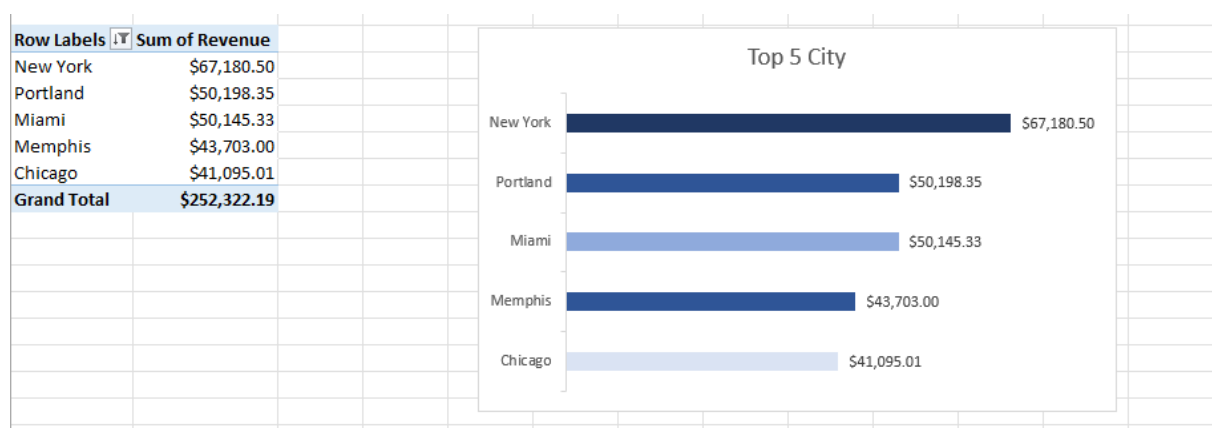
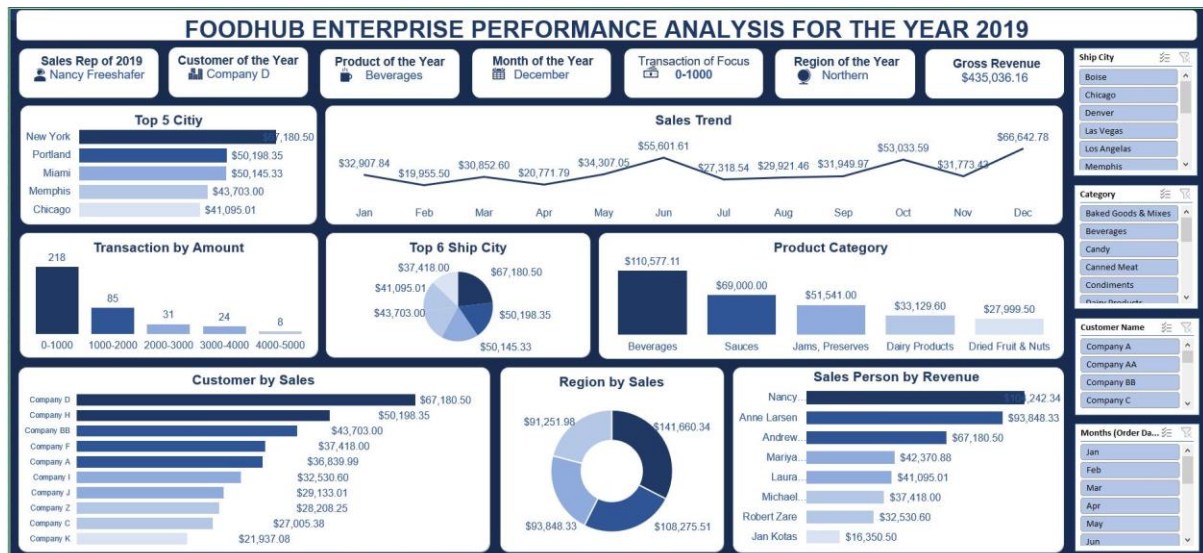


Chart 8 illustrates the top five revenue cities and New York again top this chart with \$67,180.50



Analytical Dashboard

The above chart is the analytical dashboard for this project, showing the trends and pattern of sales and supply across cities for Foodhub Enterprise.

➤ RECOMMENDATIONS AND OBSERVATIONS

Analysis Observations

1. Andrew Cencini did well with a revenue of \$67,180.50 for the year 2019, his sales were mostly in New York in the Northern region. He made more sales in four different months and the top two sales in June \$11,595.00 and December \$11,026.00. Andrew sold 15 items that are between 0-1000, 4 items between 3000-4000, 4 items between 4000-5000, 3 items between 2000-3000, 2 items between 6000-7000, and 2 items between 1000-2000.
2. He is in the top city with highest revenue (New York) \$67,180.50. Andrew's top-selling products were Jams preserves at \$41,391.00, dried fruits & nuts at \$11,669.50, pasta sold at \$9,120.00 for the year, grain at \$2,884.00, and baked goods & mixes sold at \$2,116.00.
3. Andrew's top customer is company D, with grossing of \$67,180.50. Andrew is in the Eastern region with a gross revenue of \$108,275.51
4. Anne Larsen is from the South. Anne Larsen performed well at \$93,848.33. He performed well in Maimi \$50,145.33 and Memphis \$43,703.00. Anne's selling product are beverages at \$29,278.08 and canned meat at \$19,117.60, while soups performed least for the year at \$10,663.25
5. Anne did better in December \$12,458.47 followed by November at \$11,479.70, he performed poorest in September \$4,629.11. Anne sold best between 0-1000 with 50 items and least with 4000-5000 by 1 item. Company BB is Anne's top customer for the year, earning \$43,703.00.

6. Jan Kotas performed least for the year, \$16,350.50. Jan Kotas is in the west, the region that performed overall poorest. Jan best revenue city is Denver, the least performing cities by revenue

7. Jan best performing product is beverages with a grossing of \$6,986.00, fruits & veg \$6,942.00 and candy at \$2,422.50. Jan sold 8 items that is between 0-1000, 6 items between 2000-3000 and the 1 least between 3000-4000.

8. Jan did best in June \$4,928.00, followed by December \$4,049.25, Jan sales were poor across all other month. Company CC is Jan best performing customer with annual gross of \$16,350.50, Jan Kotas is also from Denver City.

9. Laura Gius performed well as a sales person with gross revenue of \$41,095.01. Laura is from the Eastern region with a very good sales performance. Topmost sales came in the month June \$6,700.60, followed by \$6,617.69 while the rest are below \$5000.00.

10. Laura sold more products 44 between 0-1000, followed by 8 items between 1000-2000 and the least 2000-3000 with only 5 items. Chicago is Laura best shipping city with revenue of \$41,095.01, Laura best product category is condiments \$15,048.00, baked goods & mixes at \$10,681.60, Jam preserves \$8,850.00, dried fruits & nuts \$5,591.50 while the least beverages \$923.91.

11. Company J at \$29,133.01 and Company Y at \$11,962.00 were Laura best performing customers.

12. Mariya Sergienko performed well as a sales person for the year 2019 with to revenue of \$42,370.88. Los Angeles \$27,005.38 and Las Vegas \$15,365.50 Mariya top cities. Mariya best two performing months are December \$7,653.16 and June \$6,664.75. January \$5,210.65 and May were fairly ok \$5,154.95 other month lack consistency.

13. Mariya sold 23 items that are between 0-1000, 5 items between 1000-2000, 2000-3000 only 2 items and 4 items for 3000-4000. Los Angeles \$27,005.38 and Las Vegas \$15,365.50 Mariya top ship cities for Mariya in 2019

14. Sauces gave Mariya the best sales \$18,080.00, followed by beverages at \$15,515.13, condiments \$5,230.00, soups \$3,136.25, and the least performing for Mariya dried fruits and nuts. Mariya is from the western region. Company C, L and AA are Mariya best customer for the year 2019.

15. Michael Neipper didn't perform too well for the year with a revenue of \$37,418.00. Michael performance in January \$2,274.00 was not good but improved in February \$4,633.25 then a fall in March \$946.00 which was basically sustained to the following month \$680.00 peaked in October \$6,738.50. In all Michael performance by month was generally poor.

16. Transaction by revenue shows that Michael sold only 22 items that fall between 0-1000 then 11 items that fall between 1000-2000, 2 items between 2000-3000 and finally 1 between 3000-4000. Milwaukee from observation is Michael top city with a revenue of \$37,418.00 for the year 2019

17. From observation the difference between the product sold wasn't to pronounce as the performance by each category follows; \$10,178.00, \$9,520.00, \$9,078.00, and \$8,642.00. Michael performance from observation was not good as a sales person for the year 2019 because revenue was \$37,418.00 which is far below that of the top sales person for the year.

18. After observation Company F was Michael's top customer for the year 2019, Michael is from the Northern region.

19. Nancy Freeshafer is the top sales person for the year 2019 with a total revenue of \$104,242.34. Nancy is from the Northern region and the best performing region at \$104,242.34, Observation shows that company H at \$50,198.35, A \$36,839.99 & G \$17,204.00 where Nancy's top customers for the year 2019.

20. Revealed in through observation is that the ship cities that topped Nancy ship city are Portland \$50,198.35, Seattle \$36,839.99 and \$17,204.00, Beverage was observed to top Nancy selling list \$47,695.99, followed Sauces \$22,920.00, Dairy product \$14,685.60, canned meat \$6,348.00, \$6,348.00.

21. Observation shows that \$16,173.56 in December was Nancy's top sales by month, other months in declining order \$14,685.75, \$10,803.89, \$10,713.11, \$10,385.82, \$10,368.66, \$7,864.80, \$5,925.79, \$5,677.18, and \$4,872.65. Revealed in through observation is that the ship cities that topped Nancy ship city are Portland \$50,198.35, Seattle \$36,839.99 and \$17,204.00, candy \$6,336.75.

22. Robert Zare had fairly performance, from observation his total sales were at \$32,530.60 for the year 2019. Observation of the company I, shows is the best customer for Robert for the year 2019, Robert Zare also is from the west and the west has a bad performance generally.

23. Dairy product account for the best sold product for Robert at \$18,444.00, then the pasta gave an average performance from observation and soups at \$3,030.10. Salt Lake City was the best city for Robert.

6. Salt Lake City was the best city and also the top ship city for Robert in 2019. The top performing month for Robert was October and in the trend from largest to smallest \$4,542.85, \$4,322.30, \$3,930.30, \$3,850.00, \$2,997.60, \$2,964.90, \$2,919.60, \$2,886.60, \$260.55, and \$1,455.30, Robert sold 11 items between 0-1000, 10 items between 1000-2000 then 4 items sold at 2000-3000 and 3000-4000 had only 1 item last.

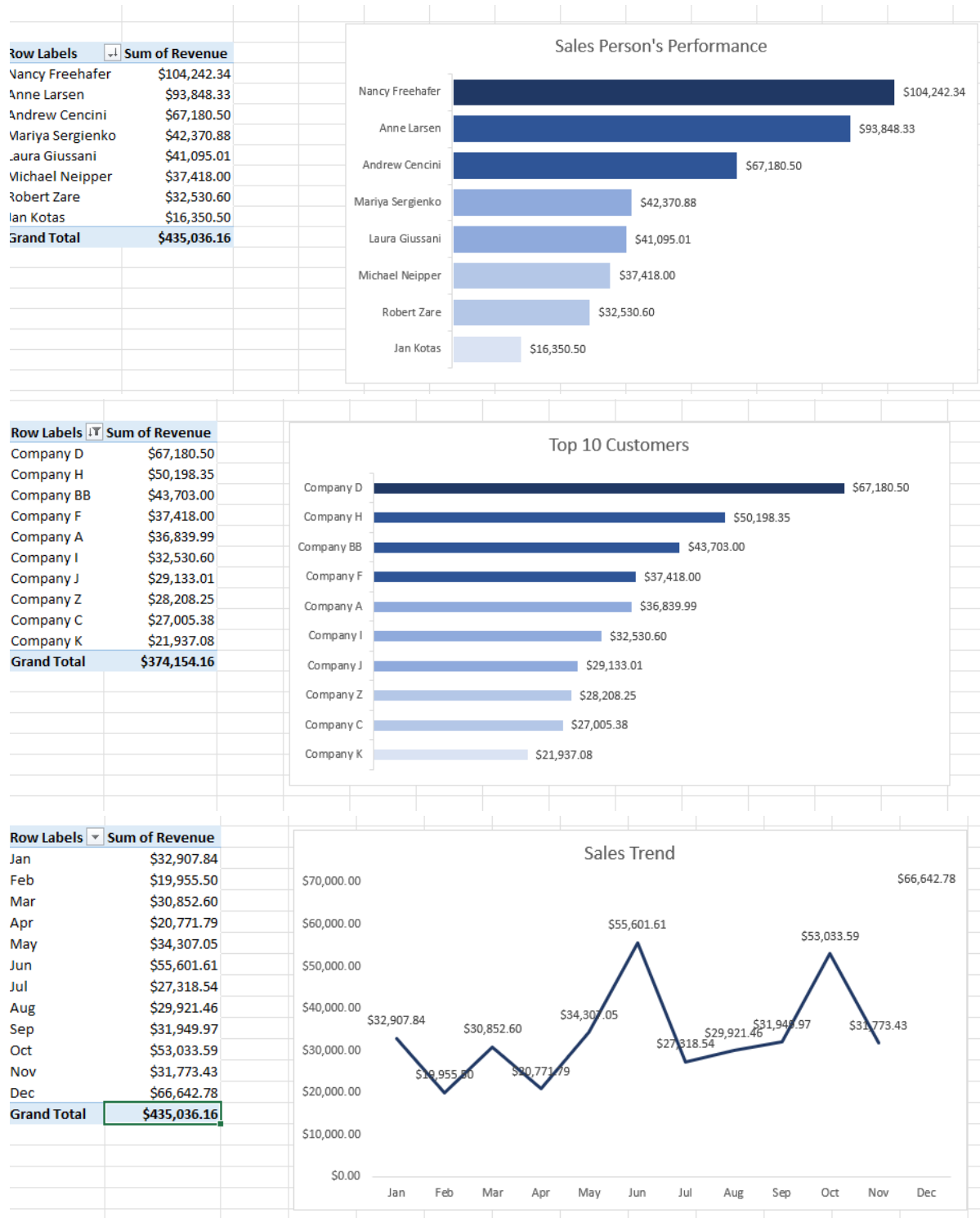
Analysis Recommendations

1. Recommendation, Nancy Freeshafer the top performing sales person, should be rewarded with bonuses or promotion or both.
2. Jan is recommended to the executives for retrenchment or sent for further training to help him improve on sales policy implementation and customer retention
3. Company D is recommended for award as the best customer for the year 2019 or rewarded with bonuses or discount or both to encourage them to perform more.
4. Company K should be encouraged to buy more, initiate more customer friendly policies and create more awareness of mutual benefits.
5. Northern region is recommended for best performing region, as such a regional office, warehouse or special line of communication be established between them and the company.
6. Western region perform poorly for the year 2019, recommendation send the sales persons here in exchange for top persons in the Northern region. they can also be trained on customer retention and how to enforce good GMP for sales.
7. The revenue sum of \$435,036.16 was gotten, this should be compared with the organisation expected income to ascertain the level of improvement and where improvement is needed.
8. New York top the top 5 City for 2019, while Chicago performs the least recommendation would be to do a cross fertilization of ideas between the staff of these cities. For the items between 0-1000 that sold the highest recommendation would be that more of that product range be stocked to enable more sales and also generate more revenue. The product not doing in the west can be sent to the North where they doing very fine.
9. Since observation shows that almost every sales person has beverage as part of the top 3 selling product, recommendation is that beverages should be stocked in every City, and all sales person be mandated to sell it. If there is any method; adverts, publicity or promotion done for beverages, recommendation is that same be applied to poor selling products
10. December sales exceeded those of any other month for the top salesperson; therefore, all sales should be encouraged to apply the method used by the top salesperson in December in other months that are not doing so well.

CONCLUSION: From this analysis, insights discovered are that Nancy Freeshafer is the top sales person, Foodhub Enterprise is well established in the North region with a reasonable market share, Jan is the least revenue generating sales person, Foodhub needs to engage more customers in the west, driven sales in the west and engage in promotional activities. Beverage is a product that must not go "out of stock".

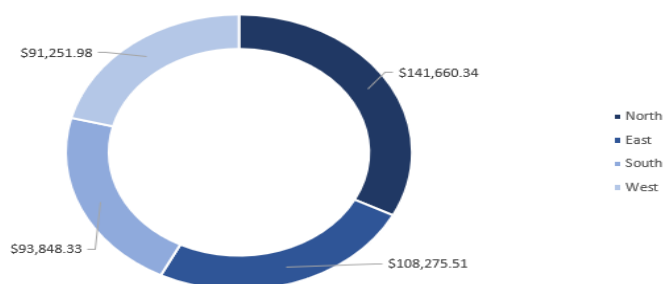
In the cause of this analysis some of the limitations were inadequate sales data for the analysis making sales trend inconclusive, no consideration for logistics data which can influence sales and other staff in the facilities were not considered, based on this, future research should be broader in the years to consider and also include other factors like company logistics arrangement, data gathering process as well.

➤ References & Appendices



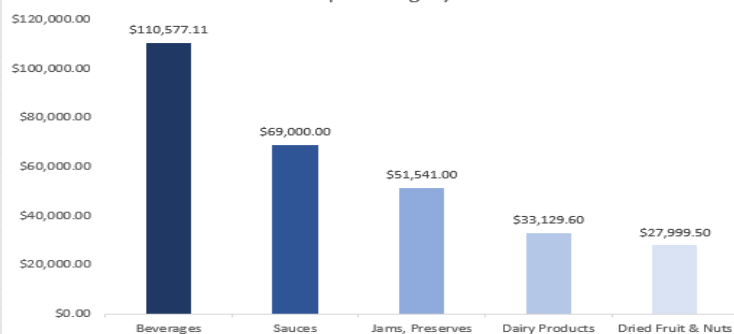
Row Labels	Sum of Revenue
North	\$141,660.34
East	\$108,275.51
South	\$93,848.33
West	\$91,251.98
Grand Total	\$435,036.16

Top Sales Region



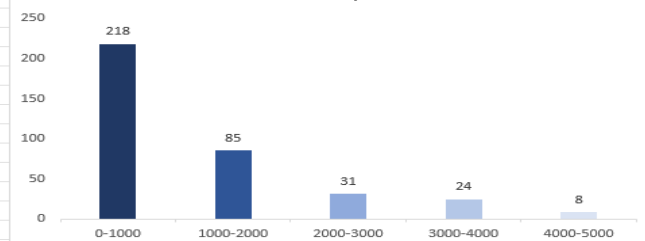
Row Labels	Sum of Revenue
Beverages	\$110,577.11
Sauces	\$69,000.00
Jams, Preserves	\$51,541.00
Dairy Products	\$33,129.60
Dried Fruit & Nuts	\$27,999.50
Grand Total	\$292,247.21

Top 5 Category



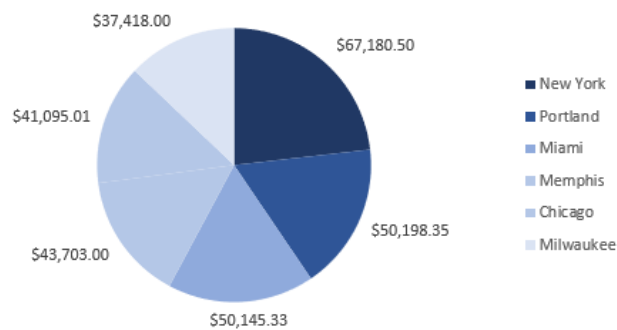
Row Labels	Count of Revenue
0-1000	218
1000-2000	85
2000-3000	31
3000-4000	24
4000-5000	8
Grand Total	366

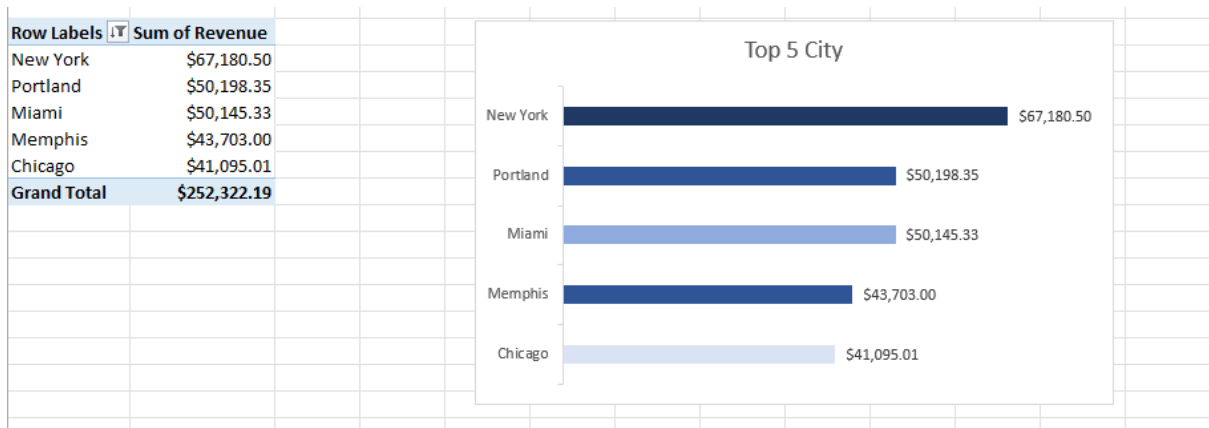
Transaction by Amount



Row Labels	Sum of Revenue
New York	\$67,180.50
Portland	\$50,198.35
Miami	\$50,145.33
Memphis	\$43,703.00
Chicago	\$41,095.01
Milwaukee	\$37,418.00
Grand Total	\$289,740.19

Top 6 Ship City





East (Region)
Category: East

Analysis Observations

Andrew did well with a revenue of \$67,180.50 for the year 2019, his sales was mostly in New York in the Northern region. He made more sales in four different months and the top two sales in June \$11,595.00 and December \$11,026.00.

Andrew sold 15 items that are between 0-1000, 4 items between 3000-4000, 4 items between 4000-5000, 3 items between 2000-3000, 2 items between 6000-7000, and 2 items between 1000-2000.

He is in the top city with highest revenue (New York) \$67,180.50

Andrew's top selling products were Jams preserves at \$41,391.00, dried fruits & nuts at \$11,869.50, pasta sold at \$9,120.00 for the year, grain at \$2,884.00, and baked goods & mixes sold at \$2,116.00.

Andrew's top customer is company D with grossing of \$67,180.50

Andrew is in the Eastern region with gross revenue of \$108,275.51

Analysis Observations

Anne Larsen is from the South

Anne Larsen performed well at \$1,848.33

He performed well in Miami \$50,145.33 and Memphis \$43,703.00

Anne top selling product is beverages at \$29,278.08, canned meat at \$19,117.60 while soups performed least for the year at \$10,663.25

Anne did better in December \$12,438.47 followed by November at \$11,479.70, he performed poorest in september \$4,829.11

Anne sold best between 0-1000 with 50 items and least with 4000-5000 by 1 item.

Company BB is Anne top customer for the year \$43,703.00

Analysis Observations

Jan Kotas performed least for the year \$16,350.50

Jan Kotas is in the west, the region that performed overall poorest

Jan best revenue city is Denver, the least performing cities by revenue

Jan best performing product is beverages with a grossing of \$6,986.00, fruits & veg \$6,942.00 and candy at \$2,422.50

Jan sold 5 items that is between 0-1000, 6 items between 2000-3000 and the 1 least between 3000-4000

Jan did best in June \$4,928.00, followed by December \$4,049.25, Jan sales was poor across all other month

Company CC is Jan best performing customer with annual gross of \$16,350.50

Jan Kotas is also from Denver City

Analysis Observations

Laura Glus performed well as a sales person with gross revenue of \$41,095.01

Laura is from the Eastern region with a very good sales performance

Topmost sales came in the month June \$6,700.60, followed by \$6,617.69 while the rest are below \$5000.00

Laura sold more products 44 between 0-1000, followed by 8 items between 1000-2000 and the least 2000-3000 with only 5 items

Chicago is Laura best shipping city with revenue of \$41,095.01

Laura best product category is condiments \$15,048.00, baked goods & mixes at \$10,681.00, Jam preserves \$8,850.00, dried fruits & nuts \$5,591.50 while the least beverages \$923.91

Company J at \$29,133.01 and Company Y at \$11,962.00 where Laura best performing customers.

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1022	01/01/14	1	Company A	123 1st Street	Seattle	WA	99999	USA	Nancy Freehafer	North		Shipping Company A