About Me

My name is Shafic Sebanenya. Am a male Ugandan enthusiastic about data and all the goodness it has to offer. I hold a first class bachelor's degree in Economics and Statistics.

I recently developed love for Data Analytics due to passion for numbers and have since completed a number of Certifications such

- Google Data Analytics Professional Certificate
- Microsoft Power BI Data Analyst Professional Certificate
- Tableau Business Intelligence Certification and currently enrolled in
- Google Advanced Data Analytics Certificate and IBM Data Analyst Certification for Python and R-programming
- I am a super advanced user of spreadsheets both Advanced Excel and Google Sheets.
- I have experience working with Microsoft tools like Power BI, Office suite and Basic Azure fundamentals
- Am a SQL Advanced user with MySQL, Bigquery, PostgreSQL. For databases
- After learning Python and R-programming, am starting Machine Learning and AI

Wanna work with me?

Email: sebanenyashafic2@gmail.com

Tel: +971-563895861/ +971525049127

PIZZA SALES ANALYSIS PROJECT REPORT

Introduction to the Project & Problem Statement:

The goal of this project was to analyze and identify insights from daily pizza sales for the period starting on 1st. January 2015 to 31st. Dec 2015 of an outlet dealing in the sale of four pizza categories namely; Classic, Chicken, Veggie and Supreme in five different sizes ie L-Large, M-Medium, S- Regular, XL-X-Large and XX-Large.

Specifically, the purpose of the project was to compute the following Key Performance Indicators

1. Total Revenue, as the sum of all revenue generated from the sale of pizzas
2. Average Order Value, as the average revenue generated from an order
3. Total Pizzas Sold, as the sum of all pizza sold throughout the period.
4. Total Orders Placed, as the sum of all orders placed in period of study
5. Average pizzas per order

Identifying any useful trends in the data

1. Daily trend for total Orders
2. Monthly trend for orders
3. Percentage of sales contributed by each pizza category
4. Percentage of sales contributed by each pizza size
5. Total Pizzas sold per category
6. Top 5 and bottom 5 pizza categories by revenue
7. Top 5 and bottom 5 pizza sizes by quantity sold and total orders placed

The above insights and trends will enable decision makers to allocate the business resources optimally and effectively and maximize revenue and profits.

Preparing the Data

The data used in the project takes a structured long form consisting of 11 fields and over 48,000 records of pizza sales observed over a year on a daily basis. The variables are suitable in answering all the business questions and conform to all qualities of good data such as Completeness, Reliability, Currency and so on. The data was generated internally in the business which makes it reliable and respects user or client privacy. The data is limited by the fact that it does not provide geographical location of the clients that would otherwise be of great importance to the analysis. It does not also disclose the cost in production that would enable computation of the business profitability metrics.

The data integrity has been evaluated and ascertained since the data was collected by primary sources

Processing the Data from dirty to Clean

The data processing stage was done using Excel's advanced feature called Power Query which is Microsoft's magical data cleaning engine. I chose to use the tool considering that the data was relatively big to be handled by a spreadsheet tool like Excel or Google Sheets

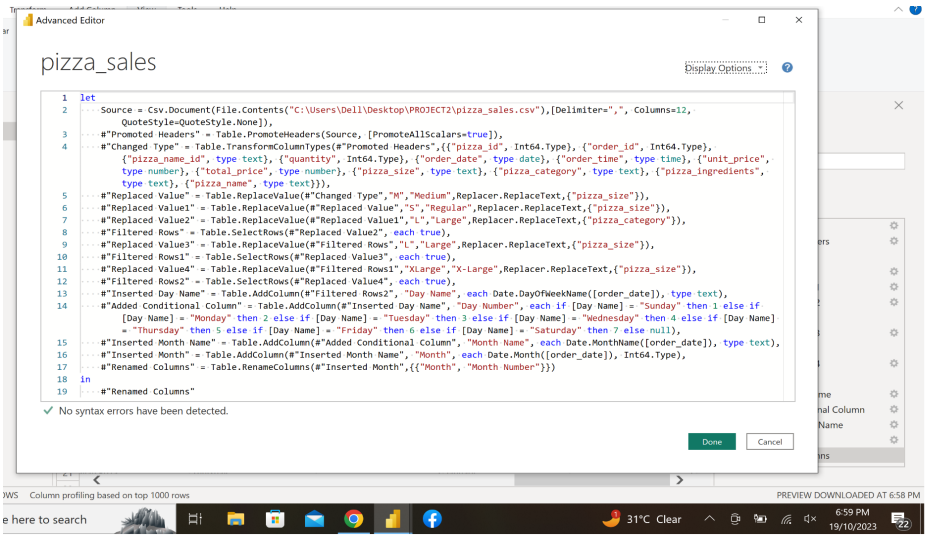
I used the column profiling feature of Power Query to remove any duplicates in the pizza_id sales which was the primary key field of the dataset

I scanned the dataset for any outliers using power query to avoid skewing the results.

Consistent naming of the fields and data types allocation was also done in Power Query

I created new columns such as DayName and MonthNumber from the Order date field using the DATENAME and MONTH DAX functions which would enable me in identifying the daily trend in pizza sales as per the business requirement

A copy of all steps is available in the applied steps pane of Power Query and M-Code.



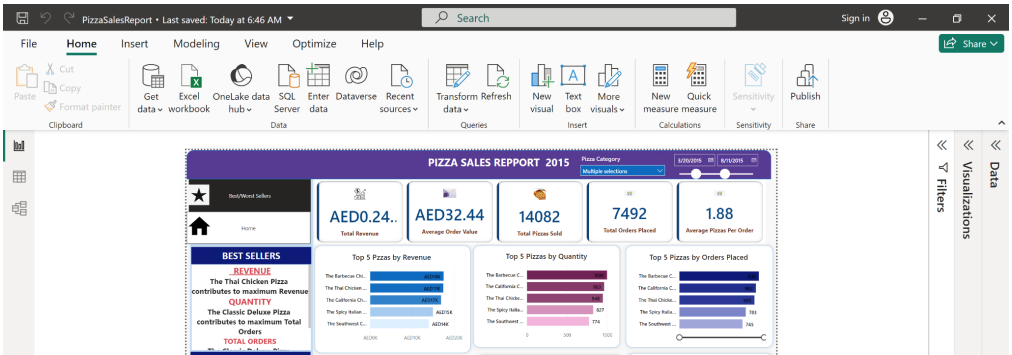
Analyzing the Data & Share Insights

The tools used in the analysis of the data are
Microsoft Power Query for data pre-processing
Microsoft SQL Server Studio Version 19
Microsoft Power BI October 2023

Note: Microsoft continuously updates its features, so the screenshots in the project may not match yours at the time of reading this script but the answers must not change if done in the correct way

A copy of the detailed SQL script written is available and has been attached to the project report.

The final project dashboard showing the Key Metrics and Performance Indicators as per the business requirement is as in the pictures below.



Findings and Insights from Analysis

After thorough analysis of the data, it was surprising to find out that the total revenue generated from the pizza sales was 817,000 Dirhams for the entire year.

- 49574 pizzas were sold in total accounting for at least 2 pizzas per order out of the 21350 orders that were placed in the year.
- The average order value was 38.31 Dirhams which is equivalent to average pizza price of 16 Dirhams
- Orders are highest on weekends(from Thursday to Saturday) evenings
- July and January account for the maximum number of orders relative to other months of the year
- The Classic pizza category(26.91%) accounted for the highest number of orders and hence highest percentage of revenue followed by Supreme(25%), Chicken and Veggie categories.
- Large size pizzas (45.8%) contributed the highest revenue relative to other pizza sizes.

More insights can be seen in the dashboard generated

Recommendations,Data Limitations and other areas of further improvement

Management can look into diverting resources from worst performing pizza categories and sizes for optimal utilization of resources and hence profit maximization

More staff should be allocated on weekends to cater for the increase customer demands as these are the busiest times of the establishment.

Management can consider utilising social media marketing to widen the market base since data on online sales is missing

The data is limited by the fact that it was recorded over a single year which would not give a complete picture ofthe business

Geographical data of the clients should be considered as it would help identify the Key locations of strength and weakness for improvement

SHAFIC SEBANENYA
Email: sebanenyashafic2@gmail.com
Tel: +971-563895861/ +971-525049127