Poornima University, Jaipur

SYNOPSIS OF ITS PROJECT

ON

"Price Optimization of Products"

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TITLE OF THE PROJECT: Price Optimization of Products

OBJECTIVE OF THE PROJECT:

1.Finding the best prices of products.

2. Understanding how customers will react to different pricing strategies for products and services, i.e., understanding the elasticity of the product so we will easily find the right price of products to get maximum profits.

PROBLEM DEFINITION : Pricing a product is a crucial aspect in any business. Alot of thought process is out into it. There are different strategies to price different kinds of products. There are products whose sales are quite sensitive to their prices and as such a small change in their price can lead to noticeable change in their sales. While there are products whose sales are not much affected by their price - these tend to be either luxury items or necessities (like certain medicines).

Elasticity, is the degree to which the effective desire for something changes as its price changes. In general, people desire things less as those things become more expensive. However, for some products, the customer's desire could drop sharply even with a little price increase, and for other products, it could stay almost the same even with a big price increase. Economists use the term elasticity to denote this sensitivity to price increases. More precisely, price elasticity gives the percentage change in quantity demanded when there is a one percent increase in price, holding everything else constant.

TOOLS/PLATFORMS USED

1. Python
2. Excel
3. R

PLATFORM USED IN PROGRAM DEVELOPMENT:

SYSTEM CONFIGURATION:

HARDWARE SPECIFICATION:

1. Processor i3
2. RAM =500MB
3. Disk Space=2-3GB

SOFTWARE SPECIFICATION :

1. Windows 7/8/10
2. Linux

METHODOLOGY/ PLANNING OF WORK :

I Divide my project into 12 Tasks

1. TASK 1:-Study about the PRICE OPTIMIZATION
2. TASK 2:-Data Collection
3. TASK 3:-Data Pre-processing
4. TASK 4:-EDA(Exploratory Data Analysis)
5. TASK 5:-Combining the datasets
6. TASK 6:-Uncovering Facets of Data With help of visualization
7. TASK 7:-Calculating the Price elasticity of any one product using function .
8. TASK 8:-Then Calculate the price elasticity of other product using function calling.
9. TASK 9:-Create model using OLS and apply on all products.
10. TASK 10:-Finding the optimal price for maximum profit.
11. TASK 11:-Profit Maximization for all products .
12. TASK 12:-Conclusion.

FEASIBILITY STUDY :-

1. My project is technical feasible.
2. My project is economically feasible .
3. My project is timely feasible .

USEFULNESS OF THE PROJECT:

1. We can take Better and quick decisions easily.
2. This will help to make analysis much easier.
3. User can visualize data through graphs.
4. Will help to make comparison between different products of price.
5. It will provide the maximum discounts to customers with optimal price of products.
6. It will help to company to increases sales and get maximum profits with customers satisfaction.

REFERENCES:

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b) https://towardsdatascience.com/calculating-price-elasticity-of-demand-statistical-modeling-with-python-6adb2fa7824d
c) https://towardsdatascience.com/price-elasticity-data-understanding-and-data-exploration-first-of-all-ae4661da2ecb
d) https://towardsdatascience.com/calculating-price-elasticity-of-demand-statistical-modeling-with-python-6adb2fa7824d

GANTT CHART: