



IS102 Computer Analysis As Tool G13

AY 2018-2019 Term 2

Group [8]

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INTRODUCTION

A Scent of Revitalisation

Freda'D is a perfumery start-up that started their operations in Singapore since 2014 with their patented technology that enhances the concentration and long-lastingness of their perfumes. As such, they only produce the highest grade of perfumes, Eau De Parfum, and body mists.

1. PROJECT SCOPE

The project scope includes improving the business through the use of Microsoft Excel functions for modelling and optimisation. The company will be providing us with the necessary information such as their sales breakdown, cost breakdown, perfume ingredients and their events that have taken place.

2. PROPOSED APPROACH

2.1 Methodology

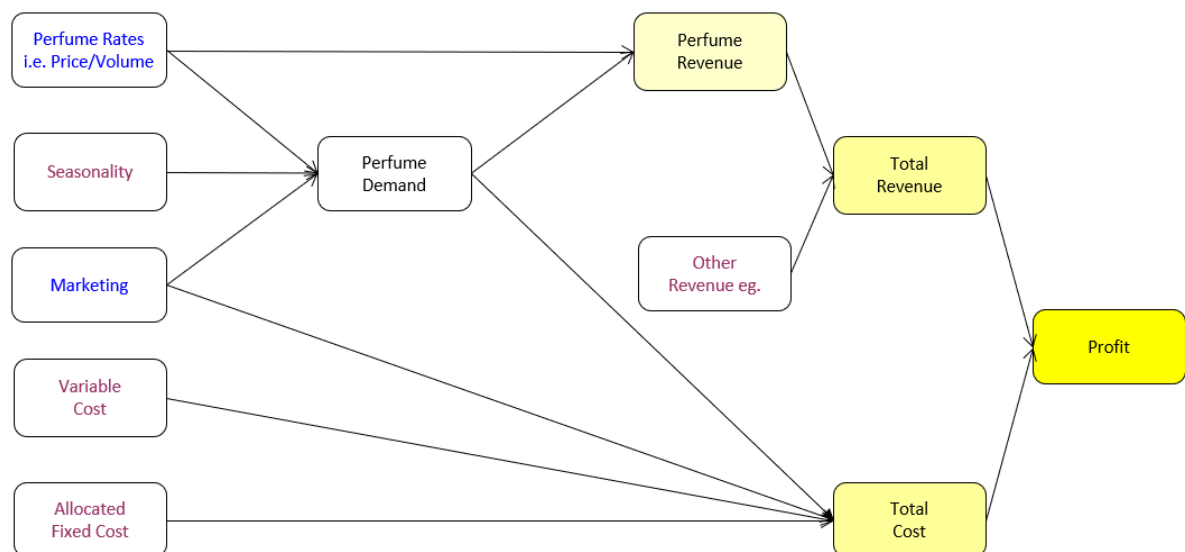
Issues	Methodology	Purpose
1. Prices need to be reoptimized and calibrated to be more competitive against top international brands such as Chanel, Dior, Gucci etc. Currently, at \$63 for 30ml, it is too close for comfort with the cheapest for Chanel at \$226 for 100ml (Eau De Parfum).	<ul style="list-style-type: none"> Optimisation of prices based on past price changes and sales over the years. Comparing over different products and sizes Seasonality will be considered to better analyse the data 	<ul style="list-style-type: none"> They have recently made a slower growth as compared to their furious marketing efforts back in 2015. With the big brands pressurising the market and with the recent trade war, sales in 2018 has dipped.
2. Stocks need to be updated periodically instead of once every month and kept track of at any moment in time.	<ul style="list-style-type: none"> Automation of the inventory management. Signals can be added to warn of low stocks. Inventory forecasting can be used so as to keep up with their increasing demand. 	<ul style="list-style-type: none"> With automation and warning, as well as forecasting, there would be less scenarios of over ordering that increase costs and also less cases running out of stock.
3. Long-term goal of having Venture Capital firms takeover their company for a higher premium. This requires accurate forecasting of growth and the target that needs to be hit.	<ul style="list-style-type: none"> Demand, revenue and profits forecasting 	<ul style="list-style-type: none"> Through forecasting, we are able to project the growth of Freda'D in order to attain a certain level of year-on-year growth that will appear attractive to investors.

2.2 Recommended Project Timeline

Week	Tasks
4	<ul style="list-style-type: none"> Agreement to work with start-up, Freda'D. Understanding of their business model and problems faced Non-disclosure agreement signed Data and historical figures to be sent

5-6	<ul style="list-style-type: none"> • Influence diagram, Black-box model, Key variables, Past inputs to be entered • Regression and optimization of prices to be done • Seasonality to be analysed
7-8	<ul style="list-style-type: none"> • Continuation of Price Optimisation Analysis • Inventory management and forecast to be completed • Forecasting of demand to be completed
9-10	<ul style="list-style-type: none"> • Improvements on the aesthetics of the interface • Consultation with Prof • Improvement on the model • Final Report preparation
11-12	<ul style="list-style-type: none"> • Improvements on the model • One more final consultation with Prof • Final Report preparation and Final Presentation
13	<ul style="list-style-type: none"> • Final Report Submission

Influence Diagram



Black-Box Model

