

MBAN 5140 M - Visual Analytics & Modelling

Instructor: **Dr. Stefan Popowycz**

Group Project 3 – Adventure Works

July 25th, 2019

Executive Summary

Key Observations:

- The company is operating at a very low profit margin of 0.58%
- Of the four product categories of Accessories, Bike, Components and Clothing the core product category (Bikes) are continuously making loss despite the much variation in sales. Bikes are profitable for Mountain product line and in the USA – Central geography due to high sales of Mountain range of product lines.
- Among the product lines, Touring and Road are the loss-making segments, which is bringing down the profit margin of the Bikes product category.
- Touring product line was introduced in December 2012 with heavy market entry discounts but even after the product got established it could not move into profits.
- Road has been in business since 2010 and we have introduced new models end of every year, but it has never moved to profits.
- Mountain 100 was phased off in December 2011 in spite making good profit. Other Mountain range models have a healthy profit margin.
- Out of the operation in six countries in Americas, Europe and Australasia, Adventure works in making losses in Australia, France and Germany. This is primarily attributed to the sales of only Touring and Road Bike segment. Australia's faces issues with the Touring product line. Similarly, France and Germany, face the same issue with Touring Bikes but also face issues with the Road bikes.
- Of the top ten dealers based on sales, eight are giving Adventure works a negative profit margin. Alternatively, there are many dealers that have a high profit margin primarily focussing on the secondary product categories but even the ones selling Mountain range of Bikes
- We observe a high correlation in the discounts offered with loss making. This has a seasonality trend with most discounts in the holiday season other probable reason can be inventory clearance and, in that case, we need to have an efficient inventory optimization strategy.
- Women products which are mostly in the clothing category but the ones which are making negative profit are again bikes. Loss making product models in Women style: Road 350W and Road 550W
- The Medium and Low-class products operate with negative profit with universal (unisex) products of medium class still making positive profit but overall falling into negative due to the impact of women product style of middle-class category.
- From a colour perspective in all product categories, yellow is not achieving good results and hence other colours should be explored

Recommendations:

- Introduce Mountain Product line in the three maximum loss-making countries of Australia, France and Germany
- Phase off both Touring 1000 and 300 - In spite of no discount, it is giving higher losses as compared to even other Touring Model - Touring 2000.
- Product categories especially catering to Women primarily focusses on Clothing and Bikes. Along with Bikes, even Clothing is making losses and hence should be relooked upon. Especially, reconsider continuing 'Jerseys' clothing segment in the market.
- Produce more high-class products as this is the only class with positive profit margin and only accounts for one-third of the overall revenue.
- Low-class loss-making product models: Touring 3000, Road 650 and Road 750
- Silver Mountain bikes are highly profitable and can be considered as a variant in other product lines