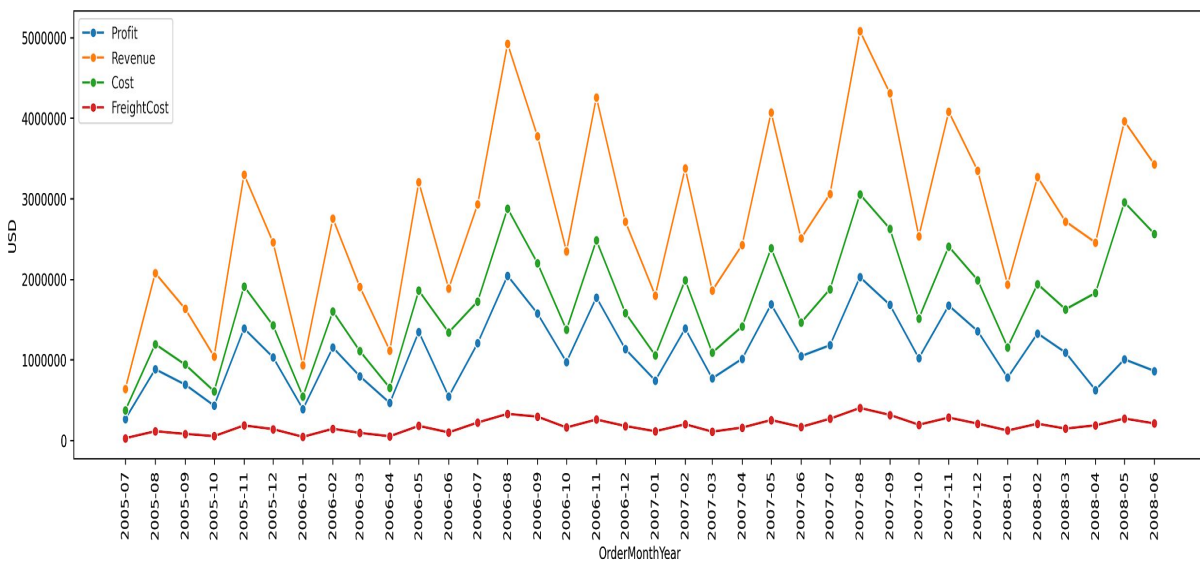
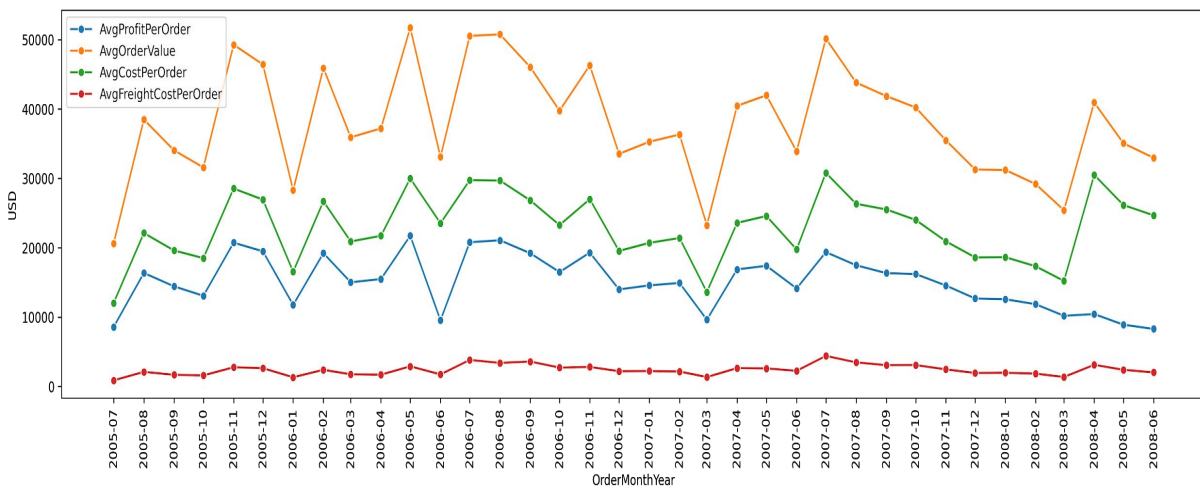


Adventure Works Cycles - Analysis of Drop in Profit

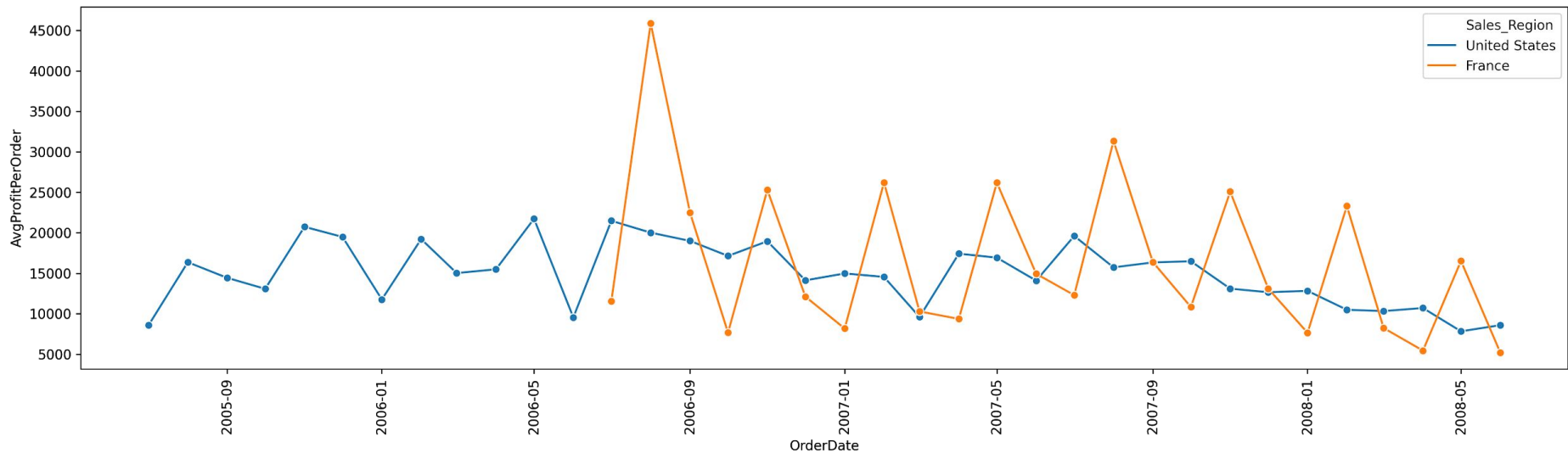
Sarjo Das



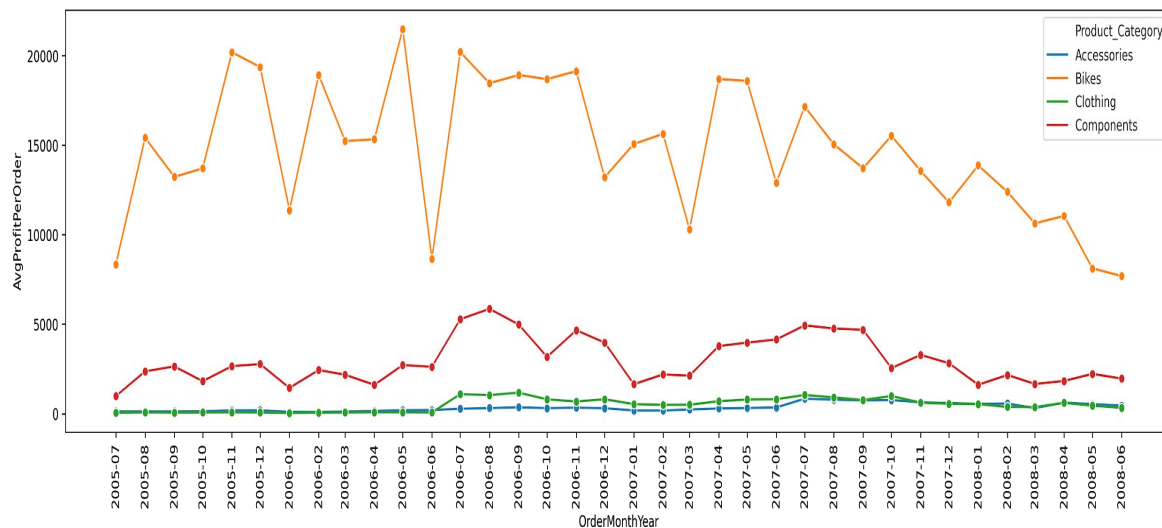
There is a drop in revenue from Aug-2007. During the period the cost has also increased while revenue remained the same. The drop in profit is not gradual, there are some peaks which suggest that seasonality has the role to play in this.



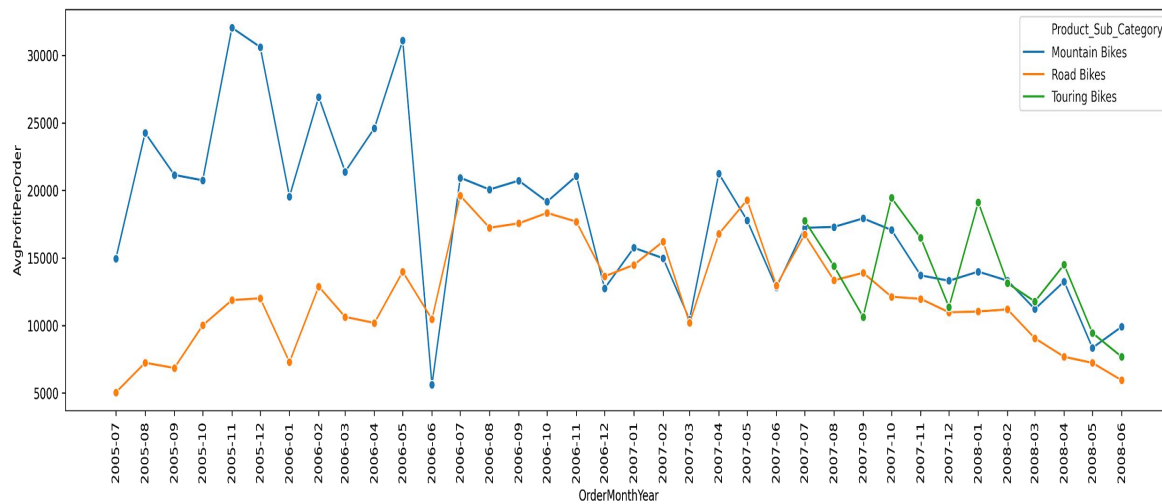
From this graph we can clearly see that avg profit per order over the given time period shows a gradual decrease from Aug-2007. Moreover, the cost per order has increase while revenue per order (avg order value) has not increase proportionally resulting in decreased profit margin.



From the above graph, it can be made out that the average profit per order per month decreased gradually since Aug-2007 for US and for France there is a strong seasonality effect with highs and lows



Product Category - Bike contributed most in terms of Average Profit per Order, but since Aug-2017 the Average Profit per user for bikes have gradually decreased affecting the overall profit



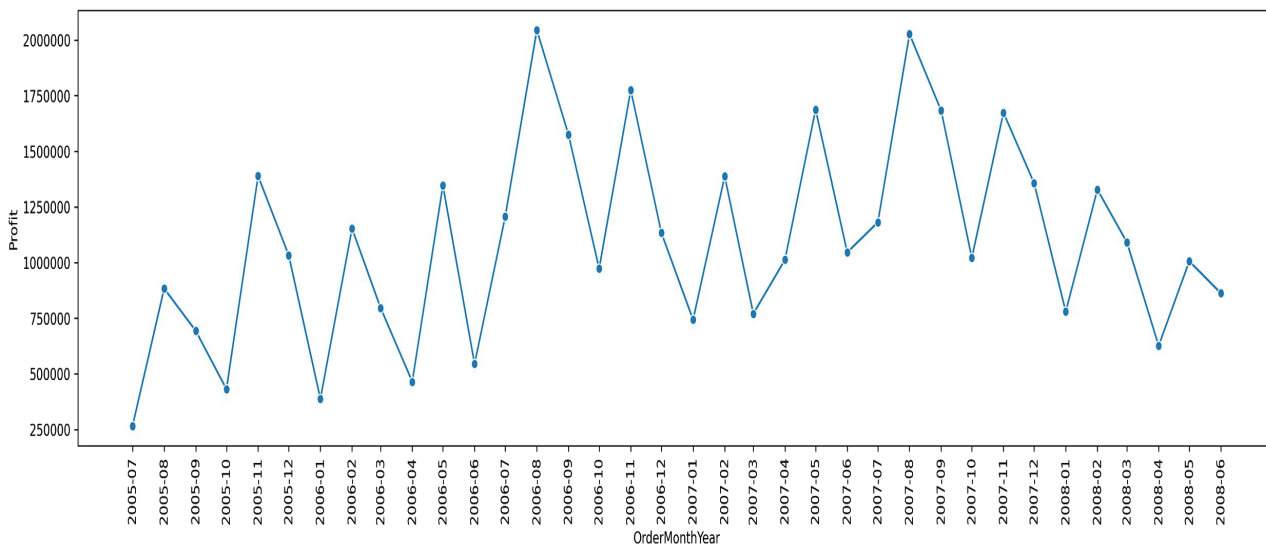
On further deep dive analysis on Product Category - Bike we see that in recent months there is gradual & constant dip in avg profit per order in case of Road Bikes. For Mountain Bikes & Touring Bikes the avg profit per order also decreased but the decrease is not constant and we see some peaks where the avg profit per order showed improvement again hinting towards a seasonality effect

Recommendations:

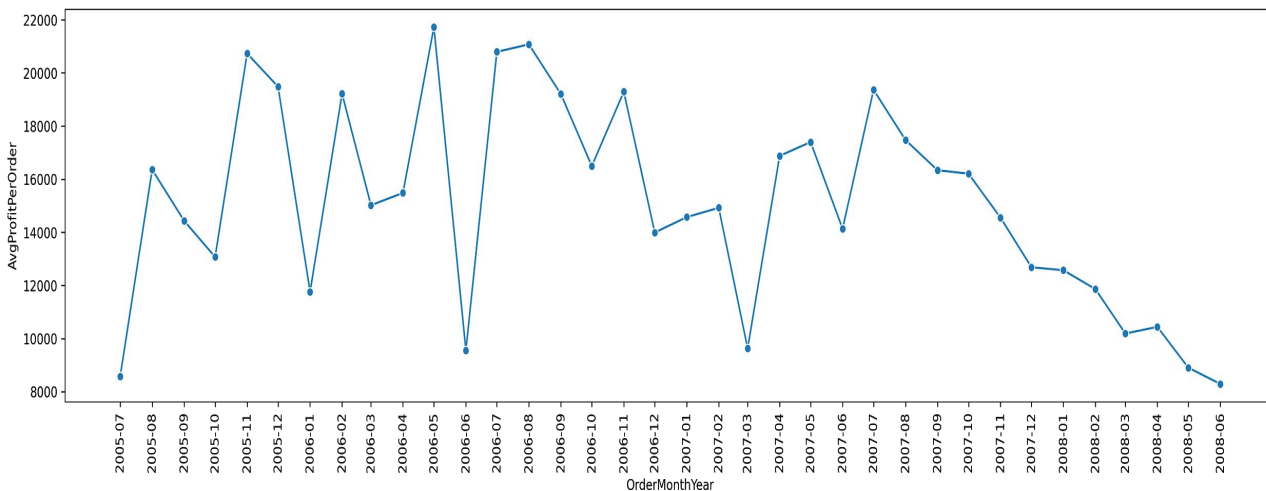
1. The Average Cost per Order and subsequently the total cost has increase but the Avg Order Value (Avg Revenue per Order) & Overall Revenue has not increase proportionally leading to dip in profit margin. So, it makes sense to work on a price increase strategy to increase Revenue & thereby profit
2. A further cohort analysis should be done on country level to understand why there is a dip in Avg Profit per Order in USA. Further, it should also be investigated on why there is such a strong seasonality effect in France and how this can be used to the advantage in terms of increasing profit.
3. Bikes is the most profitable product of the company, but in can be clearly seen that in recent months the Avg Profit per Order for bikes have decreased consistently. When further Subcategory Analysis was done on Bikes it was seen that Road bikes had the highest dip in profit. A cohort analysis should be done to find the cause so that necessary action can be taken based on the insights gained. For Mountain & Touring bikes, the Avg Profit per Order shows seasonality effect. Further analysis should be carried out to understand it & then apply those learning.

Thank You

Appendix



There is a decrease in Profit from the month of Aug 2017. The decrease is not consistent though which tells us that there is so much seasonality effect that it affects the profit.



The drop is more distinct since Aug 2017 when we plot the Avg Profit per Order over the given time period.