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Hello Everyone , my name is Mansi

Today I am excited to present my research project focusing on the analysis of Amazon's online clothing business .

I'd like to emphasize that this project represents the apex of my studies in an SQL course at Ivy Professional School.

We all know that Amazon is a global e-commerce giant and it has made significant strides in the realm of fashion and apparel. The project I'll be discussing today specifically focuses on the second quarter of 2022, and its primary goal is to analyse the data surrounding orders placed through Amazon's website and application within the clothing category in India .I've employed SQL to write the queries and utilized a MySQL server for data analysis.

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The primary objective of the project is to thoroughly analyse the online orders placed on Amazon's website and application in the clothing category. The aim is to understand the data and formulate strategies to enhance sales and revenue in Amazon's clothing business. This analysis can be useful in setting ambitious targets for the next quarter. Using this analysis , opportunities for growth and profitability in Amazon's clothing business will be uncovered.

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The dataset chosen for this analysis is substantial, featuring approximately 17 columns and a total of 128,970 rows. It encompasses vital information related to orders placed on Amazon's website and application, including details such as order amount, shipping city, and shipping state. It's important to note that this dataset specifically pertains to the second quarter of 2022, as mentioned previously. Impressively, this dataset comprises a total of 128,970 unique orders originating from 7,920 distinct cities across 26 states in India.

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Now, let's commence with the preliminary analysis, beginning with state-wise sales. In this chart, I have identified the top 5 states with the highest number of orders. Maharashtra leads the way with 30% of the orders, followed closely by Karnataka, Tamil Nadu, Telangana, and Uttar Pradesh.

Next, the following graph displays the sales categorized by product type. Among these, 'Set' category stands out with the highest sales, accounting for 40% of the total. It's closely trailed by 'Kurta' at 39%, followed by 'Western Dress,' and 'Tops,' and 'Ethnic Dress.

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This graph provides a straightforward look at the product categories that are particularly popular in the top 5 states with the highest sales. 'Kurta' unmistakably stands out as the favoured category, closely followed by 'Set.'

The prominence of 'Kurta' and 'Set' categories highlights their strong appeal among consumers in these regions. This may be due to cultural and fashion preferences, making them essential categories for Amazon's clothing business strategies in these areas.

Moving to the table,

It's quite interesting to note that 99% of Amazon's customers are individual consumers, while the remaining 1% represents businesses. What's even more intriguing is that businesses, despite being a

smaller portion, exhibit higher average order values. This data indicates a noteworthy trend in consumer behaviour and preferences, providing valuable insights for our analysis.

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As I proceed with the analysis, I've examined the monthly sales and revenue trends within the clothing category. Notably, I observed a decline in monthly sales, with a 14% decrease from April to May and an additional 10% decrease from May to June. In total, this amounts to a 23% reduction from the beginning to the end of the quarter.

Similarly, the revenue figures have shown a downturn. There was a 9% decrease in revenue from April to May, followed by a 10.6% decrease from May to June, resulting in an overall decline of 18.78% from the start of the quarter to the end.

This can be concerning for the business.

But Interestingly, apart from these trends, I've observed an increase in the average order amount. This could be attributed to ongoing sales on Amazon or, more significantly, because of factors such as order cancellations, returns, and product rejections. I'll go deeper into these factors as I progress in my project.

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Now, let's turn our attention to order cancellations. Within my analysis, I've observed that 14% of the orders were canceled, and approximately 2% of the orders were either returned to the seller, rejected by the buyer, lost in transit, or damaged. Notably, among the canceled orders, 63% were fulfilled by Amazon, while the remaining were fulfilled by delivery partners or merchants.

In the case of orders that were returned to the seller, rejected by the buyer, lost in transit, or damaged, they were all fulfilled by merchants. These insights provide a clear picture of the distribution of canceled and problematic orders.

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Next, I analyzed the monthly sales trends for the top 5 product categories. Notably, there was a significant boost in sales for the 'Western Dresses' category, increasing by 45.5% from April to May. However, this upward trend was followed by a 13% decrease in sales. In the larger context, the overall sales for 'Western Dresses' increased by 26.5% from the beginning to the end of the quarter. Similarly, when we examine the 'Ethnic Dresses' category, it's evident that sales surged by 28.5% from April to May but subsequently decreased by 21%. In the broader perspective, the sales for 'Ethnic Dresses' showed an increase of 1.4% from the start of the quarter to the end of the quarter.

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In a similar fashion, I conducted an analysis of the monthly sales in various states and identified a few where sales growth has been notably significant. These states include Nagaland, Mizoram, and Ladakh, each experiencing impressive sales growth rates of 51%, 7.6%, and 12.5%, respectively.

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"In our quest to enhance sales and revenue in Amazon's online clothing business, I've identified several strategies that can be instrumental. The first strategy revolves around 'Product Expansion,' which proposes the expansion of product offerings. This entails introducing high-selling and popular items, such as 'Set' and 'Kurta,' in different states. This strategic move is aimed at driving revenue growth and catering to the diverse preferences of customers across regions.

The second strategy suggests 'Reevaluating Fulfillment Partners.' It calls for a consideration of switching delivery partners or merchants, particularly because 100% of returned and rejected products were fulfilled by merchants. This change could potentially lead to a more efficient and reliable fulfillment process.

Our third strategy involves 'Strategic Advertising.' This strategy recommends an increase in product advertisements, with a special focus on high-growth categories like 'Western' and 'Ethnic Dresses.' Such strategic advertising can attract a broader audience and significantly boost revenue.

Lastly, the fourth and final strategy is 'Regional Promotion.' It advocates launching promotional campaigns that are tailored to states demonstrating positive sales growth, with a particular emphasis on regions like Nagaland, Ladakh, and Mizoram. Additionally, exploring advertising opportunities in the North Eastern states of India can unlock substantial potential for sales and revenue expansion."