OLIST E-COMMERCE REPORTING DASHBOARD

This article is a component of my Power BI project, which centers around OLIST, a fictitious Brazilian e-commerce platform. It utilizes Microsoft Power BI to create dashboards covering various aspects of OLIST’s Brazilian e-commerce operations, including Executive Insights, Exploratory Analysis, Customer Investigation and Satisfaction, and Forecasting.

* **Data synopsis:** Brazilian E-commerce Public Dataset: Retail datasets of 100k orders placed on Olist spanning between October’2016 and September’2018 across several states. Information is trickled with price, orders, order status, payment, freight and user review along with many other parameters.

## **Introduction**

Businesses have always tried to keep their customer base engaged and satisfied with the services provided to them. To remain relevant in the industry, they need to incorporate the latest technological advances into their services. More than a decade back, it was the internet which was completely new and various industries tried to leverage the capabilities of this technology that effortlessly acted as a medium of communication between various businesses and their customers. In this decade, industries have started to provide services that are catered to each client's individual needs. For such services, they are required to leverage the power of artificial intelligence.

### **Company Background**

The [Olist store](https://www.olist.com/pt-br" \t "_blank) is an e-commerce business headquartered in Sao Paulo, Brazil. This firm acts as a single point of contact between various small businesses and the customers who wish to buy their products. Recently, they uploaded a [dataset on Kaggle](https://www.kaggle.com/olistbr/brazilian-ecommerce) that contains information about 100k orders made at multiple marketplaces between 2016 to 2018. What we purchase on e-commerce websites is affected by the reviews that we read about the product posted on that website. This firm can certainly leverage these reviews to remove those products that consistently receive negative reviews. It could also advertise those items which are popular amongst the customers.

### **Formulation of business problem**

In this project, with the use of Microsoft Power BI tool, a presented dashboards that summarize the overall satisfaction of the customers with the products which he or she had just purchased. As well as descriptive and forecasting analysis.

**Executive insights:**

Frequently, the question “How are we performing?” can lead to a cascade of further questions, spinoffs, and investigative research. This is especially true for globally oriented companies. I aimed to create a report that proactively addresses this kind of exploration. This report aims to facilitate data-driven decision-making while emphasizing user flexibility and visual analysis. As a result, this dashboard can adapt to the evolving needs of the global business.

The Executive Insights page highlights the strong focus of this dashboard on sales and customers, to fulfill objectives, increase customer satisfaction, and boost sales by uncovering insights from the dashboard.

Next, let’s delve deeper into descriptive analytics. We have multiple options at our disposal, such as selecting a specific day, month, or year from the slicer at the top of the page.

**Exploratory Analysis:**

The table graph breaks down the product categories based on the features of their average price, the sum of prices (revenue), the profit ratio, and the number of quantities customers ordered in each category. The top-performing category is “health and beauty,” which has received the most orders. This isn’t surprising, given that females are known to spend more on fashion. This category has revenue with a profit ratio of 9.26%.

On the descriptive analysis page, we can observe that we’ve achieved approximately $16 million in sales, served more than 94,000 customers, and processed more than 100,000 orders.

**Customers Investigation:**

Every business has wondered about the recent additions to their customer base. Customers are the driving force behind organizational growth. With their support, they can increase revenue, and without them, sustaining growth becomes a challenge. This is why conducting customer investigations is of paramount importance. This page illustrates that among nearly 100,000 customers.

it’s observed that the majority of new customers tend to join between May and August over the course of three years. The preferred payment methods are credit card and boleto payment.

The top 6 customers have made purchases of more than 100 items. amounting to approximately Five thousand dollars. On weekdays, the order quantities are High This pattern aligns with the common tendency for people to spend more on weekdays.

**Customers Satisfaction:**

After examining the charts approximately 99k customers. However, there is a notable decrease in the number of quantities ordered in 3 and 4 quarters.

Among the top five selling categories, there are approximately 40k orders out of the total 99k, while the bottom five categories haven’t exceeded 60 orders. This disparity underscores the variation in product popularity.

**Forecast :**

The question on the minds of Olist’s leaders is about their expected annual growth in the upcoming years. In any case, the annual growth appears promising, as indicated by the highest order quantities in all three years and the increased predictions for new customer acquisitions.

Olist company has a high level of customer satisfaction overall, with a significant number of positive reviews and scores. However, the fact that the lowest-rated product category is "Security and Services" suggests that this type of product may need improvement.

## **Suggestions:**

* Special offerings to boost overall sales on low sales period.
* Improve bottom-selling categories by providing advertisements or promotions.
* Outsourcing drivers for delivery during Sales or Festival periods.
* Investigate and Review the partner company with a low review score.
* analysis of customers' comments and reviews provided in the dataset with NLP or any kind of language processing models.