



# **Executive Summary**

#### **PROBLEM STATEMENT**

OList is an e-commerce company that has faced some losses recently and they want to manage their inventory very well so as to reduce any unnecessary costs.

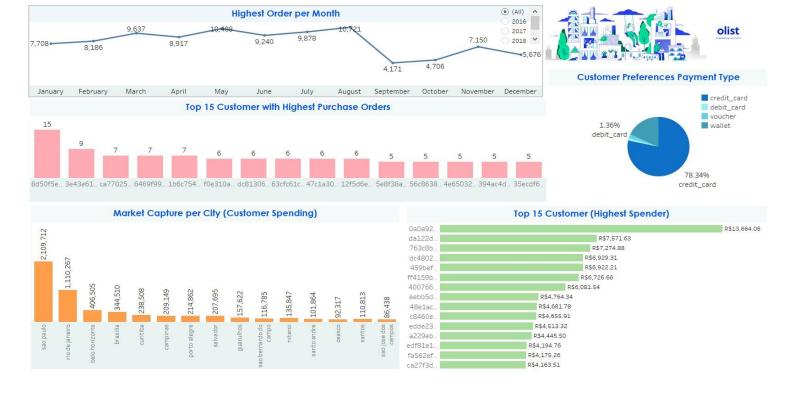
With the emergence of the e-commerce in the industry, it is very important for them to plan their inventory accordingly without storing tons of products.

### **OBJECTIVE**

- ✓ To gather some important insights for the company to reduce their inventory cost by focusing on the Market Basket Analysis
- ✓ To analyse and improve our understanding on customer preferences and purchase behaviour.
- ✓ To provide recommendations to the company on future inventory level.

# **Insights**

### **CUSTOMER AND MARKET ANALYSIS**

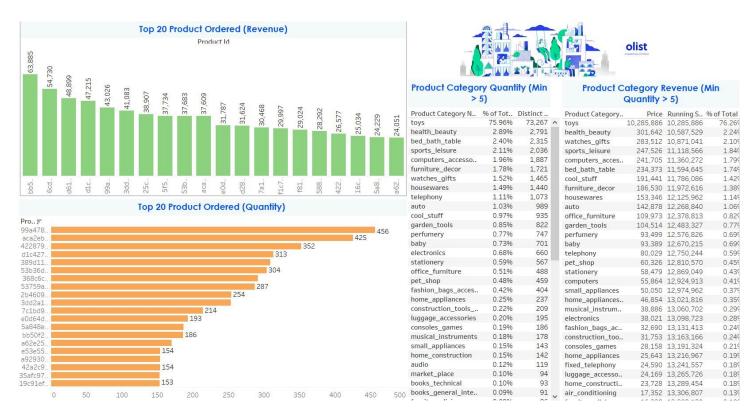






- August is the highest Month of purchased with the total of 10,721 total orders, followed closely by May and July. Surprisingly, during year end where most of the customers usually spent a lot in purchasing, there are not many orders during those months.
- The customer whom purchased the highest order count is 15 orders, while the highest payment value is R\$13,664.08.
- ❖ It is very crucial to ensure the stability and to get to know the market capture of the company, thus in this case, for the amount of R\$2,109,712 leads by Sao Paulo, a huge margin as compared with it next state competitor which is Rio de Janeiro.
- ❖ And lastly, with the development of the financial industry, 78.34% payment of the purchased products are paid through the credit card.

## **TOP 20s (Product Category & Products)**

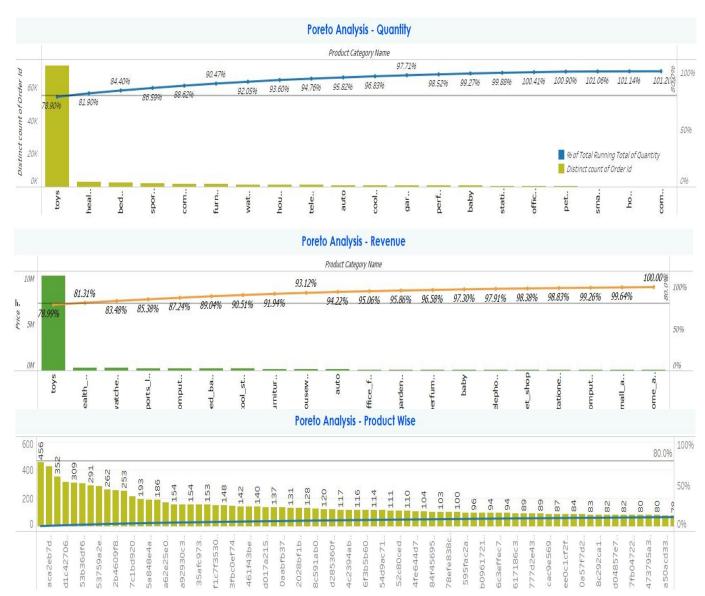


- The highest product ordered by quantity are 456 total orders, then 425 and 352 orders. It is important to monitor closely on these 3 products which likely to be purchased by the customers.
- ♦ While the value for the top 20 revenue for the products are R\$ 63,885, followed by R\$ 54,730 and R\$48,899.
- ❖ Product Category of TOYS conquered almost 75.96% of the total order quantity, and carried the total revenue R\$ 10,285,886.00 which is almost 76.26% from the entire product category.





#### **PARETO ANALYSIS**

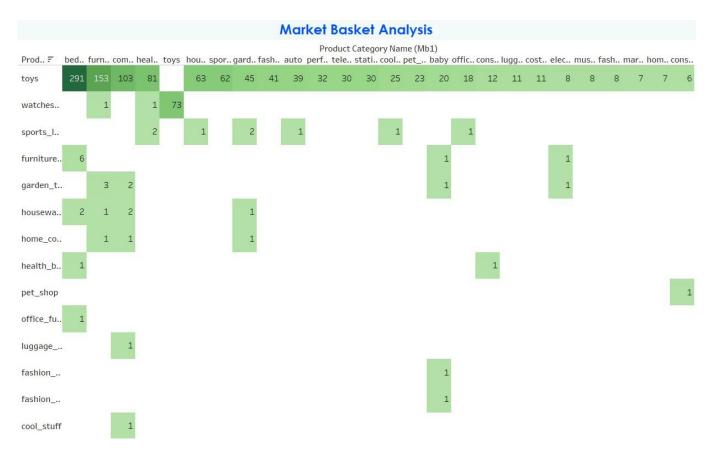


- ❖ From the Pareto Analysis, based on the 80-20 rule, in the above analysis, Product Category Toys and Health\_beauty has conquered 81.90% of the entire product sold, and 81.31% from the entire total revenue.
- There are about 70 product categories provided by the company, however, only 2 product categories contributed to more than 80% of the company product purchased and revenue.
- ❖ For the product wise analysis, the highest product purchased is 456 total orders, and it consist of 0.5% from the entire product id.





#### **MARKET BASKET ANALYSIS**



- The important analysis for these purposes, are to analyze any method or strategies that will help the company, OList to reduce its inventory cost in terms of maintenance and spaces.
- Thus, we will be using Market Basket analysis, which will determine the items which are frequently bought together by the customer. With the findings of the most frequent items, company will be able to predict as well as monitor the upcoming product inventory.
- ❖ From this analysis, toys and bed\_bath\_table bought together for almost 291 times. A huge number of occurrences which is impossible to ignore.
- ❖ Toys and furniture\_decor are the second items which are most frequent items bought together with 153 times and toys and computer\_accessories bought together for almost 103 times.
- The combination of the products is important to ensure the movability of the product in the storage, and to encourage the products to be fast moving items, which is the main purpose of this analysis.





# Recommendations

From those above analysis, there are a few recommendations, which can be followed by the company:

- i. It is very important to focus on the product category which generates more than 80% of the total revenue and contributes 80% of the entire product purchased. As it generates more profit than the other product category, the availability of the products should be consistently monitored.
- ii. Based from our Customer and Market analysis, the company is suggested to tie up various discount with local banks to ensure there will be more discounts involving the payment from credit card. Financial industry has changed a lot as compared with the previous years, when the customers in banking industry are preferred to use non-cash method of payment, such as credit card, debit card and wallet.
- iii. Market capture in Sao Paulo is the main contributor as compared as Rio de Janeiro, thus we will suggest the company to invest more on the marketing capital on this state, especially for the months when customers tend to purchase more.
- iv. For the remaining 68 product categories which only contributes only 19% from the entire revenue, it will be advisable if the company encourage more promotional activities for these products such as cross selling, especially with Toys. For those products which purchased less than 5 quantities, the company should consider to remove those products, and focus on the remaining.