

## Executive Summary:

### Key findings:

- 1- The 4<sup>th</sup> week has higher transaction rates and total revenue
- 2- The first quarter of the year has higher transaction rates and total revenue
- 3- The highest total revenue in one single month is in September
- 4- Electronics , Home appliances and Books are top 3 categories
- 5- North America is has the highest total revenue
- 6- The most famous category in North America is Electronics
- 7- The most famous category in Asia is sports
- 8- The most famous category in Europe is Home appliances
- 9- Credit card is the most famous payment method
- 10- PayPal and debit card are the most famous after Credit card
- 11- Most unit prices are between 1 and 1000
- 12- Most transactions buy 1 unit
- 13- There are 13 transactions that are responsible for 50% of total revenues
- 14- There is no correlation between unit price and order size
- 15- Most transactions are in weekdays not weekends
- 16- Payment methods and order size have coorelation
- 17-
- 18- The most famous Payment method in North America is credit card
- 19- The most famous Payment method in Asia is debit card and paypal

- 20- The most famous Payment method in Europe is credit card
- 21- Categorical performance has no relation with seasons
- 22- *There is a big percentage that uses debit card in premium customers*
- 23- *There is a lot of book buyers who buys with credit card are in the budget segment*
- 24- *A lot of premium buyers are in North America*
- 25- *Electronics are the top performing category*
- 26- *Clothes are the lowest performers*

#### Recommendations:

- *It seems to me that costumers buys the products they need without caring about the price furthermore I suggest knowing the most needed product category in each region then increase prices in these categories and regions*
- *I suggest to make special offers for customers in the budget segment in order to increase selling volumes*
- *I suggest to make premium subscription for premium buyers specially those in North America because they are more likely to subscribe*
- *I suggest to make partnerships with credit card companies and PayPal as most customers buys with them*

- *I suggest to use algorithms to suggest certain products and categories for certain regions*

Quality issues and data limitations:

- 1- Product name was completely useless
- 2- Probably we had outliers in the unit price
- 3- Units Sold and payment method columns had a lot of null values
- 4- Columns had bad data types
- 5- Format in the data column wasn't consistent
- 6- We had duplicates in the data set
- 7- I think we needed to collect data about customers income level
- 8- We should know the profession of the customers as for example startups CEOs are more likely to spend more money
- 9- We should know the hobbies of different customers

