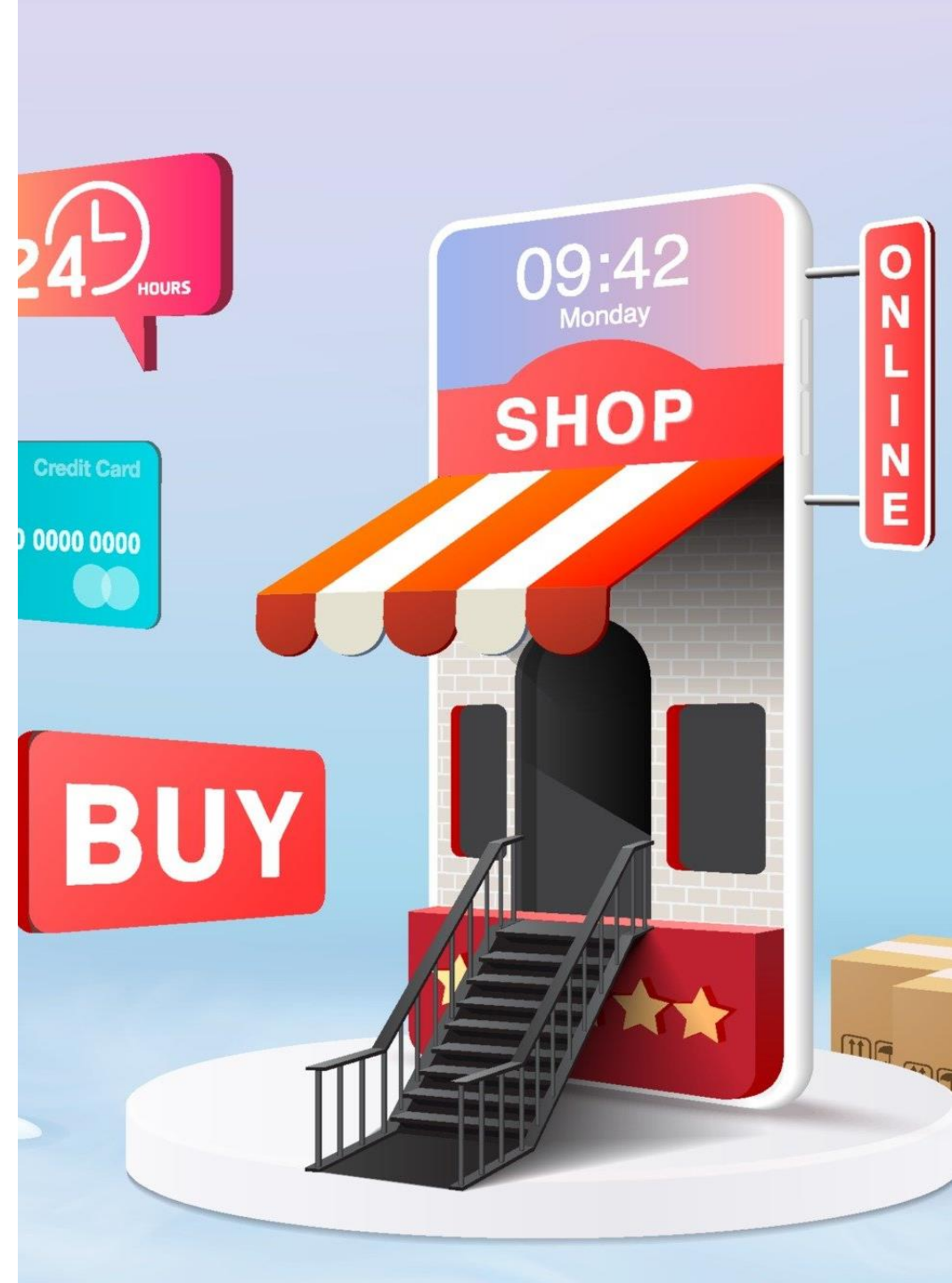GLOBAL SUPERSTORE PROJECT

OUTLINE

1. Introduction
2. Methodology
3. Result
4. Discussion
5. Conclusion

1.INTRODUCTION

Overview of Online Shopping and answer business problems:

- What's the main category, main sub-category?

- Detemine Profitability per month.

- When are customers most likely to buy online?
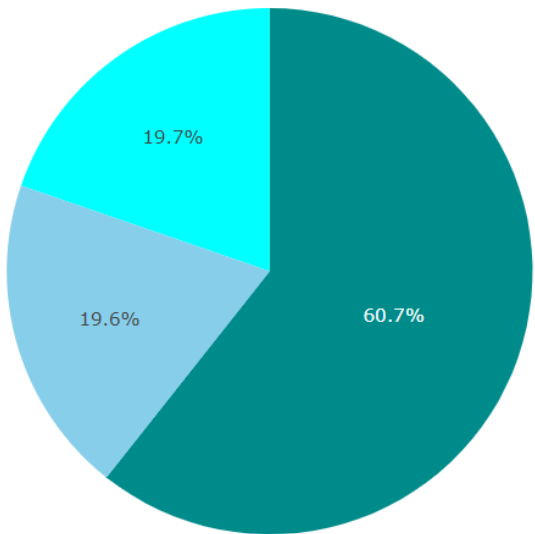
2.METHODOLOGY

- Data Collection

 + Collecting Data from Kaggle.

- Data Wrangling

 + Checking for data types, null values and duplicate values.

 + Changing data types.

- Exploratory Data Analysis

 + Analyze, explore data (using Plotly)

3.RESULT

|	Row ID	Order ID	Order Date	Ship Date	Ship Mode	Customer ID	Customer Name	Segment	City	State	...	Product ID	Category	Sub-Category	Product Name
0	32298	CA-2012-124891	31-07-2012	31-07-2012	Same Day	RH-19495	Rick Hansen	Consumer	New York City	New York	...	TEC-AC-10003033	Technology	Accessories	Plantronics CS510 - Over-the-Head monaural Wir...
1	26341	IN-2013-77878	2013-05-02 00:00:00	2013-07-02 00:00:00	Second Class	JR-16210	Justin Ritter	Corporate	Wollongong	New South Wales	...	FUR-CH-10003950	Furniture	Chairs	Novimex Executive Leather Armchair, Black
2	25330	IN-2013-71249	17-10-2013	18-10-2013	First Class	CR-12730	Craig Reiter	Consumer	Brisbane	Queensland	...	TEC-PH-10004664	Technology	Phones	Nokia Smart Phone, with Caller ID
3	13524	ES-2013-1579342	28-01-2013	30-01-2013	First Class	KM-16375	Katherine Murray	Home Office	Berlin	Berlin	...	TEC-PH-10004583	Technology	Phones	Motorola Smart Phone, Cordless
4	47221	SG-2013-4320	2013-05-11 00:00:00	2013-06-11 00:00:00	Same Day	RH-9495	Rick Hansen	Consumer	Dakar	Dakar	...	TEC-SHA-10000501	Technology	Copiers	Sharp Wireless Fax, High-Speed

Percentage Quantity Sold per Category

- Office Supplies
- Technology
- Furniture

19.7%

19.6%

60.7%

Percentage Profit per Category

- Technology
- Office Supplies
- Furniture

35.3%

45.2%

19.4%

What's the main category?

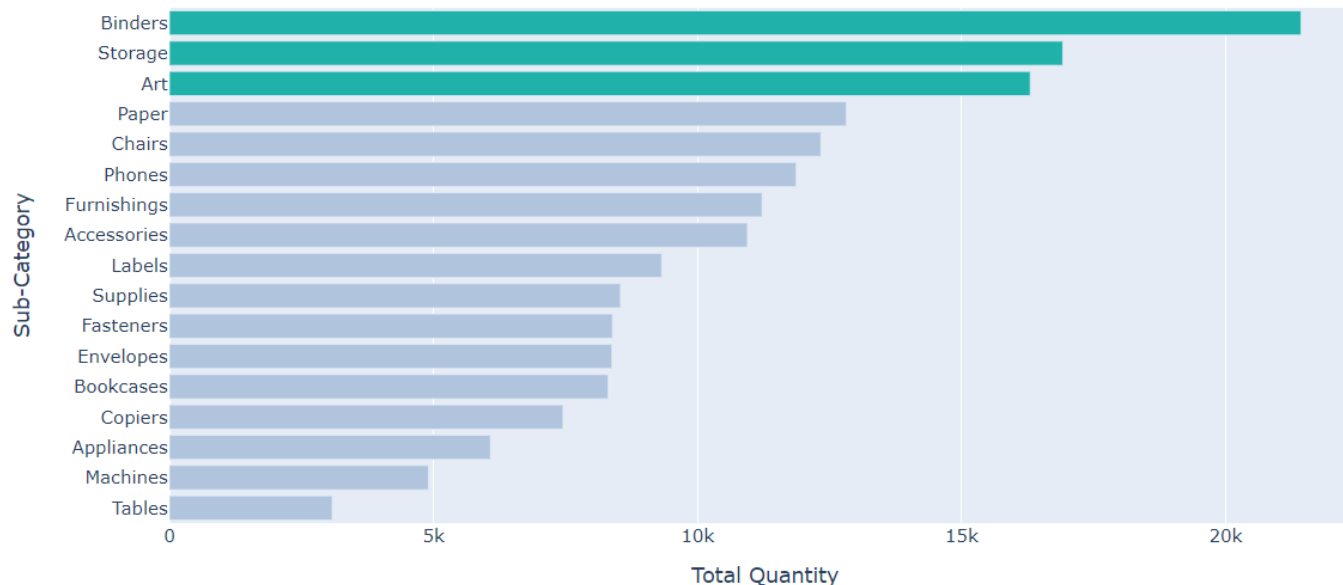**Office Supply** includes necessary items for all people. So this category sold product most.
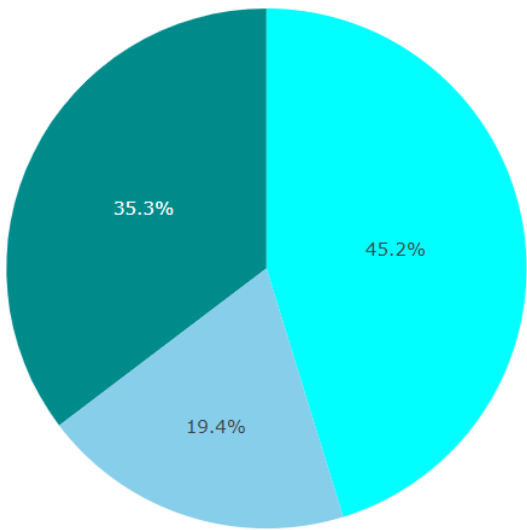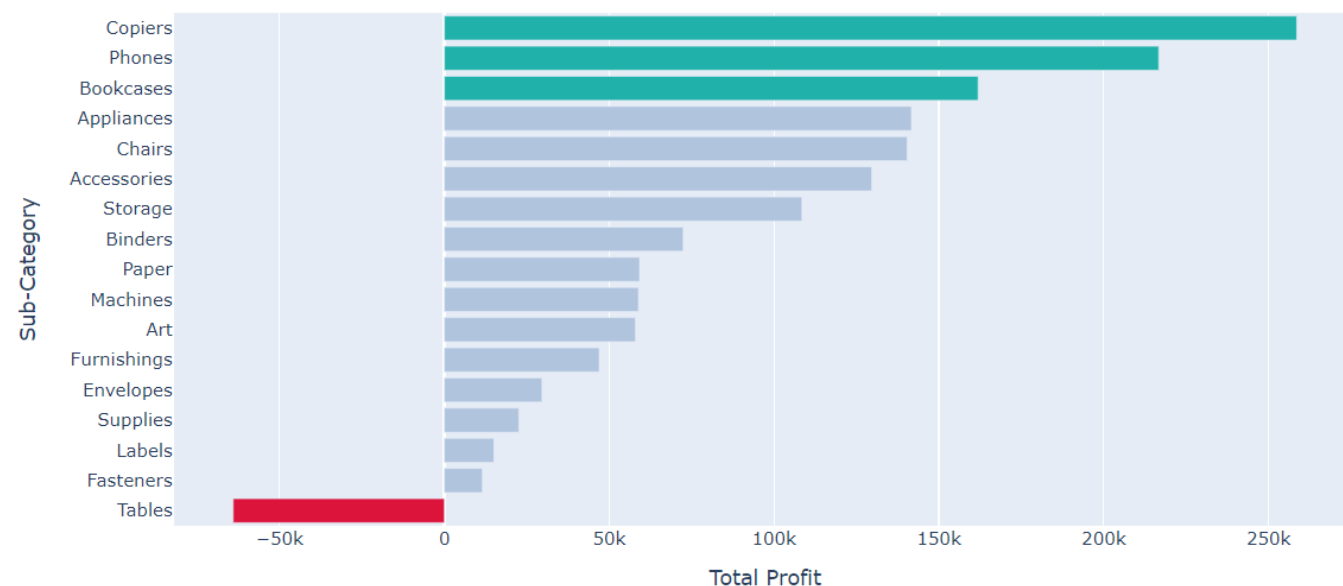
By the way, **Technology Product** includes expensive items and suitable for specialized jobs. So this category made profit most.

Total Quantity Sold per Sub-Category

Total Profit per Sub-Category

What's the main Sub-category?

Similarly, binder, storage, and art belong to **Office Supply Category**. So these products are in the best seller products. Copiers and Phones(**Technology Products**) are the most profitable products.

The table is the least profitable Sub-Category, both of Total Quantity and Total Profit. So we need a solution to cut down this Sub-Category or improve it.

Total Orders by Year
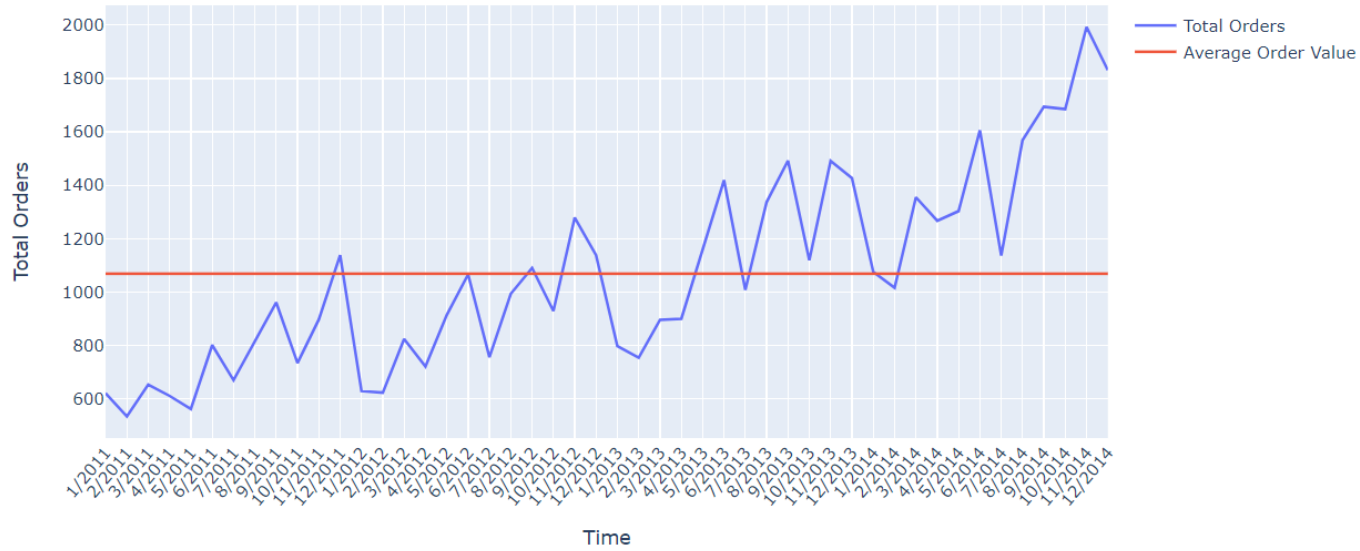
Profit by Year

Detemine Profitability per month.

In 3 years (2011-2014), both **Total Orders** and **Total Profit** increased year by year. Especially at the end of the year- **Christmas Vacation** was the period when the most orders were recorded. But after that purchasing power tended to decrease, up and down many times before increasing at the end of the year.
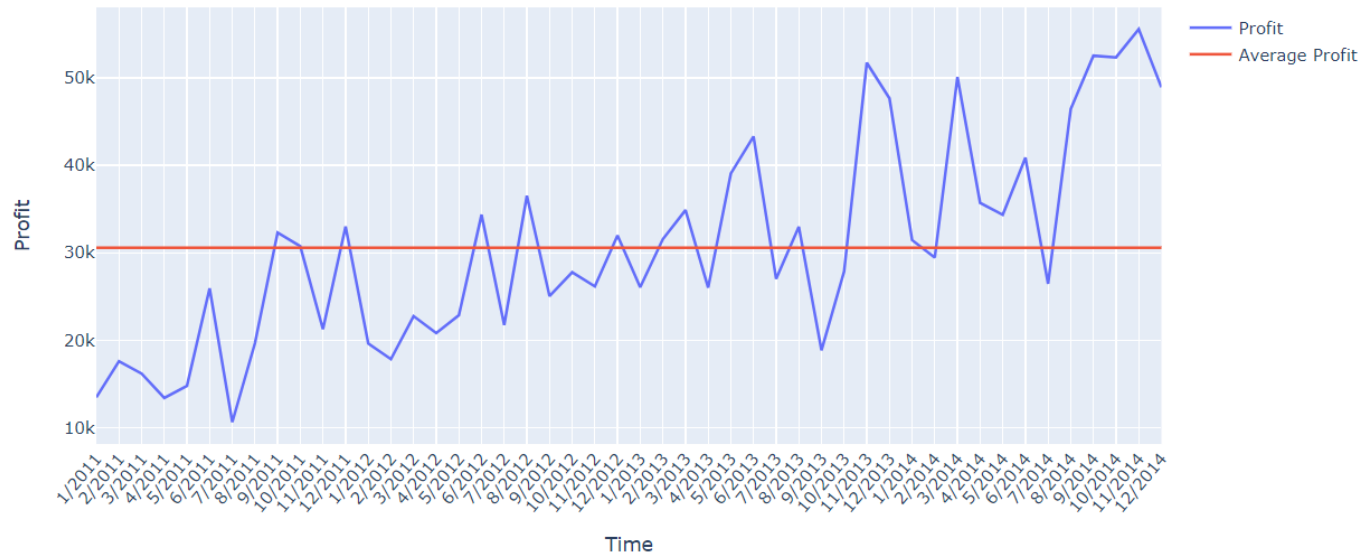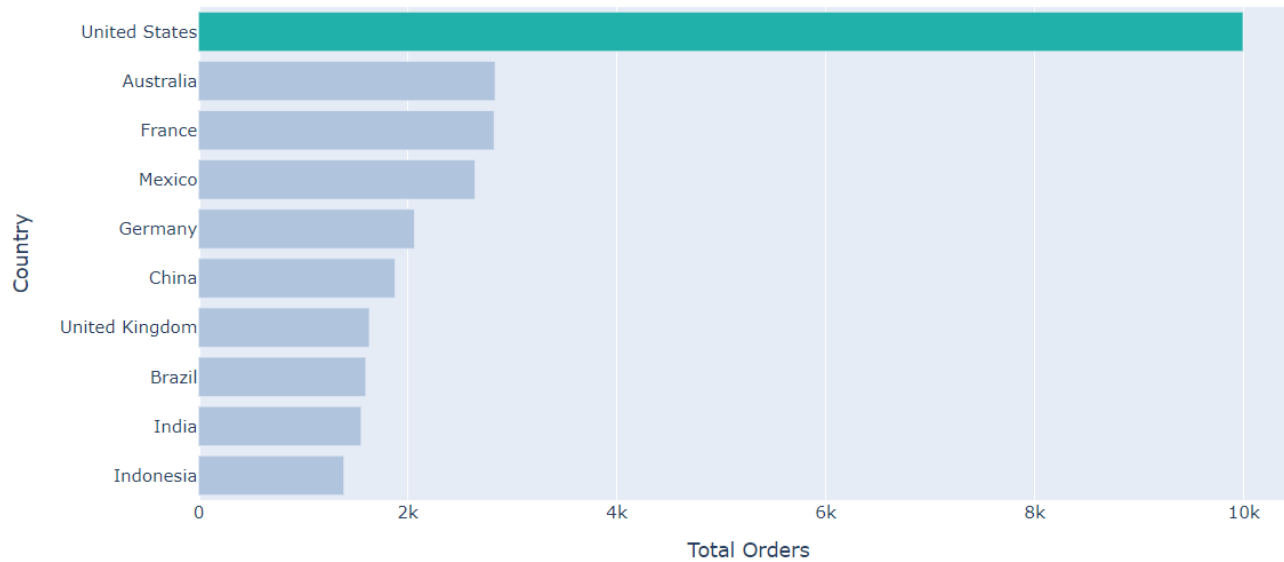
Based on the chart,customers are most likely to buy online in **Summer Vacation** and **Christmas Vacation**.
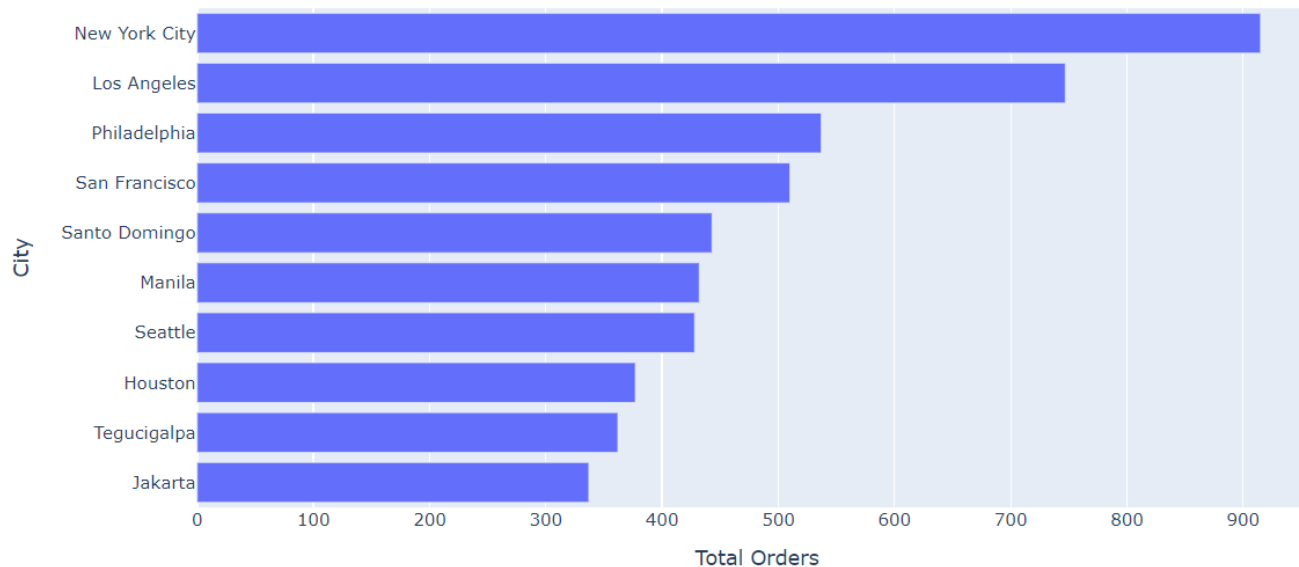
4.DISCUSSION

What is the target market?

Top 10 Countries for Online Shopping

Top 10 Cities for Online Shopping

From 2011-2014, **United States** was at the top country for Online Shopping. Total Orders was more **3 times** than **Australia**'s total orders. Especially, in the top 10 cities for online shopping, United States has 6 cities in this list: New York, Los Angeles, Philadelphia, San Francisco, Seattle and Houston.

By the way, developing countries like Mexico, China, India and Indonesia were also in this list.

General features of all countries and cities in these lists are:

• The place is densely populated.

• Because of technology development and habit of using social media made highly purchasing power.

• Quality of life is high.

5.CONCLUSION

- **Office Supply products** were sold most. But **Technology products** made the profit most.
- Customers are most likely to buy online in **Summer Vacation** and **Christmas Vacation**.
- **United States** was at the top country for Online Shopping.