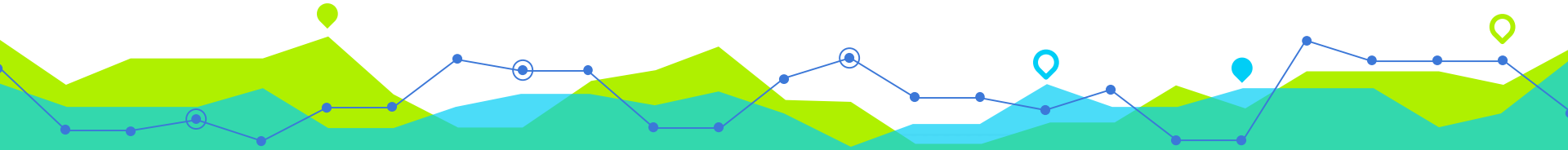


DATA ANALYSIS OF AMAZON'S SALES



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College : Vishwakarma Institute of Technology
Date : 22 January 2022

CONTENTS



PROBLEM STATEMENT

- Many businesses / companies are unable to take a profitable decision.
- There is lots of unorganized data, which can be put to good use.
- Data can be analyzed thoroughly and valuable insights can be provided.



THE SOLUTION

- My project will help such companies who have tons of data. In this case, Amazon's Data can be analyzed and some insights can be acquired.
- The insights are ~ which item is sold the most, which country is the highest buyer of Amazon's goods, when do people generally buy i.e.. before a festival or a national holiday, which category of items are sold the most i.e.. furniture, electronics etc.
- It would help to analyze the spending habits of customers all over the world and would help the company to make the right decision in order to maximize the profit.



PROJECT DETAILS

- **Domain: Business & Finance**
- **Technology: Data Analysis & Data Visualization**
- **Tool: Microsoft PowerBI**



STEPS OF THE PROJECT

Search for Sample Dataset

Learn basics of Microsoft PowerBI

Import Data in Microsoft Power BI

Filter & Transform the Data

Convert Data into Line/Bar/Pie/Spider Chart

Convert Data into Histograms/Heat Maps/Scatter Plot etc.

Document findings from Business / Sales point of view in IEEE Report

LITERATURE REVIEW

II. LITERATURE REVIEW

The Amazon success story started in July 1994 by Jeff Bezos a Computer Science and Electrical Engineering graduate from Princeton University.

Amazon's Business Model includes six main pillars - Product Quality, Marketing Strategy, Customer Satisfaction, Employee Satisfaction, Business Analytics and Corporate Relationships.

A. Product Quality

Amazon buys products from reputed companies only. If the product is defective Amazon has a policy to return the product within 30 days of procurement. After Amazon buys the products a Quality Assurance Team checks all the products and then it is out for sale for the customers.

While delivering the product to the customer, it ensures that the product is packaged properly so that it isn't damaged while transportation. After doing this step even if the product is damaged, then Amazon has a 7 Day return policy with a full refund / or a replacement of the same product.

B. Marketing Strategy

Amazon advertises its products on Youtube, television, newspapers and through big banners on the streets. Sometimes it hires actors to promote its business. It provides discounts before festivals in the form of conducting a mega sale, for eg. Big Billion Days or Great Indian Festival Sale. It also ensures that the cultural

sentiments are not hurt within a country.

Sometimes it provides a certain amount of discount if customers buy through a specific credit card. It also partners with some top companies and tells them to advertise their product and urges customers to buy them from Amazon. For eg. Samsung had partnered with Amazon for the promotion of Samsung Galaxy S10 5G Mobile.

C. Customer Satisfaction

Amazon achieves excellent customer satisfaction by offering an ever expanding and large selection of products and a personalized experience. They are noted to target middle and upper-class customers that are comfortable with basic technology and look to save time by purchasing online.

They also have implemented a feedback / product review system where customers can provide suggestions / drawbacks and basic reviews of the product. It has also implemented a rating system where customers can rate a product on a five point scale.

It also achieves customer satisfaction by speedy service like Prime Delivery and by setting competitive prices. Amazon also trains its employees to understand the customer and its requirements.

D. Employee Satisfaction

Instead of having to wait for the results of an annual employee survey, Amazon managers receive access to daily feedback from their teams and use it to improve the employee experience continuously. This approach helps managers take action quickly and address concerns immediately.

E. Business Analytics

Amazon has a department known as Amazon Web Services (AWS), it hires Business Analysts to predict the demand of products in the near future. These engineers use Amazon Forecast, a fully managed service that uses statistical and machine learning algorithms to predict product demand and market trends.

F. Corporate Relationships

Amazon has good relations with its partners. Most of Amazon's business works on trust. Amazon has partnered with few of the top companies in the world which has enabled Amazon to provide attractive discounts to its customers.

PILLARS OF LITERATURE REVIEW



SCREENSHOT OF THE DATASET

File

Home

Help

Table tools

Name

Orders

Mark as date table

Manage relationships

New measure

Quick measure

New column

New table

Structure

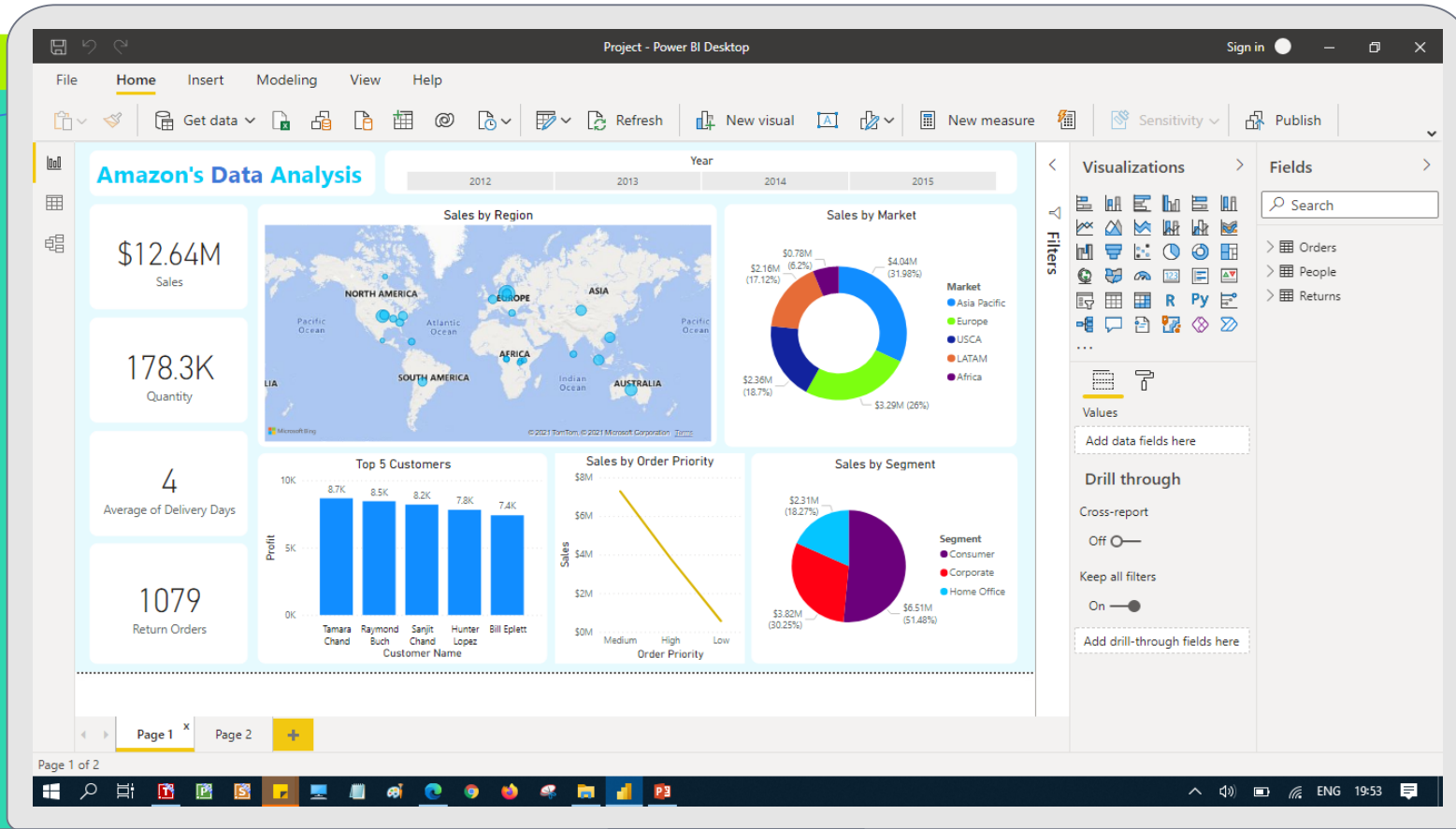
Calendars

Relationships

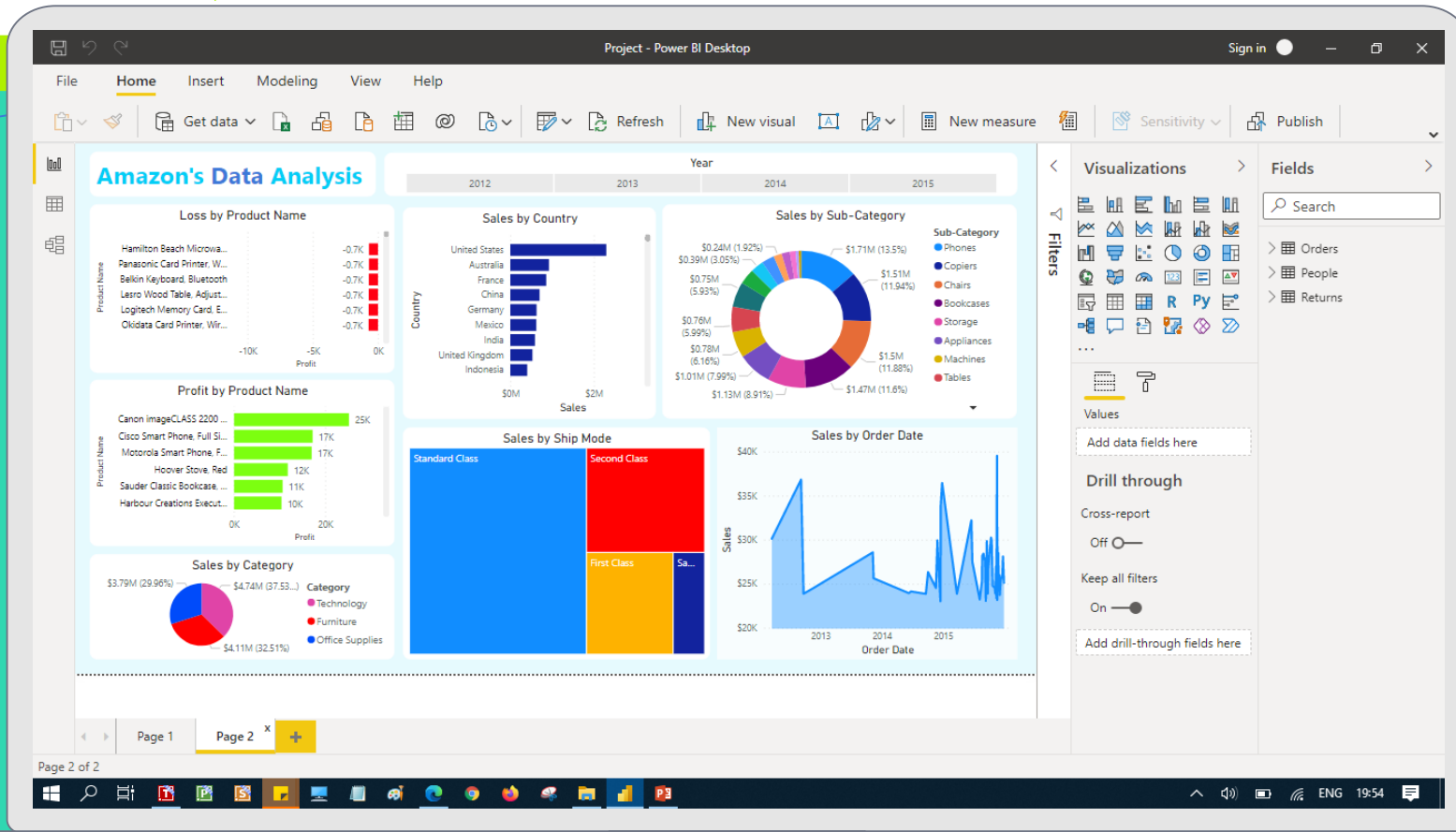
Calculations

Row ID	Order ID	Order Date	Ship Date	Ship Mode	Customer ID	Customer Name	Segment	Postal Code	City	State	Country
12355	ES-2013-MC1813045-41597	19 November 2013	24 November 2013	Standard Class	MC-1813045	Mike Caudle	Corporate		Argenteuil	Ile-de-France	France
11090	ES-2015-SG2060545-42199	14 July 2015	20 July 2015	Standard Class	SG-2060545	Speros Goranitis	Consumer		Vitry-sur-Seine	Ile-de-France	France
17322	ES-2014-AS1009045-41905	23 September 2014	27 September 2014	Standard Class	AS-1009045	Adam Shillingsburg	Consumer		Paris	Ile-de-France	France
17388	ES-2013-JK1537045-41496	10 August 2013	17 August 2013	Standard Class	JK-1537045	Jay Kimmel	Consumer		Domont	Ile-de-France	France
19888	ES-2012-AB1015045-40933	25 January 2012	30 January 2012	Standard Class	AB-1015045	Aimee Bixby	Consumer		Maisons-Alfort	Ile-de-France	France
14449	ES-2014-ED1388545-41907	25 September 2014	29 September 2014	Standard Class	ED-1388545	Emily Ducich	Home Office		Neuilly-sur-Marne	Ile-de-France	France
17939	ES-2014-ND1837045-41977	04 December 2014	08 December 2014	Standard Class	ND-1837045	Natalie DeCherney	Consumer		Eragry	Ile-de-France	France
19668	ES-2013-SN2071045-41544	27 September 2013	03 October 2013	Standard Class	SN-2071045	Steve Nguyen	Home Office		Pontault-Combault	Ile-de-France	France
13813	ES-2014-PM1913545-41909	27 September 2014	03 October 2014	Standard Class	PM-1913545	Peter McVee	Home Office		Franconville	Ile-de-France	France
12790	ES-2015-JC1534045-42335	27 November 2015	04 December 2015	Standard Class	JC-1534045	Jasper Cacioppo	Consumer		Paris	Ile-de-France	France
11661	IT-2015-TB2105545-42334	26 November 2015	03 December 2015	Standard Class	TB-2105545	Ted Butterfield	Consumer		Vincennes	Ile-de-France	France
13862	ES-2014-MW1823545-41965	22 November 2014	26 November 2014	Standard Class	MW-1823545	Mitch Willingham	Corporate		Le Blanc-Mesnil	Ile-de-France	France
11306	ES-2015-YC2189545-42326	18 November 2015	22 November 2015	Standard Class	YC-2189545	Yoseph Carroll	Corporate		Le Plessis-Robinson	Ile-de-France	France
16137	ES-2014-CM1244545-41973	30 November 2014	07 December 2014	Standard Class	CM-1244545	Chuck Magee	Consumer		Paris	Ile-de-France	France
11936	ES-2014-FW1439545-41957	14 November 2014	18 November 2014	Standard Class	FW-1439545	Fred Wasserman	Corporate		Bobigny	Ile-de-France	France
16528	ES-2013-SC2009545-41391	27 April 2013	01 May 2013	Standard Class	SC-2009545	Sanjit Chand	Consumer		Chelles	Ile-de-France	France
10330	ES-2014-SC2002045-41790	31 May 2014	05 June 2014	Standard Class	SC-2002045	Sam Craven	Consumer		Chaville	Ile-de-France	France

SCREENSHOT OF THE DASHBOARD - 1

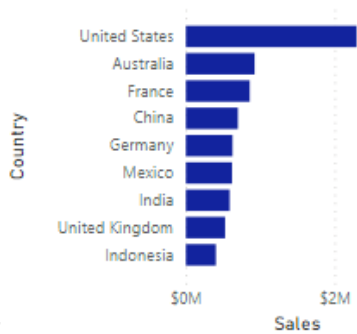


SCREENSHOT OF THE DASHBOARD - 2

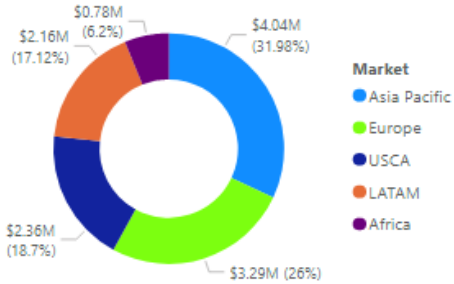


BUSINESS INSIGHTS

Sales by Country



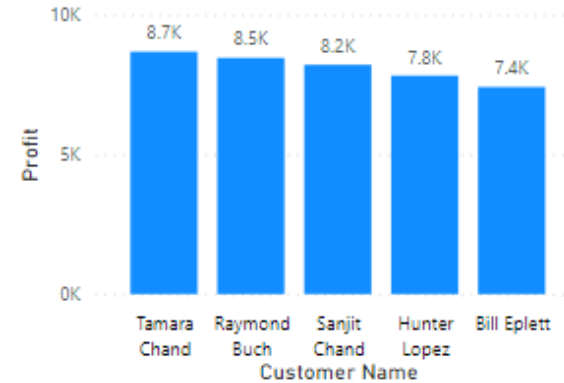
Sales by Market



- Amazon has made the most sales in the United States with over \$2 M of revenue.
- Asia Pacific region accounts for 31.98% of Amazon's Sales.

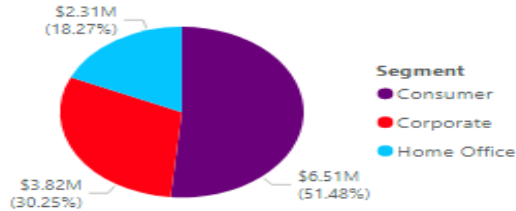
- Amazon's Top 5 Customers. The organization has gained around \$8700 by selling items to Tamara Chand.
- Followed by Raymond Buch (\$8500)
- Sanjit Chand (\$8200)
- Hunter Lopez (\$7800)
- Bill Eplett (\$7400).

Top 5 Customers



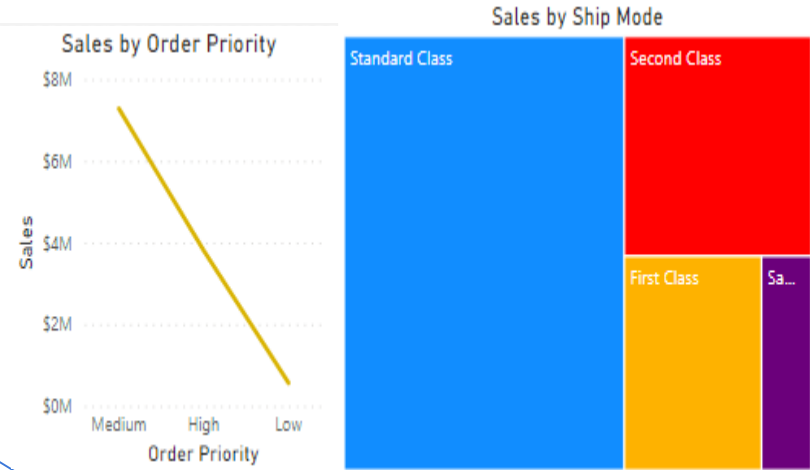
BUSINESS INSIGHTS

Sales by Segment

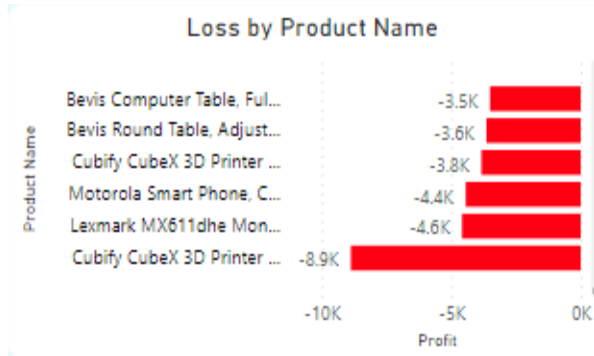


- There are three categories in segment - Consumer, Corporate and Home Office. The Consumer segment has the most amount of sales around 51.48% followed by Corporate (30.25%) and Home Office (18.27%).

- On analyzing this TreeMap following points can be noted down -
- 60% of customers choice Standard Delivery option while checkout.
- 25 % of customers chose Second Class Delivery.
- 12% of customers chose First Class or Prime Delivery for High Priority items
- 3% of the items were delivered on the same day irrespective of the shipping mode.



BUSINESS INSIGHTS

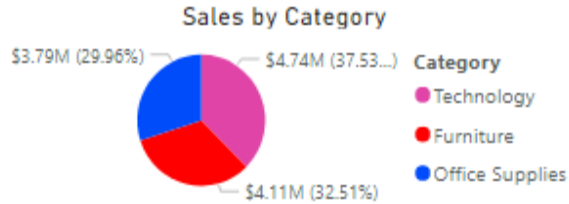


- The following items were the most undesirable for the company ~ Cubify Printer with a loss incurred of ~\$8900
- Followed by Lexmark Monitor (~\$4600)
- Motorola C Phone (~\$4400)
- Bevis Computer Table (~\$3500).

- The following items were the most profitable for the organization ~ Canon ImageClass DSLR (+\$25000)
- Followed by Cisco Smartphone (+\$17000)
- Motorola F Smartphone (+\$17000)
- Hoover Stove (+\$12000)
- Sauder Classic Bookcase (+\$11000).

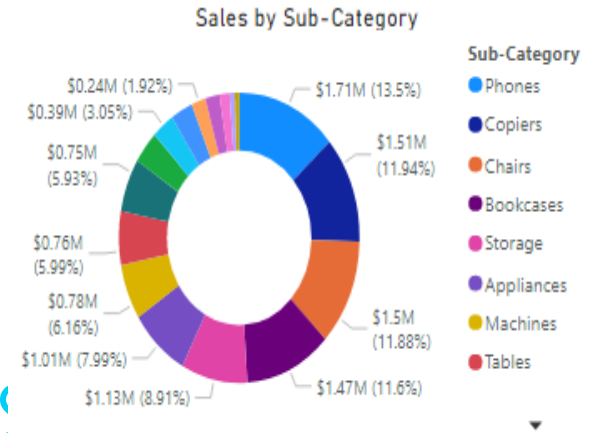


BUSINESS INSIGHTS

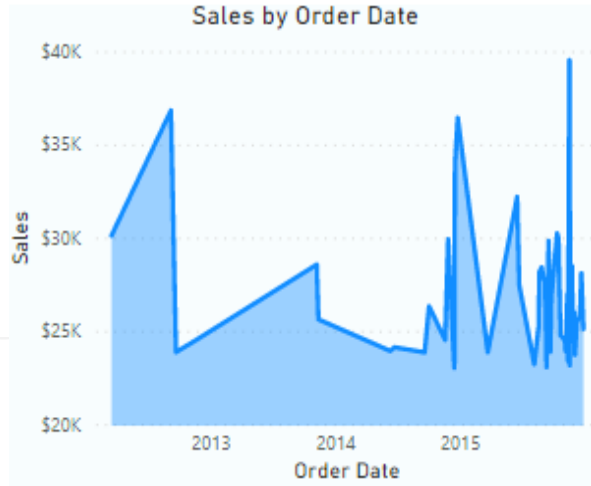


- Items from Technology category were sold the most. They have made a revenue of about \$4.74 Million
- Furniture category with a revenue of \$4.11 Million
- Least is Office Supplies category with a revenue of about \$3.79 Million.

- Mobile phones were the most profitable items for the company. They made a revenue of about \$1.71 Million which comprises of about 13.5% of all sales.
- Copiers were the second leading item in the list with a revenue of \$1.51 Million.
- Chairs, Bookcases, Storage items made a revenue of about \$1.5, \$1.47, \$1.13 Million each.
- The rest of the items were below the \$1 Million mark.



BUSINESS INSIGHTS



- On 7th September 2012, the sales skyrocketed as India had Ganesh Festival and USA had Labor Day Sale.
- On 8th November 2013, sales were high because India had Diwali Festival and USA had Veterans Day Sale.
- On 26 December 2014 the sales were more as it was Christmas.
- On 25th November 2015 there was a boost in Sales due to Diwali.

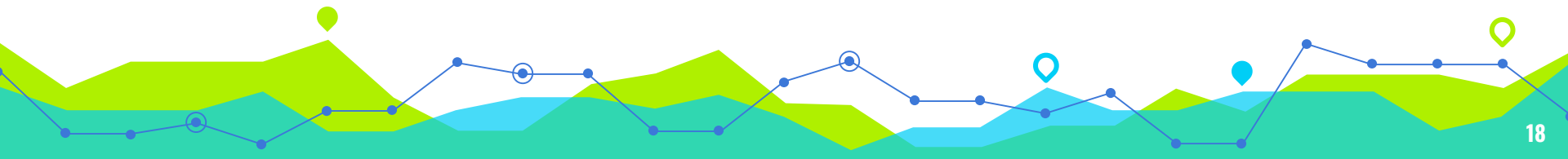
POTENTIAL DECISIONS

In order to boost sales and maximise the profit following decisions can be made –

- Should ensure good product quality and instil trust of the Amazon Brand in their customers.
 - Should provide lucrative discounts and sales during local festivals in various countries.
 - Should do mass advertising of the mega sale so that customers are aware of it.
 - Take feedback of customers and do the changes accordingly.
-
- Improve the customer care service.
 - Improve/shorten the product delivery time.
 - Provide a vast variety of items for customers to choose from.
 - For the items which are incurring losses for the organization, discontinue those particular items as there is low demand in the market for those items.
 - Do not show any advertisement which may cause turbulence in any particular country regarding religious sentiments.

CONCLUSION

- This project will help companies analyze their organization's data and gain some valuable insights and thus take appropriate decisions from time to time.
- It would also help them organize their data in an efficient way.



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THANK YOU!

