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THE LONDON SCHOOL
OF ECONOMICS AND
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BUSINESS ANALYSIS REPORT

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(Excluding executive summary, table of content and appendix)

Executive summary

- The company is uplifting its profit by 5 to 6 percent every year when compared to the previous year.
- Technology category tops in profit with copiers and phones almost covering 32% of the total profit.
- While United States covers up nearly 18% of the sales and 20% of profit made worldwide, countries such as Turkey, Nigeria and Netherland are causing huge losses to the company.
- Key product to the company is Canon imageCLASS 2200 Advanced copier, which generates highest amount of profit and has a profit ratio of 41%.
- Almost half of the total customers are held by United States which is 793 in number.
- 60% of the customers are using standard class shipping since its half the price compared to first class delivery.
- Around 30% of the sales are generated by Asia Pacific market, followed by Europe with 24% of sales in total.
- Only loss generating sub category is tables which comes under furniture category.
- There are customers placing orders from different countries and states with the same customer ID which causes repeats in the ID numbers.

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Introduction

£12,642,501.91

Sales

£1,467,457.29

Profit

25,035

number of orders

1,590

number of customers

The analysis is carried on a company which sells products under 3 main categories. That are furniture, technology and office supplies. Also the company was shipping products to 1590 customers from 147 countries under consumer, corporate and home office segments.

And the products were prioritized under 4 priority levels such as critical, high, medium and low. There are 4 shipping options as same day, first class, second class, standard class. Also the countries are separated into 6 markets which are Africa, APAC, Canada, EMEA, EU, LATAM and US.

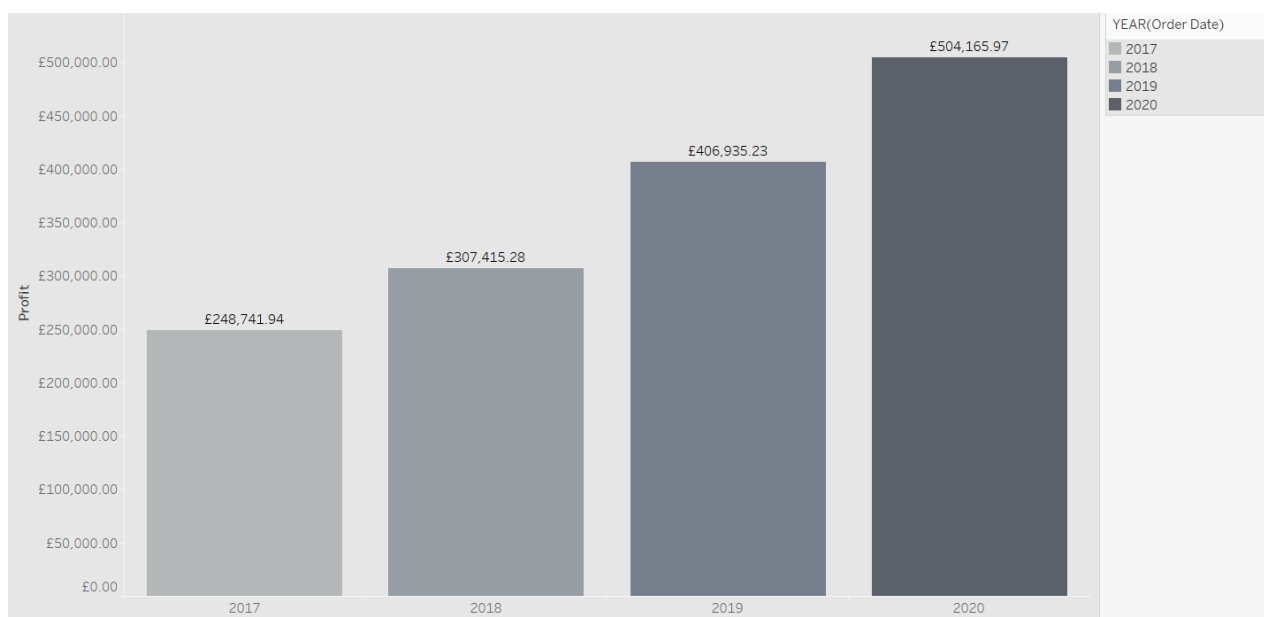


Figure 1 – profits generated per year (2017 – 2020)

The profit in 2020 has almost increased by 100% compared to 2017. In 2017 it was 16.95% of total profit, but in 2020 its 34.36% of the total profit. But yearly rise in profit is around 5 to 6 percent of total profit, therefor we expect a profit of £581,341.11 in 2021.

(Refer to **appendix 1**)

Interestingly when we compare quarterly profit in every year, highest amount of profit is coming from last quarter of the year. (October – November) Especially there are some seasonal trends in December every year.

Product profit ratio analysis

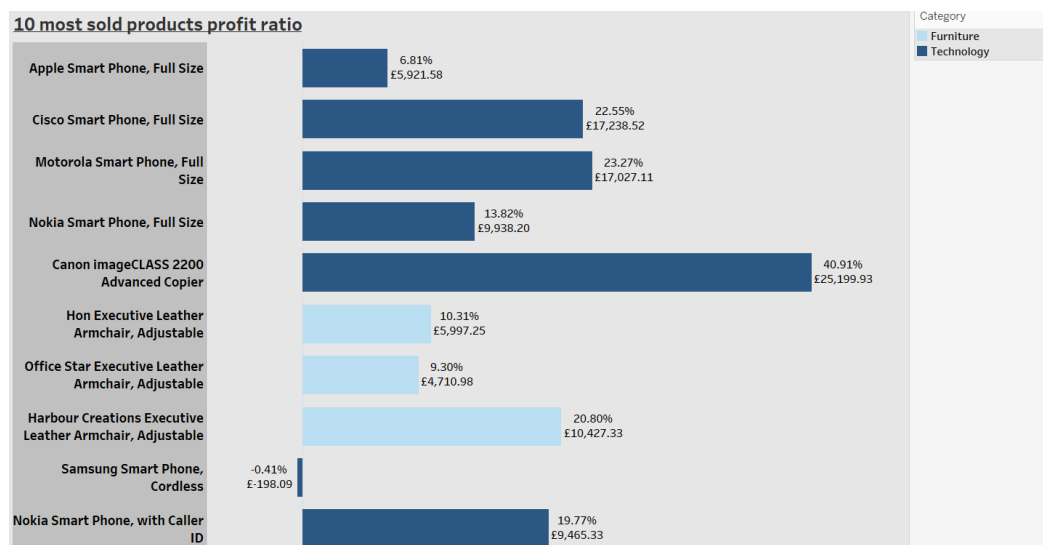


Figure 2 – profit ratios of 10 most sold products

We can see here that even though the product Apple Smart Phone, full size has the highest number of sales, profit ratio for the product is very low (**6.8%**). Although Canon imageCLASS 2200 Advanced copier manages to mark an astonishing profit ratio of **40.9%** While the other 7 products still manage to make a profit ratio around 10% - 25%, there is Samsung Smart Phone, Cordless which has 9th highest number of sales from all 3788 products but making a loss to the company with a profit ratio of **-0.41%**. Also we can observe that there are no office supply products with good profit ratio figures. And 7 out of the 10 products with top profit ratio figures are from technology category.

Categorical analysis



Figure 3 – sales percentage and profit generated from every category

From reviewing above data, we can see that technological products holds the larger proportion (**37.5%**) of sales while furniture products hold the second place (**32.5%**). But when it comes to profit there is a significant difference, because the profit generated from furniture products (**£285,204.72**) is considerably less when compared to office supplies, (**£518,473.83**) which has a less sales percentage (**30%**) than furniture.

Therefor let's analyze furniture category furthermore,

Sub categorical analysis

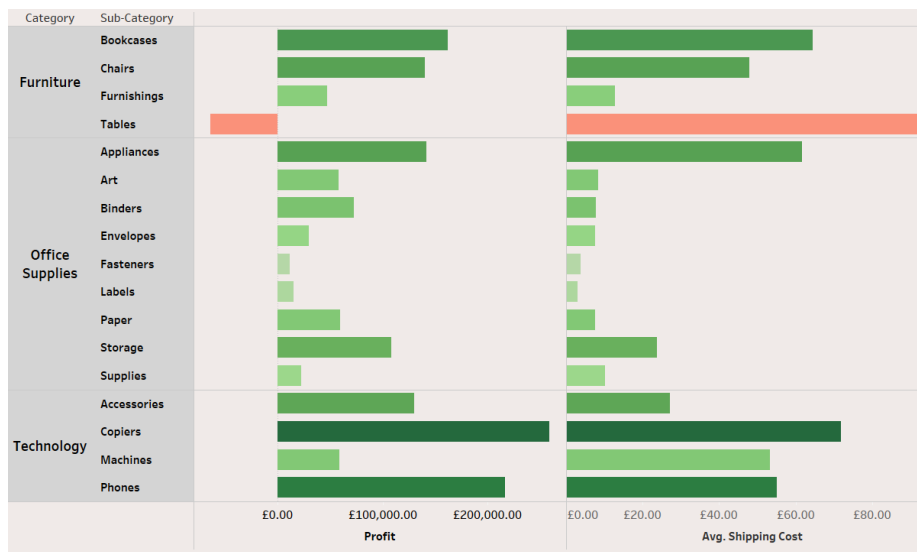


Figure 4 – profits generated from each sub category

We can clearly see that technology category is making the highest profit cause copiers (**£258,567.55**) and phones (**£216,717.01**) are the 2 most profit generating sub categories of the company. Furthermore, it is visible that even though office supplies have 9 sub categories, most of the sub categories are generating small-scale profits compared to technology with high profiting 4 sub categories.

Also we can observe that while every sub category is making a profit, tables under furniture making a huge loss of **£64,083.39** to the company. Therefore while analyzing deeper I found that the discounts given on tables (**29.07%**) are quite high compared to other furniture products.

While analyzing to further extend I've recognize that the average shipping cost for tables (**£92.75**) are the highest when compared to every other sub category.

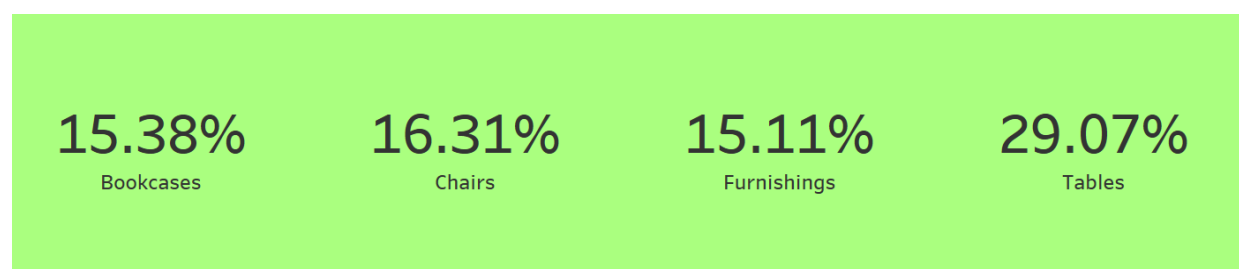


Figure 5 – average discounts given on furniture products

Customer analysis

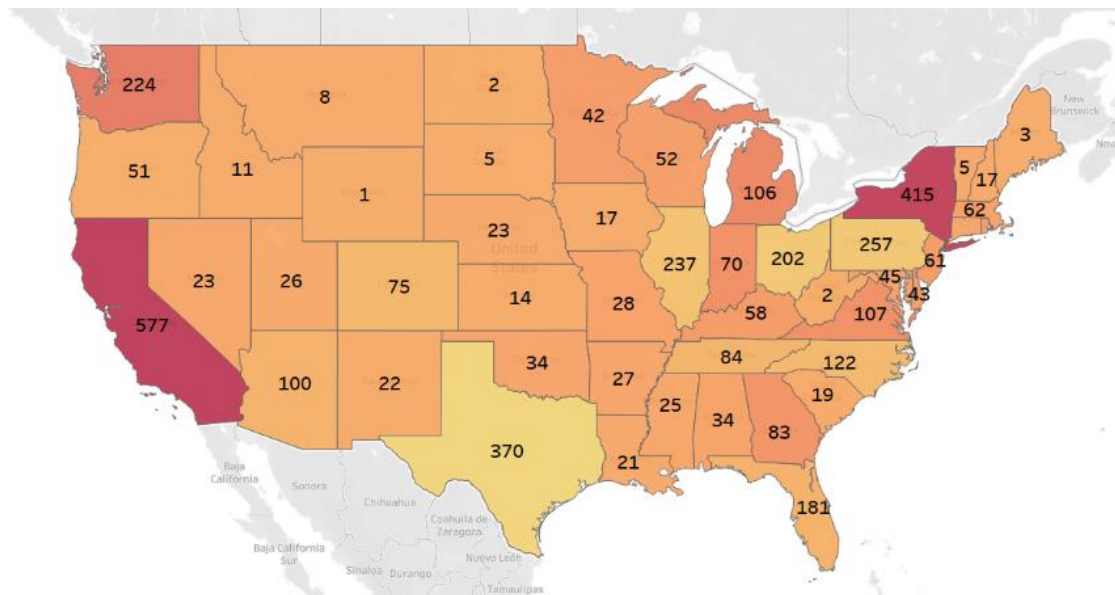


Figure 6 – how customers vary in United States

When analyzing customers, it is clear that United States have the most number of **(793)** customers compared to other countries.

(Refer to **appendix 2**)

It is interesting how customers vary in United States, cause both the highest number of customers (**577**) and amount of profit (**£76,381.39**) are provoked from California. Meanwhile there is Texas with the third highest number of customers (**370**) with a huge loss in profit (**£25,729.36**). Therefor by analyzing further I determine that compared to all other states, vast amount of discounts (**364.6**) been given in Texas, which led to an unnecessary loss in profit.

Texas	364.6
Pennsylvania	192.8
Illinois	191.9
Ohio	152.4
California	145.6
Florida	114.7
North Carolina	70.6
Arizona	68.0
New York	62.4
Colorado	57.6

Figure 7 – Top 10 states in United States with highest discounts given

Order analysis

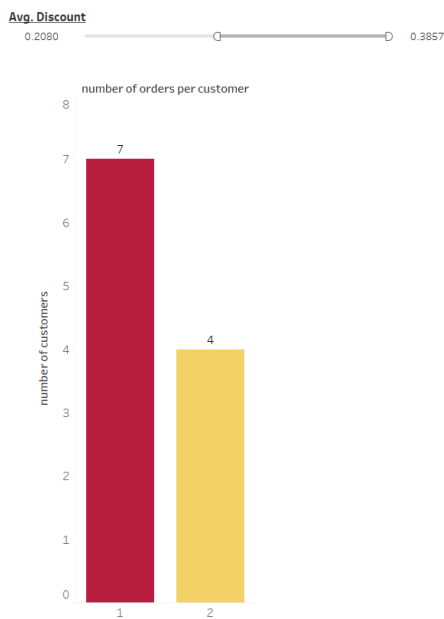


Figure 8 – number of customers in the 0.2080 – 0.3857 average discount rate

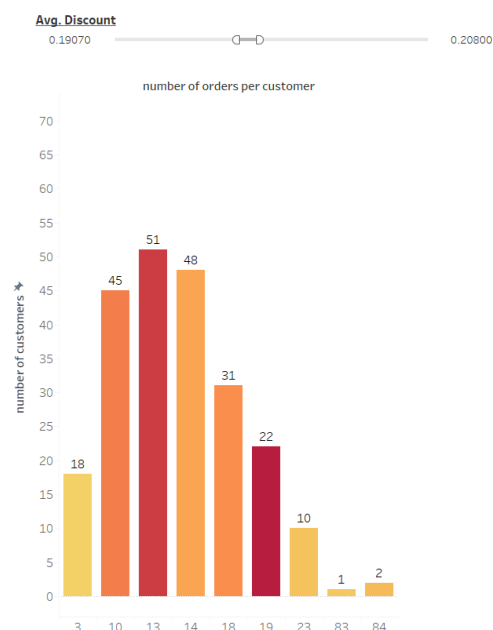


Figure 9 – number of customers in the 0.19070 – 0.2080 average discount rate

There's a significant relationship between the number of orders that a customer made, average discounts given to the products and the profit generated to the company by the customer. By analyzing it is visible that there are **7** customers making single order and **4** customers making 2 orders when the average discount is between **0.2080** and **0.3857**. But the issue is the profit generated by those 7 customers (**-£293.69**) making single order and 4 customers (**-£1085.12**) making 2 orders are loss to the company because of the higher amount of discounts.

But when the average discounts are **below** 0.2080, we can see that the customers making orders suddenly starts increasing and those orders with discounts below 0.2080 are profit generating sales to the company.

Shipping analysis

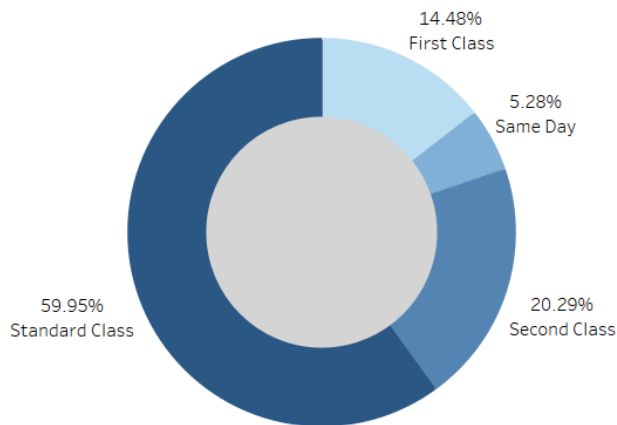


Figure 10 – how customers are choosing the delivery method

This emphasizes the fact that almost 60% of the sales (**£7,578,652.11**) are shipped using standard class. And it is obvious that most of the people are using standard class because its average cost of shipping is around **£20**. Also we can see that its taking around 5 days from the order date to ship the product.

Meanwhile the average shipping cost for first class is **£41.05**, And it's taking around **2** days to ship the product. But when compared to same day delivery, its shipping cost is about **£42.94** and its average time to ship the product is **0.037** days. Therefore it's visible that

for a difference of **£1.89**, it's not fair to take 2 days to ship the product. Since almost 3 times of the customers using same day delivery (**5.28%**) are using first class delivery (**14.48%**).

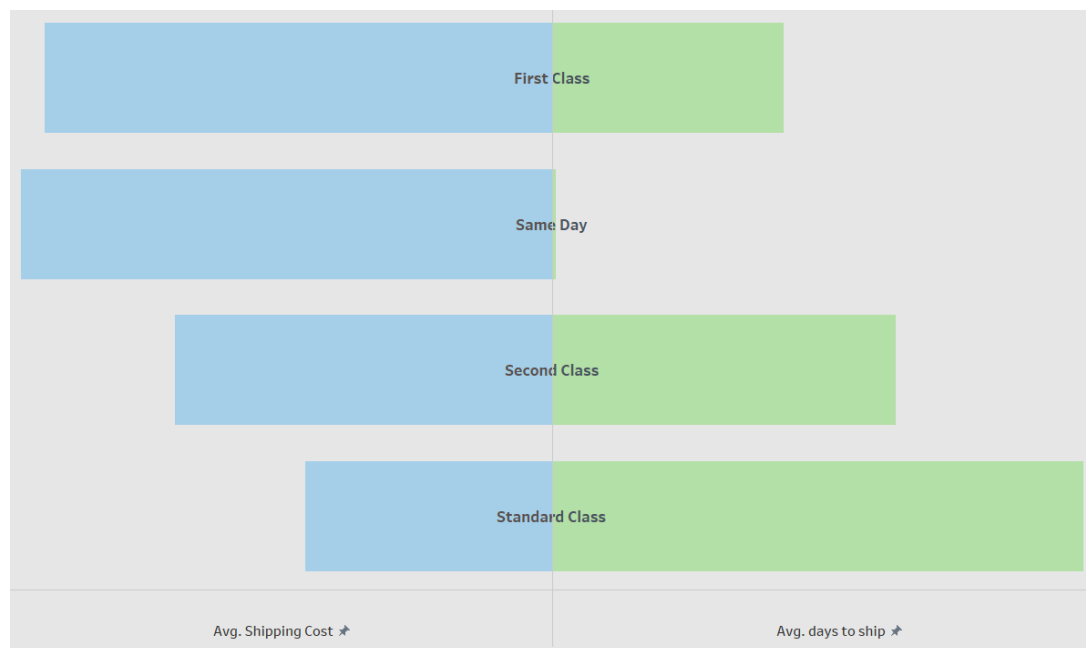


Figure 11 – average shipping cost vs. average days to ship on each shipping method

Also we can penetrate that orders with low priority has a higher shipping cost (**£27.08**) than the orders with medium priority (**£18.44**).

(Refer to **appendix 3**)

Lost in profit analysis

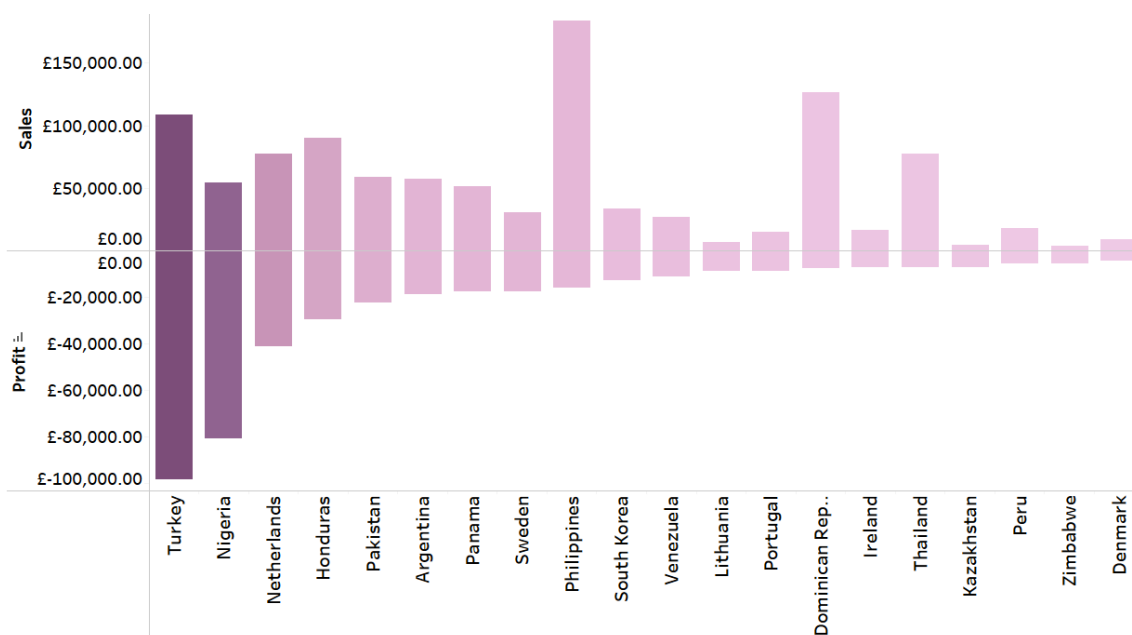


Figure 12 – top 20 countries with the highest lost to the company

Above chart represent top 20 countries with highest loss in profit to the company. In it we can observe that turkey has the highest loss in terms of profit (£98,447.23), but turkey still manages make £108,540.95 in sales. Therefor by examining further it is obvious that most of the countries with higher number of average discounts are among the countries which makes the top losses to the company. In turkey the average discount rate is 60% and there is a huge average discount rate (70%) in Nigeria, Lithuania, Kazakhstan and Zimbabwe. Then theirs Sweden (50.79%) followed by Netherland (48.18%) and Pakistan (44.46%).

Nigeria	70.00%
Kazakhstan	70.00%
Zimbabwe	70.00%
United Arab Emirates	70.00%
Lithuania	70.00%
Tajikistan	70.00%
Turkmenistan	70.00%
Uganda	70.00%
Yemen	70.00%
Turkey	60.00%
Sweden	50.79%
Denmark	50.77%
Ireland	50.28%
Portugal	50.00%
Netherlands	48.18%
South Korea	45.29%
Pakistan	44.46%
Haiti	44.04%
Argentina	43.32%
Papua New Guinea	43.18%

Figure 13 – top 20 countries with the highest average discounts given

In addition, by analyzing the loss in sub category tables, it is prominent that 80% of the loss is coming from those 20 countries with highest amount of loss in profit.

(Refer to **appendix 4**)

Recommendations

- ❖ Company should reduce the amount of discounts given on tables under furniture since it's not making any profit.
 - ◆ Also we can concentrate on selling tables in higher profit generating countries like United States and United Kingdom.
 - ◆ Can make the average shipping cost more reliable for tables since it is higher than every other sub category.
- ❖ Furniture category is not performing well in terms of profit, therefore we can keep focusing on ways to generate more profit while diminishing expenses.
 - ◆ We can offer new products to go with the existing products.
 - ◆ To bring down the expenses we can try auditing the management functions.
- ❖ In United States there's unnecessary discounts given to Texas which led to a loss in profit.
 - ◆ We can reduce the discounts given to Texas while focusing more on profit margin.
 - ◆ Also we can market high demanding products with high profits and reduce the loss in total.
- ❖ By keeping discounts around 20% we can achieve satisfying amount of profits instead of giving high discounts and leading to a loss. Other than those 11 customers ordering 1 and 2 products we can see number of customers gradually increasing around 10% - 20% of discounts and most of them are profit generating customers.
- ❖ Company should focus on making first class delivery more efficient and productive since it cost as much as same day delivery but taking an average of 2 days to ship.
- ❖ Its noticeable that the average shipping cost for low priority orders are higher than medium priority orders. Which is not so good to happen therefore we should consider repricing it.
- ❖ Furthermore, it is obvious that countries like Turkey, Nigeria etc. are making huge losses in profit cause of redundant discounts given. Therefore, should decrease those vast amount of discounts and improve sales in products (copiers, phones) which are relevantly profit generating for the company.

- ❖ Also we can give discounts to the products with higher profit ratios (ex: Canon imageCLASS 2200 Advanced copier) and plan on selling more quantity to gain more profits specially from consumer segment.
- ❖ Since technology category brings out the most sales and profit, introducing products in sub categories like laptops, tablets and cameras will help company to gain more profits in future.

Appendices

Appendix 1

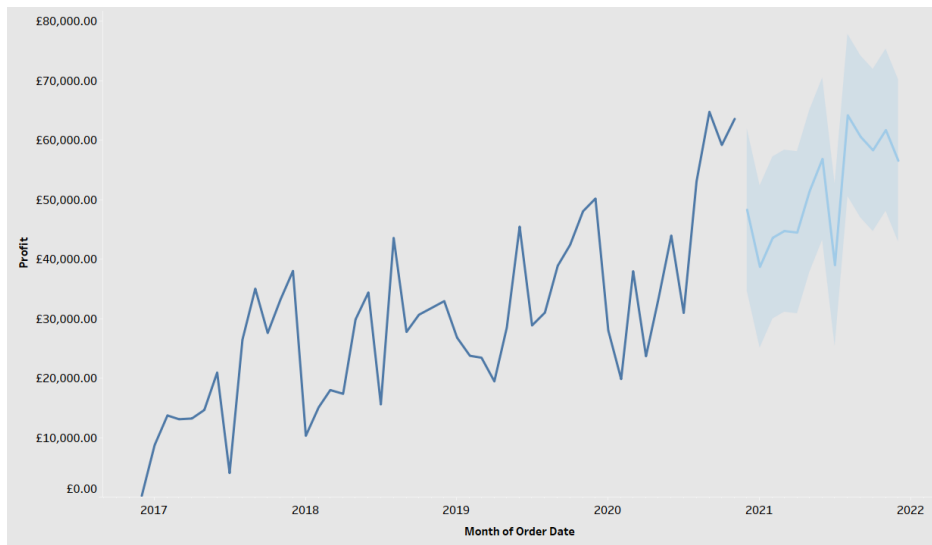


Figure 14 – estimated profits in 2021

appendix 2

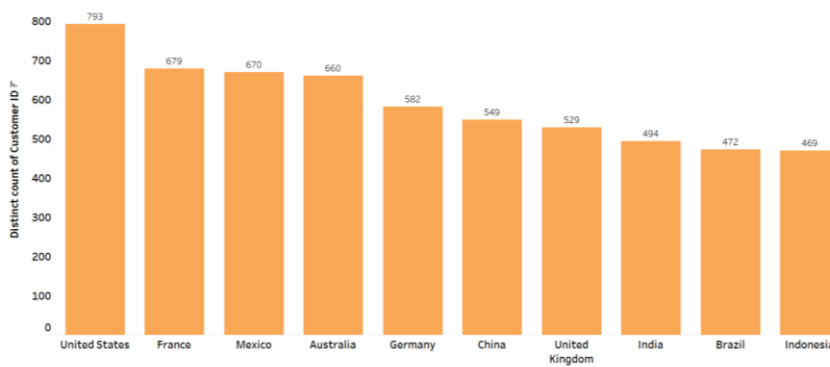


Figure 15 – top 10 countries with highest number of customers

Appendix 3

£59.72 Critical	£32.87 High	£27.08 Low	£18.44 Medium
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Figure 16 – average shipping cost for every order priority

Appendix 4

Country	Market	
Argentina	LATAM	£-5,188.65
Dominican Republic	LATAM	£-4,739.10
Honduras	LATAM	£-3,579.50
Lithuania	EMEA	£-2,750.28
Netherlands	EU	£-2,074.68
Nigeria	Africa	£-4,020.92
Pakistan	APAC	£-5,338.81
Panama	LATAM	£-2,073.62
Peru	LATAM	£-1,433.95
Philippines	APAC	£-3,150.67
South Korea	APAC	£-2,190.36
Sweden	EU	£-3,422.08
Thailand	APAC	£-3,187.90
Turkey	EMEA	£-3,586.44
Venezuela	LATAM	£-3,983.24
Zimbabwe	Africa	£-275.76
Grand Total		£-50,995.95

Figure 17 – profits generated by sub category tables from top 20 countries with highest lost to the company