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Summary

- Countries such as India, Bangladesh, and China are extremely profitable, and the regions in which they are located have the highest average profit and sales value.
- Canada has one of the lowest average sales values in the world, while ranking third in terms of profit value, but it is preferable to have the production there. I would recommend trading with Germany from the Central region because they have higher profit margins and lower shipping costs than other countries with high sales totals.
- The middle-order priority has the best price/quality ratio and is the most popular among the others. Low priority is unpopular since its pricing is greater than that of the medium and is an outright overpayment.
- The critical order priority has the highest expense, but the return is less than half that of the high priority for 2020.
- The central region has the most purchasers and the highest sales per customer, whereas the eastern region has the lowest client base.
- Despite an increasing number of purchasers, tables are one of the most unprofitable commodities. Electronics is the most lucrative business, as predicted, however despite the fact that phones are the most purchased item, Binders and Storage have seen the highest rise in consumers.

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1. Overview worldwide

The first dashboard shows us an overview of the dataset in global terms, on the top map we can see the average profit for each country. From this chart we can identify the most profitable countries: Montenegro, Mauritania, Lesotho, India, Bangladesh , slightly less significant values are: Russia, Ukraine, China.
All of these countries can be a good partner for selling goods or services at first glance from the profit side, while other parameters we have not investigated.
It is also important to consider Lithuania, Turkmenistan, Portugal, Yemen, as well as: Turkey, Kazakhstan, Tajikistan, Pakistan, Nigeria, Sweden, most of the Southern region, as the most not profitable countries to have business with. It is better not to cooperate with these countries, especially in unpopular areas of entrepreneurship.

On the bottom left chart we see that the best regions by the average profit and sell distribution are North and Central Asia, Canada, North. Canada has one of the lowest average sales values, while they are third in terms of profit, perhaps this means that sold products from the luxury category or with higher price than in other regions and with the greatly reduced various costs (such as shipping), taken into account in calculating the profit, which is a definite plus, but since this country is located on an island, it is better to have the production in-place there.

Central regions is in the middle in general, so let's consider this region in more detail and observe the relationship between the price of delivery and sales using third graph:
Firstly, we clearly see that every year the increase in the number of sales is significant and increases by more than 1.5 times compared with last year, as well as the cost of delivery.
Secondly, there is a clear trend: the higher the cost of shipping, the higher the sales value was. It means that when we consider the most preferable countries to have a business with, we should definitely consider that the shipping cost can be proportionally high as sales. If we look at the third diagram, we will see that France is the absolute leader in this region in terms of sales through the years and it also has the biggest shipping cost (Germany on the second place) which is definitely an interesting insight in neighboring countries this cost can be much lower. In most cases, the amount of sales is about 10 times the delivery price, but there are places where this difference is smaller, such as France, Nicaragua and El Salvador in 2019, hence the profit from the sale is less in these countries. So, from the Central region I would suggest trading with Germany, they have higher profit margins and lower shipping costs than other countries with high sales totals.

2. Shipping mode analysis

After the first dashboard, where we also discussed shipping costs, let's look at which order priority would be the most popular and most advantageous in terms of shipping price for different shipping classes.

In the top chart, we compare order priority by ship mode in price, and we may notice a couple of peculiarities:

1) The low order priority has only one shipping class, which could either be a sign of unprofitable shipping methods because they can exceed the order, or it's just a lack of data.

2) Medium order priority has the most favorable prices for all types of delivery methods and does not reach 30.

3) At high priority, same day and first class delivery are almost equal in price, also standard class mode in this priority has the same cost as the first class of medium priority.

4) If the order priority is critical, then the delivery must be either high quality or very fast, so there is no standard class mode. It is better not to use this type of priority, as well as low, its advantage is only in the price, and for medium priority the price is lower.

We can conclude that the order of medium priority is the most advantageous in terms of price.

In the chart below, we can see the dynamics of orders by how often a particular order priority is used and it is clear that the majority of orders have medium priority. Low is not popular because its pricing is worse than the same medium, and it is a pure overpayment. Second place has a high delivery priority, this is most likely due to the fact that people want to get their order faster and this is entirely due to the human factor.

Looking at these 2 charts, we can say that the medium order priority is the most profitable in terms of price/quality ratio and the most popular, brings the most revenue, as it has a large number of requests and a fairly low cost, while the most inefficient are low and critical. Hence, the obvious recommendation here to use mostly medium order priority with modes standard, second and same day. We could choose between the speed and the quality of delivery in case of first class in medium priority and standard class in high priority, since they have equal costs. And there is almost no sense to send goods with first class in high priority if we can get it the same day for almost the same price.

3. Order priority significance

 In order to confirm my assumptions about the profitability of order priorities and explain it in more detail, let's look at the third dashboard. In the first graph we look at the profit of companies for all orders grouped into different segments of customers.

Since 2019 the medium priority overtakes all other priorities by more than 150 thousand in total from all buyers, so the first assumption is confirmed by this factor too.
Low priority is the least profitable and it is also the least used by people as discussed in previous charts, that is my second assumption proved.
There is no big difference which segment of clients we are interested in, for any of them the medium type is the most common choice and high as the next one.

In the chart below, we observe the distribution of orders by years for all priorities, as expected of the most profitable medium priority, that it will be the most frequently selected by buyers.
Another eye-catching observation may be that the cost of the critical order priority is the highest (according to previous charts), but the return is less than half of that of the high priority for 2020.

4. Sales analysis

Now let's take a look at how these buyer segments behave in the market in different regions, which is not obvious from past charts, and find out which subcategories they buy more often or less often globally to form general sales trends on the market and think about sales and supply tactics.

From the first graph, it appears that Canada can be left out, since its sales value is insignificant to draw a conclusion. For the rest of the regions, we can say that everywhere the regular buyers prevail, in second place are corporate buyers, and in last place are home offices, the Asia-Pacific region has the highest sales value, and here is also the largest gap between regular buyers and corporate ones, with a difference of about 800000.

The most purchased subcategory is phones, and this trend is true for all three types of buyers. If you look at the buying trend in general, you see non-obvious things, such as home offices buying far less desks and chairs and paper, and corporations buying even less paper than regular shoppers. Perhaps this is due to a move away from paper and toward electronic means. It is recommended to choose

the most popular product categories for a successful business, such as electronic resources, relying on consumer segment.

5. Customer analysis

The last thing we examine is the last piece of an overall picture of the market. Let's look at statistics on the distribution of buyers by region, by different subcategories, and their performance. We can thus pull this information together to develop different sales strategies and trends among buyers.

We can see from the left graph that the central region is the largest in number of buyers, the biggest in sales per customer, and the eastern region is the poorest in the same parameters. It is noticeable that with almost the same number of distinct customers, the southern buyers have far fewer purchased sum than the central region, while the eastern and western regions are very similar across the board.

From the right-hand chart, we can understand the distribution of subcategories per customer and the profits from those subcategories.
Tables are perhaps the most unprofitable commodities, despite a rising number of buyers.
Electronics is the most profitable industry, as expected, but despite the fact that phones are the most purchased item, the greatest increase in customers is among Binders and Storage.

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