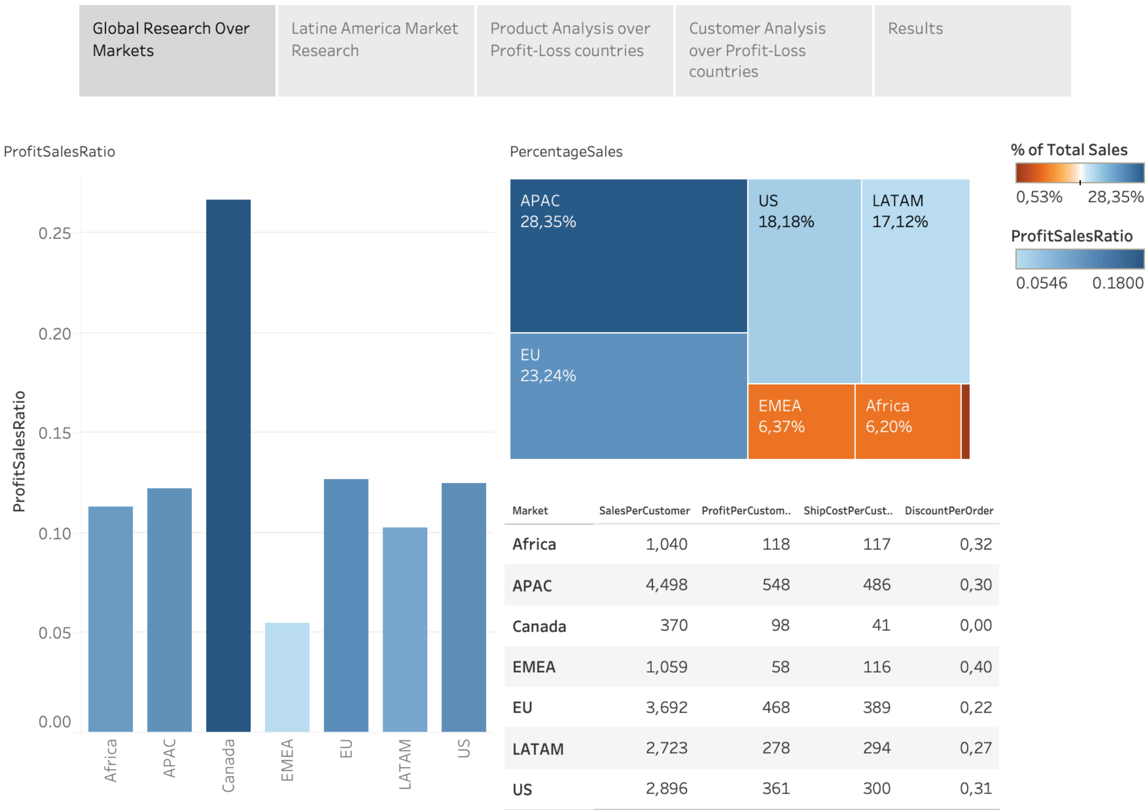
This research aims to reveal relevant business insights that might help the firm to perform better. To do the research, it is given a dataset of a multinational retail firm that demonstrates the performance of the firm across different markets.The firm sells a big number of products across several categories. The dataset contains information about orders that the company completed from 2019 till 2023. Each order includes the financial information, the delivery data, information about the product and data about customers that purchased this product.



Market	SalesPerCustomer	ProfitPerCustom..	ShipCostPerCust..	DiscountPerOrder
Africa	1,040	118	117	0,32
APAC	4,498	548	486	0,30
Canada	370	98	41	0,00
EMEA	1,059	58	116	0,40
EU	3,692	468	389	0,22
LATAM	2,723	278	294	0,27
US	2,896	361	300	0,31

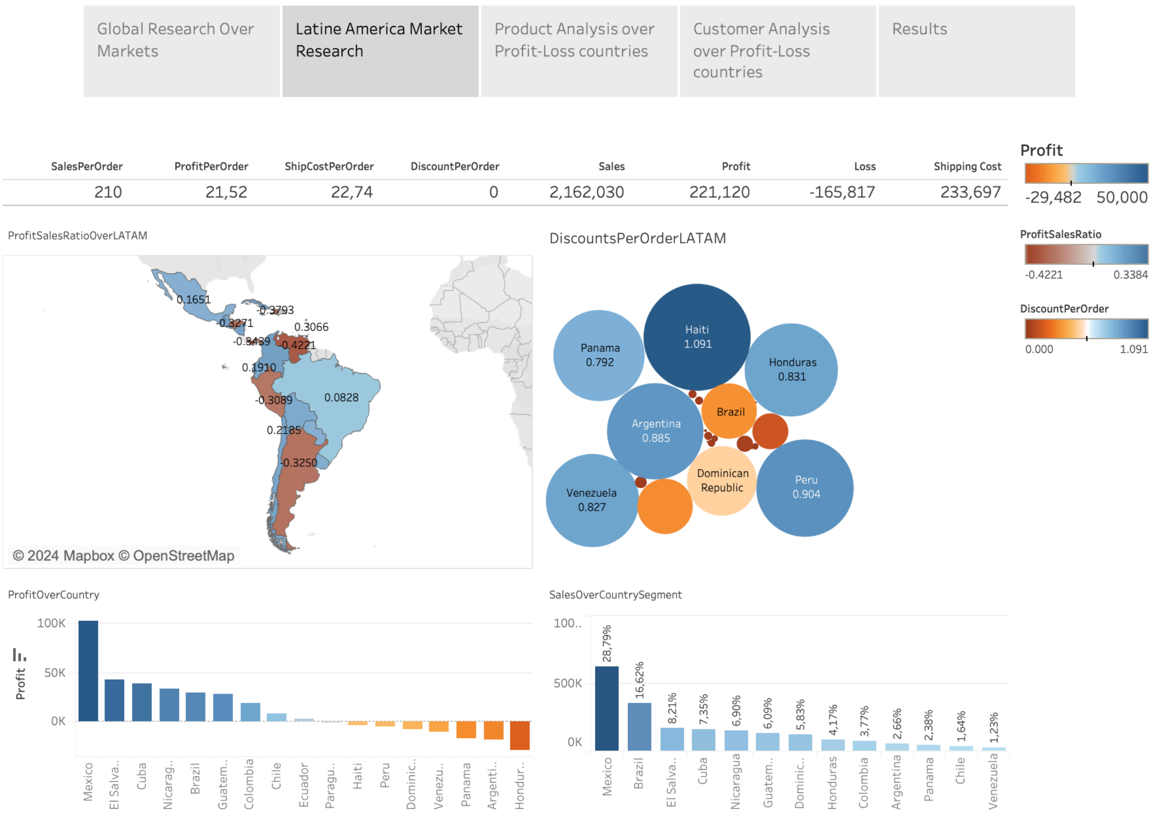
The first dashboard allows us to understand the performance of the company across 7 markets that it covers. The right-top chart displays the percentage of sales by the markets. It reveals that APAC accounts for the largest share of sales, covering 28.35% of sales, followed by the EU at 23.24%, then the US at 18.18% and LATAM at 17.12%. The least amount of sales is generated at EMEA and Africa markets.

The left chart shows the profit to sales ratio (margin) by markets. Here, we see that markets that generate the most amount of sales have around a 12% margin, while the LATAM market is just slightly above 10%. One can notice outstanding margin for Canada market, over 25% margin, and negligible margin for EMEA - around 5%.

One can notice that the LATAM market generates a significant amount of sales for our company, however unlike APAC, the EU and US have less margin, thus it means that we lose a significant amount of profit. EMEA market also loses much profit, but has a much smaller amount of sales than LATAM, that is why it is a less interesting market for our firm.

The bottom-right tables allow us to look precisely at market situations. We can see that leading markets (EU, US and Canada) have their shipping costs per customer lower than profit per customer, while LATAM, EMEA and Africa have shipping costs per customer higher than profit per customer.

From the dashboard, we obtain relevant information about the LATAM market that has a high amount of sales, but has issues with low margin, high shipping costs and low profit. So, in the research the problem of low profitability of LATAM market is investigated and the solution is suggested.



So, this dashboard goes into details of the LATAM market. It illustrates financial indicators over countries that are included in the LATAM market. The most top string allows us to generally understand the situation at the market.

Looking at the market map, on the left, the margins across each country are marked on the map. We can see that pretty many many countries have pretty high margins, over 15% up to 33%, some of these countries are Mexico, Chile, Columbia, Cuba and others. At the same time some countries have incredibly low negative margins, lower than -30%. Due to these countries the average margin across the market is much lower than the average margin of the market that generates nearly the same amount of sales.

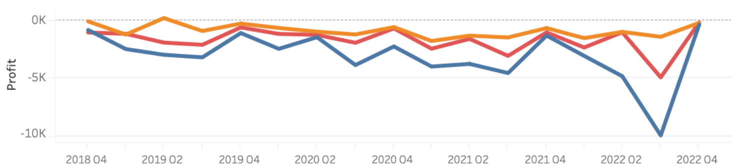
On the bar chart, below the map, we see the actual amount of profit is negative for Honduras, Argentina, Panama, Venezuela, Dominican Republic, Peru and Haiti. The negative profits range from 0 up to - 30,000. Looking at the bar chart from the right we see that countries, generated negative profits also generate a significant amount of sales. Thus, many countries that generate a big share of sales face low profitability.

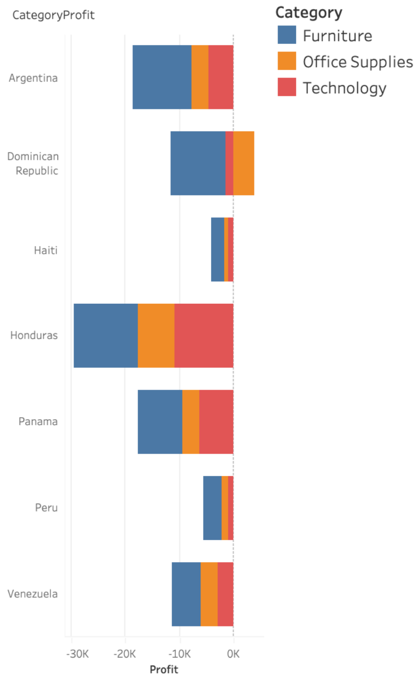
Also, it was noticed that these low profitability companies have high discounts per order. All these problems are going to be investigated further.

Global Research Over Markets	Latine America Market Research	Product Analysis over Profit-Loss countries	Customer Analysis over Profit-Loss countries	Results

ProfitLossOverProuducts

Sub-Category	Argentina	Dominican Rep..	Haiti	Honduras	Panama	Peru	Venezuela
Accessories	-553	1,434	-106	-1,638	-1,125	-135	-111
Appliances	-430	2,170		-2,089	-815	-182	-660
Art	-359	210	-12	-347	-165	-152	-119
Binders	-556	199	-135	-603	-254	-297	-123
Bookcases	-2,570	-3,803	-764	-3,988	-2,942	-923	-868
Chairs	-2,846	579	-465	-3,456	-2,591	-818	-132
Copiers	-2,555	-595	-53	-3,942	-2,829	-420	-1,631
Envelopes	-335	27	-105	-407	-315	-58	-272
Fasteners	-170	156	-23	-298	-120	-22	-72
Furnishings	-368	-2,073	-617	-732	-627	-169	-117
Labels	-58	49	-9	-131	-84	-62	-8
Machines	-186	-2,854	-549	-930	-467		-196
Paper	-372	185	-92	-487	-83	-53	-205
Phones	-1,304	499	-195	-4,355	-1,901	-354	-935
Storage	-591	610	-454	-1,921	-1,109	-364	-1,523
Supplies	-254	292	-36	-578	-223	-64	-268
Tables	-5,189	-4,739	-572	-3,579	-2,074	-1,434	-3,983

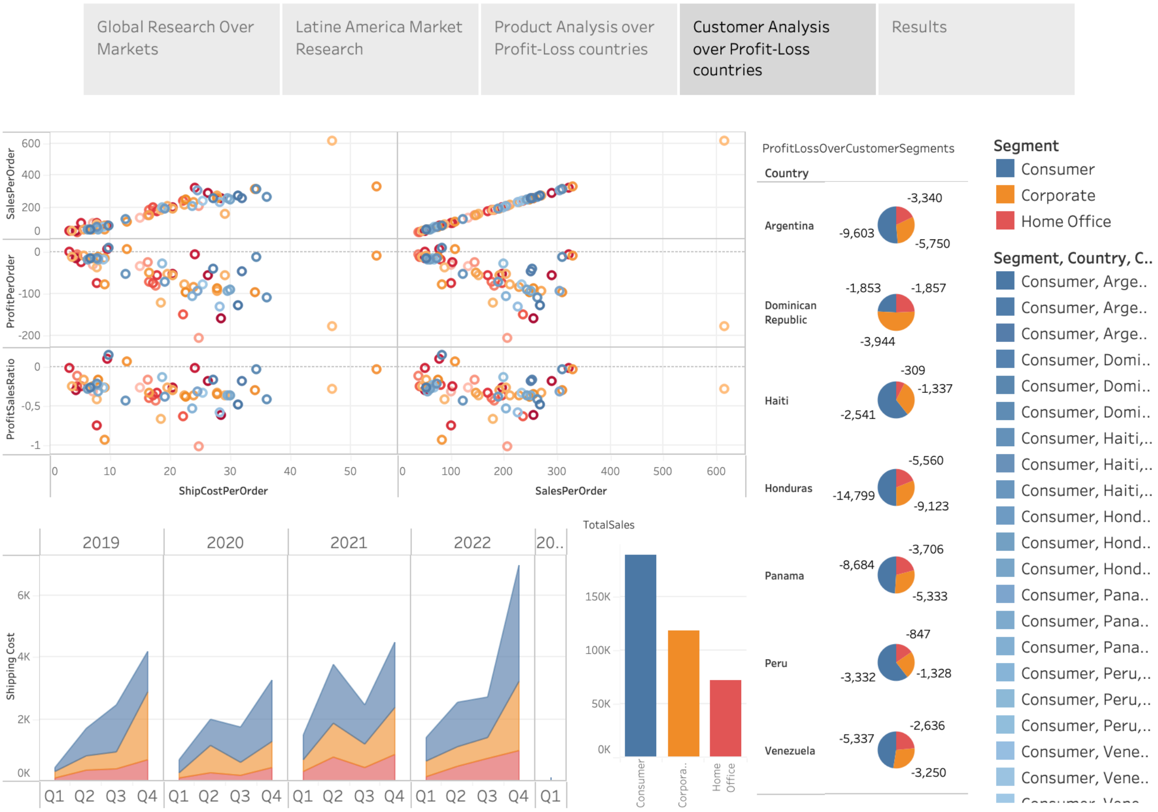




This dashboard represents information about products sold in the countries with negative profit on the LATAM market. Here we see charts that allow us to get comprehensive analysis across different categories and see the main down sides for our company.

The heat map on the right displays profits for each country that was obtained in different sub-categories of products for each country. On the plot we can visually identify several categories of products that have least profits, these are tables, bookcases, chairs, copiers. As for the other categories they also have negative profits almost for every country. The only country that has a positive profit is the Dominican republic, which can be explained by the big number of tourists that mostly come from the USA and have money to spend there.

On the bar and line charts we see the general information about categories to be sold along the whole time period. All of these categories bring negative profit for every country, only for the Dominican republic we see that Office Supplies generate positive profit.

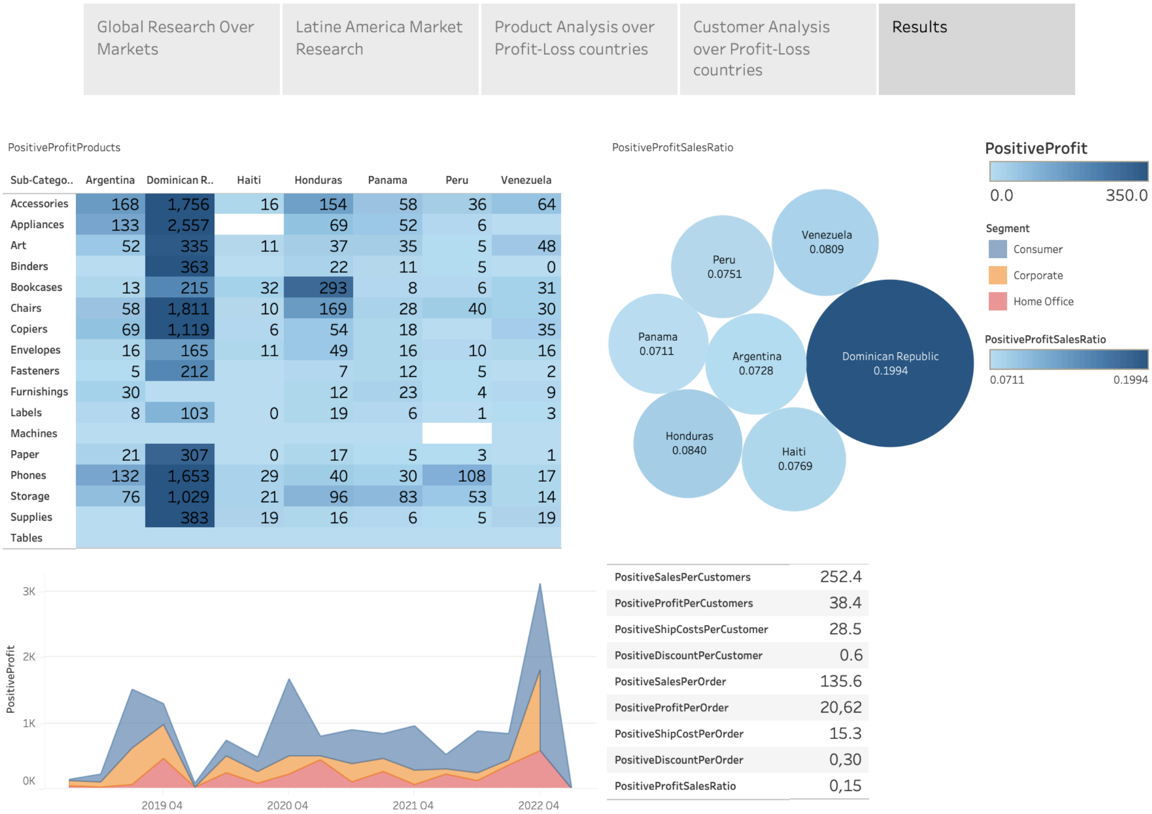


The next dashboard gives us customer descriptions in the LATAM market. From the dashboard we can observe purchasing patterns of our customers and see which groups customers damage mostly the profit.

From the right we see the bar charts, constructed for every country. Every chart displays the profit shares segmented by groups of customers, in fact we have 3 groups. As we can see most losses in profits bring us regular consumers, which can be explained by low purchasing of consumers. As was noticed in the 2nd dashboard, countries with negative profits have high discounts, relative to the other countries. So, high discounts can be introduced at least to sell the goods. Home office and Corporate obviously have higher purchasing power, thus they generate less losses.

Looking at the line chart from the right, unexpectedly we see shipping costs are the highest for consumers through the whole time.

On the dashboard the scatter plot was effectively used to demonstrate the correlations between financial indicators of our company. We see that shipping costs per order almost perfectly correlates sales per order, this correlations explains why consumers have so much losses in profit. As we can see shipping costs per order and sales per order negatively correlates with profit per order. We can conclude that one way to solve profit issues is to assign new logistics policy and find ways to cut shipping costs.



Sub-Catego..	Argentina	Dominican R..	Haiti	Honduras	Panama	Peru	Venezuela
Accessories	168	1,756	16	154	58	36	64
Appliances	133	2,557		69	52	6	
Art	52	335	11	37	35	5	48
Binders		363		22	11	5	0
Bookcases	13	215	32	293	8	6	31
Chairs	58	1,811	10	169	28	40	30
Copiers	69	1,119	6	54	18		35
Envelopes	16	165	11	49	16	10	16
Fasteners	5	212		7	12	5	2
Furnishings	30			12	23	4	9
Labels	8	103	0	19	6	1	3
Machines							
Paper	21	307	0	17	5	3	1
Phones	132	1,653	29	40	30	108	17
Storage	76	1,029	21	96	83	53	14
Supplies		383	19	16	6	5	19
Tables							

PositiveSalesPerCustomers	252.4
PositiveProfitPerCustomers	38.4
PositiveShipCostsPerCustomer	28.5
PositiveDiscountPerCustomer	0.6
PositiveSalesPerOrder	135.6
PositiveProfitPerOrder	20,62
PositiveShipCostPerOrder	15.3
PositiveDiscountPerOrder	0,30
PositiveProfitSalesRatio	0,15

The alternative way to shipping costs is to reconsider the product line. According to this strategy we cut all the products that generate negative profits and remain all the rest ones.

As one the 3rd dashboard there was constructed the heat map but it includes only products with positive profit. We see that in most cases the profits do not differ much from 0, except for the Dominican republic. The line chart below also indicates that we remained only profits and now consumers generate most profit.

The circle chart displays the change in margin across the countries. Initially most of the countries have margins under -30%, whereas in these margins start from 7%.

The table in the bottom-right displays changed KPIs, now profit per order declined down to 20,62 from 21,52, shipping cost per order declined from 22,74 down to 15,3 and now profit per order is higher shipping cost per order The same situation is for financial indicators per consumer, the shipping costs are lower than profits.

Overall, exclusion of non-profitable products leads to significant growth in margin and profits and reduction in shipping costs. It has a positive effect on our business as we boost financial indicators. However, as we significantly cut the product line, the company should promote the remaining products or find new products that are similar to these ones and introduce them on the LATAM market to increase sales and profit.