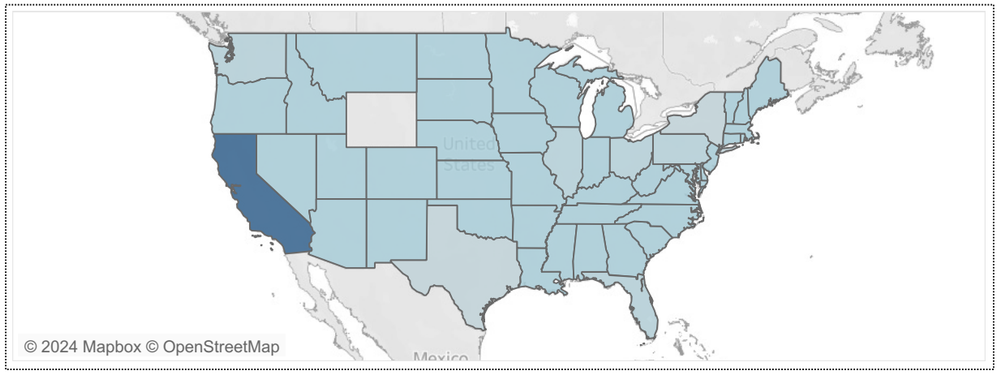
RETAILER PROFITABILITY ANALYSIS

This analysis is of a retailer that has been operational across the USA **since 2014**, offering a diverse range of products including **furniture**, **office supplies**, and **technology** items.

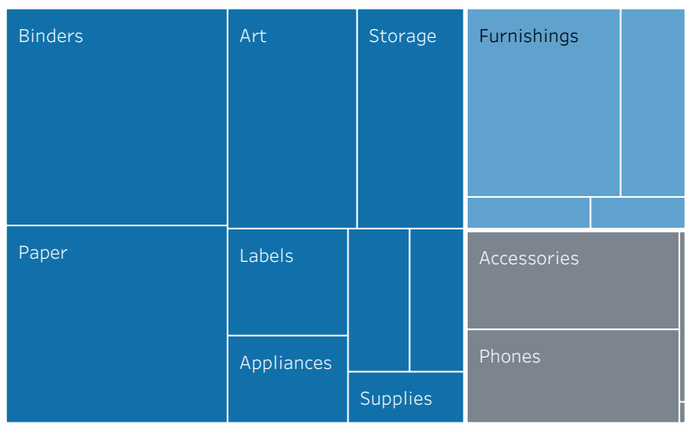
The customer base comprises **Corporate**, **Home Office**, and **Direct Consumers**, with the majority (52%) being direct consumers.

The **median profit** per order is 11.60 USD. 16% of all orders incur in **loss**.

The analysis aims to explore the **company's performance** and uncover **opportunities for increased profitability.** By identifying **trends and patterns**, the goal is to offer **actionable insights** for strategic decisions, driving sustained growth in the **competitive retail landscape**.



Number of items ordered (2014-2017)



Overview 2014-2017

Total nr of customers	Consumer	408
	Corporate	234
	Home Office	148
Total nr of orders	Consumer	2,335
	Corporate	1,360
	Home Office	816
Total sales (USD)	Consumer	393,078
	Corporate	217,508
	Home Office	128,114
Total profit (USD)	Consumer	48,634
	Corporate	28,221
	Home Office	17,289
Avg. profit per order (USD)	Consumer	11.47
	Corporate	11.60
	Home Office	12.01

Overall, there has been **consistent year-on-year growth** in the number of **customers**, **orders**, **sales**, and **profits**.

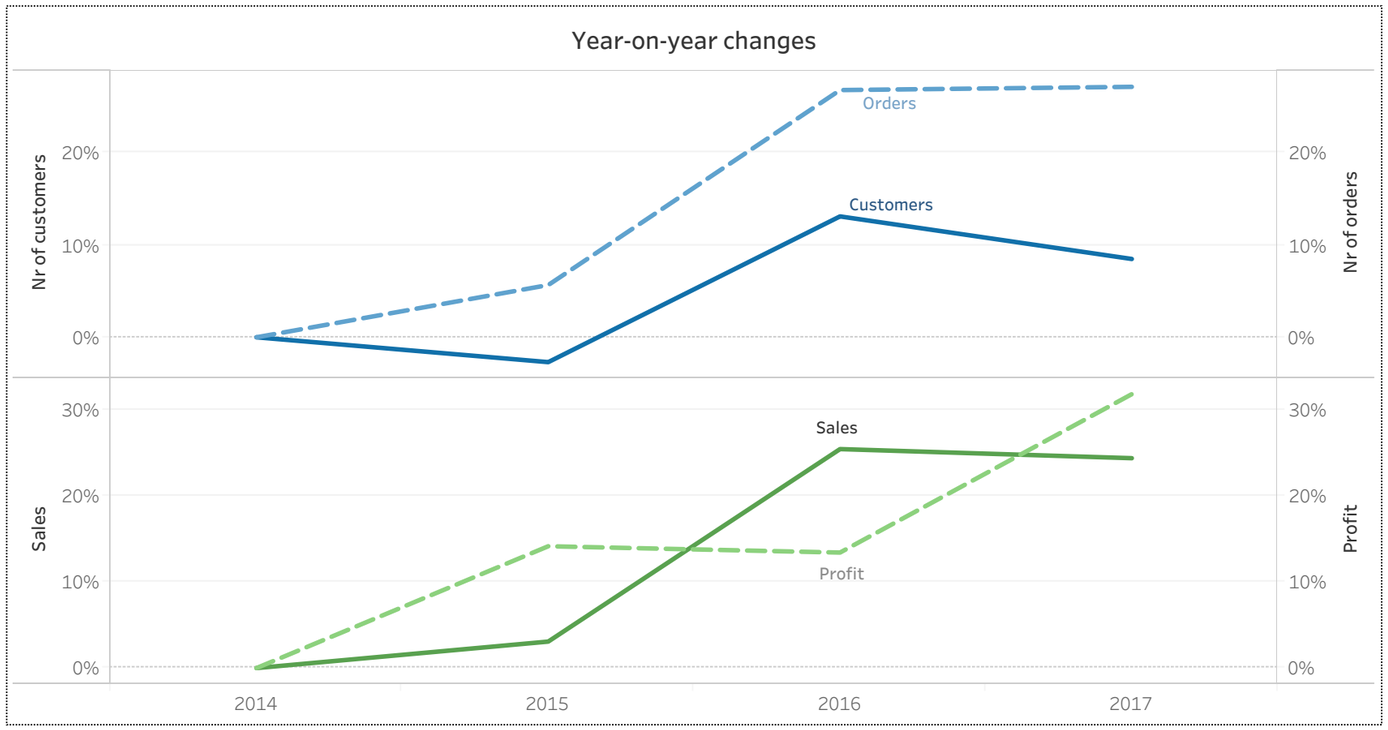
The **exception** to this is a slight **dip in customer numbers** (-3%) and very **small sales increase** (+3%) from 2014 to 2015.
Even so, the profits **increased** by 14%, indicating potential succesful **marketing campaigns** to existing customers and correct **sales strategy** (pricing, discount, etc).

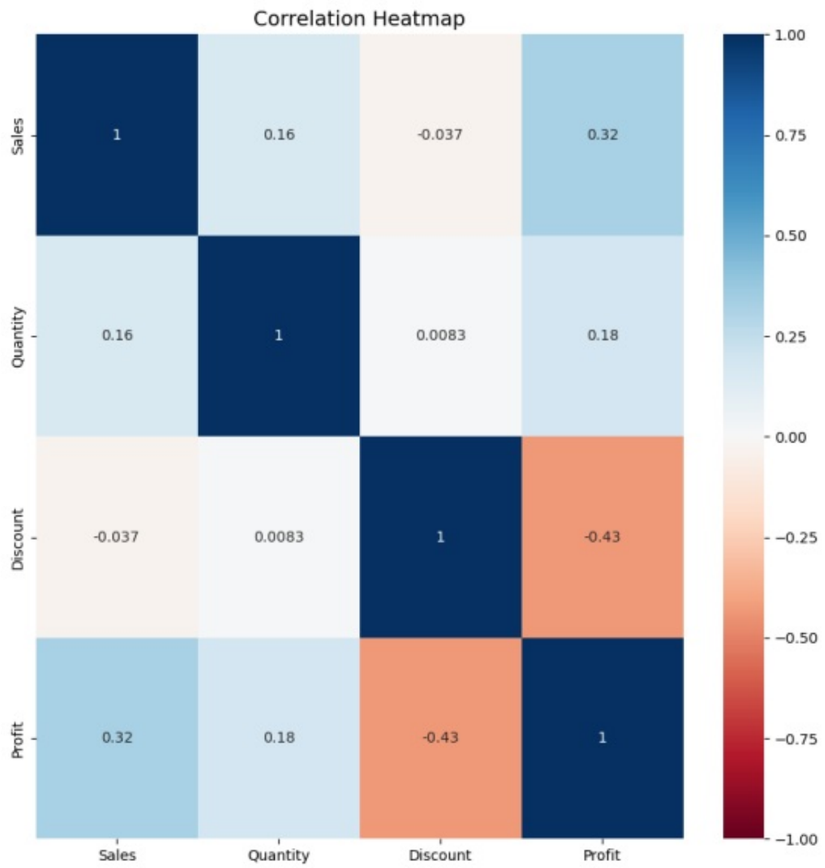
Technology items have seen the biggest increase in number of orders, and profits YoY.

Use the filters below to see data how the Segment or Category impact results:

Segment
- ✔ Consumer
- ✔ Corporate
- ✔ Home Office

Category
- ✔ Furniture
- ✔ Office Supplies
- ✔ Technology



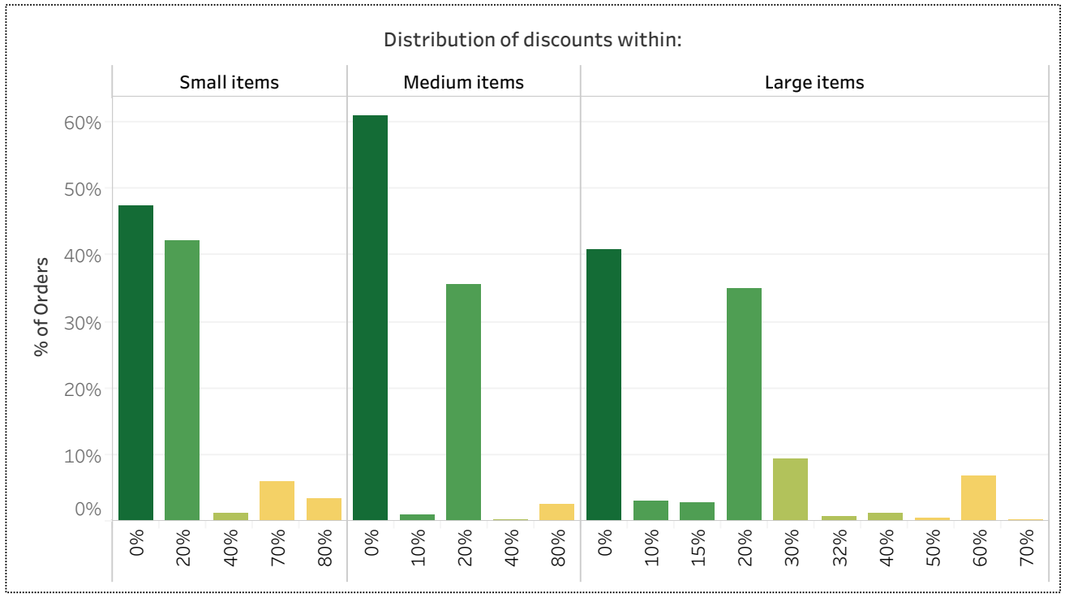


An analysis of the relationship between variables revealed that:

- **Sales** and **Profit** are **positively correlated**; generally, higher sales result in larger profits.
- **Discount** and **Profit** are **negatively correlated**; generally, larger discounts result in lower profits.

Discounts frequently serve as a **strategic tool** in business, attracting new customers, clearing slow-moving inventory, boosting basket sizes, etc.

However, it is crucial to **implement an efficient discount strategy** to mitigate the risk of **unnecessary profit loss**.



Filters

Year of order
- ✔ 2014
- ✔ 2015
- ✔ 2016
- ✔ 2017

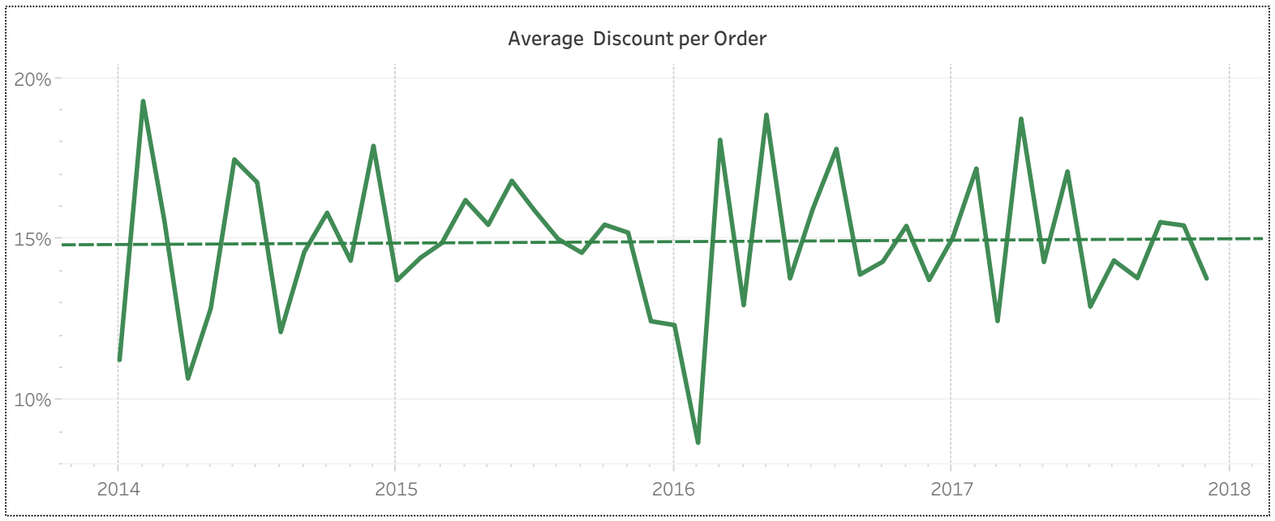
- **Higher discounts** are linked to **lower profits**/bigger losses.
- Items with **discounts of 30%** or more **almost never** result in profits.
- Items with **discount of 50%** of more **never** result in profits.

One hypothesis for the high discounts is that **higher discounts** support **warehouse capacity** by selling through **bigger items**.

However, as per visualisation above, discount are applied **similarly across items of all dimensions**.

Another hyphotesis is that Superstore apply **discounts** to **boost the basket size**.

However, there appears to be **no correlation** between **discount** and **quantity ordered**. Offering larger discounts does not result in an increase in the number of items per order.



The **overall average discount per order** has been around 15%.

There are, however, a lot of **variability** in the data, indicating a lot of interventions from the business in **adjusting the discount strategy**.

ANALYSIS CONCLUSIONS

Although **number of customers**, **number of orders, sales** and **profit** has been **increasing year-on-year**, there is a clear potential for better performance.

The analysis done revealed that:

- The **median profit** per order is only 11.60 USD.
- 16% of all orders incur in **loss**.
- **Larger discounts** are positively correlated with **lower profits**.

Even though **discounts** can be used as a **business strategy** (attraction of new customers, increase in basket size, etc.), this strategy should be **re-evaluated** due to the **high losses** the company is incurring on discounted items.

NEXT STEPS

- **Customer segmentation**.
- **Sales trends** by region, segment, or product category.
- **Profit margin** analysis by product category or sub-category.
- **Demand forecasting** for different product categories.
- **Basket analysis** to identify items frequently bought together.

DATA LIMITATIONS

There have been numerous **external interventions**, such as alterations in the discount strategy over the period under analysis. To extract **valuable insights** from the data, it is crucial to **comprehend the business decisions** undertaken during distinct timeframes.

Additionally, it's worth noting that the available data only extends up to **December 2017**, potentially limiting its relevance to **more recent years**.