E-Commerce's Survival Mode during Tech Winter

Company's growth-strategy evaluation based on **Data Analysis** with R Programming.

Author : Prio Aji Reynaldi
E-mail : prioaji28@gmail.com

Storyline

Conclusion
- Summary of All Insights
- Recommendation Next Strategy

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Data Analysis & Visualization
- Growth Analysis
- Customer Analysis

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Introduction & Problem Definition
- Company's Previous Success
- Questioning The Sustainability
- Indentify External Challenges

1

Company's Success
at Start

As a platform for selling high-end product, in the first 2 years we reach :

16.937
Transaction

20.2%
Growth

$22.370.443
Total Sales

1 2 3

But how **Robust** are we to be **Sustainable**?

External Challenges for The Company in 2024

- **Tech Winter**, is define as declining of interest and investment in the technology sector. It will nurture e-commerce bussines to be as efficient as possible and using resource effectively.

- **Customer Behaviour Changes** after pandemy. Customer is not fully relying to online platform. So allocation of marketing and promotion budgets is needed to be evaluated and recalculated.
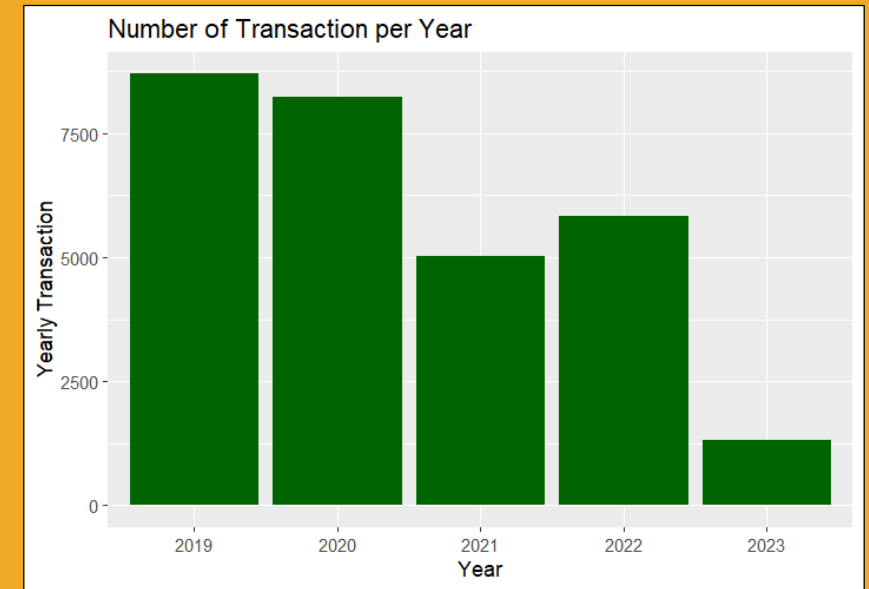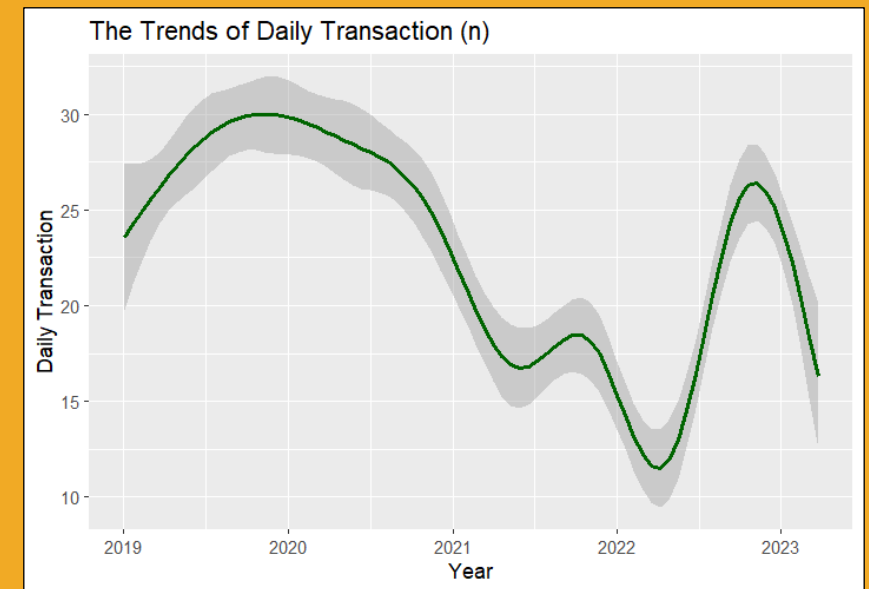
1 2 3

How's Our Growth?

*Metric : Number of Transaction

- From the *Picture 1*, we conclude that the trend of **Transaction (n) is declining**.

- Going deeper, on the *Picture 2* we can see that there is **no yearly patern**. We also can't identifiy any certain pattern.
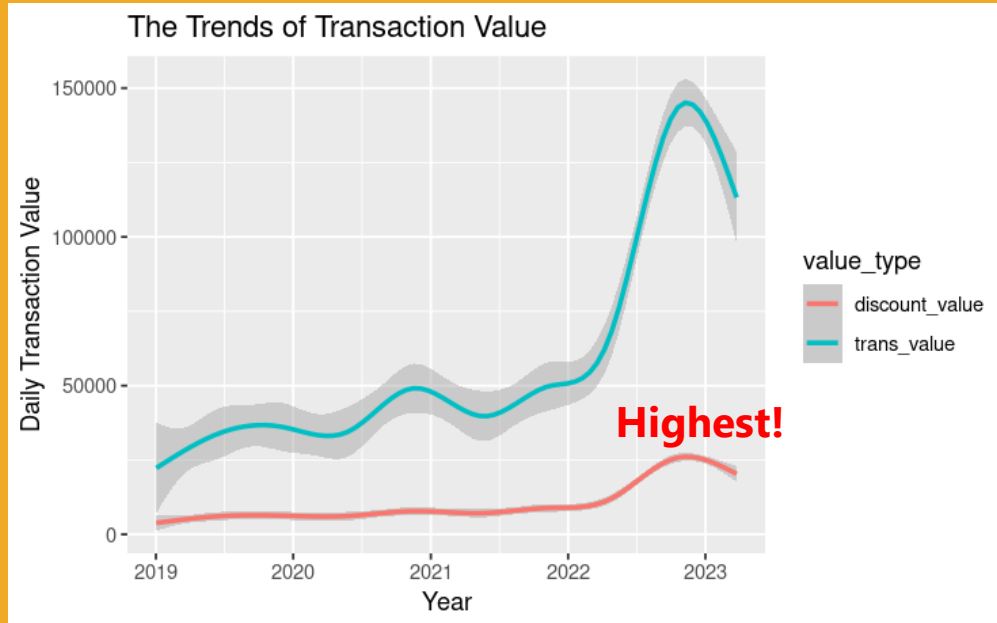
)* Data for 2023 is not complete yet

Picture 1. Number of Transaction per Year
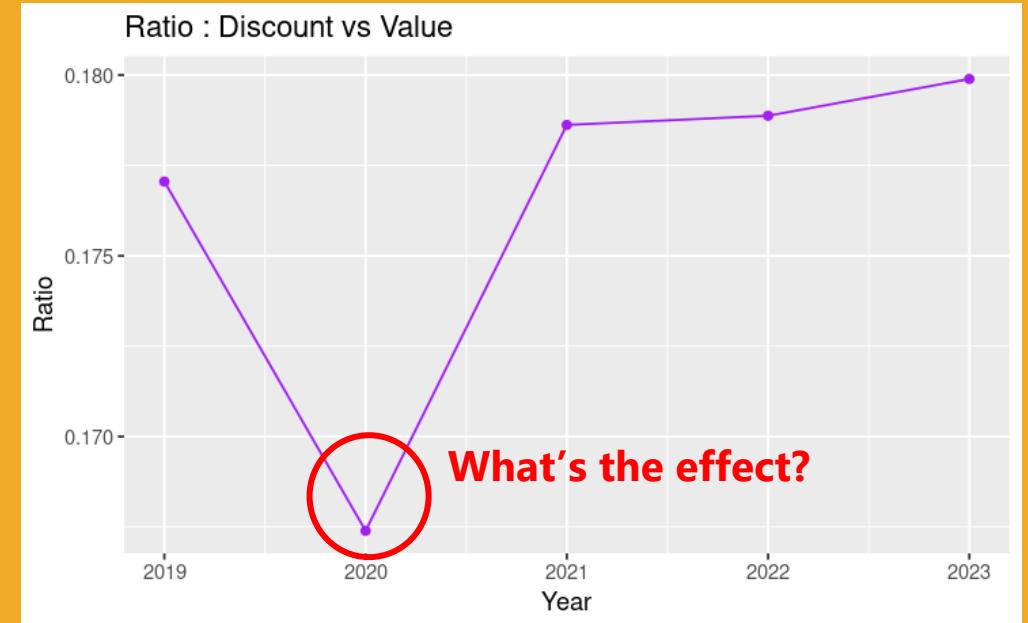

Picture 2. Trend of Daily Transaction (n)

How's Our Growth?

*Metric : Transaction Value ($)

Picture 3. Trend of Transaction Value

Picture 4. Ration Between Discount vs Value

- Even though the Number of Transaction is declining, as the *Picture 1* showed, the **Transaction Value ($) is inclining** followed by the Discount Value.

- The ratio between Discount and Transaction Value is also inclining.

- Discount reduction in 2020 is **suspected** causing transaction declining in 2020 and going deeper in 2021 (see *Picture 1*).

1 2 3

Insights
We Get So Far

- Discount is the main strategy and will require more money as the trend showed.

- The Transaction Value increase opposite with Number of Transaction means that average value each transaction increase.

"It is indication that current strategy make loyal customer spend more money but can't reach more prospect"
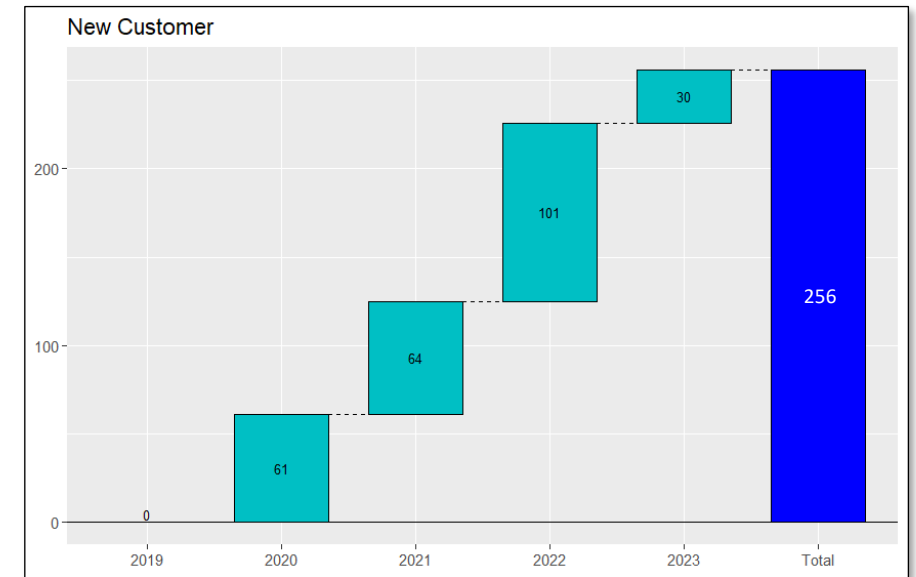
More Insights
We Need

1. Do we lost many customer and fail to reach more prospect?

2. Does loyal customer always have more transaction later?

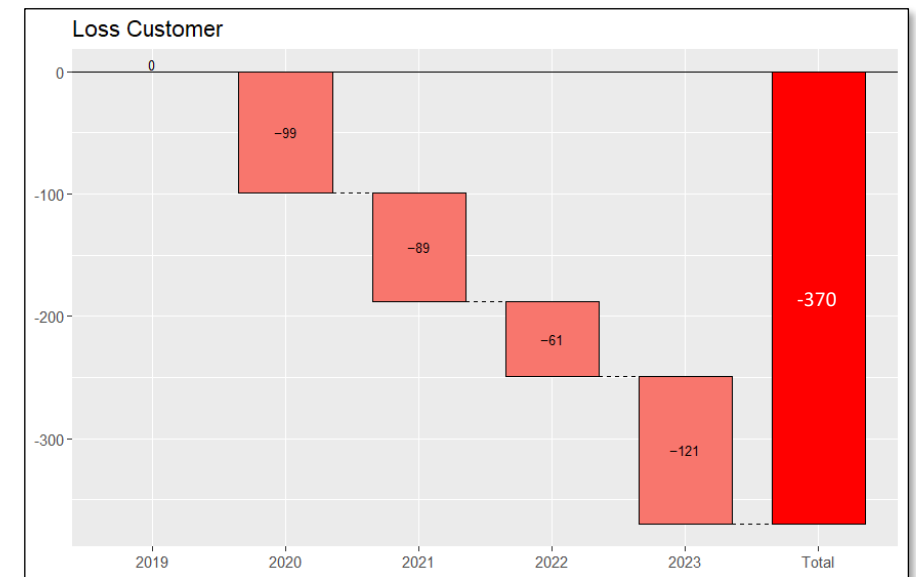3. Is there a correlation between discount received and customer retention?
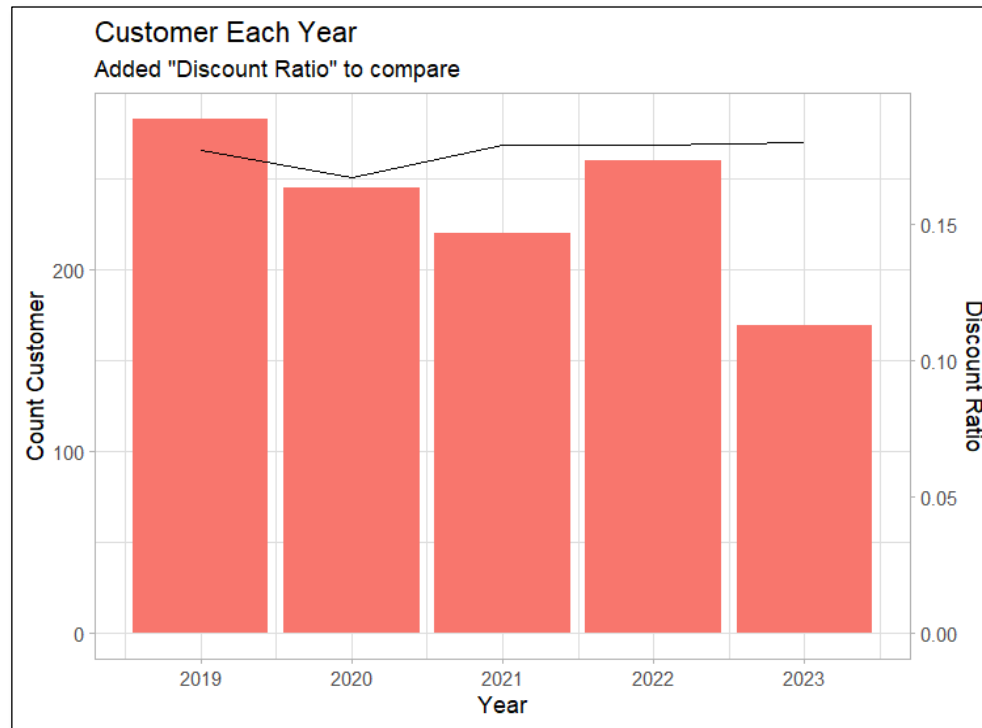
Picture 5. Count Customer

Picture 6. New Customer

Picture 7. Loss Customer

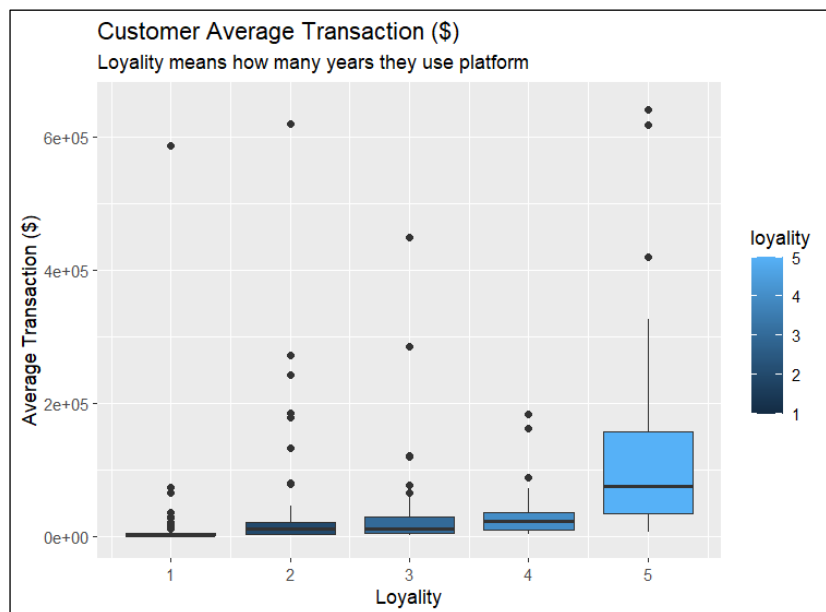**Do we lost many customer and fail to reach more prospect?**

- Seeing Picture 5, we will think that increasing discount is likely attract new customer. In fact we lost customer more than we gain new customer. (see Picture 6-7).
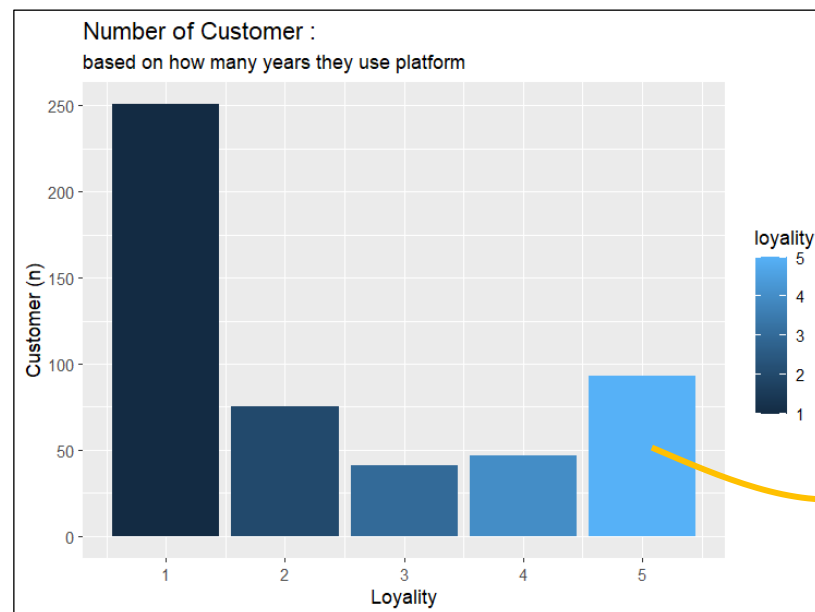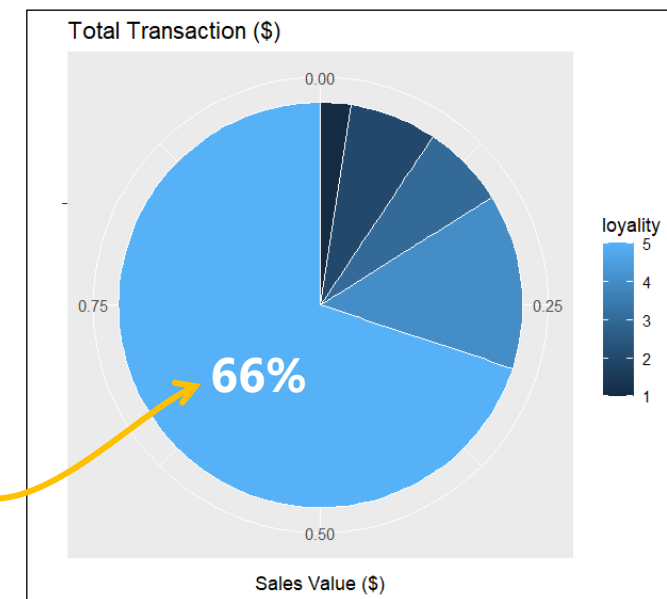
1 2 3

Picture 8. Boxplot Average Transaction Each Customer


Picture 9. Number of Customer Each Loyality Level

Picture 10. Customer Contribution

Does loyal customer has more transaction later?

- We assume that customer who use our platform every year since 2019 as loyal customer. From *Picture 8,* we can conclude that loyal customers has higher Average Transaction($) than others.

- Our loyal customers are very few but contributing 66% from our Total Sales ($).

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Is there a Corelation Between Discount and Customer Retention?

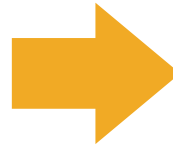- It is proven that discount doesn't have correlation with customers retention
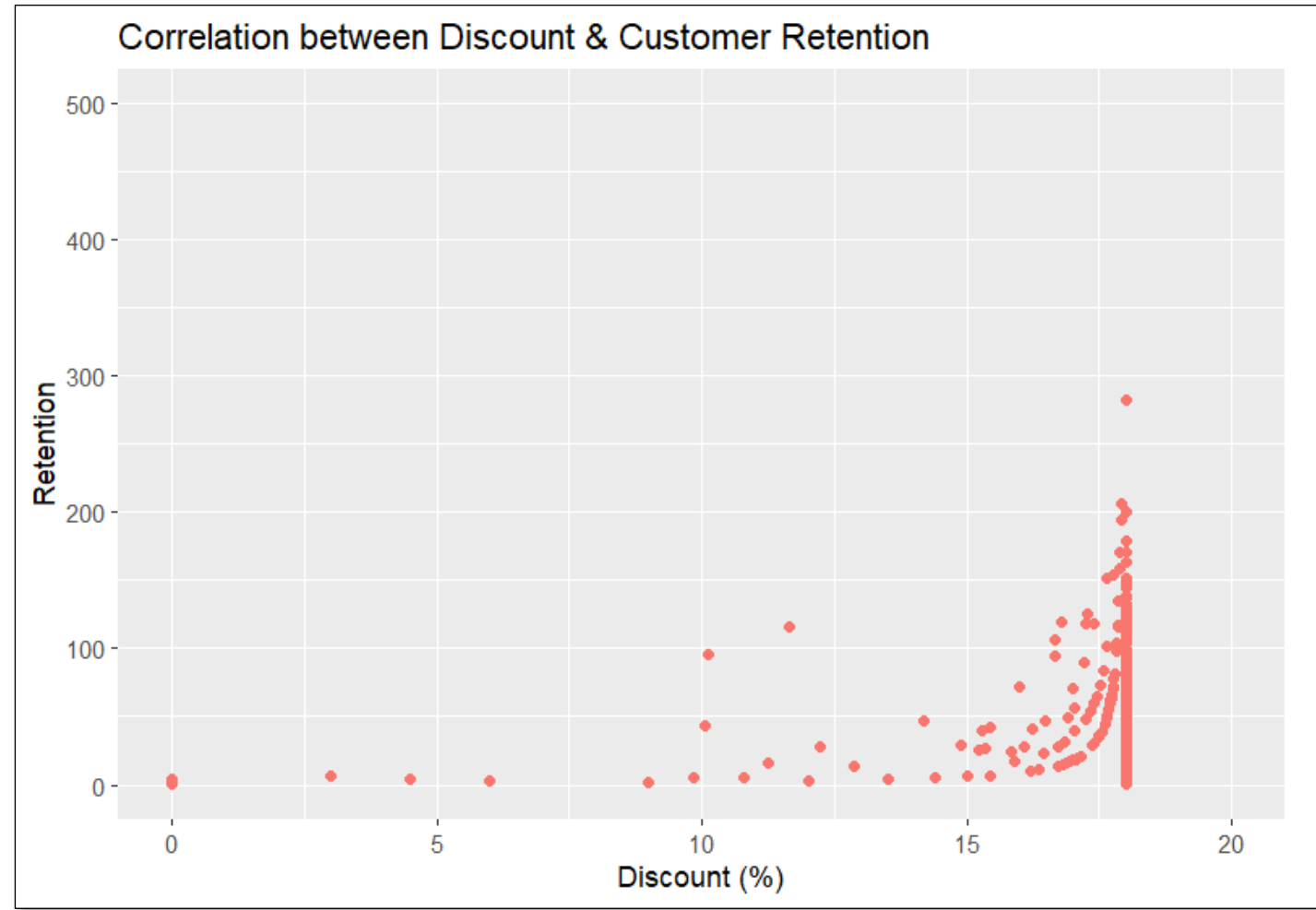
Picture 11. Corelation Between Discount and Customer Retention

Conclusion

Purely from data we conclude that :

- Number of Transaction & Number of Customer is declining.

- Transaction Value, Cost of Discount, and Ratio of Discount is inclining.

- There is no yearly pattern, indicating that buying behavior doesn't have dependency with special yearly event.

Associated with Company's Discount Strategy, we conclude that :

- Increasing Discount doesn't effective to grow and retain customer.

- Discount doesn't have correlation with Customer Retention.

Recomendation

There are two interesting insight from analysis above :

- Loyal customers has higher Average Transaction Value ($) every year.

- Loyal customer is few but contributing 66% of Total Sales ($).

Considering those Insight and External Challenge, these are recommendation for companys's next strategy :

- Indentify loyal customer's profile, preference, and behavior to make efficient marketing strategy. Gain feedbeck from them is necessary too.

- Reducing discount can be applied then test and measure its effect.
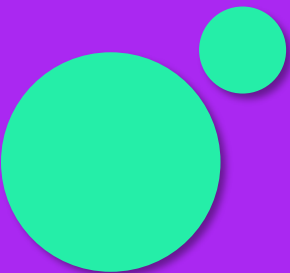
Thank you!

Author   : Prio Aji Reynaldi
E-mail   : prioaji28@gmail.com
Date   : April 2024
Loc   : Central Java, Indonesia