E-COMMERCE
BUSINESS PERFORMANCE ANALYSIS

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Photo by Thirdman
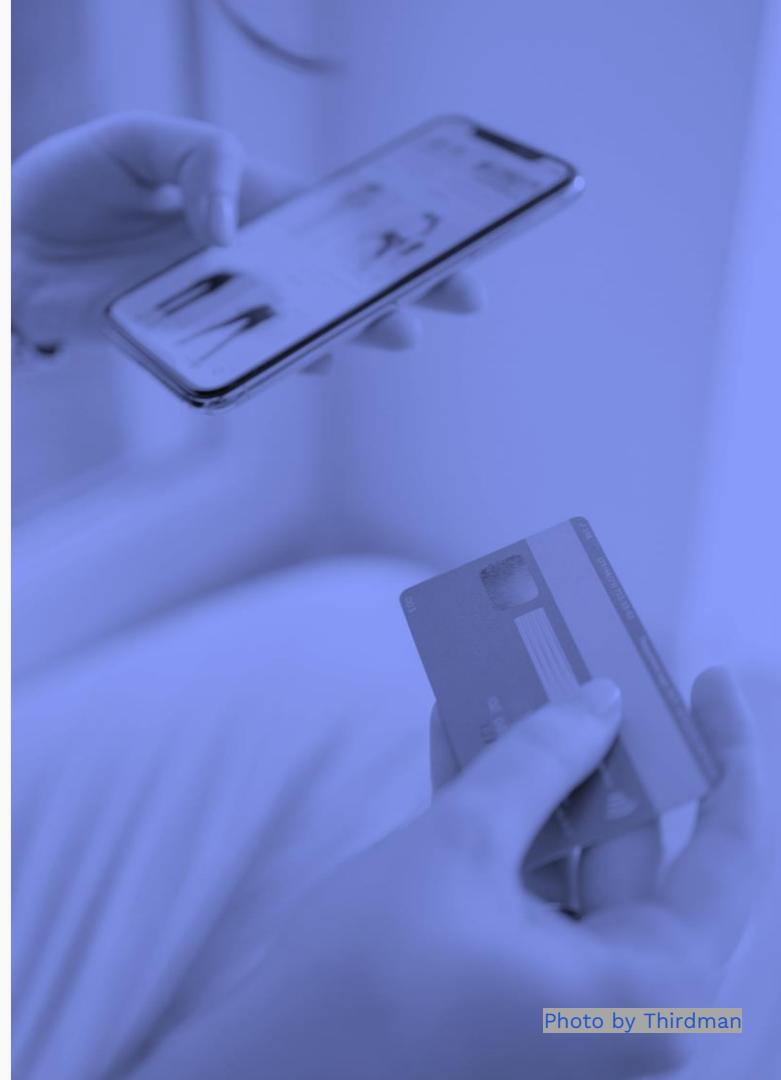
TOPICS

01

PROJECT BACKGROUND

02

CUSTOMER ACTIVITY

03

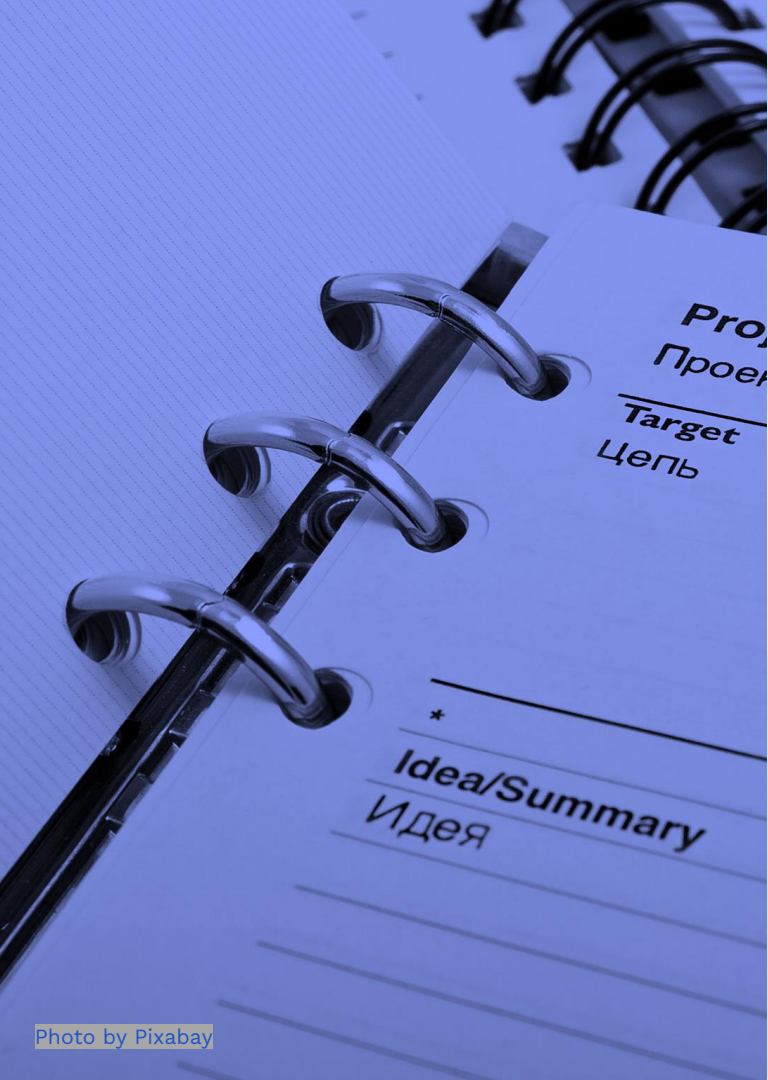**PRODUCT CATEGORIES**

04

REVENUE & PRODUCTS

05

PROPOSED ACTIONS

01

PROJECT BACKGROUND

ABOUT THE E-COMMERCE

Data for this analysis comes from Olist, a major Brazilian e-commerce platform. Olist seamlessly connects small businesses across Brazil to various sales channels through a single contract.

These merchants can sell their products through the Olist Store and fulfill orders using Olist's logistics partners. Upon order completion, customers receive a satisfaction survey via email, allowing them to rate their purchase experience and provide feedback.

MOTIVATION

This project began as an exploratory data visualization study, aiming to uncover the fundamental metrics used to assess e-commerce business performance.

By examining the current dataset, we will identify valuable insights into e-commerce business performance and formulate actionable recommendations.

OBJECTIVES

To measure the current e-commerce business performance through the following aspects:

Customer Activity

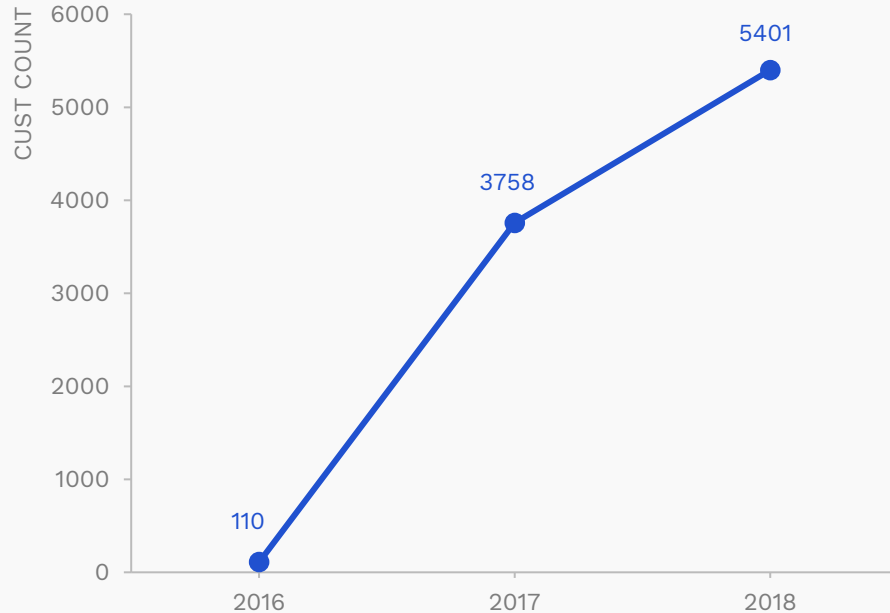**Revenue & Products**

Payment Types

02

CUSTOMER ACTIVITY

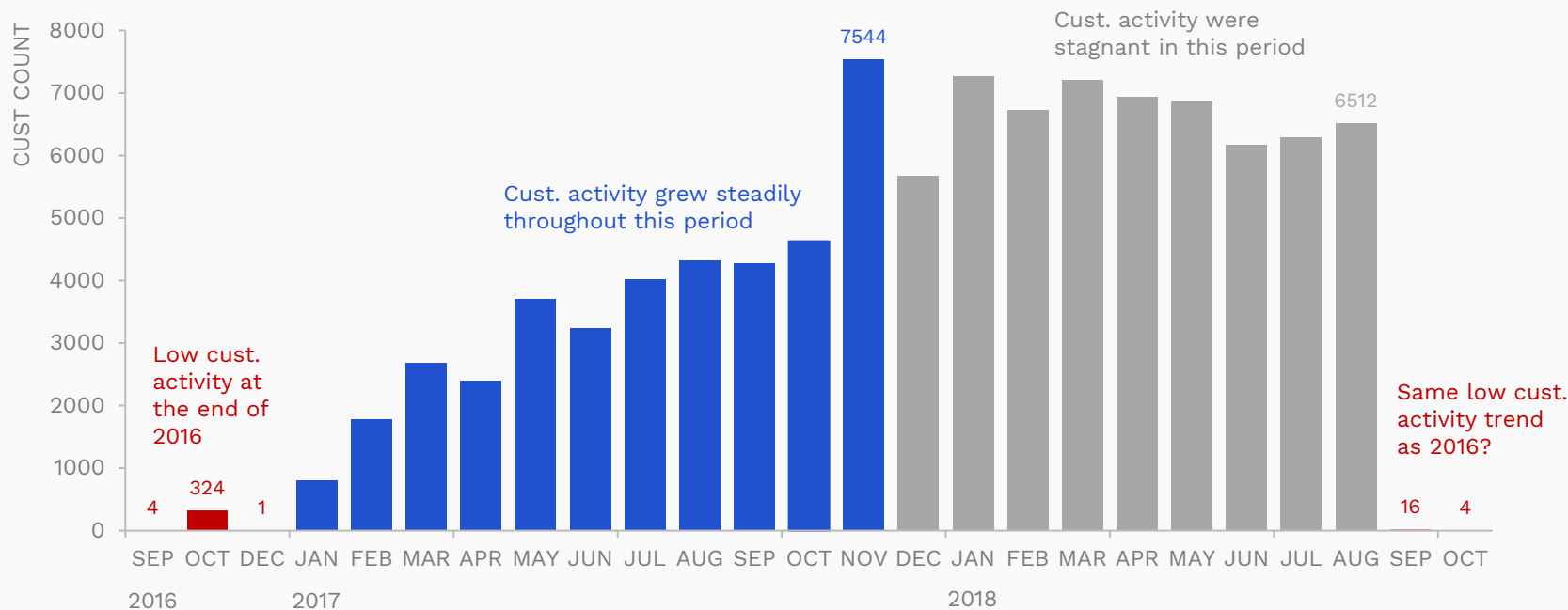# Significant Customer **Growth**

from late 2016 to 2018

The number of active customers went up **steadily** from 2016 to 2018.

This indicates a **successful marketing strategy**, showing wide e-commerce **brand awareness**

Customer Activity Patterns

moving between periods of growth, stagnancy, and decline

CUST COUNT

Low cust. activity at the end of 2016

Cust. activity grew steadily throughout this period

7544

Cust. activity were stagnant in this period

6512

Same low cust. activity trend as 2016?

4   324   1   16   4

SEP   OCT   DEC   JAN   FEB   MAR   APR   MAY   JUN   JUL   AUG   SEP   OCT   NOV   DEC   JAN   FEB   MAR   APR   MAY   JUN   JUL   AUG   SEP   OCT

2016   2017   2018

Most orders came from new customers

the repeat customer frequency stayed consistent.
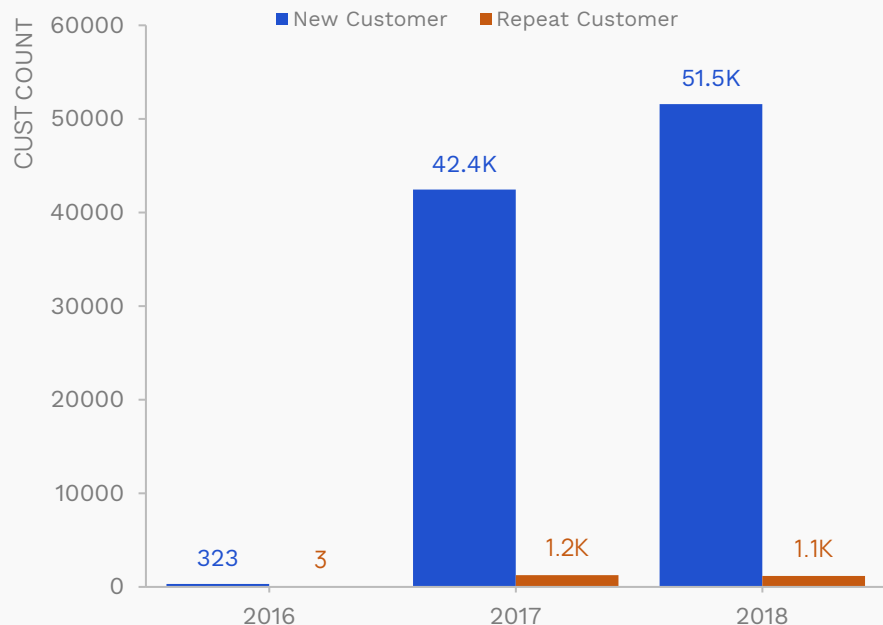
Customers often make just one purchase, likely drawn in by a **first-time promotion** or **discount**.

The low and unchanging number of repeat customers may be because they **don't find what they want**, are **price-sensitive**, or compare prices with **competitors**.

Annual Average Order per Customer is **Stagnant**

despite the significant growth in monthly active customers
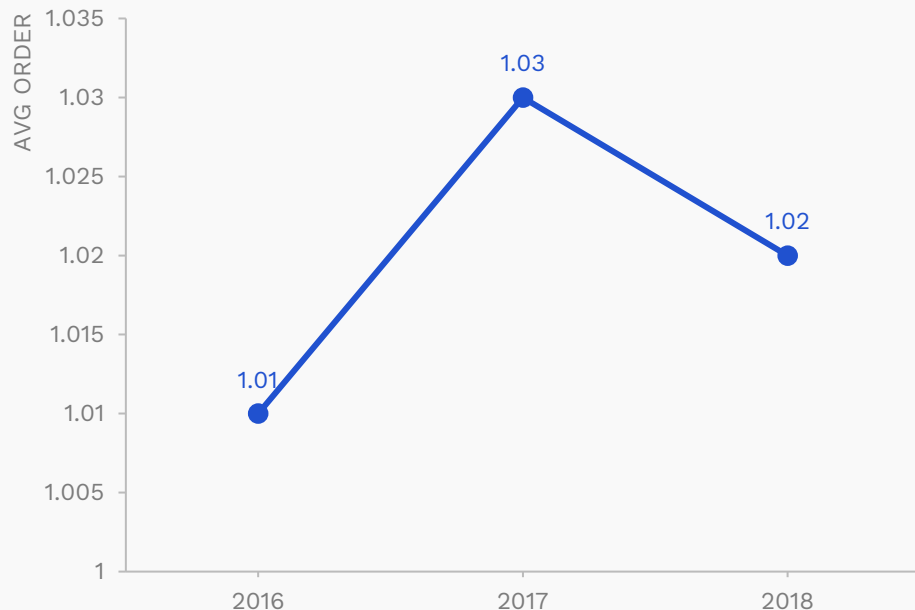
This is supported by the growth in e-commerce users was mostly due to **new customers** who only bought something **once** from the store.
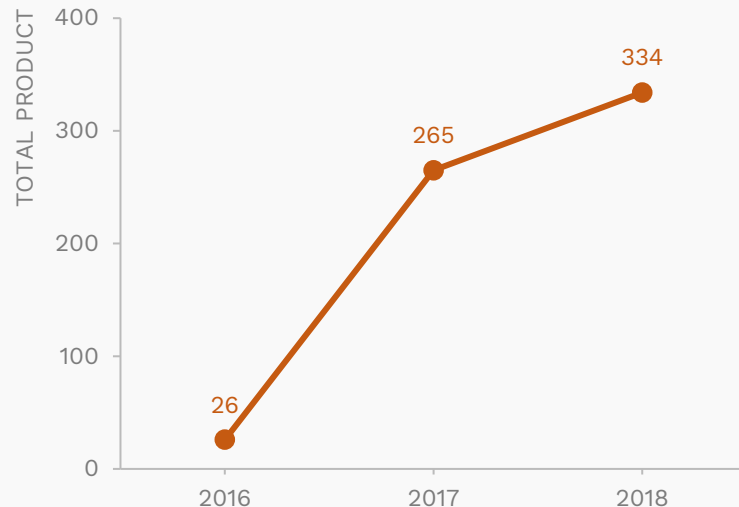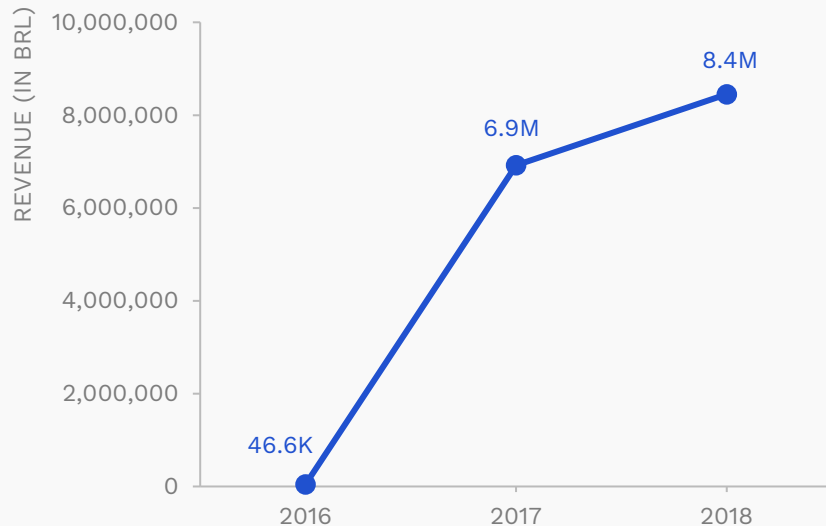
03

REVENUE & PRODUCTS
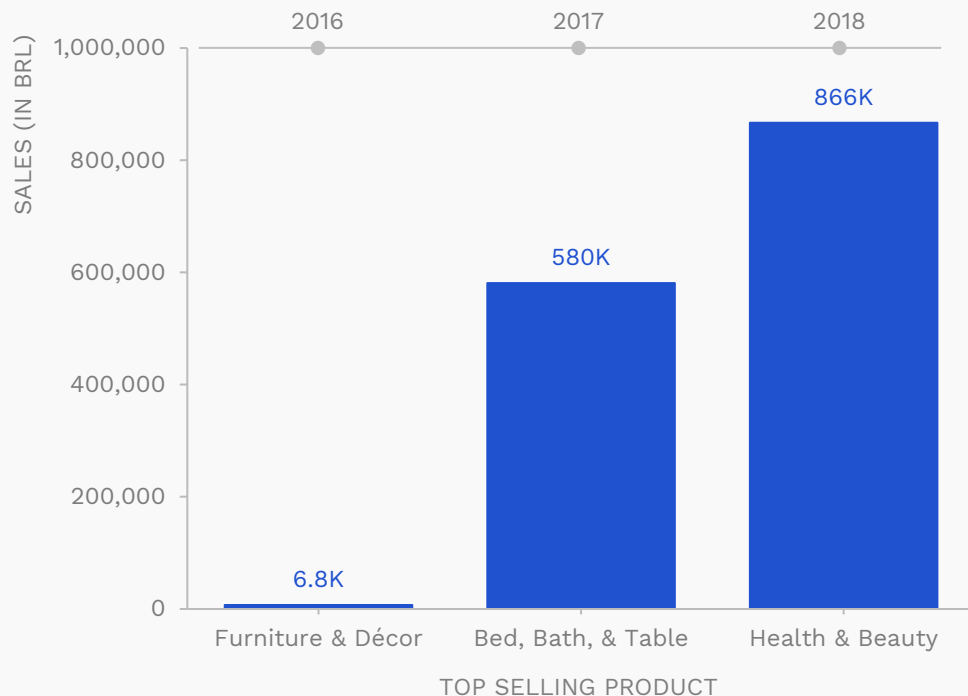
Annual **Revenue** is Growing Significantly

and so is the total number of canceled orders!

The observed **revenue-cancellation** association may reflect broader market trends, such as increased e-commerce **competition** driving both higher revenue and canceled orders due to **price sensitivity** and **comparisons**.
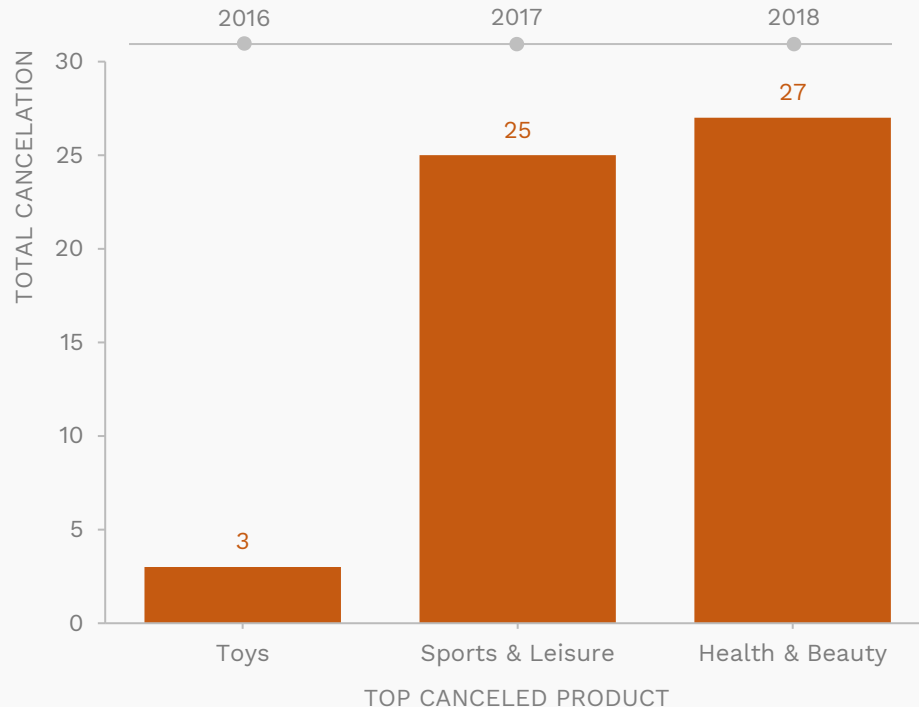
Top-Selling Products

As the year goes by, the customers' preferences have changed.

2016   2017   2018

SALES (IN BRL)

1,000,000

800,000

600,000

400,000

200,000

0

6.8K

580K

866K

Furniture & Décor   Bed, Bath, & Table   Health & Beauty

TOP SELLING PRODUCT

Notably, **Health & Beauty's revenue dominance** in 2018 indicates a surge in merchants providing **wellness** and **self-care** products, reflecting a shift in customer preferences towards health and beauty.
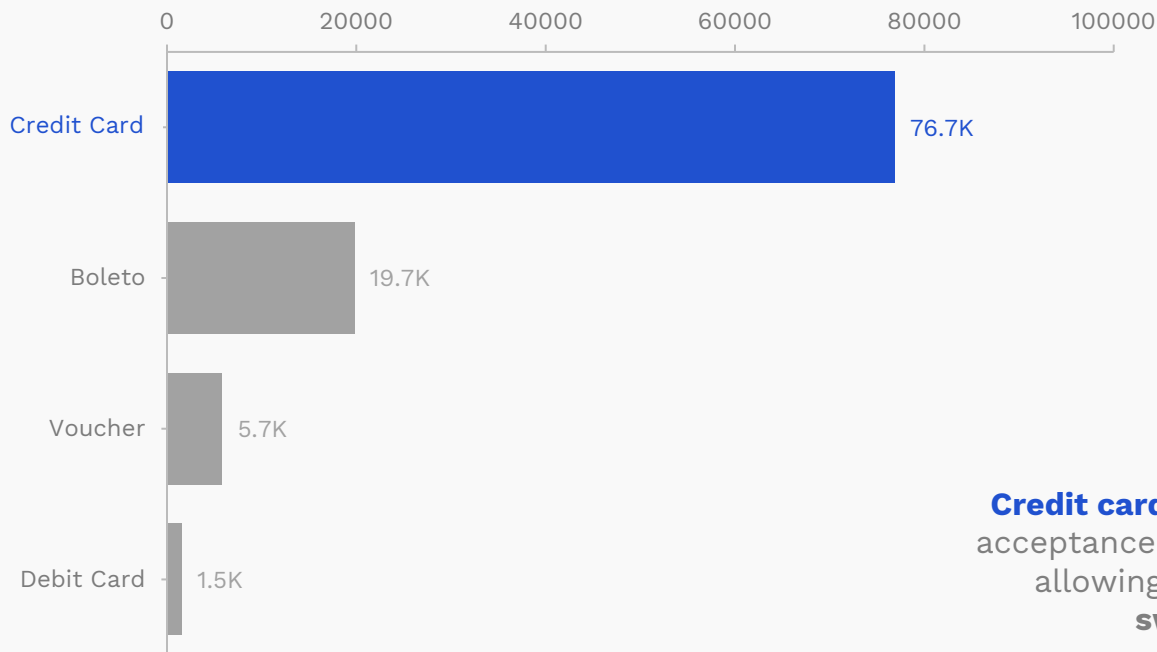
04

PAYMENT TYPES

Credit Cards: All-Time Most Popular Payment

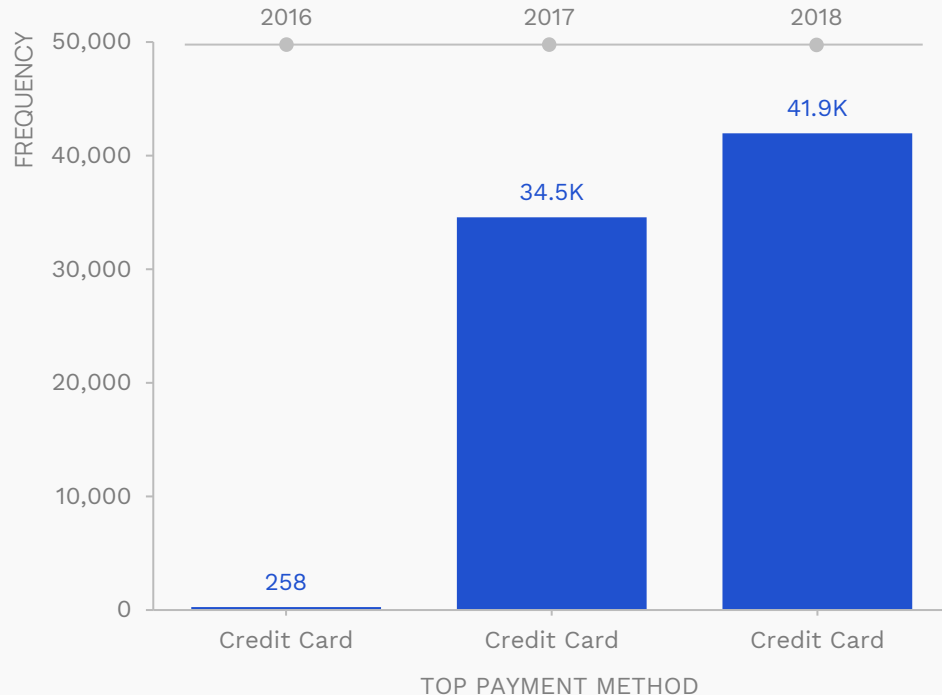while Boleto showing notable popularity

Credit cards have gained widespread acceptance due to their **convenience**, allowing users to make purchases **swiftly** and **without hassle**.

Credit Cards: Popular Across Years

As the year goes by, the customers' preferences have changed.

2016   2017   2018

FREQUENCY

50,000

41.9K

40,000

34.5K

30,000

20,000

10,000

258

0

Credit Card   Credit Card   Credit Card

TOP PAYMENT METHOD

This shows a **steady trend** of payment method preference, where **credit card** still shows the most **convenient** payment method to use in this e-commerce.

05

PROPOSED ACTIONS

CUSTOMER ACTIVITY

Revise Marketing Strategy

Despite the significant increase in annual customer growth, it **stagnated** from December 2017 onward and **declined further** from September 2018.

We need to **reevaluate our marketing strategy**, especially compared to the **successful period** from January 2017 to November 2017.

It is suspected that the marketing strategy **remained unchanged** from December 2017, **failed to adapt** to evolving market conditions, or was **modified ineffective**.

Photo by Leeloo Thefirst

CUSTOMER ACTIVITY

Photo by Shattha Pilabut

Enhance Product Offerings

The low and stagnant **average order per customer** and **repeat customer** rate indicate that customers may be solely taking advantage of **'first-time' discounts**, are **unable to find the products** they seek, or are **sensitive to pricing** and actively **compare prices** with competitors.

We need to **realign** our **main product offerings** according to customers' preferences, with **optimized pricings** that we will get from future competitor analyses.

REVENUE & PRODUCTS

Photo by Karolina Grabowska

Prioritize Health and Beauty Products

Compared to other products and years, Health & Beauty products had the **highest sales** while it also had the **highest cancelation rate**.

We can utilize this by encouraging merchants to:
1. Expand their health and beauty product diversity
2. Giving targeted promotions and campaigns for health and beauty products
3. Create 'curated product bundles' for health and beauty products.

PAYMENT TYPES

Photo by Pixabay

Give Special Promotions to Credit Card Users

Since the credit card payment type dominated from late 2016 to 2018, we can utilize this insight by giving **special promotions** to customers who use credit cards for checkouts.

Examples of these promotions include but are not limited to:
1. Price discounts from using credit card
2. Priority shipping when credit card used at their first or next purchase (this could be further customized later on)

Thank you!

If you have any questions, please feel free to reach me out on any of these contacts:

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