SALE ORDER ANALYZING

CREATED BY HO GIA BAO

Overview

Context

Seller A, one of our clients, achieved **10Bils+ VND for gross revenue** in **July**. In **August**, they want to **increase** this achievement. Therefore, our KPI in August is to reach **20B VND for gross revenue** and our responsibility is to provide a concrete action plan on how to achieve that KPI.

Attached supporting materials:

Historical sales performance data from internal Order Management System ("Order_July.xlsx")

Challenge/Purposes:

Basing on the supporting materials to precisely give a propose of which actions we need to take, why and how we should implement it to achieve the above KPI (double in gross revenue)

Orders dataset | Shipping fee

Insight

▶ **Users prefer orders with low shipping costs**

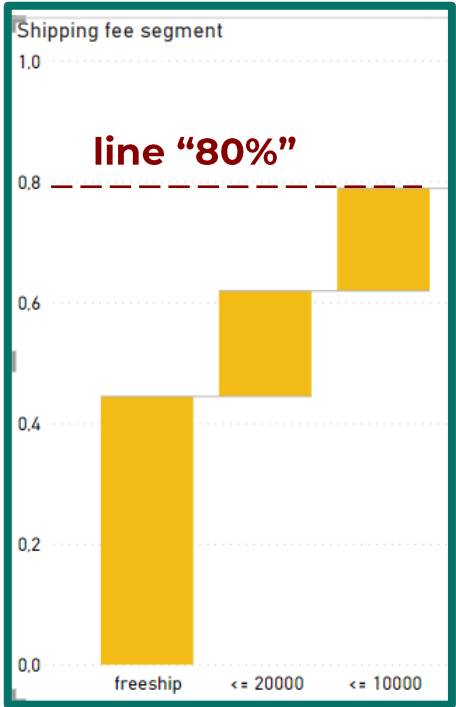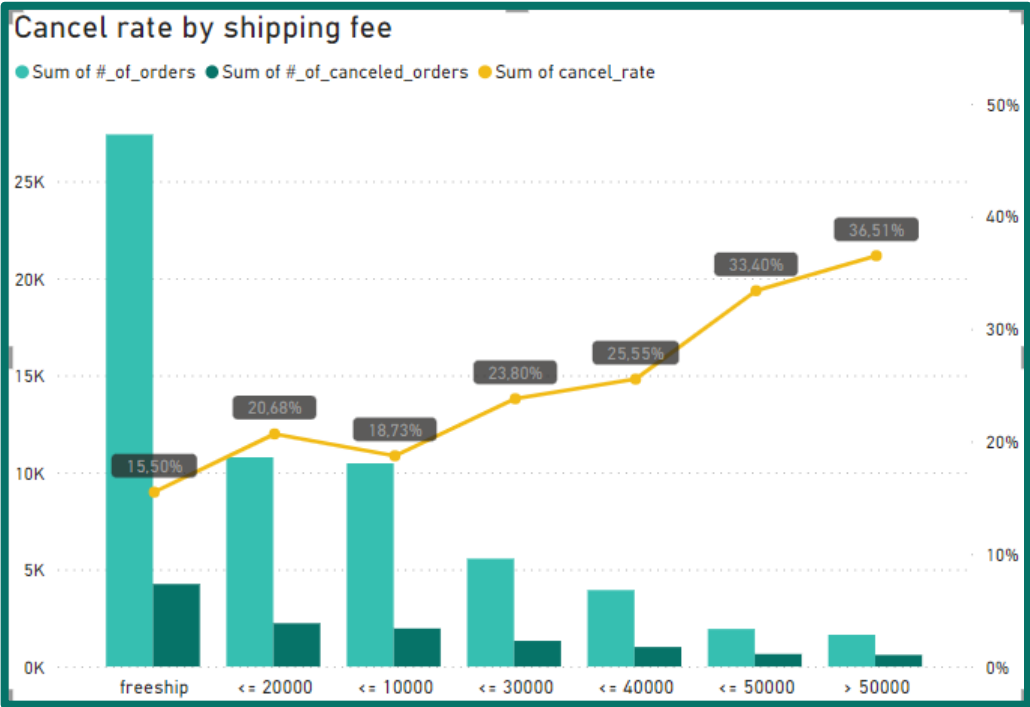**78.8%** of orders have shipping fee below **VND 20,000** and **44%** of orders are **free ship**.

▶ **The larger the shipping fee, the higher the cancellation rate**

Order cancellation rate **is proportional** to the delivery fee. Cancellation rate of orders with shipping fees **greater than VND 40,000** is **twice** that of orders with **free shipping** (**33.4%** and **36.51%**)

Solution

- Reduce the proportion of orders with shipping fees greater than 40,000
- Modify shipping fee to be in range 0 to VND 20,000
- **Ideal case – orders with no shipping fee:** Total number of orders will increase 2242 (*) orders

* Increased = Total cancelled orders - Total orders except freeship * freeship cancellation rate

Cancel rate by shipping fee

● Sum of #_of_orders ● Sum of #_of_canceled_orders ● Sum of cancel_rate

15.50% 20.68% 18.73% 23.80% 25.55% 33.40% 36.51%

freeship <= 20000 <= 10000 <= 30000 <= 40000 <= 50000 > 50000

Shipping fee segment

line "80%"

freeship <= 20000 <= 10000

# Orders dataset | Payment Methods

Insight

▶ **Users still prefer traditional payment methods**

- COD payment method is used for **54,000 (87%)** orders but cancellation rate of this methods is high **(19.30%)** which in **top 3** payment methods having high cancellation rate. In modern payment methods, **Airpay GIRO** and **Cybersource** are common with users

▶ **Modern payment methods have low cancellation rate**

- **Almost** cancellation rate of **modern payment** methods are **lower than COD**.
- Cybersource has **lowest cancellation rate** which is only **3%**
- Airpay Wallet V2 (new version of Airpay GIRO) **reduce** cancellation rate from **21.29%** to **12.29%.** In the opposite side, New version of Cybersource **increases** cancellation rate **3 times.**
- VN Airpay Ibanking has **significantly high** cancellation rate **(60.90%)** which can be effected by bug, unstable system or complex process.
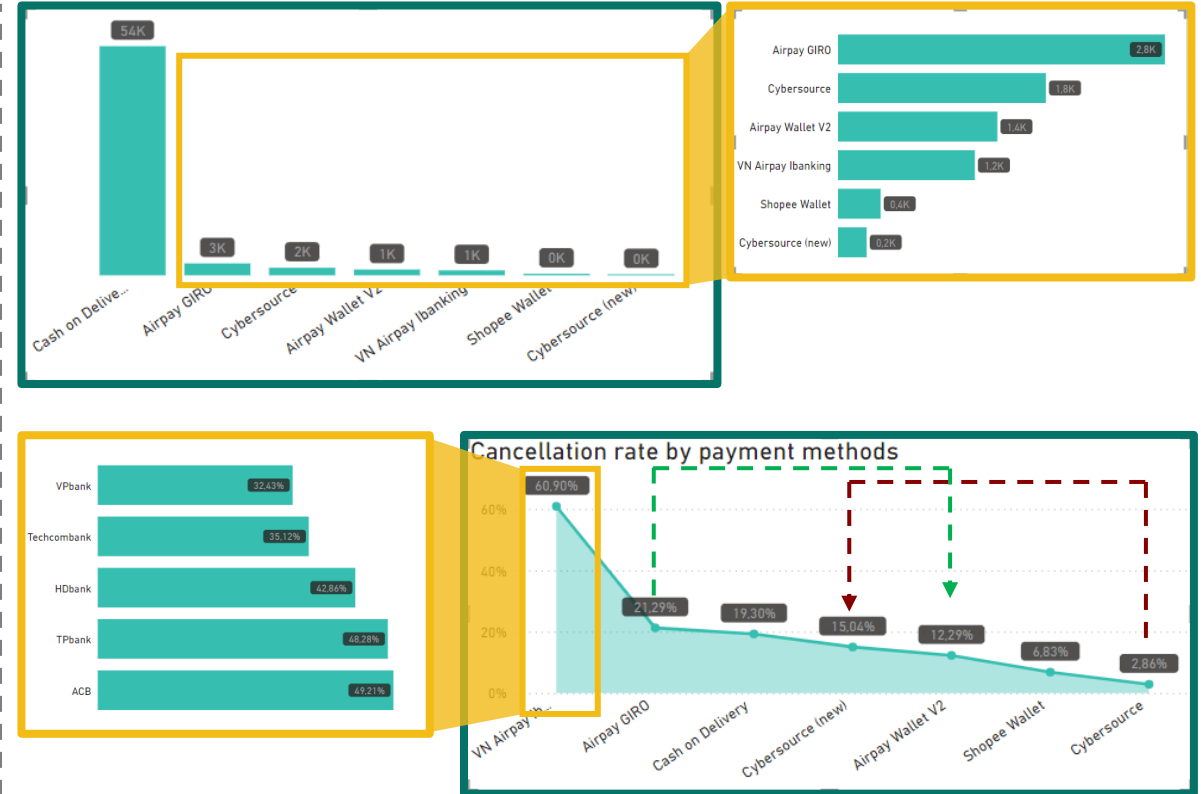
Solution

- Educate users to use payment gateways, e-wallets instead of COD to reduce cancellation rates.
- Focus on **Shopee Wallet** and **Cybersource** for the short term, perform analyzing and testing **Airpay Wallet** and **Cybersource** for the long term.
- Limit the application of **VN Airpay Ibanking** payment method. Only tested this method with **Techcombank** and **VPBank** (bank with cancellation rate less than 40%).

Orders dataset | Discount

Insight

► **10% to 50% discount are the most effective discount range**

- **83%** of orders having discount rate from **10% to 50%** (**96.7%** of them are for order with **average price from 0 – VND 500.000**)
- Orders with discount from **10% to 50%** have lowest cancellation rate

► **Users perform same action for orders having discount rate from 10% to 50% and average value under VND 500.000**

Number of orders perform same trend for 4 discount section in 3 price range which mean users willing to pay for orders with an average value of 500,000 or less with any discount from 10% to 50%.

Solution

- Apply **10% to 50% discount** for best effect
- Use **10% to 20% discount** for orders with average price under VND 500,000 instead of 10% to 50%

| discount_range	#_of_orders	cancel_rate	total_amount
<= 40%	15057	20,08%	2.734.103.000 ₫
<= 30%	14028	19,82%	2.524.117.000 ₫
<= 50%	13291	18,83%	1.740.217.100 ₫
<= 20%	9334	19,25%	1.910.640.900 ₫
< 100%	5320	21,56%	5.320.000 ₫
<= 10%	1655	17,28%	246.163.080 ₫
<= 60%	977	17,60%	77.183.000 ₫
no discount	872	26,67%	47.572.000 ₫
<= 90%	708	19,63%	708.000 ₫
<= 80%	242	26,86%	36.858.000 ₫
<= 70%	169	20,71%	27.787.000 ₫
1	75	18,89%	0 ₫
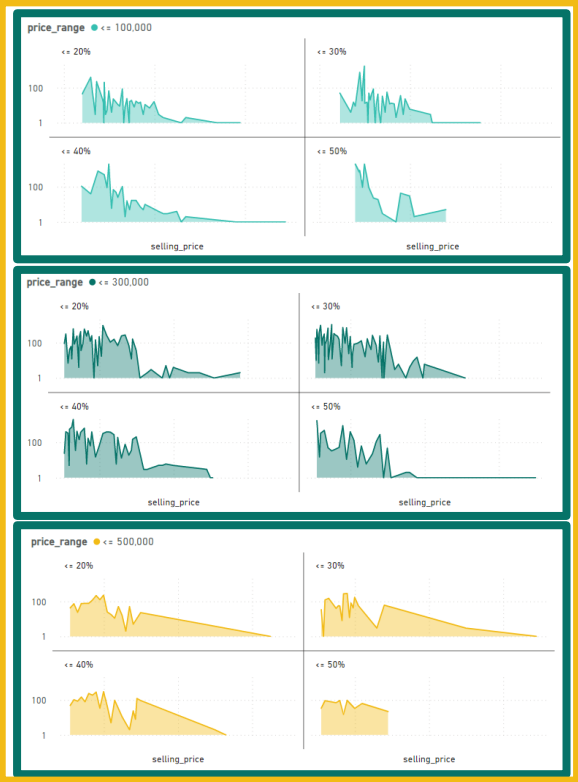
Orders dataset | Time series

Insight

▶ **2 spike orders are recorded in July**

- First spike in ordering is from **07 to 12 July**, which reach **30,497** orders (49.4%) per day and **44,261** orders (71.7%) in total.

- Second spike in ordering is from **27 to 28 July**, which reach **2,255** order per day and **4069** orders in total -> not as effective as first spike

▶ **Cancellation rate is stable in range 15% - 25% and low in spike periods (<=20%)**

Cancellation rates tend to be low in the days **(under 20%)** before and during the spikes, then significantly increase

Solution

- Perform more campaign, promotion in 2 periods: **day 07 to 12** and **day 27 to 28**

- Analyze and invest in a series of events at the end of the month when users receive salaries to boost effective of second spike
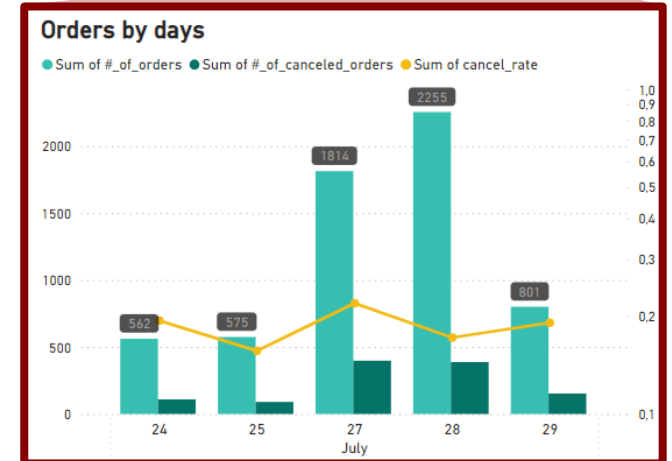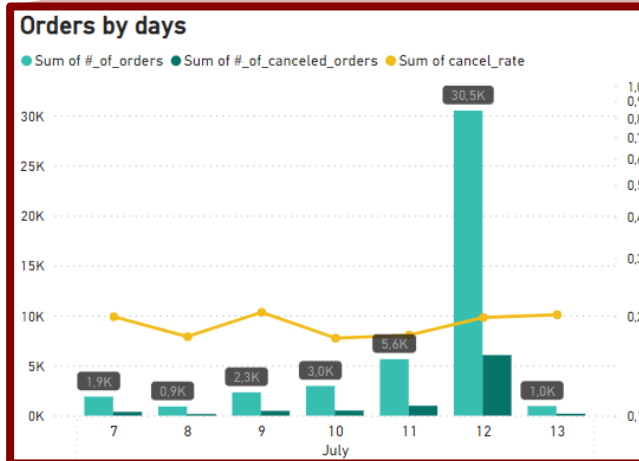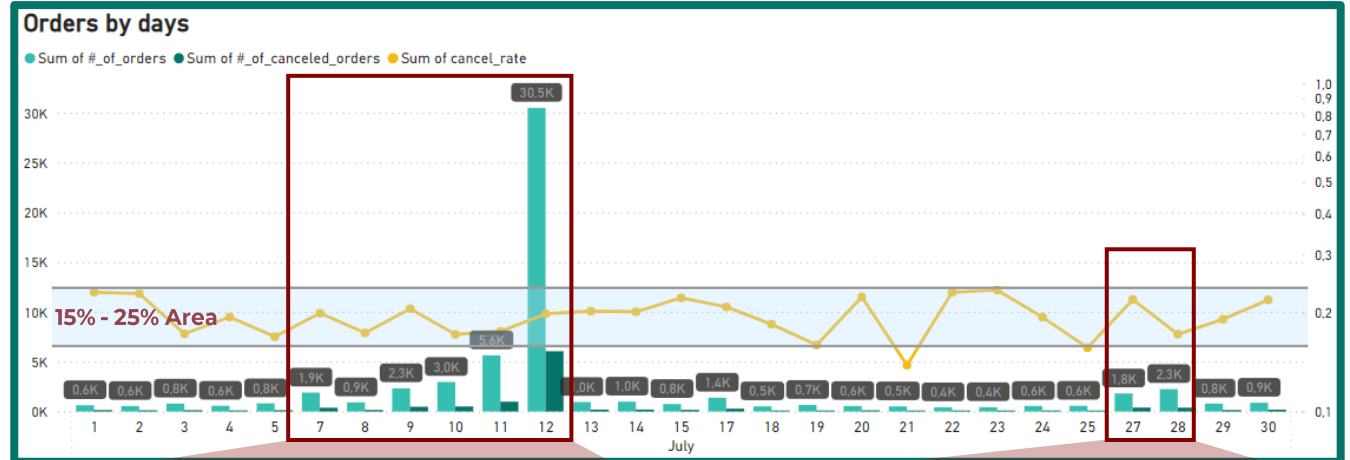
Orders dataset | Order Average Price

► **Prominent point of sales are orders with average price from 0 to VND 300,000**

Number of orders having avg price **not higher than VND 300,000** are **55,600** which equals **90.07%**

► **Orders with average price over 1 million are inefficient**

There are only **32 (0,05%)** orders having average price **over VND 1,000,000**. In addition, cancellation rate of the order in this group reaching to **extremely high rate (31.25%)**

Solution

• Maintain and increase more programs, promotional campaigns for orders with prices from **0 – VND 300,000.** Revenue from this price segment will depend on the **level of product recognition** and the **coverage of the e-commerce platform**

• Products from **VND 300,000 to VND 1,000,000** are mainly aimed at the small customer segment and increase the diversity of the product ecosystem.

• Perform and assess orders with average price **over VND 1,000,000** to implement elimination or change strategy

● Sum of #_of_orders   ● Sum of #_of_canceled_orders   ● Sum of cancel_rate

effective price area

ineffective price area