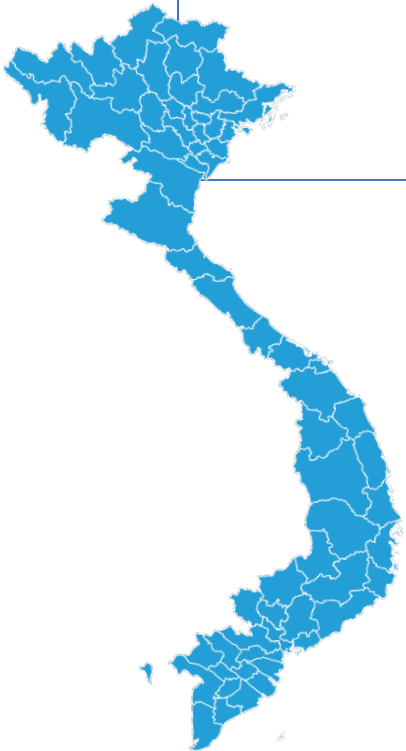
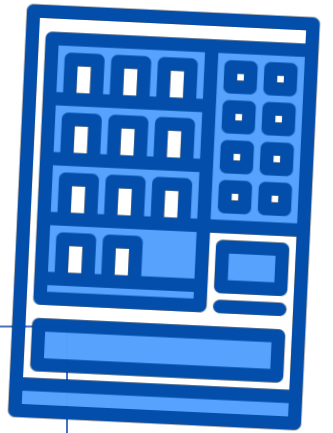


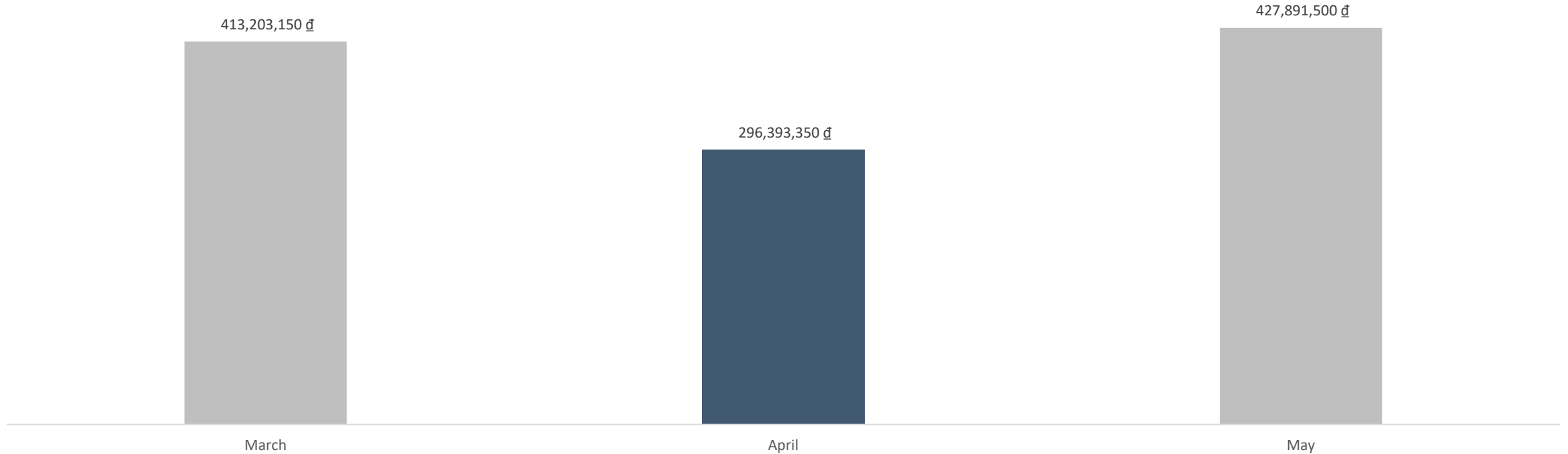
Vending Machine Capstone Project: Improvement Opportunities Regarding Location

by Dao Thanh Dat



Sales dropped by 117 mil VND in Apr 2020.

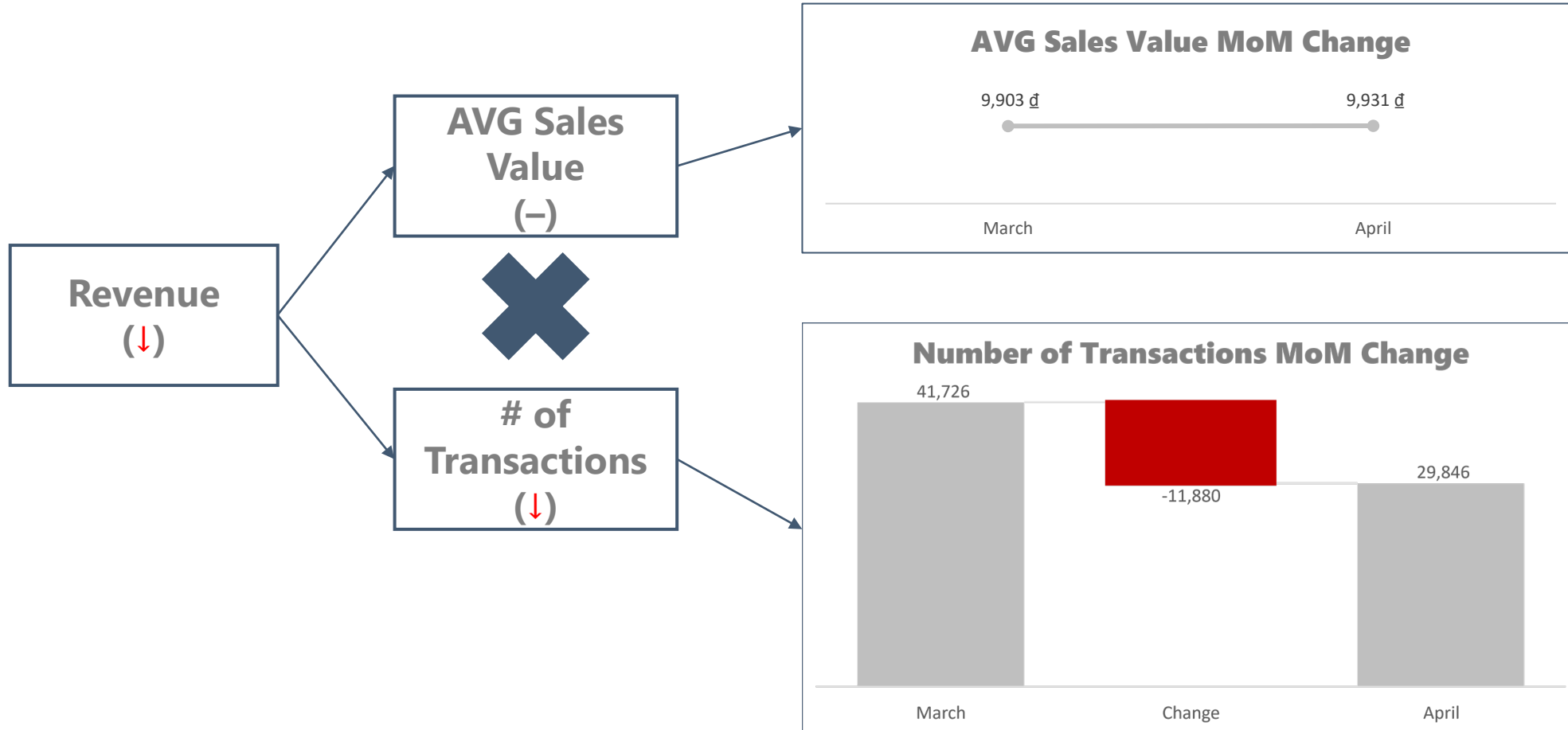
SUM Sales Value 2020 MoM



**April witnessed over 100 mil VND loss compared to March & May.
This was over 25% of the normal market conditions' figure.**

Sales MoM dropped in April

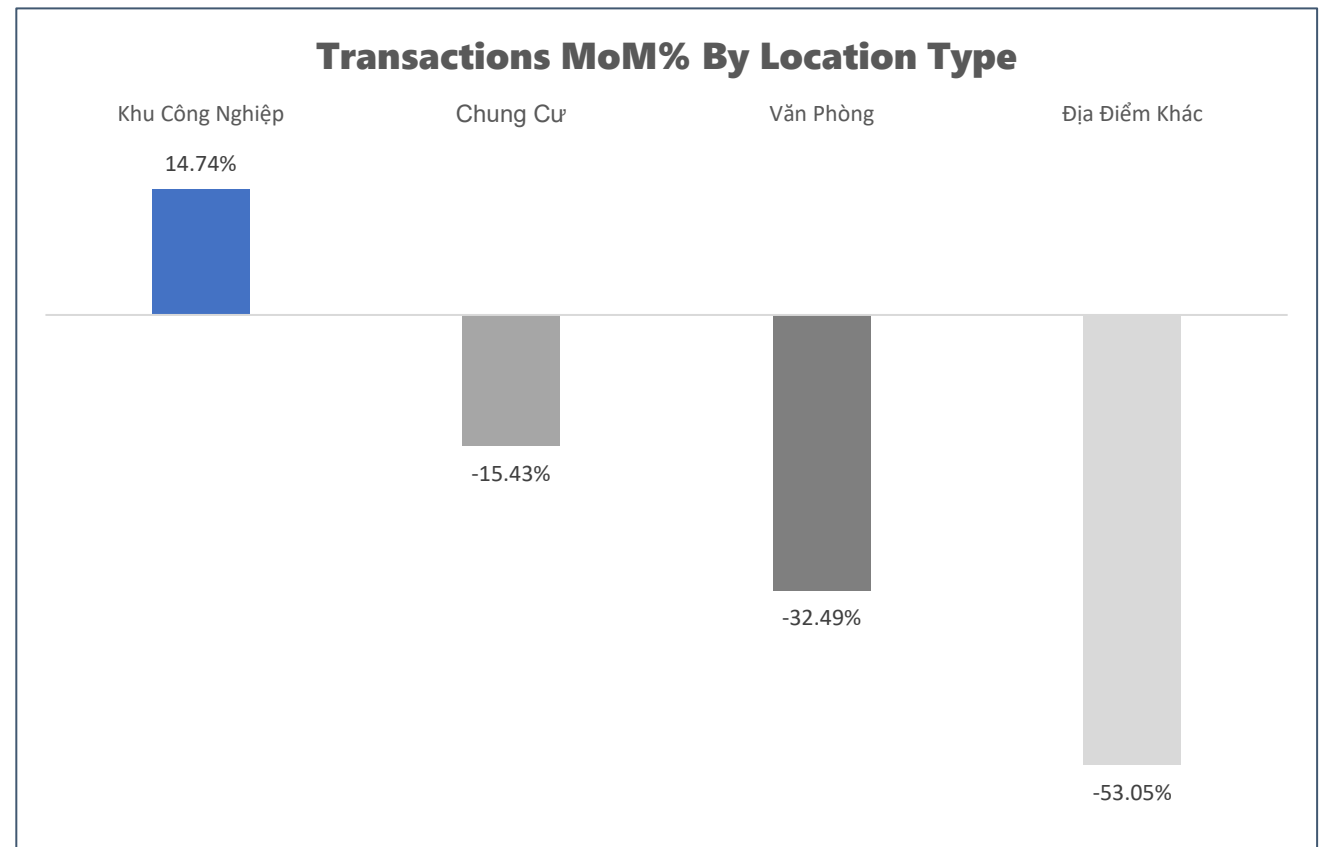
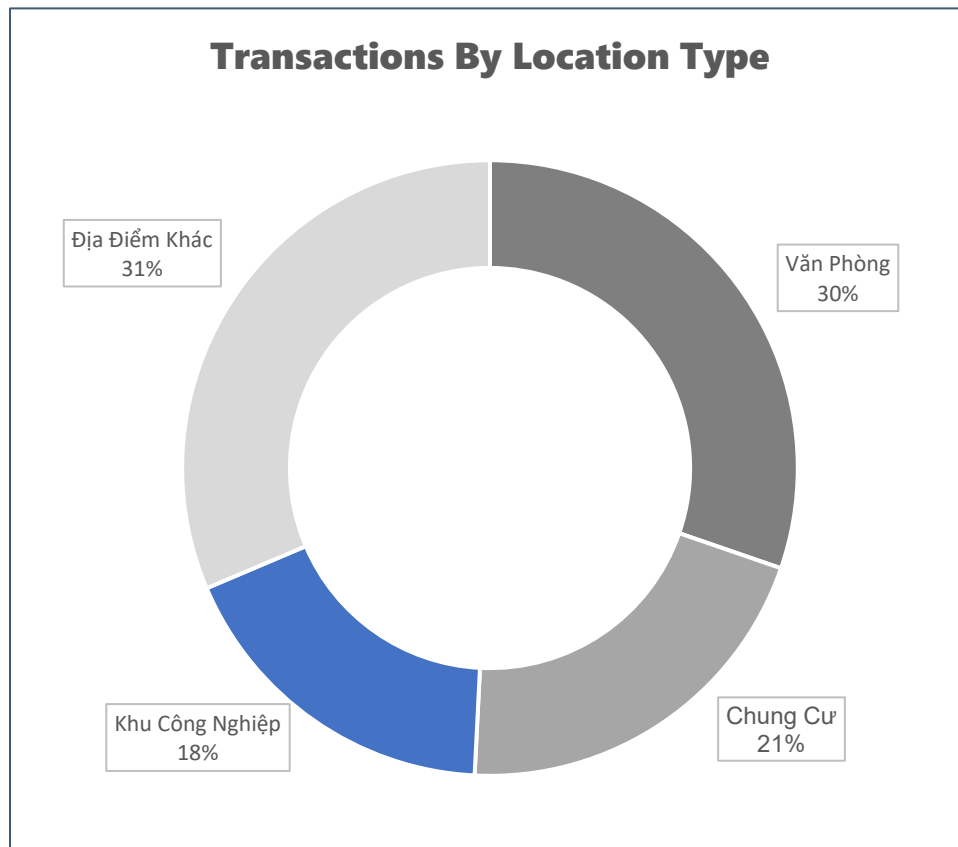
due to the decrease in the number of transactions.



#1: Increase Transactions in Industrial Zone.

Machines at industrial zone always generated top 3 Transactions Count.

During April, industrial zone was also the only location type that had positive MoM% Transactions change.



#1: Increase Transactions in Industrial Zone.

For each transaction, revenue is expected to increase by **11,423 VND**, OR:

1.1474 (Principal + Expected Growth Rate) x **9,955.45** (AVG Sales Value)

Industrial zone is expected to have a revenue of **72 mil VND** in June, OR:

1.1474 x 9,955.45 x 6,317 (# Transactions in May)

IF there is another society-wide isolation next month

AND nothing is changed about Skillhub's operation.

This would increase the revenue from May's figure by 13% OR **8.5 mil VND**.

Statistics Table			
Loại địa điểm	AVG Sales Value	Transactions MoM%	# Transactions
<input checked="" type="checkbox"/> Khu Công Nghiệp	9,955.45 đ	44.70%	20449
May	10,076.14 đ	-16.34%	6317
April	9,926.63 đ	14.74%	7551
March	9,872.66 đ		6581
Total	9,955.45 đ	44.70%	20449

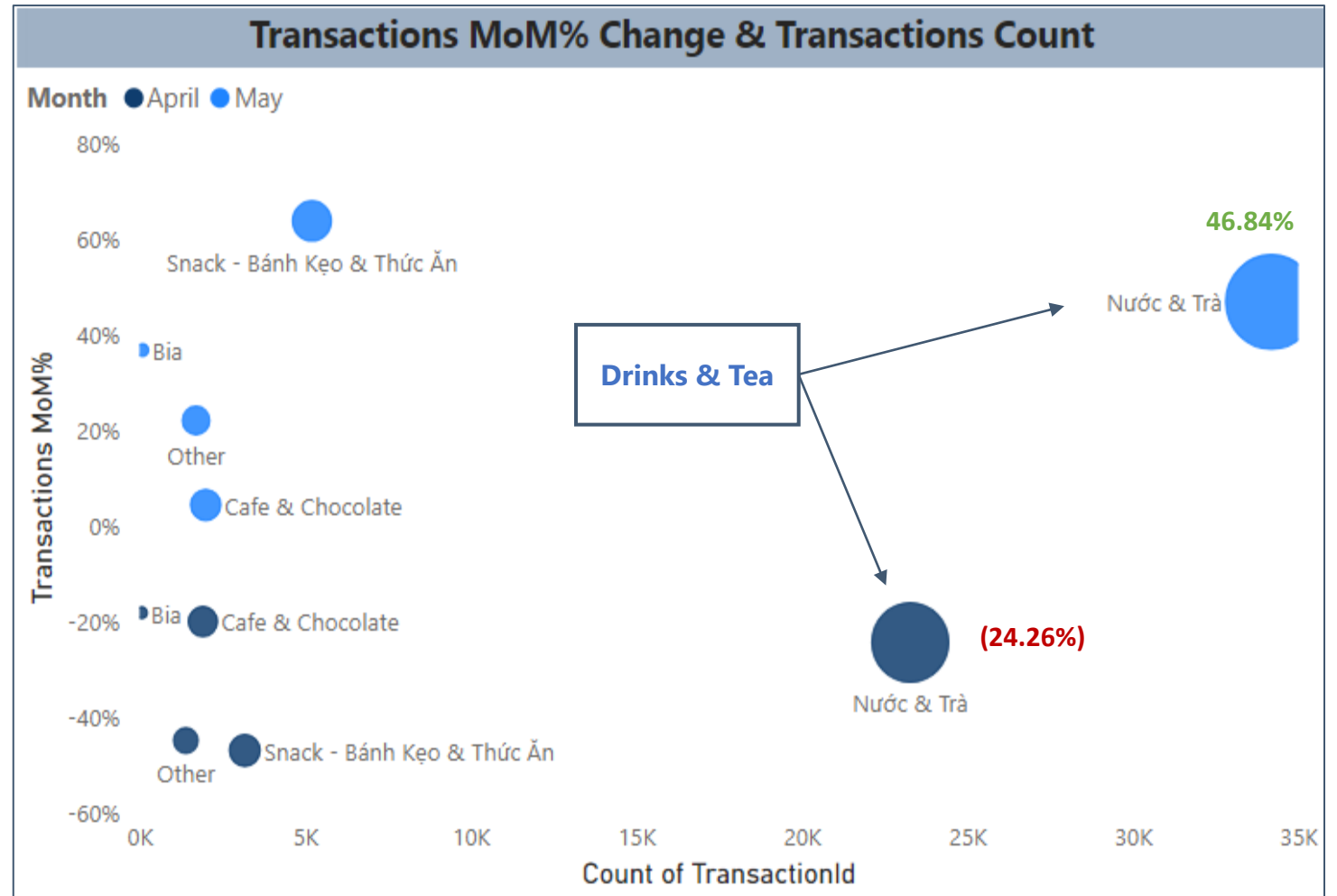
#2: Increase Transactions in Drinks & Tea

Despite April witnessed 24.26% decrease in Transactions MoM% Change.

Drinks & Tea were accounted for over **78%** of Monthly Total Transactions every month.

Focusing on the staples - drinks & tea and cutting back on the long-tailed product (low volume, negative Transactions MoM%) is crucial in uncertain time.

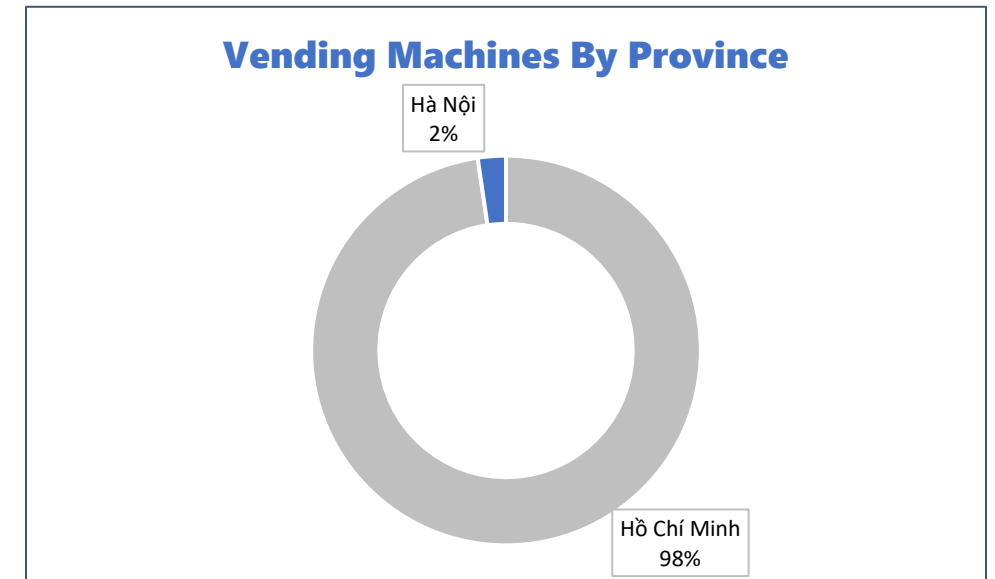
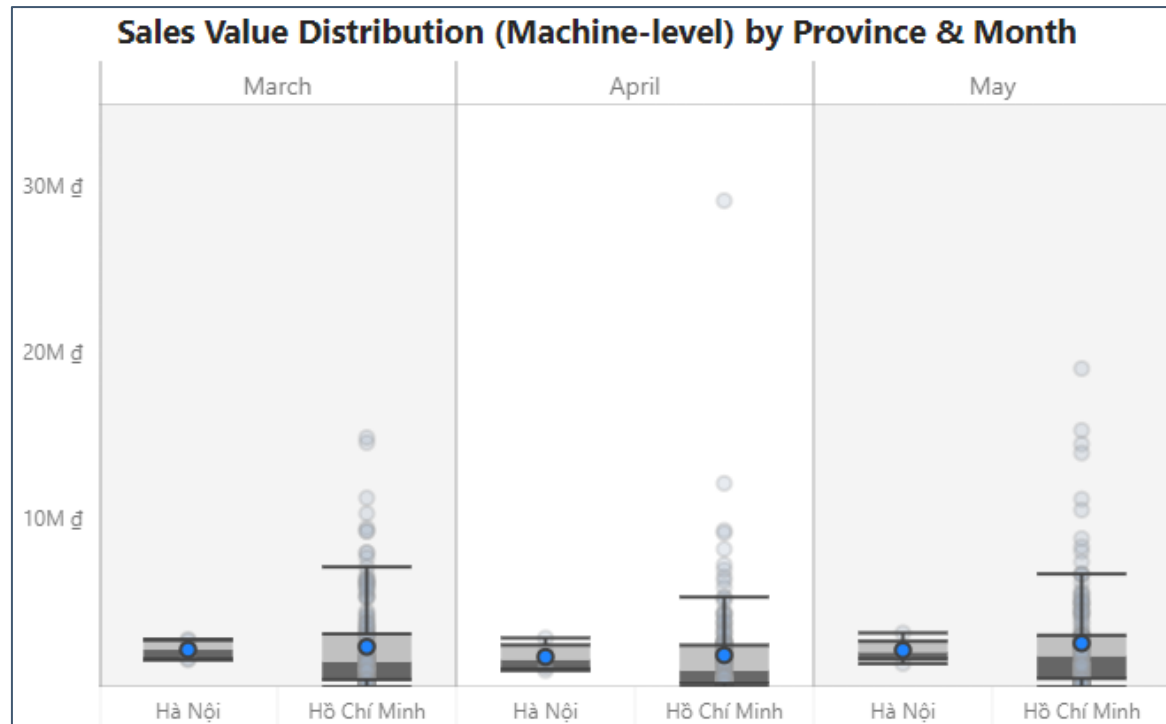
Keeping this growth rate would lead to an incremental **156 mil VND**.



#3: Increase Machines (Hanoi)

will also leads to an increase in sales:

$$(\text{SUM Sales Value}) = (\text{AVG Sales Value By Machine}) \times (\text{\# of Machines})$$



Hanoi has a similar **AVG Sales Value By Machine MoM** (difference btwn 200,000 – 400,000 VND) **BUT** has only **2%** of total vending machines.

With every new machine setup in Hanoi, the expected monthly revenue is over **2 mil VND**.

#3: Increase Machines (Hanoi)

With May Machines Count MoM% Change of 5.13%, the number of machines is expected to be **172** and expected increase in revenue would be **18 mil VND**, OR:

$$(172 - 164) * 2,303,799$$

Vending Machine Counts MoM			
Month	Machines	Machine	MoM% Change
March	172		
April	156		-9.30%
May	164	X	(100% + 5.13%)
Total	177		1.72%

Sales Value Mean (Machine-level) by Province & Month	
Month	TotalPrice average per Machine
April	1,899,957.37 đ
Hà Nội	1,799,250.00 đ
Hồ Chí Minh	1,902,607.57 đ
March	2,402,343.90 đ
Hà Nội	2,233,500.00 đ
Hồ Chí Minh	2,406,363.99 đ
May	2,609,094.51 đ
Hà Nội	2,202,250.00 đ
Hồ Chí Minh	2,619,265.63 đ
Total	6,426,485.88 đ

AVG per
Machine
per
Month

Aha Moment

Focusing on key location type, products, and region could contribute from **180 mil VND** to Skillshub's monthly revenue *OR* **42%** of revenue in May.

Solutions & Next Steps

1. Increase number of transactions: push marketing in **industrial zone**. Industrial zone is less affected by the society-wide isolation.
2. Focus on **drinks & tea** product category and reduce other products. The products are staples and contributes a huge percentage to transaction counts and revenue.
3. Set up machines in **Hanoi**: spread out the risk in case there would be district-wide or province-wide isolation in Saigon.