**Exploratory Problem**

We have a new director looking for insights and visuals into overall volume trends and geographies. Using the available data, come up with 3 recommendations for the next quarter.

1. What new region do you believe we focus on expanding in and why?

My recommendation is to focus on expanding our business in EMEA - here are a couple of reasons to support my argument.

* EMEA has the biggest gap between the counts of all the users available and the count of users who have used any of the products. Thus, EMEA has the most room to grow the business. Below is the table that shows the product usage per region (product usage is defined by the number of unique users in CRM divided by the number of unique users who have used a product)

Table

Description automatically generated

Table 1 Product Usage per Region

Here is a visualization of product usage per region.

Chart, bar chart

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Figure 1 User Count per Region

* EMEA has the growing trend in terms of accounts created over the years, and we can expect the account base to keep the upward trend, while the numbers of accounts created in different regions are declining or there’s not enough data. Here is the trend of account creation.

Chart, line chart

Description automatically generated

Figure 2 New Users Created over Month per Region

1. Are there any accounts we should focus on expanding?

We should focus on expanding accounts in the ﻿eCommerce-Physical goods industry. I have created a graph to show the number of accounts per region per industry. We can see that we have more accounts in the eCommerce-Physical goods industry than other industries for most of the regions, and so we can assume we have the most presence in the industry. Therefore, we can continue to grow and be successful where our strength lies. LATAM is the only region that the eCommerce-Physical goods industry is not the industry that has the most accounts, we can expand accounts in the industry in LATAM by applying the knowledge and experience gained from expanding in the eCommerce-Physical goods industry in other regions

Chart

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Figure 3 Account Count by Region and Industry

1. Any other recommendation that stands out to you during your analysis.

Data shows that the total usage of the product is declining in all regions. While there’s not enough data for the month of December, the downward trend is a warning as it signifies our business is shrinking. Here is a graph that shows my finding.

Graphical user interface, application, table, Excel

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Figure 4 Total Usage over Month per Region

Chart, line chart

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Figure 5 Total Usage over Month per Region (excluding N. America)

I would recommend a couple of things to act on increasing usage.

* Research the product’s market size to see if it is shrinking. The downward trend might be because of the shrinking total available market, and we need to look for a new market to enter to grow our business.
* Research the competitors and understand if we are losing in a competition. We might need to consider new product features or differentiation to attract customers.
* Finally, understand the existing customer’s behavior extensively and act upon findings. Knowing existing customers’ behavior to understand customer satisfaction will help us consider which product to focus on growing. Moreover, expanding usage from the current customer is cost-effective compared to gaining new customers as it requires marketing and sales cost. Therefore, I highly encourage teams to analyze customer behavior to further expand our business.

**Reference:**

Visualization in Tableau: <https://public.tableau.com/app/profile/kay.hiratsuka/viz/Ekata_Exercise/AccountCountbyRegionandIndustry?publish=yes>

SQL query to calculate Product Usage:

SELECT s.region, s.accnts\_with\_usage, c.total\_accounts, ROUND((s.accnts\_with\_usage / c.total\_accounts) \*100,2) AS "Product Usage"

FROM (

SELECT ca.region, ROUND(COUNT(DISTINCT u.salesforce\_id),2) AS accnts\_with\_usage

FROM usage AS u, crm\_accounts AS ca

WHERE u.salesforce\_id = ca.account\_id

GROUP BY ca.region

) AS s

JOIN (

SELECT region, ROUND(COUNT(DISTINCT account\_id),2) AS total\_accounts

FROM crm\_accounts

GROUP BY region

) AS c

ON s.region = c.region

ORDER BY ROUND((s.accnts\_with\_usage / c.total\_accounts) \*100,2)