To: RMA Team

From: Brandon Hobbs

Date: March 17, 2022

Subject: DAD-220 Module 5 Major Activity

After analyzing the sales by region, it appears that Massachusetts has the greatest number of customers, 982, with Arkansas coming up second at 854. South Carolina has the fewest at 713. The top five states by client are:

|  |  |
| --- | --- |
| **State** | **Customers per State** |
| Massachusetts | 982 |
| Arkansas | 854 |
| West Virginia | 843 |
| Oregon | 842 |
| Idaho | 838 |

The three SKU ordered most often, in all States with sales, are BAS-48-1 C, ENT-48-40F, and ENT-48-10F. However, in just the Southeastern regions (Virginia, North Carolina, South Carolina, and Georgia) BAS-48-1 C, ENT-48-40F, and BAS-08-1 C are the top three selling SKUs.

Upon analyzing the returns stored in the RMA table the following 3 items, across the States where sales are occurring, are most often returned: BAS-48-1 C, ENT-48-40F, and ENT-48-10F. This tends to make sense as these are also the most ordered items. This also provides the company an opportunity to improve these items as their return rate is almost 1:1.

|  |  |  |  |
| --- | --- | --- | --- |
| **SKU** | **Order by SKU** | **RMA by SKU** | **Return Rate** |
| ENT-24-10F | 4275 | 4231 | 99.0% |
| BAS-08-1 C | 4284 | 4246 | 99.1% |
| ENT-48-10F | 4329 | 4287 | 99.0% |
| ENT-48-40F | 6186 | 6118 | 98.9% |
| BAS-48-1 C | 8385 | 8282 | 98.8% |

In just the Northeast (Washington, Oregon, Idaho, and Montana) states the three most often returned items are a bit different than across the US. In the Northeast the top three returns are: BAS-48-1 C, ENT-48-40F, and BAS-08-1 C.  
  
Based on this analysis there appears to be an opportunity in continued product improvements to reduce the return rate.

Regards,

Brandon Hobbs

**Appendix**

Searches Performed

*Select State, Count(Customers.State)*

*From Customers*

*Group by Customers.State*

*Order by Count(Customers.State);*

*Select SKU, Count(SKU)*

*From Orders*

*Group by SKU*

*Order by Count(SKU);*

*Select SKU, Count(SKU)*

*From Orders*

*inner join Customers*

*On Orders.CustomerID = Customers.CustomerID*

*Where State = "Virginia"*

*or State = "North Carolina"*

*Or State = "South Carolina"*

*or State = "Georgia"*

*Group by SKU*

*Order by Count(SKU);*

*Select SKU, Count(Distinct RMAID)*

*From Orders*

*Inner Join RMA*

*On Orders.OrderID = RMA.OrderID*

*Group by SKU*

*Order by Count(\*) DESC;*

*Select SKU, Count(Distinct RMAID)*

*From Orders*

*Inner Join RMA*

*On Orders.OrderID = RMA.OrderID*

*Inner Join Customers*

*On Orders.CustomerID = Customers.CustomerID*

*Where State in ("Washington", "Oregon", "Idaho", "Montana")*

*Group by SKU*

*Order by Count(\*) DESC;*