

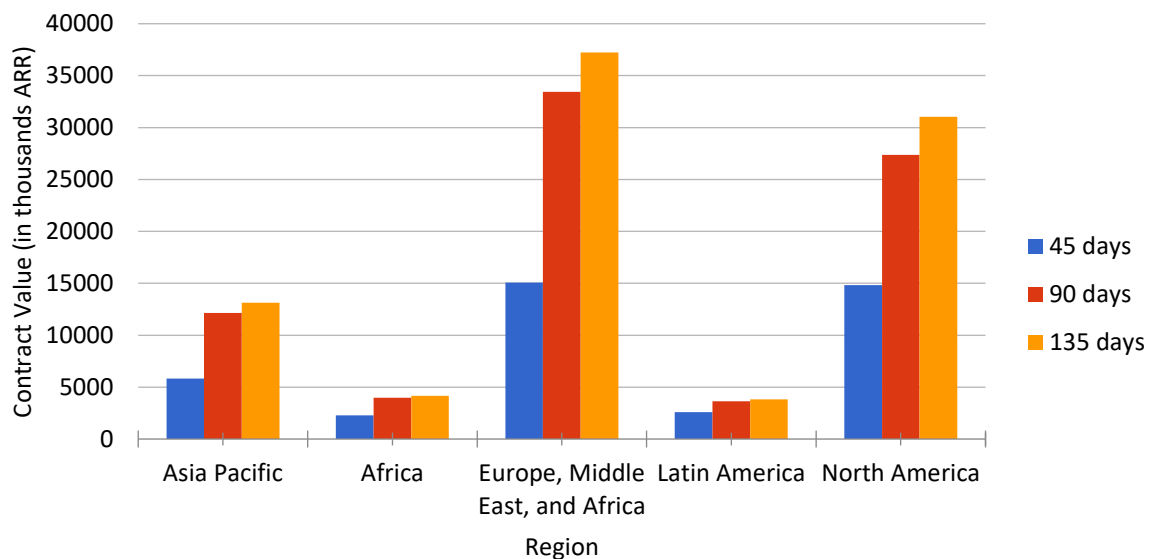
By Aana Hahn

If payment has not been received within 45 days of the close of a deal, the vendor sends a reminder to the customer. By region, what is the current (where "today" is December 11, 2018) total value of contracts to be collected that are more than 45 days past close? More than 90 days? More than 135 days? How does this compare to contracts closed in 2017?

Answering questions about a large data set is like panning for gold. A prospector scoops up a pan of water, gravel, and sand with the hopes of seeing gold at the bottom. Rather than gold, we are looking for the total value of contracts that are past close after a specific number of days by region.

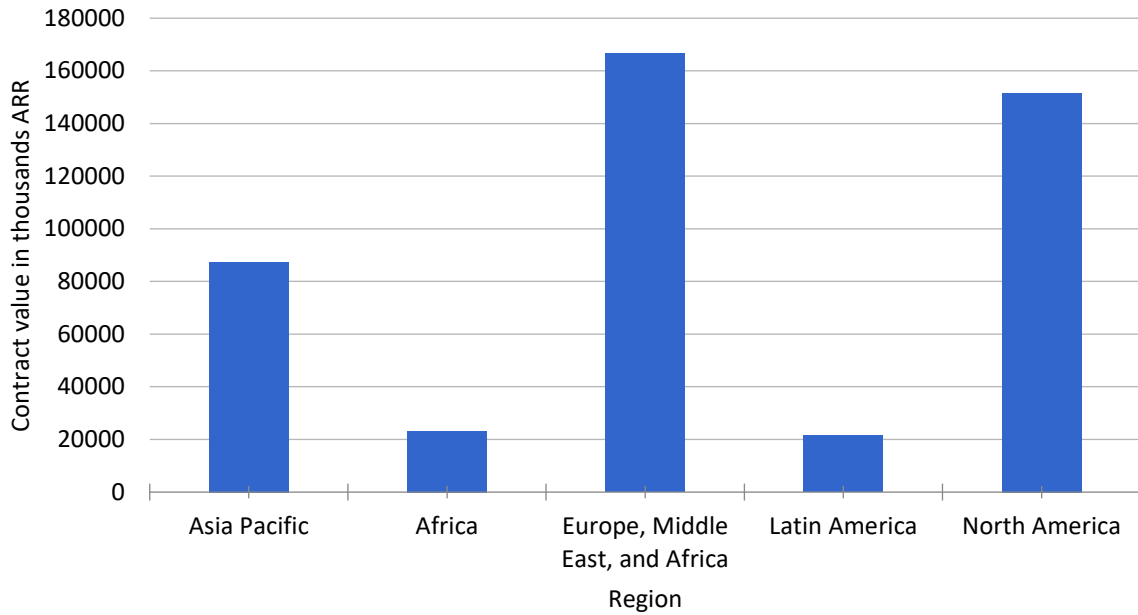
We have two data tables to sift through. One table provides details about the contracts (contract ID, size, length, closing date, payment date) and the other about accounts (ID, region, partner). We can group these contracts based on a customer's region by using the information in the accounts table. By region, these contracts can be further filtered for contracts that are past close after a specified number of days. Contracts that are past close can be identified as those that have not yet been paid (a blank entry under payment date in the contracts table). Accounts can then be matched to the contract ID, because they contain the account ID. We can then add up the value of the contracts yet to be received by the vendor for each region. The contract value means the size in thousands of ARR or Annual Recurring Revenue by that contract's length in years.

Contracts by region past close as of December 11, 2018



As we can see from the above plot, the contracts with a higher value tend to take longer for a customer to pay the vendor.

Contract value by Region in 2017



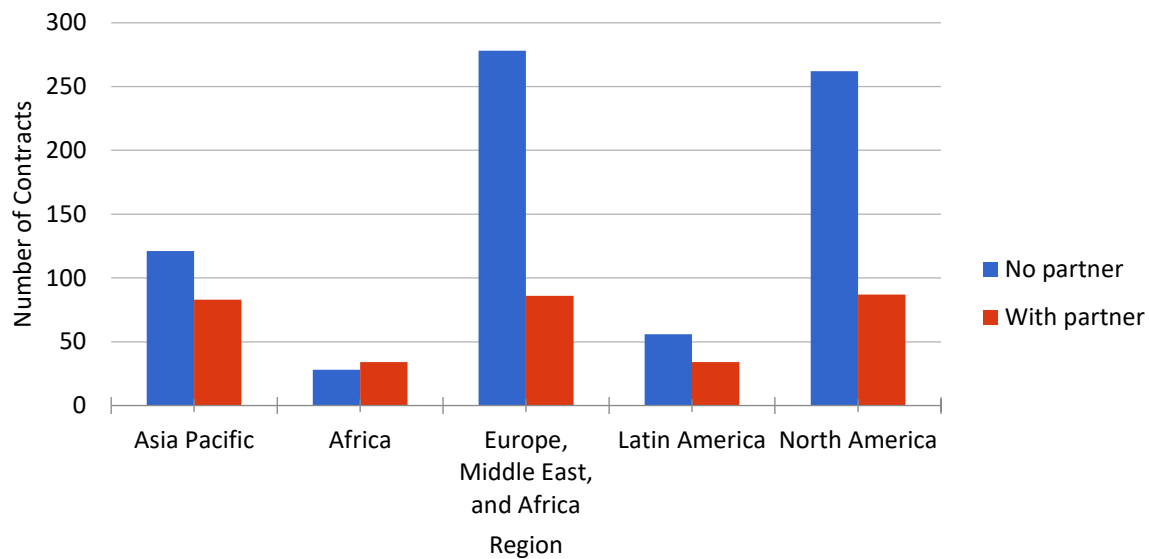
In 2017, the contracts from customers based in Europe, Middle East, and Africa (EMEA) had purchased a higher contract value compared to the other regions. However, it took about 94 days after a contract's closing date for the vendor to receive payment. For 75% of these contracts, it took about 107 days to pay the vendor.

Identify the customers who have churned. Is there a relationship between churn and whether a partner was involved in bringing the customer to the vendor, or the region in which the customer operates, or the size or length of the contracts the customer has signed with the vendor?

Customers who have churned will have signed a contract with the company only once and not returned after contract duration is completed. We can identify these specific customers by searching for a unique contract ID. As before, we can match the information in both tables by account ID and contract ID.

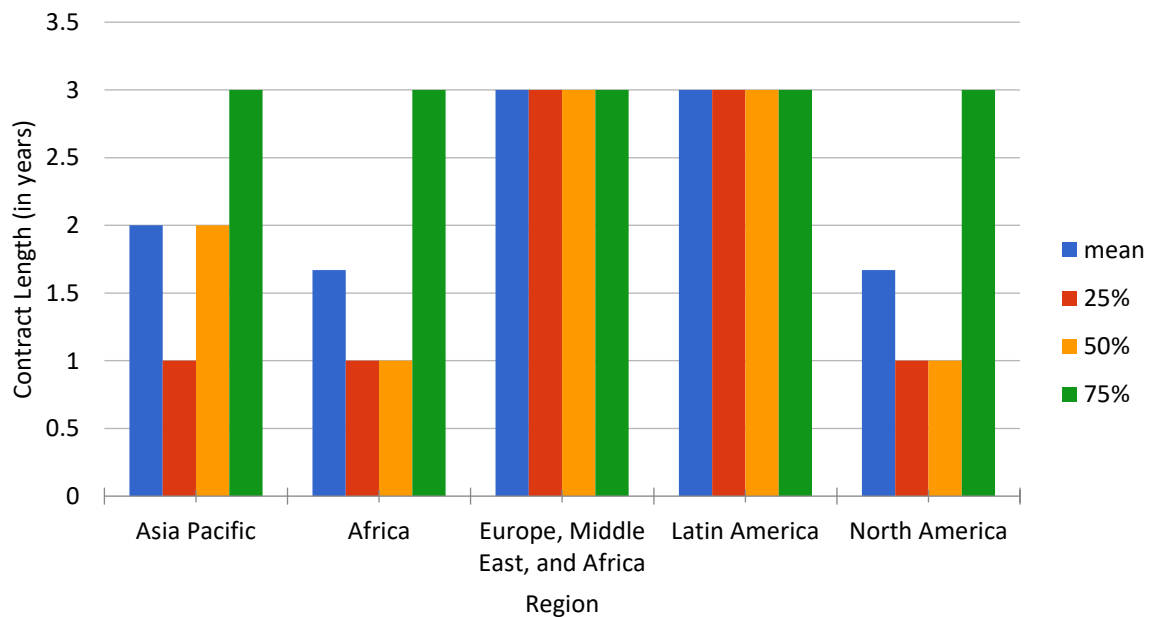
Once we make a list of the unique contract ID by region, we can then compare them to look for a relationship in partner involvement, contract length, or contract size.

Was there a partner involved in setting up the contract?

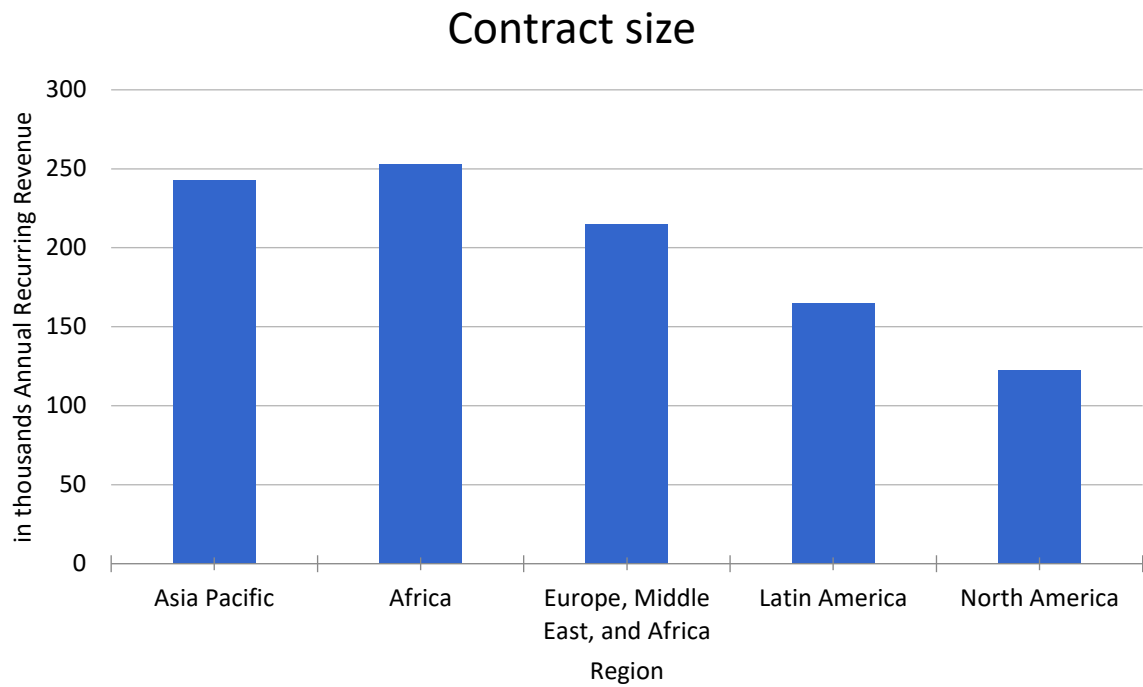


From the above plot, we can see that the lack of a partner in setting up a contract may contribute to customer churn. In other words, there is a higher number of contracts that did not have a partner from customers who have only signed one contract with the vendor. This is noticeable in the North America and the Europe, Middle East, and Africa (EMEA) regions.

Contract Length



Based on contract length, it seems that the majority of contracts for customers that have churned are longer. So, a customer may not have a need for the vendor at a higher frequency or less than three years.



If we look at the contract size, these customers have also signed contracts that are larger or are more expensive.