**Conclusion**

* The elbow plot revealed two elbows at K=3, and K=5. However, with K=3, there were no in-depth insights into customers' purchasing behavior and preferred channels of purchase, which were clearly visible in the cluster profiles with K=5, so we chose 5 as the number of clusters.
* K-Means with K=5 produced the most diverse customer profiles with the highest silhouette score of 0.23. So, we have chosen K-Means as the final algorithm.

**Recommendation:**

* The amount spent on sweet and fruit products is comparatively lower in each cluster, so the company can promote these products to increase revenue. One way to do so is to basket sweet and fruit products with products where the amount spent is high like wine and meat.
* High-income customers prefer to buy expensive wines. So, the company can offer premium service to these customers for a small amount where these customers will receive notifications in advance whenever a new wine product arrives in the store, along with other benefits like a discount on home delivery charges, etc. ​This would boost revenue, and the odds of purchasing new wine products would be high.
* Customers with the highest and second-highest incomes have higher total expenses but the lowest web visits per month, and thus the number of web purchases is lower when compared to other channels. The marketing team should try to increase these customers' web visits, which may result in more web purchases and higher revenue.
* Low-income customers spend a higher percentage of their expenses on gold products when compared to other clusters. The company can make special offers on gold products to these customers and advertise the offer via SMS. The company can also embed a website link to gold products, as these customers have the second highest number of web visits.
* The second lowest income customers have been with the company for the longest, and the number of deal purchases is the highest for these customers. The company can give loyalty points to these customers, which can be used to get a discount on a few future purchases.
* Medium-income customers having teens at home have the highest number of purchases and prefer to buy from stores and the web. The company can give exclusive offers to these customers on certain items like wine and meat where the percentage spent is higher for these customers. These customers have a comparatively lower number of catalog purchases. The company can send the catalogs to these customers via SMS or E-mails.
* The campaigns conducted by the company were accepted mostly by high-income customers, and we also observed a positive correlation between the total number of campaign acceptance and the number of catalog purchases. As a result, the campaigns may be distributed through catalogs and appeal only to high-income customers. The company should begin rolling out campaigns through various channels specific to the interests of each cluster of customers.