Key Insights from the clustering results:

- Cluster 1: In this cluster, most of the youngsters having high annual income are having high spending scores. That means they are spending more on premium products or more products having low cost.
- Cluster 2: In this cluster, most of them are middle-aged customers having moderate income. That means they spend their income in a more balanced way.
- Cluster 3: In this cluster, most of them are older customers having low annual income.
 And their spending score will also be low and they mostly look for essential purchases, offers and discounts.
- Cluster 4: In this cluster, most of the customers are earning more but their spending score is very less. Because they mostly give priority for savings or investing in non-retail stores.
- Cluster 5: In this cluster, most of the customers are younger customers having low Income but have more spending scores. As there may be reason for spending more on fashion clothes and following the social trends.
- We can clearly observe that spending behaviour is not dependent on income.
- Younger customers tend to have more varied spending behaviours compared to older customers.

Recommendations for Marketing Strategies:

- Cluster 1: In this cluster, most of the youngsters having high annual income are having high spending scores. So they have to Launch Premium products which more and attractive for getting more sales. And they can also use social media to advertise their products.
- Cluster 2: In this cluster, most of them are middle-aged customers having moderate income. They have to promote value for money products and products having deals.
 And they have to advertise their brand quality.
- Cluster 3: In this cluster, most of them are older customers having low annual income.
 They have to mainly focus on providing more discounts and products having senior

- citizen benefits. They have to advertise these products in newspaper to attract them. They also have to provide festival and holiday offers.
- Cluster 4: In this cluster, most of the customers are earning more but their spending score is very less. They have to launch premium products and high value products that justify spending. They have to do digital marketing to attract the customers.
- Cluster 5: In this cluster, most of the customers are younger customers having low Income but have more spending scores. They have to Promote trendy, affordable products and seasonal sales. They can make advertisements through social media influencers. They can also organize fashion shows which attracts the customers.
- o Implement recommendation engines on e-commerce platforms to suggest products based on past purchases and browsing history.
- Regularly updating the stock to maintain the latest trends and customer demands.
- Take the Customers feedback to improve customer needs and to improve service quality.