## **Cloud Final Project**

Group number: 38

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## **Project URL:**

https://ccfinalproject-384600.df.r.appspot.com

## 1. What categories are growing or shrinking with changing customer engagement?

According to data, people who have kids spend more on bakery goods and less on other things like alcohol. Whether people have kids, the most common purchases are still grocery produce, dairy goods, and frozen meals. People between the ages of 45 and 54 are more brand loyal and spend more money overall. Customer engagement varies depending on aspects like demographics, store location, and many other considerations, such as East store consumers spending more than other store customers.

Which demographic factors (e.g. household size, presence of children, income) appear to affect customer engagement?

The dashboard's pie chart reveals that household spending increased from 2018 to 2019, but from 2019 to 2020, only a small number of categories saw the most customer demand, which resulted in robust sales for those commodities. Sales of the commodity Activity rose by 10% between 2019 and 2020. All of the remaining goods, such as alcohol, baby products, baked goods, and so forth, are experiencing a decline in sales.

## 2. Which demographic factors (e.g. household size, presence of children, income) appear to affect customer engagement?

How do they affect customer engagement with certain categories?

According to the graph, families with an income between \$35,000 and \$45,000 and a household size of five or more are least involved with Kroger, while families with an income between \$50,000 and \$74,000 and a household size of two are most engaged. Families with a size of 1 or 2 engage with consumers more in general, regardless of their income. Over the course of three years, having children around increased customer interest in baby products on average.

 How might we re-engage customers within the store? Or within a specific category?

The spending on categories like food, non-food, and medications from 2018 to 2020 is examined in the dashboard's histogram. Overall, household spending increased from 2018 to 2019 and decreased from 2019 to 2020, as can be shown. We can observe that in 2019, \$61774.39 was the peak amount spent on the food industry. Two wise approaches to re-engage customers in the future are to ensure that the products with strong sales are maintained and to position the low-selling products close to the high-selling products as a market plan to increase their visibility. On products that aren't selling well, enticing incentives and discounts will persuade consumers to repurchase.