Consumer Analytics: INTE2556

Assessment type: Presentation

Loom Link for vodcast presentation: [Consumer Analytics - PowerPoint Slide Show - Consumer Analytics - 5 December 2023 (loom.com)](#)

Slide 1: Introduction

Hi, I am Rokshana Pervin. Today, I am going to represents a presentation regarding identified problem of the Coles organisation and how to mitigate the problem or consumer friction point of the Coles organisation using the right methods on right time.

Slide 2: Overview of the Coles organisation

- Coles is a leading retailer organisation in Australia with more than 800 supermarkets and 1,20,000 employees.

- Coles started their journey in 1914 with 935 pounds and launched many different programs for their customers.

- Coles has many competitors where Woolworths is the main competitor across Australia.

- Coles lunched various programs for their consumers such as cosmetic range, little shop, miniature, trolly, down down and so on to increase the consumer retention and sales rates.

Slide 3: An outline of the identified problem

In this digital era, many retailers are confronting many problems such as digital problem, product unavailability and so on while continuing their business. In this case, product unavailability in online is one of the core issues for any retail business. Here, Coles organisation is struggling with this key issue as many consumers are leaving their webpage without having their desired items. According to the Marketing funnel, if leads are disappointed about the items, they cannot make up their mind for the shopping cart which results leads are leaving the webpage quickly. As a result, Coles not only are losing their consumers and reputations but also reducing their revenue compared to other competitors such as Woolworths which has been found from the following visualisation.
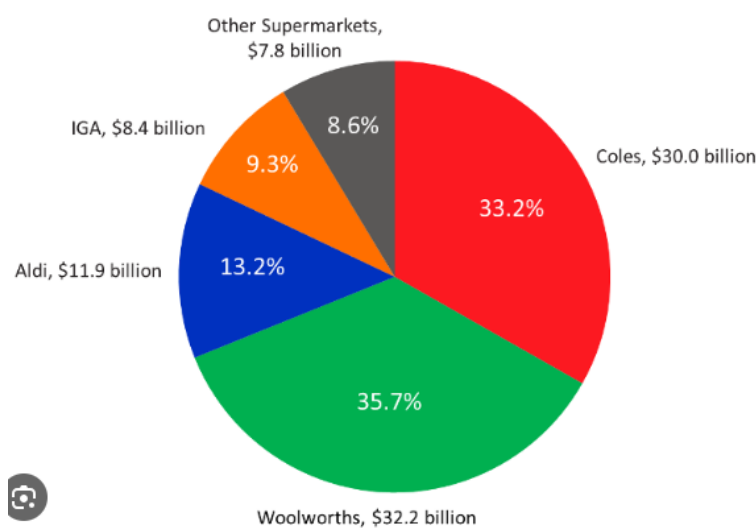
Figure 1: Screenshot of the Coles and other competitors' revenue.

Slide 4: The consumer friction points and phase of the customer life cycle from which the problem was identified

From the above research, it is found that consumer friction point can cause from the irregularity of the consumer purchasing process. It is analysed that when leads or consumers are unable to find the desired product or item from the required platform, it generates consumer friction points as it is expressing consumer churn.

According to the phase of the consumer lifecycle, consideration stage started to indicate creating problem if consumers are unable to purchase the product and made up their mind to go away which results consumer friction points.

Slide 5: Chosen methods, tools, and techniques

To mitigate the identified problem or consumer friction point of the Coles organisation, they need to adopt two approaches such as marketing strategy and analytical strategy. Here, marketing strategies implies automated email, phone call, text messages and social media. Moreover, Coles can apply RFM (recency, frequency and monetary) and CLV (consumer lifetime value) approaches which can help Coles to retrieve concrete data about the consumers journey and behaviour. Apart from this, Coles can use Consumers personas as well as personalised information from census data to provide the right data on right time.

To measure the right data on right time, analytical strategy or Data Science Analytical methods can help Coles to retain their consumers for forever. Here, one of the machine learning approaches or supervised machine learning methods known as logistic regression model can help Coles to prevent their consumer churn effectively. In this case, logistics regression is the statistical method of binary classification with two outputs named as churn and not churn. In this process, logistic regression model has two variables such as target variable or churn variable and independent variable or other demographic variables such as age, gender, postcode, and location.

$$\log \frac{Y}{1 + Y} = b_0 + b_1 X1 + b_2 X2 + C$$

Figure 2: Screenshot of the Sigmoid Function

The above equation represents Y as a probability of outcome, bo, b1, b2 is the co-efficients, X1, X2 is the independent variables and C is the constant.

Here, co-efficients of the logistics regression model will help to find the customer who will be intent to leave the online platform for forever. Using lower p-values with higher significance, the logistic regression model will represent the percentage of specificity (service continuation) and Sensitivity (service discontinuation) that will indicate the consumer churn accurately.

With this model, Coles can predict and calculate the number of potential customers who will actually interested to check-out their product such as milk powder or cornflakes from online platform.

Study represents that the majority of consumers of Coles in Australia are children as the family collected their grocery shopping decision according to their children choice. Therefore, it will be easy to collect the personalised information following the families' demographic features who are completing their grocery shopping onto their children's choice.

Slide 6: Timeline

To provide the right data on time, Coles can apply the timeline that will help Coles to calculate the right information about the potential consumer and their behaviour. Here,

(1) Retrieving data (e.g., 2 days)

(2) Manipulate data and test for probability of the proposed ML approach (e.g., 1 week)

(3) Prepare data in a form (i.e., table) that can be used to build a ML algorithm (e.g., 5 days)

(4) Build and test ML algorithm (12 days)

(5) Operate ML algorithm using MLOPs approach. (2 weeks)

(6) Present preliminary results and insights for feedback (14 days)

(7) Ongoing testing and monitoring MLOPs or machine learning operations (Continuing).

Slide 7: The metrics

Here, to bring the appropriate success, Coles can use some metrics such as success criteria and risks.

In Success Criteria:

Implementing consumer personas and analytical strategy will help Coles to retain their customers for forever.

Risks:

Nowadays, oceans of data are generating around the world which makes sometimes uncertain environment. Therefore, if Coles cannot use the right model with the right team, it will be bringing the inaccurate results for the organisation and will damage the future business plan and reputation of the organisation.

Therefore, it is analysed that if Coles follow the above success criteria and risks appropriately and on time, they will bring their future success effectively.

Slide 8:

Conclusion (Thank you)

Slide 9:

References