1. Team member's details

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2. Problem description

XYZ Credit union in Latin America is performing very well in selling Banking products (Credit card , deposit amount, retirement account, safe deposit box), but their existing customer is not buying more than 1 product which means bank is not performing good in cross selling (Banks is not able to sell their other offering to existing customers). XYZ credit union decided to approach ABC analytics to solve their problem.

3. Business understanding

Cross-selling involves selling complementary products to existing customers. It is one of the highly effective techniques in the marketing industry. It identifies products that satisfy additional, complementary needs that are unfulfilled by the original item. Cross-selling can alert users to products they didn't previously know you offered, further earning their confidence as the best retailer to satisfy a particular need.

Cross Selling offers benefit to both the ends of the marketing cycle i.e. customer and firm.

For the Firm

● Builds customer equity
● Differentiates from competition, enhances market position
● Promotes diversification and innovation
● Stimulates universe expansion and entry into new markets
● Balances growth between new and existing customers, low and high margin products and segments
● Enhance customer profitability
● Discourages customer attrition, improves customer loyalty
● Increases the bank's profit
● Provides a competitive advantage
● Generates repeat purchases
● Will help communicate the breadth of a firm's catalog to customers

For the Customer

● Patronizes the brand
● Broadens choices of product and services
● Offers convenience through one-stop shopping, flexibility, consolidated bill and others
● Increases customer satisfaction
● Lowers price
● Encourages better customer service from relationship marketing
● Quick operations between products in one bank (transfers between accounts, repayment of loans, etc.)
● Increase consumer knowledge on complementary products

For the reasons mentioned above, the company wants to understand how to increase the number of cross-sales.

Assess Situation:

XYZ Credit union provided a data file for analysis and recommendations. More about the file you can see in the data intake report.

Now,the question is what action banks can take to increase cross selling.

4 steps:

1**) Collect and consolidate data**

Collect data from various resources like social media insights, demographic and behavioral overlays, consumer ratings, bill payment behavior, etc. The reason for collecting all this data is that you need to know your target audience better than ever.

Data drives the cross-selling. Banks must determine which customers are profitable, how their behaviors and preferences have changed over time, and how they stack up against the competition.

2) Use predictive analytics

Past behavior is a reliable predictor of future behavior. Banks use predictive analytics to work out a cross-selling plan in advance. In addition to the next product purchased, bank marketers may want to know the profit potential of a customer over the next two years and which customers are likely to churn.

3) Implement next best action cross-selling

It uses predictive analytics to identify the products or services that customers are most likely to purchase next. The objective of a systematic program is to improve response by providing more relevant offers, which leads to a better customer experience and improved ROI. When a bank applies a test-and-learn approach to cross-selling, actual results feed into the models and the cross-selling improves over time.

4) Create omnichannel messaging

Clients receive personalized communications for relevant products and services based on the results of predictive analytics. Banks engage with customers in an interactive way that seems very natural. Response to generic marketing messages from banks has been declining; therefore, this more targeted approach is both timely and effective.

Goals:
to analyze the data, identify dependencies in the file and provide a report on the results of the analysis with recommendations for increasing cross-sales, based on the information provided and general information in the Internet

4. Project lifecycle along with deadline:

Process	Deadline
1. Business understanding	19 July 2022
2. Data Understanding	26 July 2022
3. Data Cleansing and Transformation	2 August 2022
4. Exploratory data analysis	9 August 2022

5. EDA Recommendation (ppt)	16 August 2022
6. Dashboard which should capture type of customer their count, segment wise (VIP,student etc) customer average age and other KPIs which gives better business insight in taking decision.	23 August 2022
7. Prepare a final presentation	30 August 2022

5. Data Intake report

Data Intake Report

Name: Cross selling recommendation

Report date: 19.07.2022
Internship Batch: LISUM10
Version: <1.0>
Data intake by: Dreamers
Data intake reviewer: < >
Data storage location:

Tabular data details:

Name of the file	Train.csv
Total number of observations	13 647 309
Total number of files	1
Total number of features	48
Base format of the file	.csv
Size of the data	2,14 GB

Name of the file	Test.csv
Total number of observations	929 615

Total number of files	1
Total number of features	24
Base format of the file	.csv
Size of the data	105,2 MB

- **The information was examined. Features with missing values in more than 50% of the rows: `ult_fec_cli_1t` (99.81 %), `conyuemp` (99.98%). No duplicates were found.**

BUSINESS UNDERSTANDING

Technically it is about designing an approach to encourage existing customers to patronize more than one product of XYZ credit in order to boost and maximize profit.