**2. Research papers**

**2.1 Research papers**

1. "A Data-Driven Approach to Bank Telemarketing Success"

Moro, Cortez, and Rita used the Bank Marketing Dataset to develop prediction models with the goal of a rise in the number of client subscription to term deposits. Applying a method of category like logistic regression, decision trees, and neural networks, they assessed the relevance of features such as of calls, duration previous contacts, and microeconomic indicators such as euribor3m. The research has proven that marketing efficiency has increased by 30% due to the introduction of the machine learning approach in campaign planning.

2. Bank Marketing Using Intelligent Targeting

Subhani engaged in the process of carefully looking through the database to figure out which features would work the best in the campaign and the groups that are worth the shot. Inclusive of methods of recursive feature elimination and decision tree analysis, the poutcome and emp.var.rate were discovered to be the most influential factors that can cause the change in the customer’s decision-making process. The refined dataset that was manipulated had a higher precision of prediction and resulted in the diphthongization of the dimensionality which, therefore, helped to reduce the need for computational resources. From these discoveries, it should be further inferred that marketing approaches are the best when they are based on data.

3. **Deposit Subscribe Prediction Using Data Mining Techniques Based on Real Marketing Dataset**

Safia Abbas ran tests on the Bank Marketing Dataset to see the different learnings which are the best among random forest, gradient boosting, and support vector machines. Gradient boosting was the most accurate model (87%) to determine if the campaign would succeed. The study proves that using a different learning method other than the one named could noticeably benefit the effectiveness of the solution. The good of the SAP article is the advantage of using robust features combined with feature engineering in order to have the best outcomes.

**2.2 Why RQ is of interest**

The research question holds an important emphasis due to the heavy reliance of the banking sector on data analytics to target marketing strategies. However, despite the advances, there are losses in the use of real-time customer data and dynamic decision-making systems, as documented in the literature. Most new research, like stock market data analysis, concentrates on static predictive models and barely covers the correlation between time factors and developments in consumer preferences Also, little has been discussed in view of ethical considerations for example impartiality and fairness. Furthermore, future research should put a premium on integrating delivery of different exercises and offers of the first adaptive machine learning techniques and ethical AI design to create inclusive, efficient jointly operated systems that will satisfy a business's goals and social responsibilities.

Reference:-

1. https://www.sciencedirect.com/science/article/abs/pii/S016792361400061X

2. <https://www.researchgate.net/publication/348636876_Bank_Marketing_Using_Intelligent_Targeting>

3. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://arxiv.org/pdf/1503.04344