Spectrum Lite Documentation

Spectrum Lite Model

Predictive Model for Spectrum Lite using Machine Learning

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Objective:

The prime objective of the model is to create a cluster for each business entities. According to the cluster categorize them into safe class and confidence indicator.

Goals: -

1.To find safe classes for the business entities.
2.To find the confidence indicator for the business entities.

Metrics and limitations: -

1.It will return only the safe class cluster in which the CP belongs to.
2.What is the confidence indicator for that CP.

Input Data: -

1.Daily new cp report. (Received daily)

Process: -

1.RAM terminology and K-Mean Clustering technique.

Feature Engineering: -

1.Feature engineering involves using domain expertise to develop features that are compatible with machine learning algorithms.
2.I will use feature engineering to create RAM (recency, age, and monetary) features and Create weightage class according to quantile cut.

- Annual Revenue: The revenue generated by each CP.
- Recency: The number of days since a customer's last update.
- Age: The age of the company.
- Employee Count Total: Total employee the cp has.
- BEMFAB (Marketability): - Whether the company is marketable or not.

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- (Marketable-->1, Others----->0)

Weightage Class: -

- For positive correlation: -

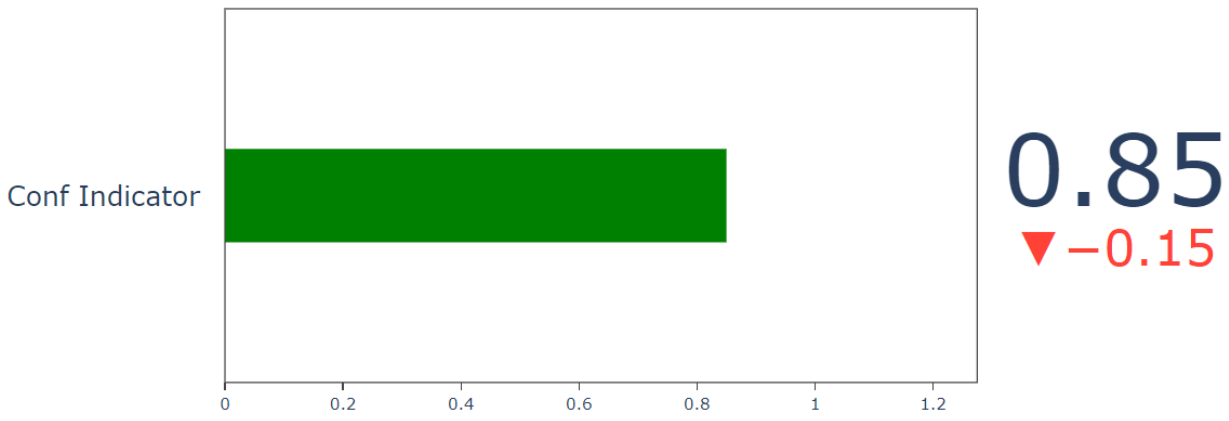
We created five classes for the RFM segmentation since, being high revenue is good, high Employee Count Total is good and high age is good for business entity.

- For negative correlation: -

High recency is bad.

Result: -

- Confidence Indicator-->The probability that the cp is a good cp or not. (It ranges from 0 to 1)



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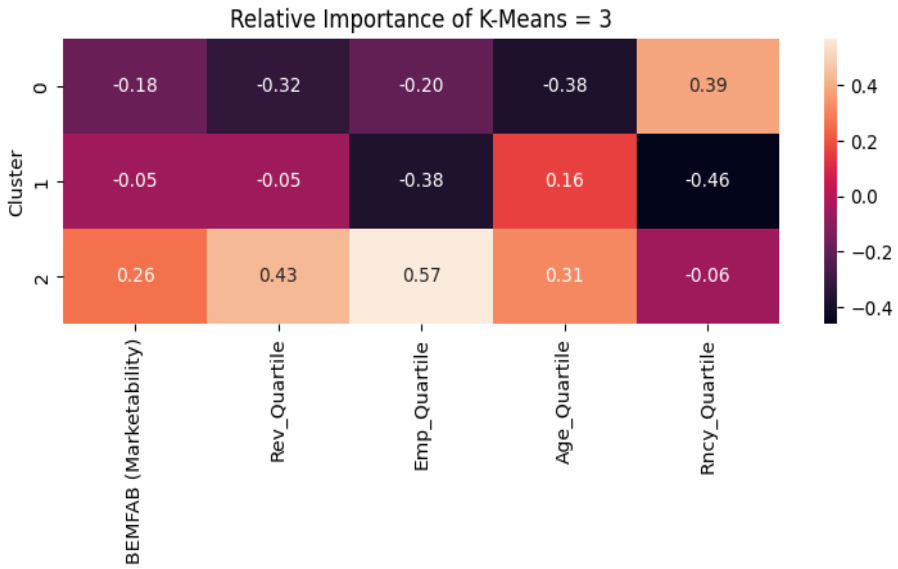
- Safe Class: -The class the cp belongs to.



Condition:-(According to relative importance of K-Mean Cluster Value)

- 1.'Highly Qualified' ==> (Class 2)
- 2.'Avarage Qualified' ==> (Class 0)
- 3.'Poorly Qualified' ==> (Class 1)

Output: -

	Account Name	Annual Revenue	Employee Count Total	Recency	Age	BEMFAB (Marketability)	Rev_Quartile	Emp_Quartile	Age_Quartile	Rncy_Quartile	Confidence Indicator	Safe Class	Date
0	Solar Energy Builders	5000000	8	208	1044	1	3	3	1	4	0.705882	Poorly Qualified	2022-11-10
1	Wired into the Future Inc	500000	3	3962	5792	1	2	1	3	1	0.470588	Avarage Qualified	2022-11-10