

1. **MULTIPLE LINEAR REGRESSION** (R^2 value)=0.7894

2. SUPPORT VECTOR MACHINE

Kernal=linear value is -0.11166

Standardization value is -0.01010

S.NO	HYPER PARAMETER	LINEAR R^2 value	RBF(NON LINEAR) R^2 value	POLY R^2 value	SIGMOID R^2 value
1	C10	0.4624	-0.0322	0.0387	0.0393
2	C100	0.6288	0.3200	0.6179	0.5276
3	C500	0.7631	0.6642	0.8263	0.4446
4	C1000	0.7649	0.8102	0.8566	0.2874
5	C2000	0.7440	0.8547	0.8605	-0.5939
6	C3000	0.7414	0.8663	0.8598	-2.1244

SVM regression hyper parameter c3000 and linear R^2 value 0.8663

3. Decision Tree Regression

S.NO	CRITERION	SPLITTER	R^2 VALUE
1	Squared_error	Best	0.6821
2	Friedman_mse	Best	0.6764
3	Absolute_error	Best	0.6599
4	Poisson	Best	0.7095
5	Squared_error	Random	0.6492
6	Friedman_mse	Random	0.7309
7	Absolute_error	Random	0.7164
8	Poisson	Random	0.6820

4. Random Forest

S.NO	CRITERION	N_Estimation	R^2 VALUE
1	Squared_error	50	0.8498
2	Friedman_mse	50	0.8500
3	Absolute_error	50	0.8526
4	Poisson	50	0.8491
5	Squared_error	100	0.8538

6	Friedman_mse	100	0.8540
7	Absolute_error	100	0.8520
8	Poisson	100	0.8526

SVM regression hyper parameter c3000 and rbf R² value 0.8663

Good Model for this particular scenario.

It is good Performance compare to Multi linear and Decision tree and Random forest