**1.Modelo RF5\_Indeg Apoio Spe Diq Cint X All var**.

***Instrucciones modelo***: **test size = 0.17 ; rd\_state = 30**

***Variables indep select to fit***:

variables = [ 'id', 'Indeg\_IntimAmigos\_',  'Indeg\_RedeRisk\_Cen', 'PC1\_Distance\_Pro', 'Degree\_RedeTotFamil', '1\_VarExp\_Moranca', '2\_VarExp\_Atri\_Tabanca']

***Model performance (scores):***

Mean Squared Error: 1.1818

R^2 Score: 0.5601 (In Excel: R2 = 0.5601 ; y = 0.4274 X + 1.0539)

**Model tot:**

Mean Squared Error (MSE): 0.5194

Root Mean Squared Error (RMSE): 0.7207

Mean Absolute Error (MAE): 0.4419

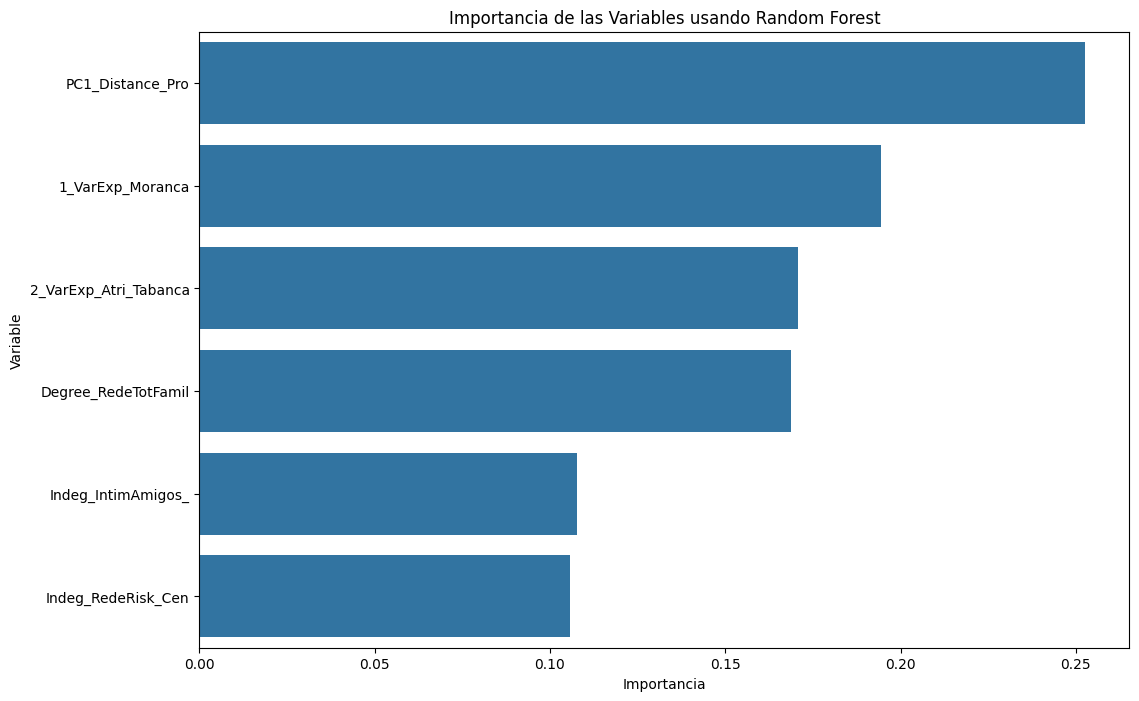
R^2 Score: 0.772

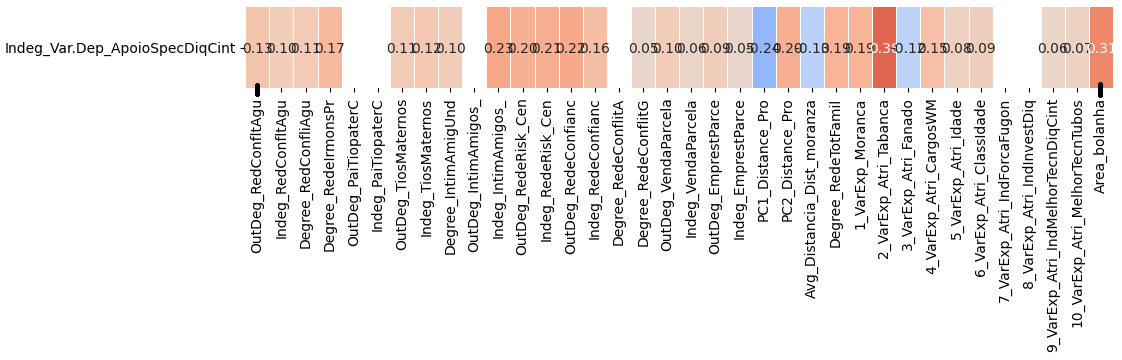
Pearson Correlation: 0.8992

***Interactions***:

| **Interacción** | **Importancia** | **Dirección** |
| --- | --- | --- |
| 0 | (1\_VarExp\_Moranca, 2\_VarExp\_Atri\_Tabanca) | 0.535744 | 0.015768 |
| 1 | (Indeg\_IntimAmigos\_, 2\_VarExp\_Atri\_Tabanca) | 0.530883 | -0.010837 |
| 2 | (Degree\_RedeTotFamil, 2\_VarExp\_Atri\_Tabanca) | 0.495715 | 0.006976 |
| 3 | (PC1\_Distance\_Pro, 2\_VarExp\_Atri\_Tabanca) | 0.452591 | -0.005249 |
| 4 | (Indeg\_RedeRisk\_Cen, 2\_VarExp\_Atri\_Tabanca) | 0.408551 | 0.047054 |
| 5 | (Indeg\_RedeRisk\_Cen, 1\_VarExp\_Moranca) | 0.280659 | 0.048542 |
| 6 | (PC1\_Distance\_Pro, 1\_VarExp\_Moranca) | 0.280614 | -0.004812 |
| 7 | (Degree\_RedeTotFamil, 1\_VarExp\_Moranca) | 0.260620 | 0.010572 |
| 8 | (PC1\_Distance\_Pro, Degree\_RedeTotFamil) | 0.257576 | -0.005734 |
| 9 | (Indeg\_IntimAmigos\_, 1\_VarExp\_Moranca) | 0.216361 | -0.003766 |

***Key results****:*





**2.Modelo RF5\_Outdeg Apoio Spe Diq Cint X All var**.

***Instrucciones modelo***: **test size = 0.25, Rd\_state = 8**.

***Variables indep select to fit***:

variables = ['id','Indeg\_IntimAmigos\_','Indeg\_RedeRisk\_Cen',

'Indeg\_RedeConfianc', 'Degree\_RedeTotFamil', '1\_VarExp\_Moranca', '4\_VarExp\_Atri\_CargosWM', '7\_VarExp\_Atri\_IndForcaFugon',

  '8\_VarExp\_Atri\_IndInvestDiq','9\_VarExp\_Atri\_IndMelhorTecnDiqCint', '10\_VarExp\_Atri\_MelhorTecnTubos', 'OutDeg\_RedeRisk\_Cen']

***Model performance (scores):***

Mean Squared Error: 1.2121

R^2 Score: 0.8253 (on excel: **R2= 0.8683 ; Y = 1.0417 X + 0.1931**)

**Model tot:**

Mean Squared Error (MSE): 0.6977

Root Mean Squared Error (RMSE): 0.8353

Mean Absolute Error (MAE): 0.4031

R^2 Score: 0.9446

Pearson Correlation: 0.9740

***Interactions***:

| **Interacción** | **Importancia** | **Dirección** |
| --- | --- | --- |
| 0 | (Indeg\_RedeConfianc, 9\_VarExp\_Atri\_IndMelhorTe... | 3.118299 | 0.760584 |
| 1 | (Indeg\_RedeConfianc, 10\_VarExp\_Atri\_MelhorTecn... | 2.568799 | 0.753913 |
| 2 | (9\_VarExp\_Atri\_IndMelhorTecnDiqCint, 10\_VarExp... | 2.287380 | 0.407503 |
| 3 | (9\_VarExp\_Atri\_IndMelhorTecnDiqCint, OutDeg\_Re... | 2.219030 | 0.461888 |
| 4 | (Indeg\_IntimAmigos\_, Indeg\_RedeConfianc) | 2.167837 | 0.152589 |
| 5 | (Indeg\_RedeConfianc, 4\_VarExp\_Atri\_CargosWM) | 2.136781 | 0.801694 |
| 6 | (Indeg\_RedeConfianc, 1\_VarExp\_Moranca) | 2.134572 | 0.800102 |
| 7 | (Indeg\_RedeRisk\_Cen, Indeg\_RedeConfianc) | 2.131173 | 0.016360 |
| 8 | (Indeg\_RedeConfianc, OutDeg\_RedeRisk\_Cen) | 2.129254 | 0.795908 |
| 9 | (Indeg\_RedeConfianc, 8\_VarExp\_Atri\_IndInvestDiq) | 2.128635 | 0.795651 |

***Key results****:*

