**REV2\_1.Modelo RF5\_Indeg Apoio Controlo1 Reparacion2 DiqPriqCint X All var**.

***Instrucciones modelo***: **test size = 0.2 ; rd\_state = 28**

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

variables = [   'id' , Indeg\_RedeRisk\_Cen',    'PC1\_Distance\_Pro',    'Degree\_RedeTotFamil',   '9\_VarExp\_Atri\_IndMelhorTecnDiqCint', 'Area\_bolanha',     “Indeg\_IntimAmigos\_']

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

Mean Squared Error: 6.1923

R^2 Score: 0.4084 (In Excel: R2 = 0.5228 ; y = 0.4182 X + 3.311)

**Model tot:**

Mean Squared Error (MSE): 2.8992

Root Mean Squared Error (RMSE): 1.7027

Mean Absolute Error (MAE): 1.1938

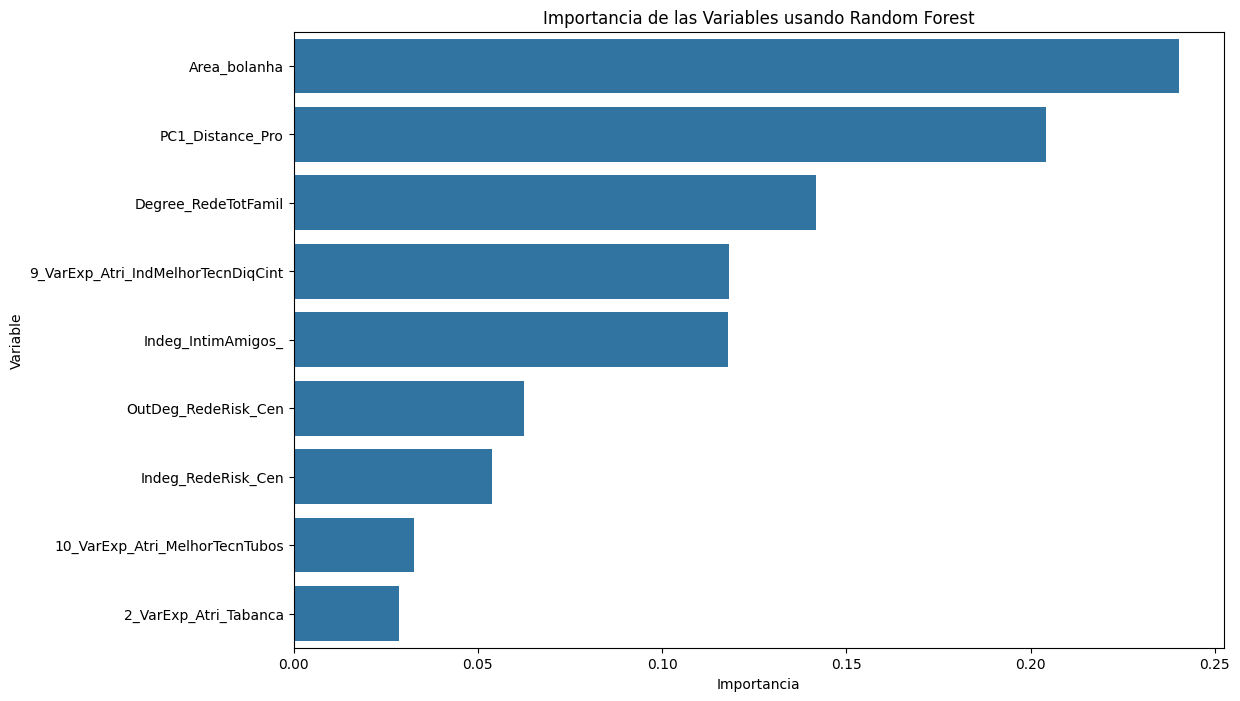
R^2 Score: 0.7624

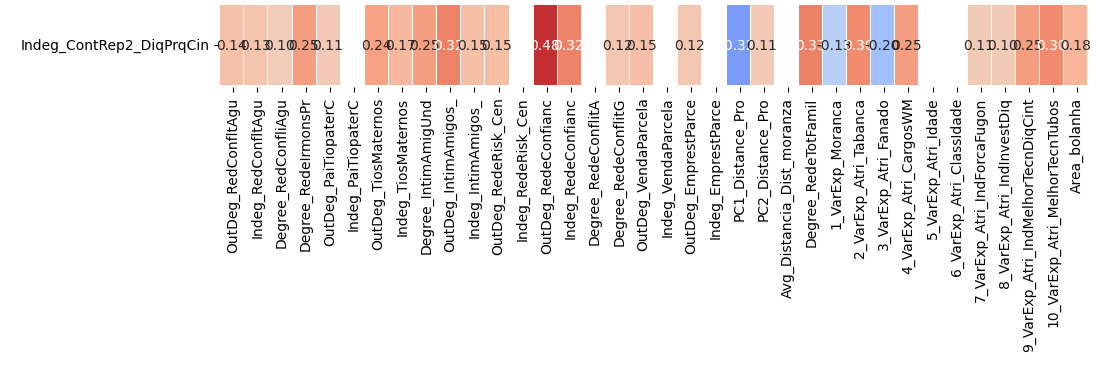
Pearson Correlation: 0.9074

***Interactions***:

| **Interacción** | **Importancia** | **Dirección** |
| --- | --- | --- |
| 0 | (Degree\_RedeTotFamil, Area\_bolanha) | 1.030540 | 0.189534 |
| 1 | (Degree\_RedeTotFamil, 9\_VarExp\_Atri\_IndMelhorT... | 0.930075 | 0.168943 |
| 2 | (PC1\_Distance\_Pro, Degree\_RedeTotFamil) | 0.824654 | -0.032279 |
| 3 | (Degree\_RedeTotFamil, OutDeg\_RedeRisk\_Cen) | 0.739693 | 0.158745 |
| 4 | (Indeg\_IntimAmigos\_, Degree\_RedeTotFamil) | 0.734580 | 0.123182 |
| 5 | (PC1\_Distance\_Pro, 9\_VarExp\_Atri\_IndMelhorTecn... | 0.713045 | -0.028252 |
| 6 | (Indeg\_IntimAmigos\_, PC1\_Distance\_Pro) | 0.689922 | 0.129440 |
| 7 | (Degree\_RedeTotFamil, 10\_VarExp\_Atri\_MelhorTec... | 0.684279 | 0.159672 |
| 8 | (Indeg\_RedeRisk\_Cen, Degree\_RedeTotFamil) | 0.649500 | 0.031950 |
| 9 | (Degree\_RedeTotFamil, 2\_VarExp\_Atri\_Tabanca) | 0.599235 | 0.133483 |

***Key results****:*





**REV\_2.Modelo RF5\_Outdeg Apoio Controlo1 Reparacion2 DiqPriqCint X All var**.

***Instrucciones modelo***: **test size = 0.2 ; rd\_state = 11**

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

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

'PC1\_Distance\_Pro', 'Degree\_RedeTotFamil', '1\_VarExp\_Moranca', '8\_VarExp\_Atri\_IndInvestDiq','9\_VarExp\_Atri\_IndMelhorTecnDiqCint', '10\_VarExp\_Atri\_MelhorTecnTubos', 'Area\_bolanha', 'OutDeg\_RedeRisk\_Cen']

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

Mean Squared Error: 5.0

R^2 Score: 0.8792 (In Excel: R2 = 0.8959 ; y = 0.7756 X + 1.1289)

**Model tot:**

Mean Squared Error (MSE): 2.4419

Root Mean Squared Error (RMSE): 1.5626

Mean Absolute Error (MAE): 1.0155

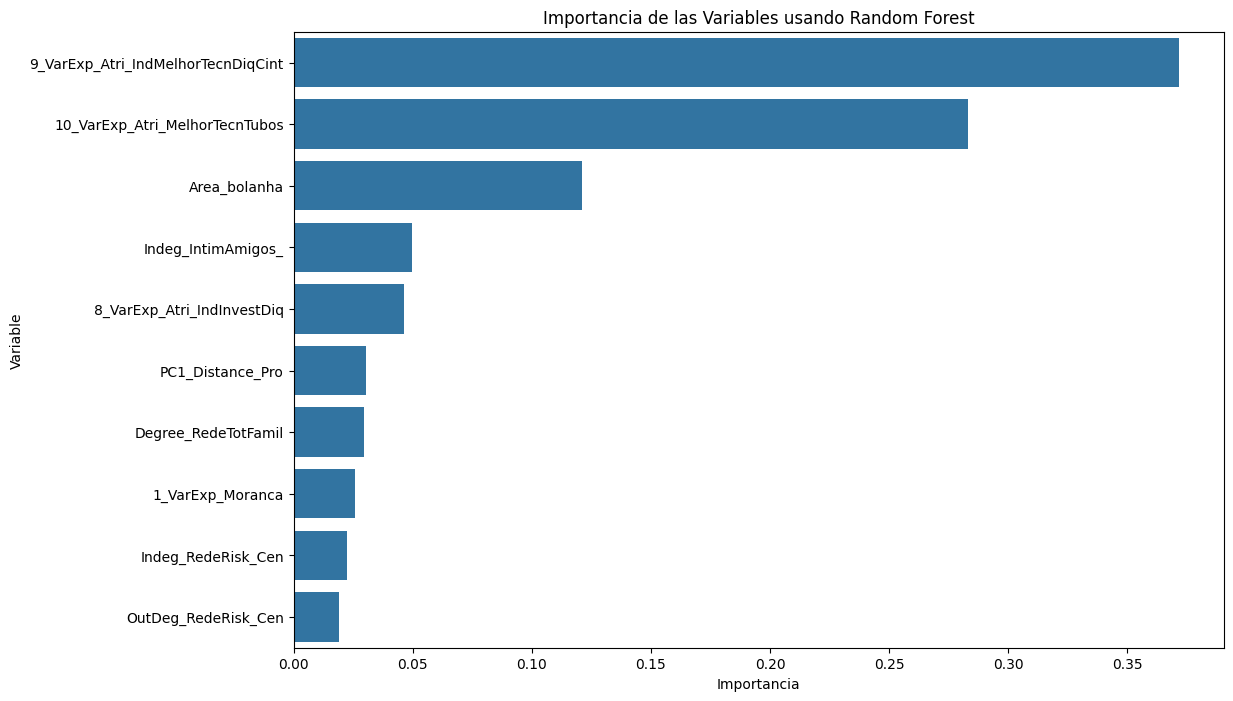
R^2 Score: 0.9429

Pearson Correlation: 0.9760

***Interactions***:

| **Interacción** | **Importancia** | **Dirección** |
| --- | --- | --- |
| 0 | (9\_VarExp\_Atri\_IndMelhorTecnDiqCint, 10\_VarExp... | 5.481603 | 0.548731 |
| 1 | (1\_VarExp\_Moranca, 10\_VarExp\_Atri\_MelhorTecnTu... | 4.358105 | -0.012267 |
| 2 | (8\_VarExp\_Atri\_IndInvestDiq, 10\_VarExp\_Atri\_Me... | 4.353749 | 0.377045 |
| 3 | (10\_VarExp\_Atri\_MelhorTecnTubos, OutDeg\_RedeRi... | 4.345335 | 1.228124 |
| 4 | (10\_VarExp\_Atri\_MelhorTecnTubos, Area\_bolanha) | 4.339977 | 1.232972 |
| 5 | (Degree\_RedeTotFamil, 10\_VarExp\_Atri\_MelhorTec... | 4.328027 | 0.020857 |
| 6 | (PC1\_Distance\_Pro, 10\_VarExp\_Atri\_MelhorTecnTu... | 4.295147 | 0.004450 |
| 7 | (Indeg\_RedeRisk\_Cen, 10\_VarExp\_Atri\_MelhorTecn... | 4.287658 | 0.039989 |
| 8 | (Indeg\_IntimAmigos\_, 10\_VarExp\_Atri\_MelhorTecn... | 4.251281 | 0.185955 |
| 9 | (9\_VarExp\_Atri\_IndMelhorTecnDiqCint, Area\_bola... | 3.723430 | 0.589376 |

***Key results****:*

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