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

***Instrucciones modelo***: **test size = 0.32 ; rd\_state = 3**

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

variables = [   'id', 'Indeg\_RedeRisk\_Cen',    'PC1\_Distance\_Pro',    'Degree\_RedeTotFamil',

 '2\_VarExp\_Atri\_Tabanca',  '1\_VarExp\_Moranca',  '9\_VarExp\_Atri\_IndMelhorTecnDiqCint', '10\_VarExp\_Atri\_MelhorTecnTubos',     'Area\_bolanha',     'OutDeg\_IntimAmigos\_',  'OutDeg\_RedeRisk\_Cen',  'OutDeg\_RedeConfianc'  ]

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

Mean Squared Error: 4.0476

R^2 Score: 0.5904 (In Excel: R2 = 0.5974 ; y = 0.5371 X + 2.3106)

**Model tot:**

Mean Squared Error (MSE): 2.2713

Root Mean Squared Error (RMSE): 1.5071

Mean Absolute Error (MAE): 1.124

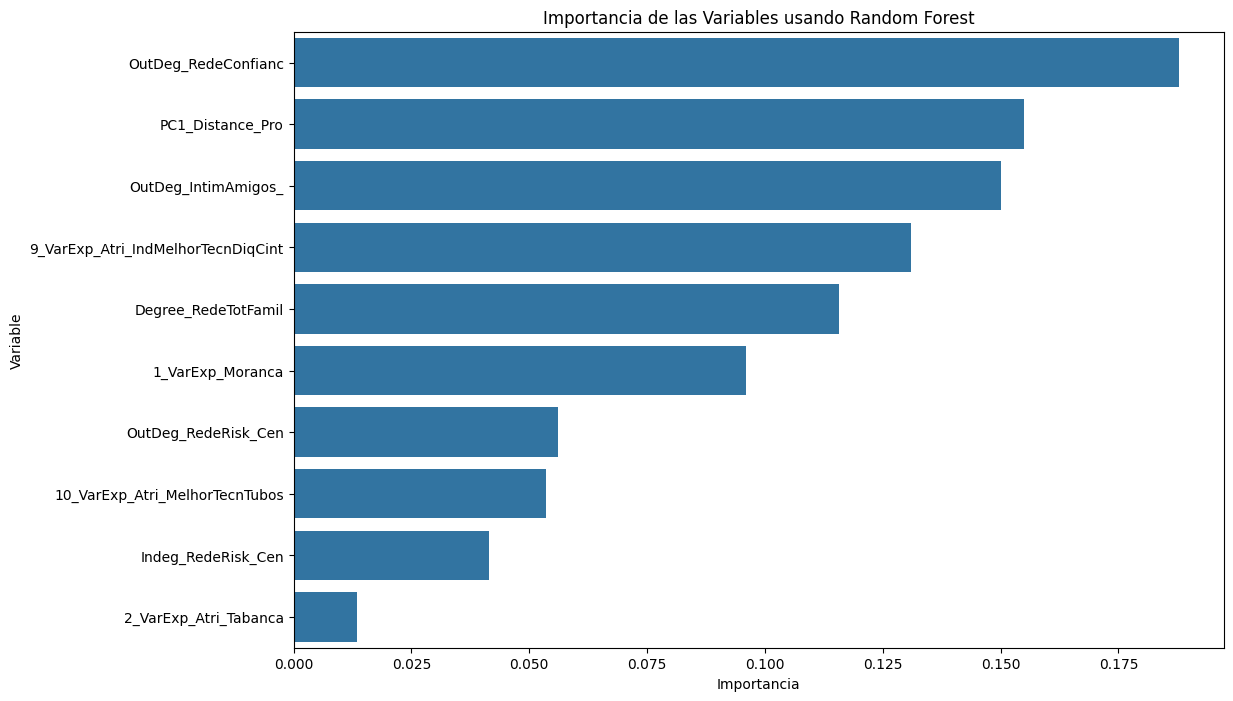
R^2 Score: 0.8139

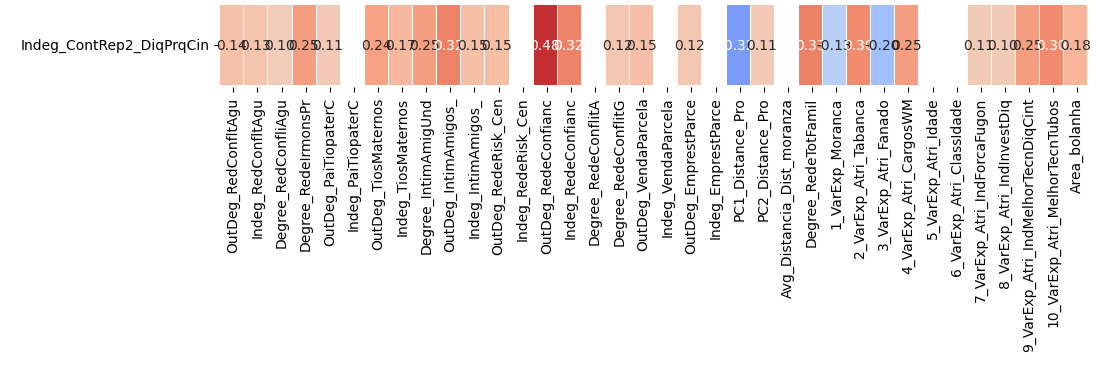
Pearson Correlation: 0.9212

***Interactions***:

| **Interacción** | **Importancia** | **Dirección** |
| --- | --- | --- |
| 0 | (9\_VarExp\_Atri\_IndMelhorTecnDiqCint, OutDeg\_Re... | 1.795294 | 0.082924 |
| 1 | (OutDeg\_IntimAmigos\_, OutDeg\_RedeConfianc) | 1.532069 | 0.213313 |
| 2 | (OutDeg\_RedeRisk\_Cen, OutDeg\_RedeConfianc) | 1.451317 | 0.087738 |
| 3 | (2\_VarExp\_Atri\_Tabanca, OutDeg\_RedeConfianc) | 1.357519 | 0.030784 |
| 4 | (10\_VarExp\_Atri\_MelhorTecnTubos, OutDeg\_RedeCo... | 1.349040 | 0.106251 |
| 5 | (Indeg\_RedeRisk\_Cen, OutDeg\_RedeConfianc) | 1.323947 | 0.031625 |
| 6 | (PC1\_Distance\_Pro, OutDeg\_RedeConfianc) | 1.306435 | -0.033887 |
| 7 | (1\_VarExp\_Moranca, OutDeg\_RedeConfianc) | 1.285561 | -0.030589 |
| 8 | (Degree\_RedeTotFamil, OutDeg\_RedeConfianc) | 1.261079 | 0.109837 |
| 9 | (Degree\_RedeTotFamil, OutDeg\_IntimAmigos\_) | 1.192231 | 0.154172 |

***Key results****:*





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

***Instrucciones modelo***: **test size = 0.2 ; rd\_state = 8**

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

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

'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', 'OutDeg\_RedeConfianc' ]

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

Mean Squared Error: 3.5769

R^2 Score: 0.9179 (In Excel: R2 = 0.9382 ; y = 0.8212 X + 0.3046 )

**Model tot:**

Mean Squared Error (MSE): 1.7674

Root Mean Squared Error (RMSE): 1.3295

Mean Absolute Error (MAE): 0.7597

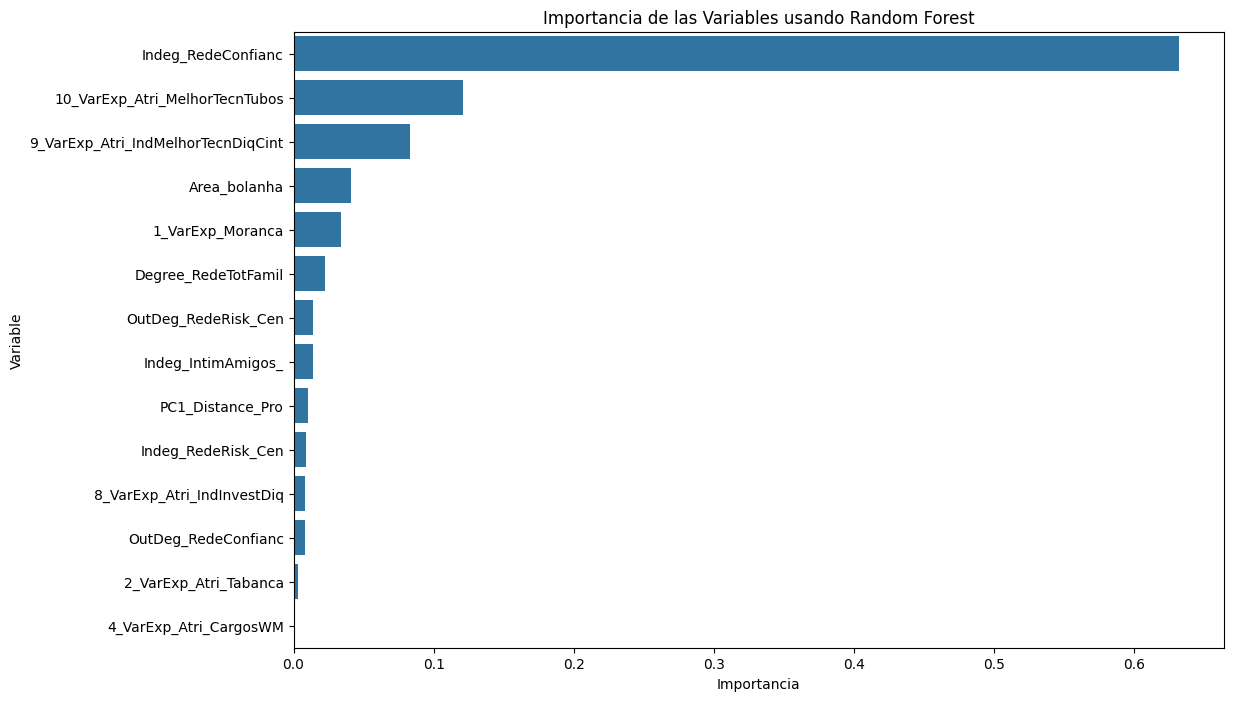
R^2 Score: 0.9587

Pearson Correlation: 0.9838

***Interactions***:

|  | **Interacción** | **Importancia** | **Dirección** |
| --- | --- | --- | --- |
| 0 | (Indeg\_RedeConfianc, 10\_VarExp\_Atri\_MelhorTecn... | 6.912785 | 1.963595 |
| 1 | (Indeg\_RedeConfianc, 2\_VarExp\_Atri\_Tabanca) | 6.831214 | 2.001786 |
| 2 | (Indeg\_RedeConfianc, 8\_VarExp\_Atri\_IndInvestDiq) | 6.827293 | 2.002528 |
| 3 | (Indeg\_RedeConfianc, 4\_VarExp\_Atri\_CargosWM) | 6.819885 | 2.007748 |
| 4 | (Indeg\_RedeRisk\_Cen, Indeg\_RedeConfianc) | 6.816476 | -0.053605 |
| 5 | (Indeg\_RedeConfianc, OutDeg\_RedeConfianc) | 6.807171 | 1.997587 |
| 6 | (Indeg\_RedeConfianc, Degree\_RedeTotFamil) | 6.801361 | 1.993064 |
| 7 | (Indeg\_RedeConfianc, OutDeg\_RedeRisk\_Cen) | 6.791346 | 1.997245 |
| 8 | (Indeg\_RedeConfianc, PC1\_Distance\_Pro) | 6.767699 | 1.996995 |
| 9 | (Indeg\_IntimAmigos\_, Indeg\_RedeConfianc) | 6.761479 | 0.036014 |

***Key results****:*

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