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

***Instrucciones modelo***: **test size = 0.22 ; rd\_state = 9**

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

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

 'Indeg\_RedeRisk\_Cen', 'PC1\_Distance\_Pro', 'Avg\_Distancia\_Dist\_moranza',

 'Degree\_RedeTotFamil', '1\_VarExp\_Moranca', '2\_VarExp\_Atri\_Tabanca',

'5\_VarExp\_Atri\_Idade', '8\_VarExp\_Atri\_IndInvestDiq',

 '9\_VarExp\_Atri\_IndMelhorTecnDiqCint','10\_VarExp\_Atri\_MelhorTecnTubos']

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

Mean Squared Error: 1.4138

R^2 Score: 0.33252 (In Excel: R2 = 0.3743 ; y = 0.2395 X + 1.3292)

**Model tot:**

Mean Squared Error (MSE): 0.6202

Root Mean Squared Error (RMSE): 0.7875

Mean Absolute Error (MAE): 0.4961

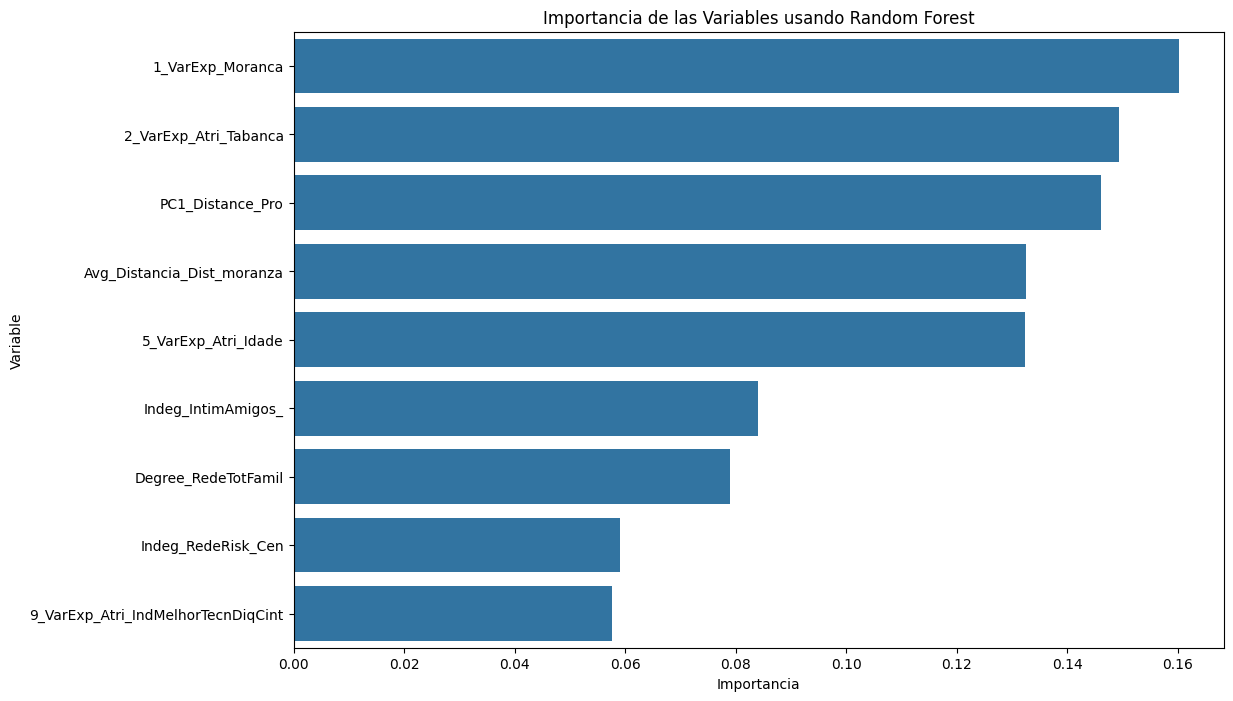
R^2 Score: 0.7278

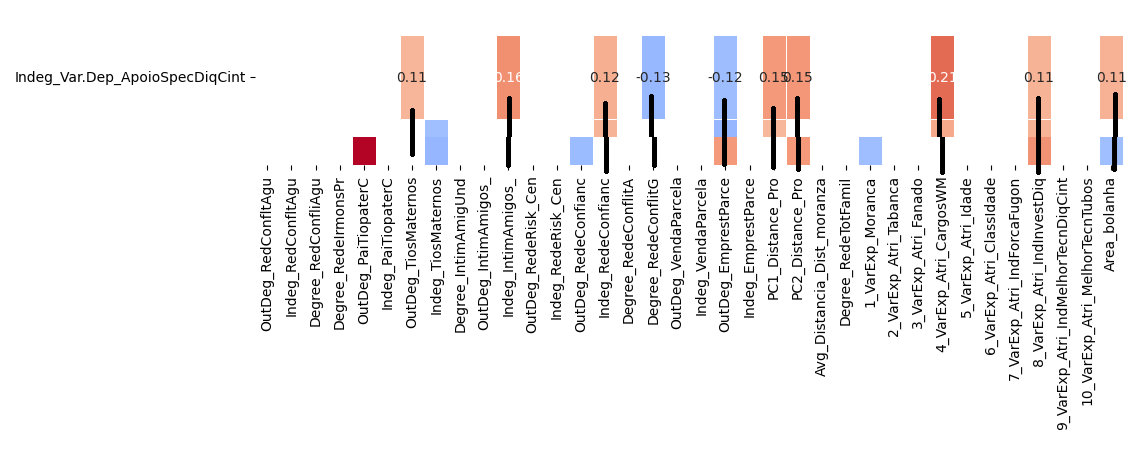
Pearson Correlation: 0.8752

***Interactions***:

| **Interacción** | **Importancia** | **Dirección** |
| --- | --- | --- |
| 0 | (1\_VarExp\_Moranca, 2\_VarExp\_Atri\_Tabanca) | 0.453697 | 0.003469 |
| 1 | (Indeg\_IntimAmigos\_, 2\_VarExp\_Atri\_Tabanca) | 0.447856 | 0.014018 |
| 2 | (Degree\_RedeTotFamil, 2\_VarExp\_Atri\_Tabanca) | 0.422891 | 0.008012 |
| 3 | (Indeg\_RedeRisk\_Cen, 2\_VarExp\_Atri\_Tabanca) | 0.422559 | 0.026043 |
| 4 | (Avg\_Distancia\_Dist\_moranza, 2\_VarExp\_Atri\_Tab... | 0.418270 | 0.001870 |
| 5 | (2\_VarExp\_Atri\_Tabanca, 9\_VarExp\_Atri\_IndMelho... | 0.416527 | 0.471678 |
| 6 | (2\_VarExp\_Atri\_Tabanca, 5\_VarExp\_Atri\_Idade) | 0.403982 | 0.457802 |
| 7 | (PC1\_Distance\_Pro, 2\_VarExp\_Atri\_Tabanca) | 0.376587 | -0.001497 |
| 8 | (PC1\_Distance\_Pro, 1\_VarExp\_Moranca) | 0.265151 | -0.001777 |
| 9 | (Indeg\_RedeRisk\_Cen, 1\_VarExp\_Moranca) | 0.260431 | 0.025658 |

***Key results****:*





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

***Instrucciones modelo***: **test size = 0.3**.

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

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

'Indeg\_RedeConfianc', 'Degree\_RedeTotFamil', '1\_VarExp\_Moranca',

'9\_VarExp\_Atri\_IndMelhorTecnDiqCint', '10\_VarExp\_Atri\_MelhorTecnTubos']

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

Mean Squared Error: 4.0513

R^2 Score: 0.7652 (on excel: **R2= 0.8514**)

**Model tot:**

Mean Squared Error (MSE): 1.5891

Root Mean Squared Error (RMSE): 1.2606

Mean Absolute Error (MAE): 0.4729

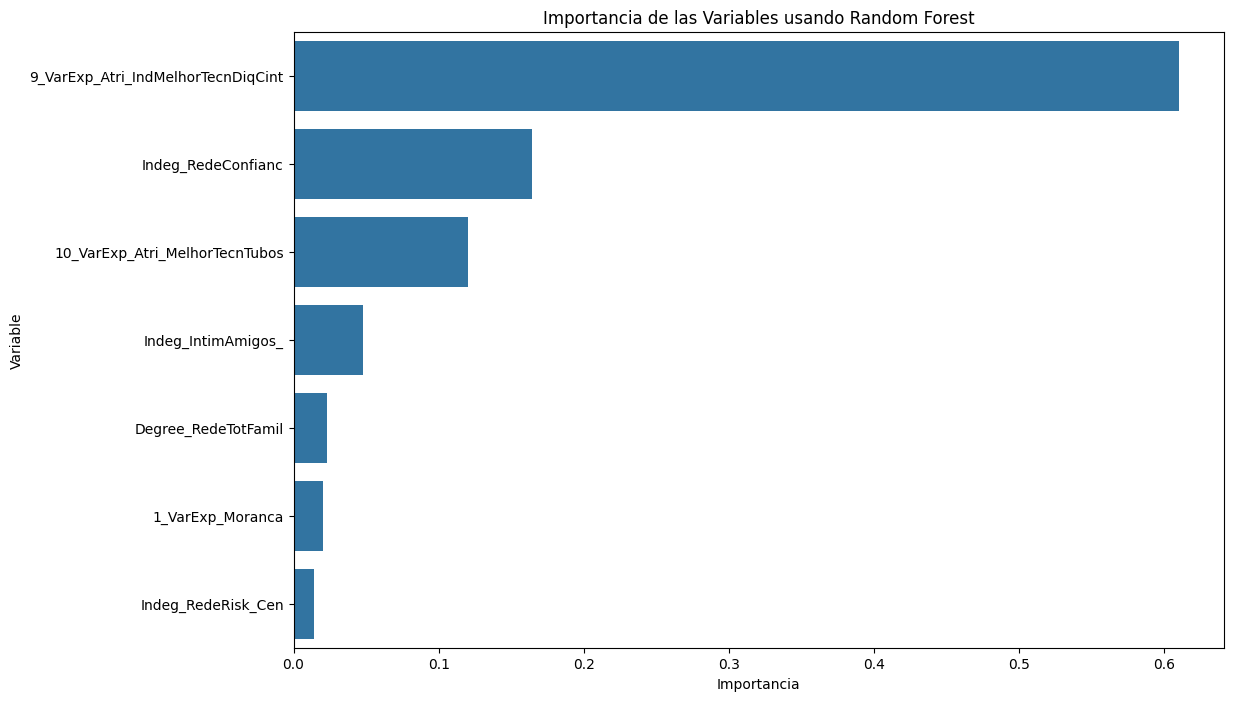
R^2 Score: 0.8738

Pearson Correlation: 0.9477

***Interactions***:

| **Interacción** | **Importancia** | **Dirección** |
| --- | --- | --- |
| 0 | (Degree\_RedeTotFamil, 9\_VarExp\_Atri\_IndMelhorT... | 2.563215 | -0.021354 |
| 1 | (Indeg\_RedeRisk\_Cen, 9\_VarExp\_Atri\_IndMelhorTe... | 2.552551 | 0.006701 |
| 2 | (Indeg\_IntimAmigos\_, 9\_VarExp\_Atri\_IndMelhorTe... | 2.548851 | 0.121451 |
| 3 | (1\_VarExp\_Moranca, 9\_VarExp\_Atri\_IndMelhorTecn... | 2.546018 | -0.004106 |
| 4 | (9\_VarExp\_Atri\_IndMelhorTecnDiqCint, 10\_VarExp... | 2.525894 | 0.532634 |
| 5 | (Indeg\_RedeConfianc, 9\_VarExp\_Atri\_IndMelhorTe... | 2.478690 | 0.303276 |

***Key results****:*

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