

# Case Study

Supply Chain Management & Data Analysis

# Analytics Case – 1º Dataset

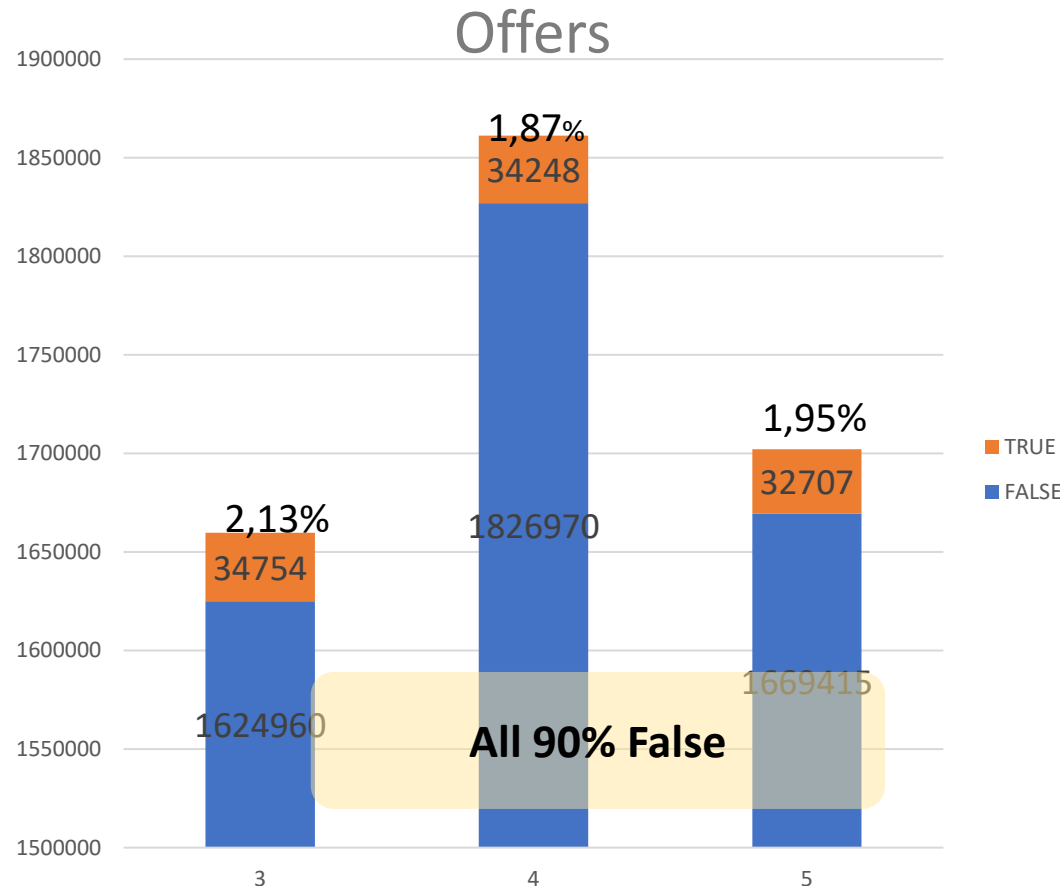


- **Rows: 5M,223k**
- **Columns: 9**
  - Tour\_id
  - Tour\_status
  - Datetime\_published
  - Origin\_country
  - Destination\_country
  - Shipper\_id
  - Invited\_carrier\_id
  - Offer\_placed
  - Carrier\_assigned
- **Ids: 30.783**
- **Shippers: 118**
- **Carriers: 16.410**
- **Countries: 4 – 16 Combo chances**
- **Time: 2023- March, April, May**
- **Tour\_status: *True/False***
- **Offer\_placed: *True/False***
- **Carrier\_assigned: *True/False***

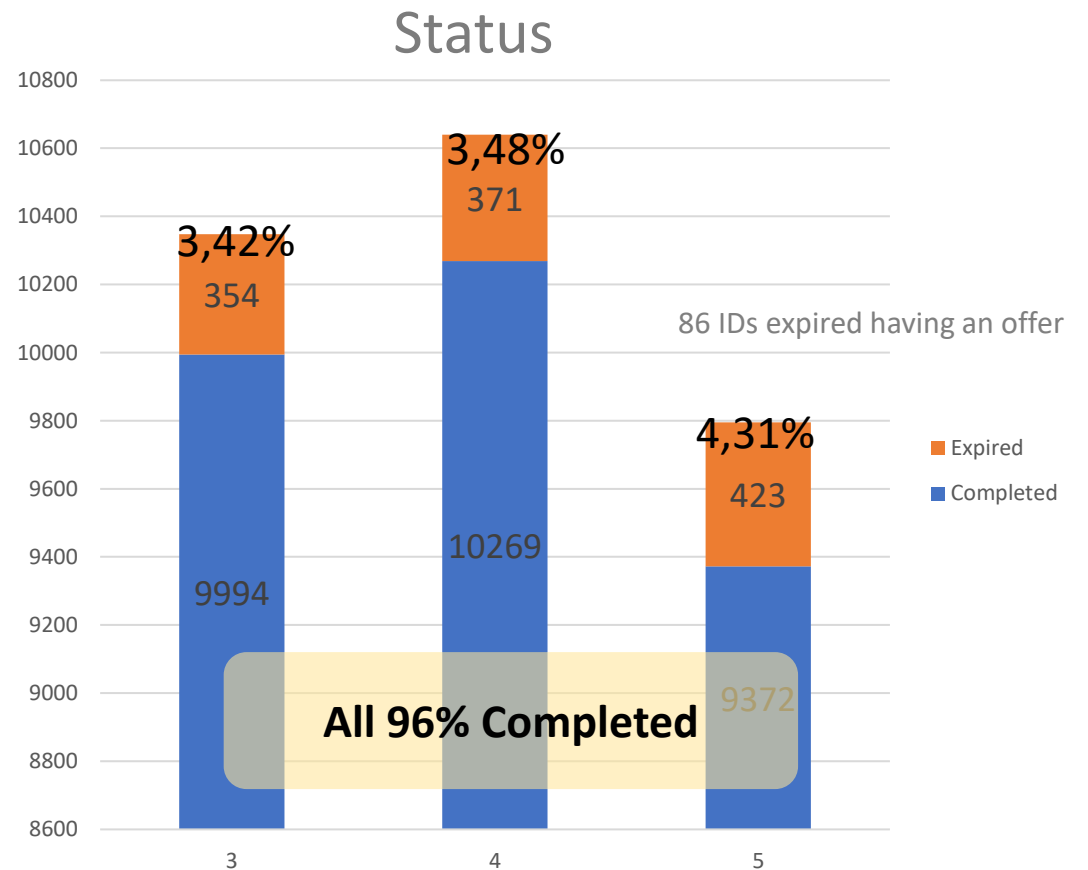
# Analytics Case

## Monthly Offers & Status

<2% Overall Invitations  
Offers = **Positive** \*Repeated ID



True: 101.709 / False: 5.121.345

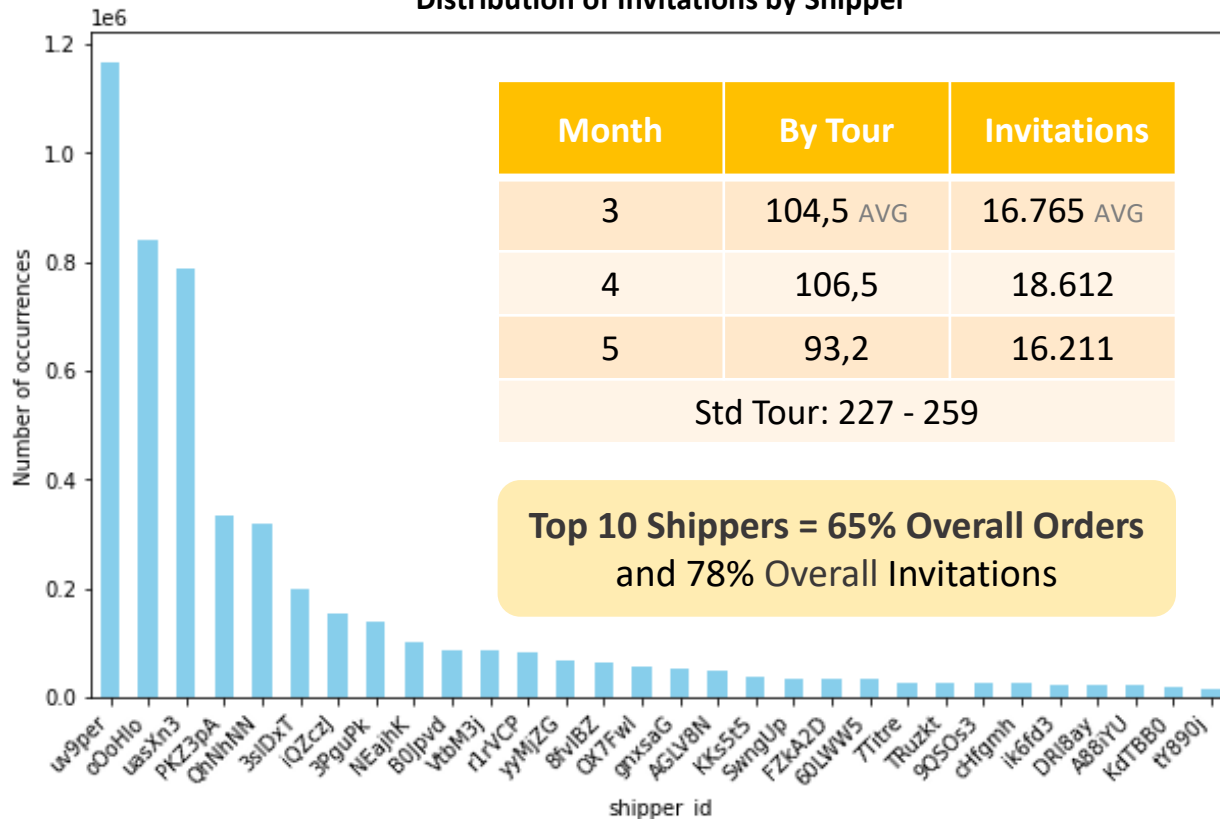


Completed: 29.365 / Expired: 1.148

# Analytics Case

## Top Carriers & Shippers

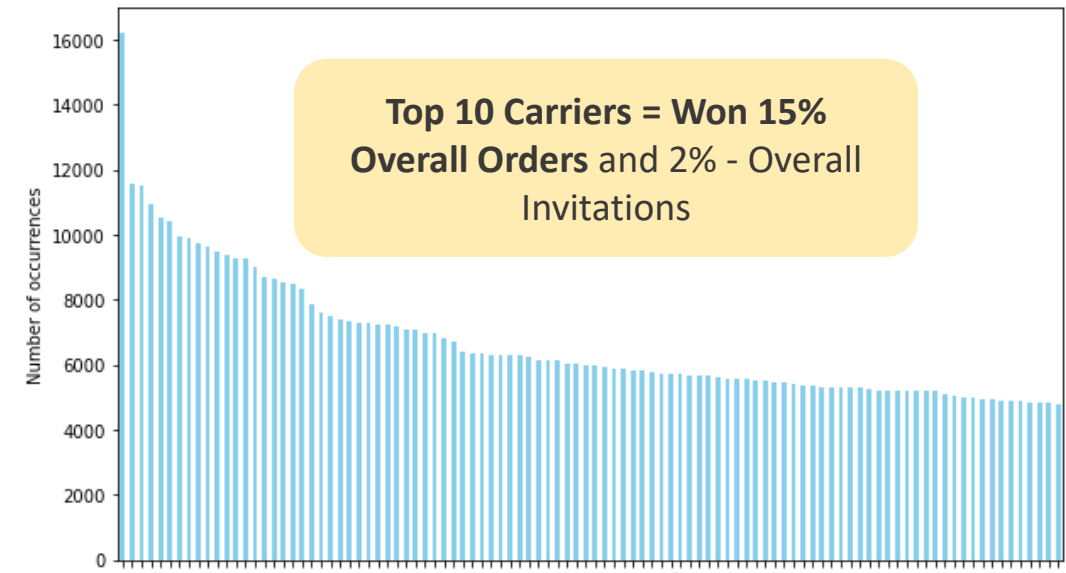
Distribution of Invitations by Shipper



\*Global Mean/Invitation 44K

Month	By Tour	Invitation
3	42,8 AVG	124,6 AVG
4	44,1	128,7
5	38,8	132
Std Single Tour: 123 -145		

Distribution of Invitations by Carrier



\*Global Mean/Invitation 318,28

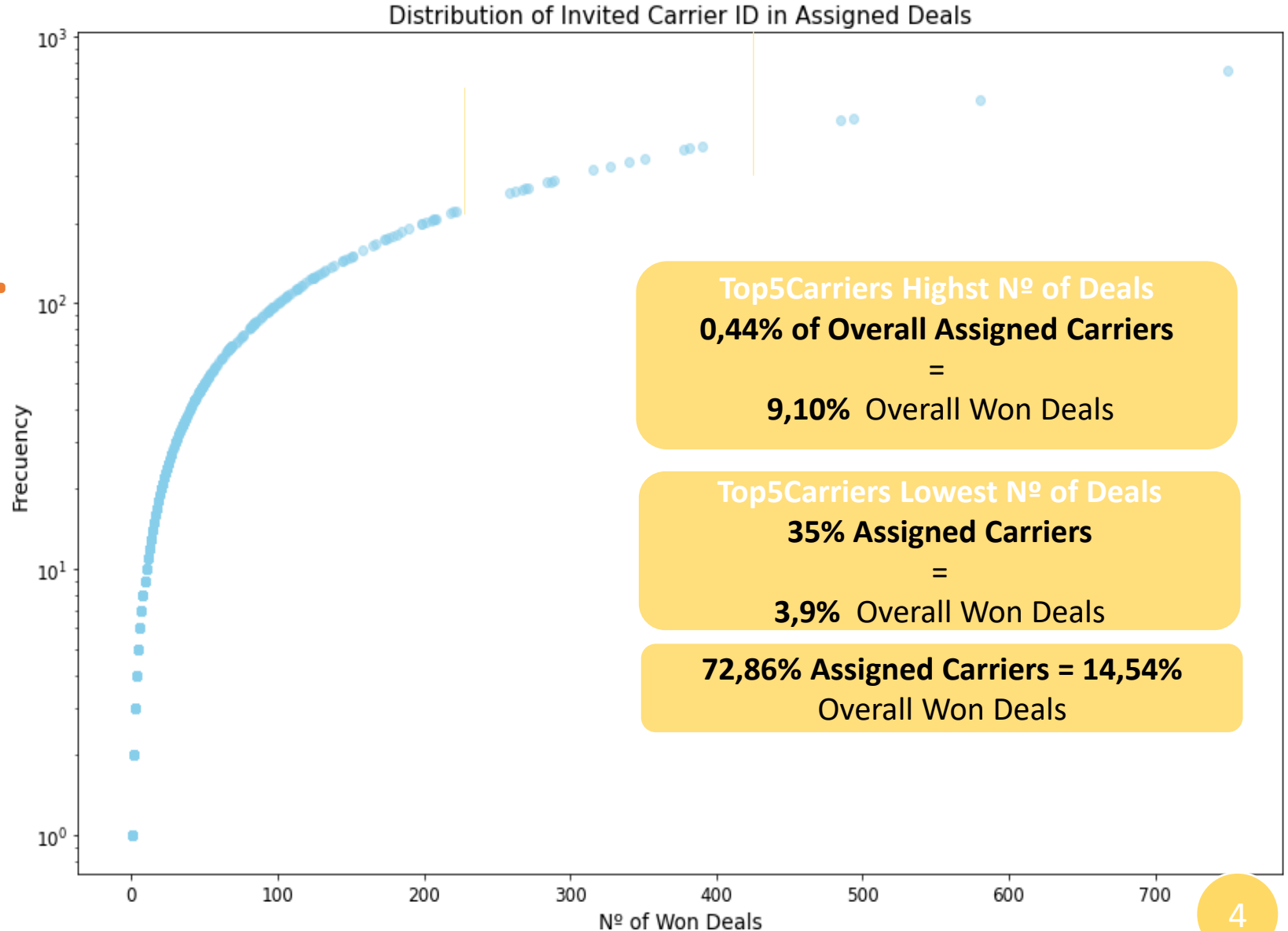


# Who gets Deals?

- **Total Assigned:** 29.635
- **Total Carriers:** 16.410  
Sent an Offer: 1.465 *Carriers*
- **Who Won?:** 1.124

## Top5 Lowest Nº Wins

Nº of Wins (deals)	Nº of Carriers that won
1	227
2	121
3	64
4	68
5	45





# Carriers – Tops & Key Infos

- **Top15 Carriers** with more Invitations, **only 3** appears in **Top 15 Assigned/TrueOffers** sent.
- **Top15 Assigned**, **8 IDs** are in **TopTrueOffers**.

## Positive Correlation Tendency

More True Offers = Higher Chance to get a Deal

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*0.53 \*Overall*

*0.84 \* Based on Frequency Nº True/Win*

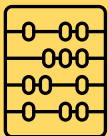
Top15	True Offer AVG	Assignment %
<b>Requested*</b>	5,21% <small>It seems overperformance, what type of deal/company is it?</small>	28%
<b>Assigned*</b>	29%	39,6%
<i>Nº Requests</i>	<i>156.840*</i>	<i>85.305*</i>



# Shippers – Tops & Key Infos

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- In essence, the **Top16 shippers** precisely align with all **TOPs16**, falling within the **range from 10 to 16 matches**. *Based on Invitations, no Deliveries*
  - **Top15** shippers with more Tours **match 8/15 of TopCompleted** and **14/15 TopRejected**. *Based on single Delivery*
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- **TopRejections have 4 outsiders (new)** – What Profile, sector, countries?. *Based on Invitations, no Deliveries*



# Correlations

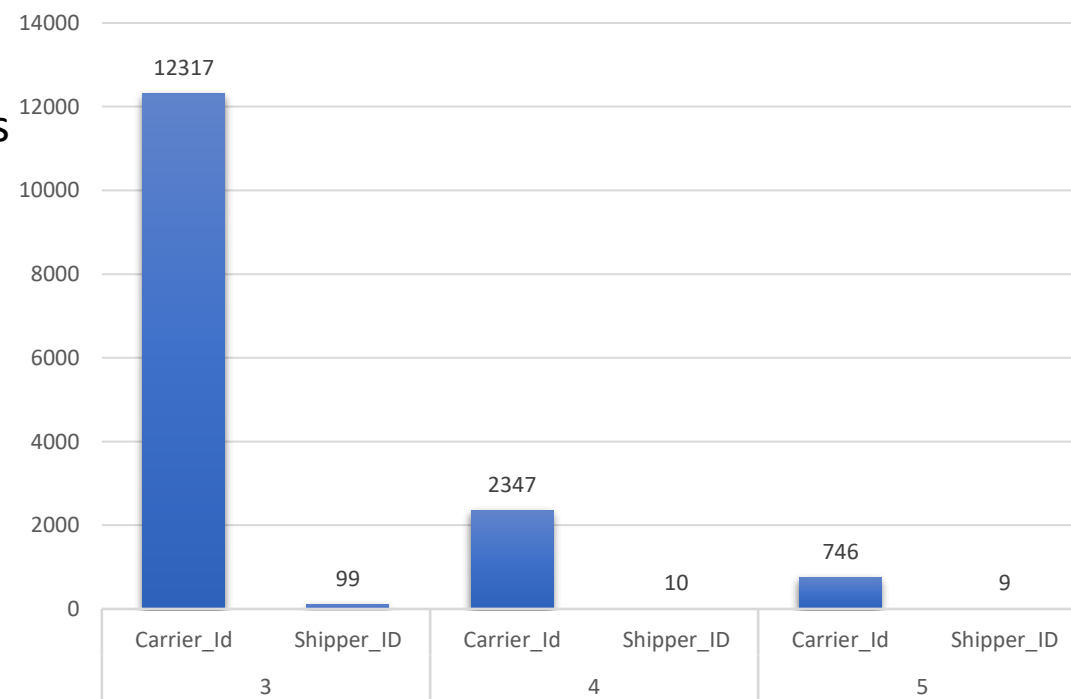
Do having more active users in a month means more transactions? Quick Answer **Yes**

There seems to be a trend in Shippers/Carriers and Nº of Invitations per shipment.

Less Shippers = Less Carriers & Less Tours = More Invitations to reach Offers = More Offers = Higher Positive Feedback = Complete  
– Supported by Covariance and Crr

- **Avg TopRequest (invitations):** 5,21% Make an offer
- **Avg TopTrue (invitations):** 26,67% – Only 3 Ids are from Top Request

Month	Carrier_ID	Shipper_ID	Nº Invitations	Nº Tours
3	12.317	99	<b>1.659.714</b>	10.348
4	2.347	10	1.862.218	10.640
5	746	9	1.702.122	<b>9.795</b>







# Top Combo Countries

## Cor Country/Performance

### Offer – Dupli Vs Single ID – last one

- Chi2 value: 6096.086484640977  
P-value: 0.0  
Degrees of Freedom: 15
- Chi2 value: 381.7569812684077  
P-value: 4.680336335716805e-72  
Degrees of Freedom: 15

### Status – Dupli Vs Single ID – last one

- Chi2 value: 16975.17817477629  
P-value: 0.0  
Degrees of Freedom: 15
- Chi2 value: 60.97919256721072  
P-value: 1.7103298394505196e-07  
Degrees of Freedom: 15

2.248.361

Invitations

Top Country Combo Requests		Top Country Combo Expired		Top Country Combo Complete	
Country Combo	Sum of conteo	Country Combo	Sum of conteo	Country Combo	Sum of conteo
Country1-Country1	43,05%	Country1-Country1	49,91%	Country 1 - Country 1	51,59%
Country1-Country3	13,49%	Country2-Country2	16,36%	Country 1 - Country 2	3,32%
Country2-Country2	11,32%	Country3-Country3	7,14%	Country 1 - Country 3	4,91%
Country3-Country3	9,07%	Country3-Country1	6,96%	Country 1 - Country 4	0,57%
Country2-Country1	5,88%	Country1-Country3	4,89%	Country 2 - Country 1	6,08%
Country3-Country1	5,78%	Country2-Country1	4,23%	Country 2 - Country 2	15,44%
Country1-Country2	4,75%	Country3-Country2	2,32%	Country 2 - Country 3	2,20%
Country2-Country3	1,89%	Country3-Country4	1,87%	Country 2 - Country 4	0,21%
Country3-Country2	1,70%	Country2-Country3	1,84%	Country 3 - Country 1	3,95%
Country4-Country4	0,85%	Country4-Country4	1,55%	Country 3 - Country 2	1,85%
Country1-Country4	0,83%	Country1-Country2	1,21%	Country 3 - Country 3	7,69%
Country3-Country4	0,83%	Country4-Country3	0,80%	Country 3 - Country 4	1,15%
Country4-Country3	0,28%	Country1-Country4	0,71%	Country 4 - Country 1	0,07%
Country2-Country4	0,19%	Country4-Country2	0,13%	Country 4 - Country 2	0,08%
Country4-Country2	0,07%	Country2-Country4	0,08%	Country 4 - Country 3	0,32%
Country4-Country1	0,03%	Country4-Country1	0,00%	Country 4 - Country 4	0,57%

Countries (individual/combo)

with more rejections

3 and 4 - 5.7% and 3, 6%

Vs Individual&Global

AVG 2%



Thank You