

Sales Opportunities Data Analysis

Nov. 15 2016
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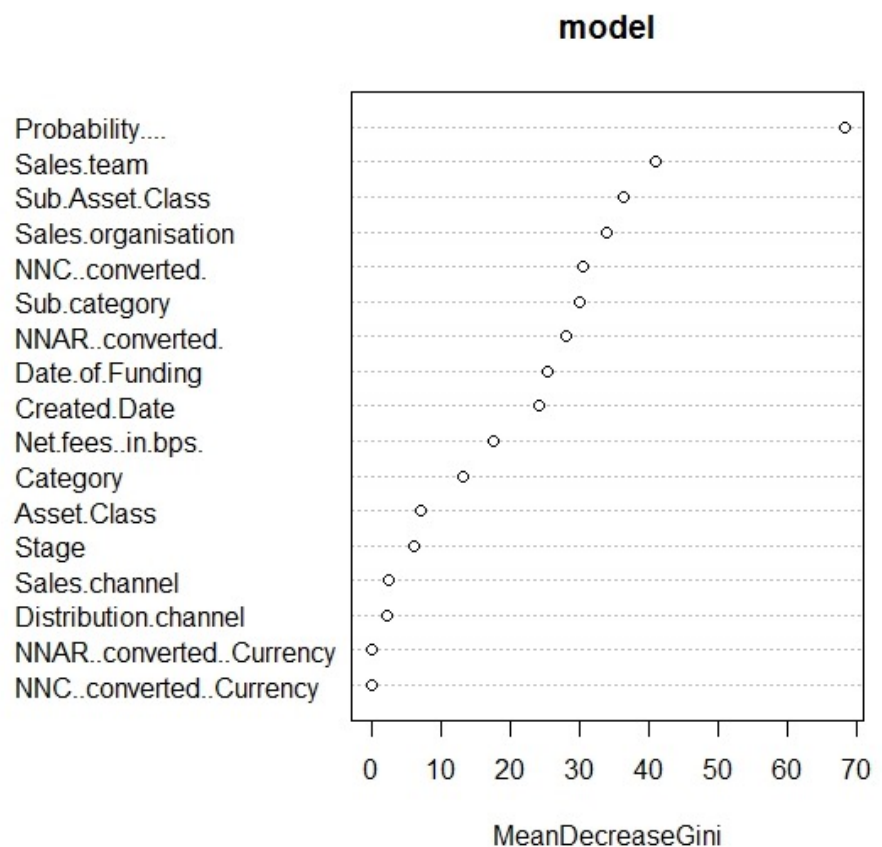
This report aims at helping find out the factors which bring sales. The objective factors, which could not be determined by our sales teams, can help predict sales performance. However, the subjective factors, flexible depending on our choice, can help us improve sales performance.

Notes:

All analysis in this report are based on the following data:
"Callreports.csv",
"Opportunities.csv",
"SalesReports.csv".

Objective factors influencing sales

The following figure, generated by the Random Forest algorithm, shows the importance list of opportunity features.



From this figure, we can see that "**Probability**" is the most important feature. This value is approximately measured by the salesman who fill in the opportunity form. With a higher "Probability" value, we tend to have more chance to convert an opportunity into sales.

Undoubtedly, the success rate depends on fund performance, reflected in **NNC** and **NNAR** in the opportunity features.

At the same time, the fund property, such as “**sub asset class**” and “**sub category**” could be influential to the success rate of converting an opportunity into sales. Here is the top 9 ranking of success rate by “sub asset class” and “sub category” separately.

Notes:

The **success rate** describes the probability of converting an opportunity into sales.

1	Sub.Asset.Class	succ_rate	nb_succ	all
2	Europe Convertible Bonds	0.6	3	5
3	Other Developed Balanced	0.42	5	12
4	Europe Fixed Income	0.41	53	129
5	Currency	0.4	4	10
6	EUR Money Market	0.33	49	148
7	GBP Money Market	0.31	4	13
8	USD Money Market	0.31	4	13
9	Emerging Fixed Income	0.28	27	97
10	Emerging Equity	0.2	12	61

1	Sub.category	succ_rate	nb_succ	all
2	High Net Worth Individual	1	1	1
3	Fund of Fund	0.67	4	6
4	Private Banking Management	0.67	2	3
5	Bank Retail	0.57	4	7
6	Corporations Other	0.5	1	2
7	Public Sovereign Wealth Fund	0.5	1	2
8	Retail Pension Fund (Defined Contribution)	0.5	1	2
9	IFA (Independent Financial Advisor)	0.38	6	16
10	Insurance - Life	0.35	26	75

Furthermore, **sales team** and **sales organisation** are also important factors. Some sales team/organisations are better at persuading the hesitant opportunity clients than others. The top 9 ranking of success rate by “sales team” and “sales organisation” are presented separately as follows:

1	Sales.team	succ_rate	nb_succ	all
2	Luxembourg IN/DS Internal	0.56	5	9
3	Norway IN/DS	0.52	25	48
4	Italy IN	0.48	49	103
5	Spain IN/DS	0.4	6	15
6	Latam ex. Brazil IN/DS	0.39	27	69
7	CEE IN/DS	0.33	7	21
8	MENA IN/DS	0.33	7	21
9	Singapore IN	0.33	2	6
10	Finland IN/DS	0.29	5	17

1	Sales.organisation	succ_rate	nb_succ	all
2	Luxembourg	0.56	5	9
3	Chile	0.48	12	25
4	Italy	0.48	49	103
5	Norway	0.44	31	71
6	Colombia	0.4	2	5
7	Spain	0.4	6	15
8	Argentina	0.38	13	34
9	Austria	0.33	7	21
10	MENA	0.33	7	21

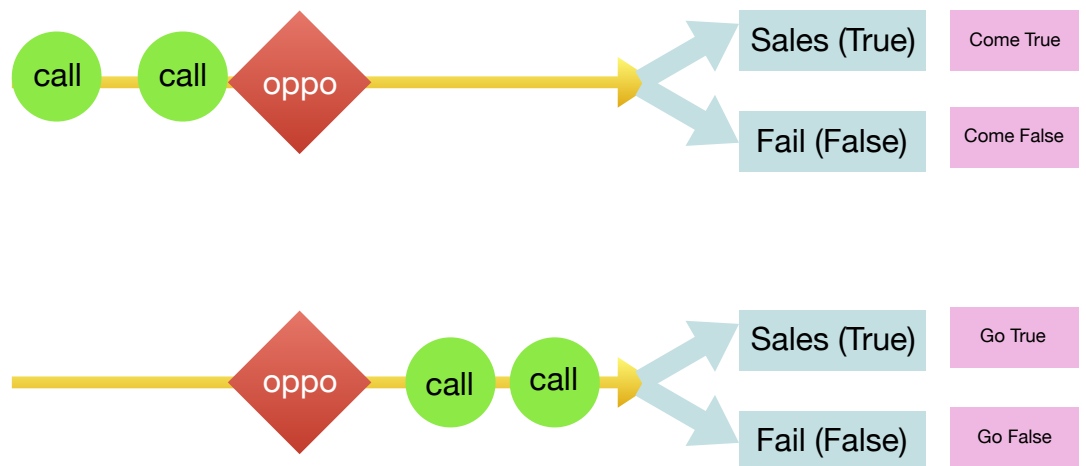
In our model, given any opportunity with the seven features presented above (**Probability**, **NNC**, **NNAR**, **sub asset class**, **sub category**, **sales team** and **sales organisation**), we are able to predict if this opportunity could succeed, under the condition of 14% error rate.

Subjective factors influencing sales

Communication and interaction between clients and sales team is one of the essential factors for sales that we are capable to handle. Does more

communication bring more opportunities into sales? Which type of interaction bring more clients? How should the salesmen manage the frequency of communication? Data shows the answer.

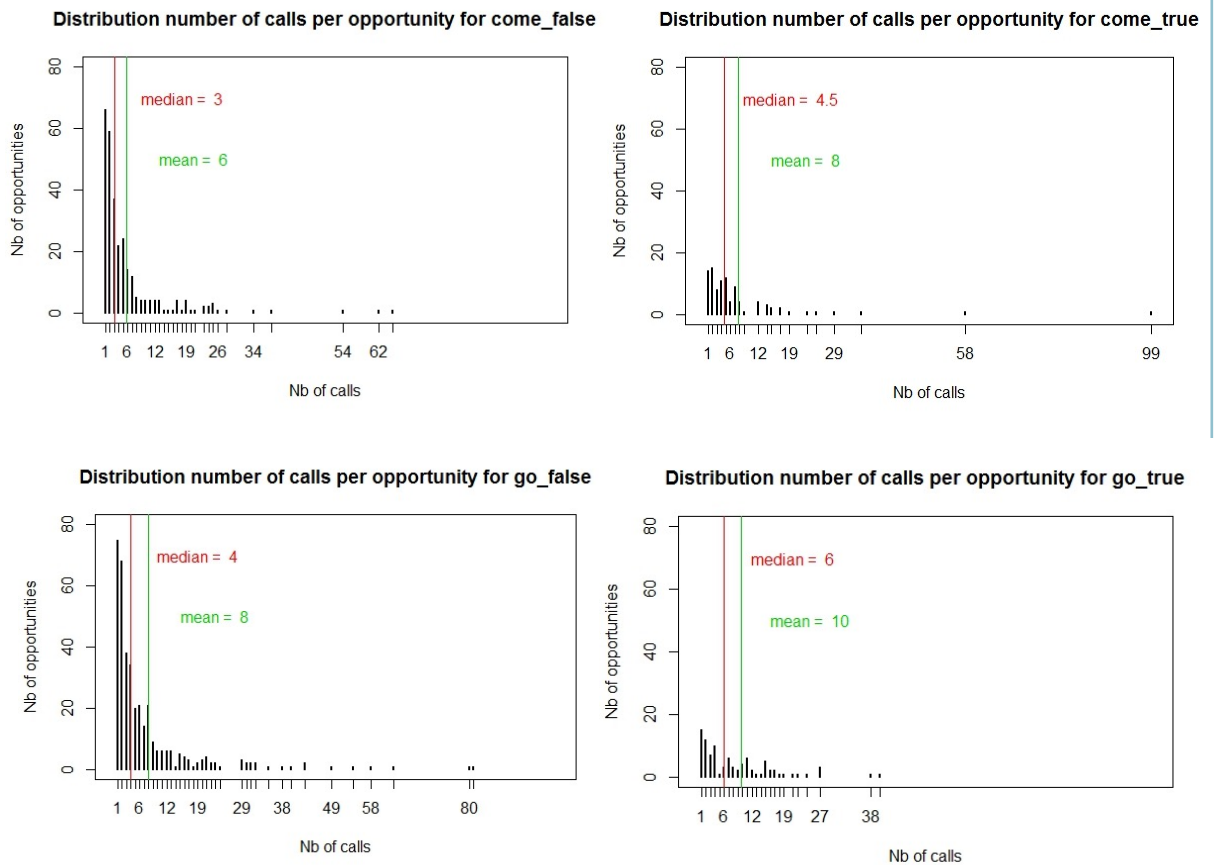
We have split our data into four segments, “come false”, “come true”, “go false”, “go true”. If an opportunity is created after several calls, we name it “coming opportunity”. Otherwise, if several calls take place after the creation of an opportunity, we name it “going opportunity”.



Number of calls

In order to answer the question "Does more communication bring more opportunities into sales?", the number of calls distribution are plotted as below.

By comparing the distribution of come_false and come_true, generally we need 4.5 calls (using median in order to avoid the influence of extreme values) with a potential client before the creation of opportunity, so as to reach a successful sale. There are only 3 calls for the opportunities without sale.



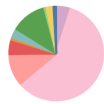
By comparing the distribution of go_false and go_true, generally we need 6 calls (using median in order to avoid the influence of extreme values) after the creation of opportunity, so as to reach a successful sale. There are only 4 calls for the opportunities without sale.

Type of calls

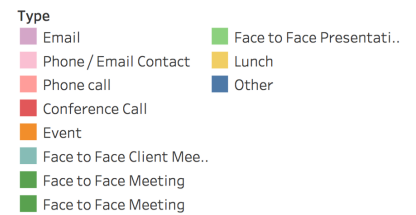
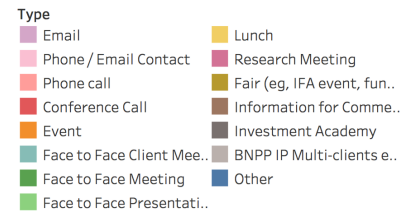
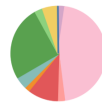
The previous results confirmed the fact that more communication bring more opportunities into sales. Now the question comes to decide, which type of interaction to use while contacting the clients, Email? Phone call? Face to Face? ...

The distribution of call type are presented as follows:

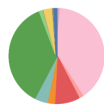
come_false_call_oppo



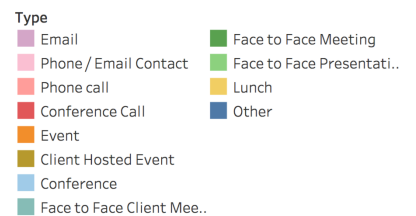
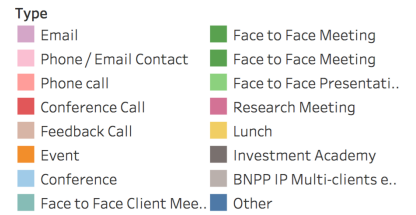
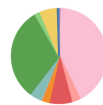
come_true_call_oppo



go_false_op-po_call



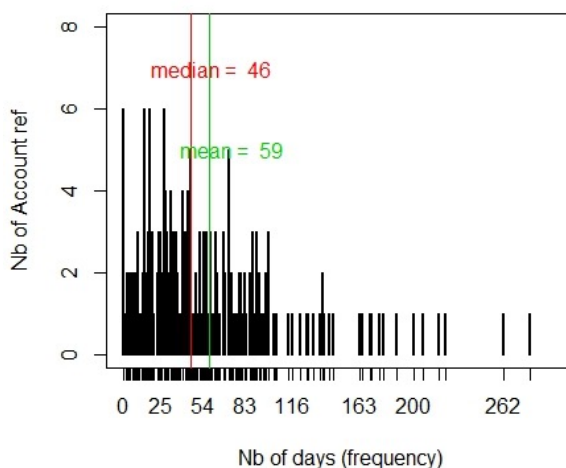
go_true_op-po_call



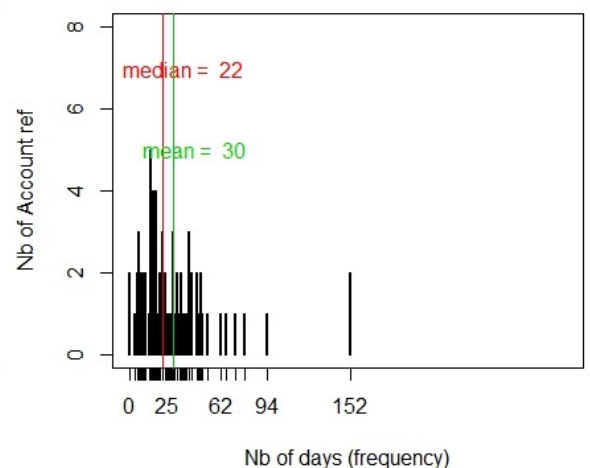
By comparing these pie charts, we can see that before the creation of opportunity (come), we need more face to face meetings to reach a successful sale. After the creation of opportunity (go), it's favorable to have lunch with clients, to improve the success rate from opportunity to sales.

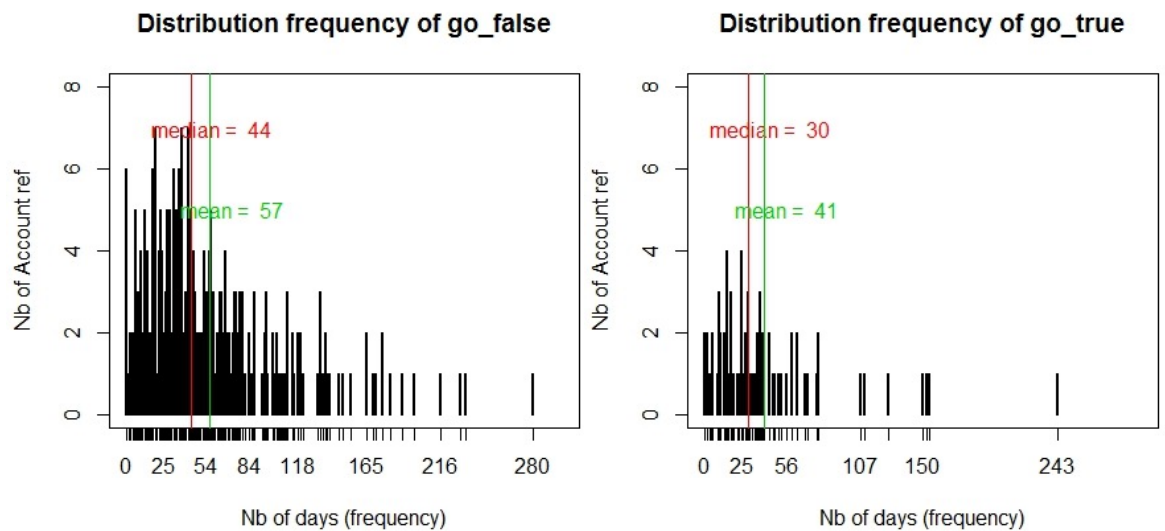
Frequency of calls

Distribution frequency of come_false



Distribution frequency of come_true





How should the salesmen manage the frequency of communication? By analyzing the distributions of call frequency below, we obtain the answer in a statistic way.

Before the creation of opportunity (come), it's better to maintain a contact with potentiel clients at frequency of 22 days rather than 46 days. Face to face meeting and lunch are favorable types of contact. After the creation of opportunity (go), it's recommended to contact the clients every 30 days rather than every 40 days.