



Using Pragmatic Data Mining Approaches for Donor Acquisition Programs

In today's brave new world of marketing accountability, all organizations strive for ROI optimization by being efficient with their marketing dollars. Certainly, this applies to the world of non-profit and specifically donor acquisition. By now, we all recognize the key role of data mining in helping to achieve ROI maximization. This is of particular importance to those organizations that market to large volumes of prospects. But for many non-profits, cost and resources are limiting barriers to the use of data mining techniques. The purchase of data mining software containing advanced mathematical/statistical routines and the expense of an advanced user to run these routines are formidable barriers to many non-profit organizations attempting to take advantage of data mining techniques. Yet the decision to not take advantage of any data mining analyses despite the depth of information that exists about donors and their donation history, represents a missed opportunity. The nuggets of information pertaining to donor behavior can provide valuable insights for donor acquisition programs.

So how can non-profit marketers leverage this information in light of these above-mentioned barriers?

As in many situations, there are always opportunities to explore options which reside somewhere between doing nothing and becoming an organization that is sophisticated in advanced data mining techniques. This in-between type of solution or pragmatic approach should be adopted if it can achieve three objectives:

- Generate significant cost savings
- Require minimal incremental costs
- Easy to action

1. Using Information for Strategic Insights

Let's consider a few basic examples that are pragmatic and provide meaningful insights in for donor acquisition programs. The first consideration should be to better understand new donor behaviour from the perspective of how they were acquired. One key type of analysis to begin this exploration is called "Cohort Analysis".

Cohort Analysis involves an examination of a specific type or group of customers (e.g. *New*) and tracking their donation behaviour over a number of years. The intention of this analysis is to try to identify a particular group of new customers that seem out of pattern with the other groups of new customers, and leverage this learning to improve future

marketing efforts. For example, information in Table 1 below enables us to derive the following insights:

- Donation rates of new customers in 2004 and 2005 seem to exhibit the same patterns in terms of increased annual donation rate after year 1
- This pattern does not hold for donors in 2006 and 2007 as there is no increase in donation rate for these groups beyond the first year. Furthermore, donation rates overall seem to have deteriorated.

Table 1

Donor Group	Annual Donation Rate			
	2005	2006	2007	2008
New in 2004	40%	50%	51%	51%
New in 2005		42%	51%	53%
New in 2006			32%	34%
New in 2007				32%

Looking at this data, we would want to better understand what differed from an acquisition standpoint between 2006/2007 and 2004/2005, presuming that new donor programs did not change significantly over these years. Some key questions to consider in this investigation might be:

- What were the overall acquisition strategies in those time periods and their specific objectives?
- Did the marketing mix change. For example, are there significantly more new donors arriving from online channels compared to other channels?
- Has the list strategy changed?
- Has the communication strategy changed?

Insights gained by answering these questions may be used to develop/refine acquisition strategies to improve the donation rates of new customers in their 1st year and beyond.

Another area of analysis that could help our overall acquisition efforts would be to focus on the behaviour of *Lapsed* donors. Analysis of donation information from this group may provide further insight on how we source prospect names for new donor acquisition. By looking at donation rates relative to how long a donor has lapsed, we may find that there are certain groups of Lapsed donors that perform worse than others and should be considered for reclassification as a new donor prospect (e.g. Reactivation). This type of initiative can provide an immediate cost savings if we isolate these low performing lapses and delete them from the existing database. Doing so would reduce database service/storage charges. Based on our experience, a good rule of thumb without the luxury of any donor analysis is that donors who have not given in the last 4 years should be excluded from any active donor program and deleted from the donor database.

Table 2

Lapses	Donation Rate
1 yr	5.00%
2 yr	4.00%
3 yr	3.00%
4 yr	2.00%
5 yr	0.50%
6 yr	0.40%
7yr+	0.30%

Table 2 above is an example of a Lapsed donor analysis. The trend evident from this information is that as Lapsed donors age, their likelihood to donate declines. If we have information that acquisition programs typically yield 1% donation rate, then we may actually consider 5yr+ donors as being part of a new donor acquisition program because their donation behaviour is more similar to a prospect than an active or lapsed donor. The only caveat here is that the inclusion of these extreme lapses in an acquisition program would still warrant that we consider them differently as they represent donors who at one time or another were engaged with the organization.

Both the Cohort analysis and Lapsed donor analysis examples represent cases where the focus is to provide information that can yield insights to enhance our donor acquisition strategy. The need for a statistician/mathematician is not required as the real analytical requirement here is the simply the ability to generate the appropriate reports.

2. Using information at a Tactical Level

Marketers can benefit from these insights to improve prospect targeting. Examples of tools that can be developed without the use of advanced mathematical/statistical analyses are geo-area (postal code or FSA) insights that allow the marketer to select prospects residing in particular areas of the country. Geo-area targeting tools may be developed by using the available donor and prospect level information to create “donor penetration” type indexes. This approach is premised on the notion of “Fishing where the fish are”.

These indexes are created by extracting postal code (or FSA) and start date information from the active donor base, and extracting postal code (or FSA) information from the prospect base. Customer counts are then created at a geographic area level (postal code or FSA) from the donor file while prospect counts are created at a geographic area from the prospect file. A ratio of donor count/prospect count represents our overall customer penetration index for the geographic area. The higher the index value for the geographic area, the higher our donor penetration and the more likely we are to find more donors there.

Another useful index is to look at recency of new donors around a particular geo-area. Using the start date on the donor file, we can simply count the number of new donors around an area and then divide this by the total number of donors in that area in order to create a new donor penetration index. Having created an overall donor penetration index and a new donor penetration index, a composite overall index can then be created by combining these indexes together. Based on our experience, the new donor penetration index should be given a higher weight in any composite penetration type index used for new donor acquisition programs.

Using the composite penetration index, geo-areas can then be rank-ordered from highest penetration index value to lowest penetration index value and donor prospects can be selected from selected geo-areas up to a minimum donor penetration threshold. Table 3 below provides an example of how in practice prospects may be selected when the composite penetration index is used in combination with different prospect lists.

Table 3

Geo Areas ranked by Composite Index	List Type			
	Business Week	Canadian Fundraising Multi Donors	Time	Canada Post
0-20%	25,000	10,000	5,0000	100,000
20%-40%	22,000	8,000	49,000	150,000
40%-60%	20,000	6,000	53,000	175,000
60%-80%	17,000	4,000	48,000	180,000
80%-100%	12,000	3,000	49,000	200,000

The highlighted cells represent how prospect names might be selected for a given campaign. In the above example, all the prospects from the Canadian Fundraising Multi Donors list would be promoted since rented names from other charities traditionally perform quite well. Meanwhile only 100,000 names or the top 20% of the Canada Post names would be selected since these names typically perform very poorly relative to other list sources. The key with this type of report is that we now have information that includes the list source and geo-area location to support our prospect selection decision. Once again, a pragmatic approach to using information produces an effective solution that does not require advanced mathematical/statistical tools or software.

If analytics plays only a very small role within the non-profit organization, a change in mindset is necessary to make analytics a regular part of the marketing process. The key in creating this change is to identify potential quick wins that can action the learning from these above examples and more importantly to demonstrate its incremental business benefits. Although change always involves some level of pain, the examples in this article attempt to highlight the notion that analytics need not be a cumbersome process but rather a means to provide simple cost-effective solutions that are actionable within a very short time frame.