IBM Predictive Fundraising Analytics

Overview

Over the last several years, nonprofit organizations have grown significantly in both number and financial impact. In total, the global nonprofit sector, with its more than $1 trillion turnover, would rank as the world's eighth largest economy.[1] India alone has an estimated 3.3 million nonprofit organizations, the largest number of active non-government, not-for-profit organizations in the world.[2]

For the purposes of this white paper, a nonprofit organization is defined as one that uses surplus revenues to achieve its goals rather than distributing them as profits or dividends, and is dedicated to a specific mission that enhances the fabric of society. Globally, these organizations are sometimes referred to as Non-Government Organizations (NGOs) and comprise the "third sector" or "civil society." Nonprofit organizations play a critical role within the societies they serve, providing services and materials that are often not available from government or private organizations. Amid the challenges and shortfalls caused by the global economic downturn, the need for these nonprofits is even greater.

However, the economic recovery is leaving many nonprofits and communities behind and in need. Funds are drying up due to government budget cuts and decreases in donor contributions. According to the 2014 State of the Non-Profit Sector Survey, 41 percent of nonprofits surveyed named "achieving long-term financial stability" as a top challenge, yet more than half of nonprofits (55 percent) have 3 months or less cash-on-hand and 28 percent ended their 2013 fiscal year with a deficit.[3] In Europe, emerging and smaller to mid-sized nonprofits have been challenged to identify new sources of funding as designated EU funds are primarily accessible only to large, established organizations.[4]

As governments continue to cut budgets and reduce expenditures, nonprofits will be relying more than ever on donor contributions to provide the funding they need to perform essential services, pay salaries and cover operating costs. In this white paper, you'll learn how predictive analytics can help nonprofits achieve their funding goals by significantly improving the way they identify, manage and build relationships with donors.

The challenges of fundraising

Around the world, donors are already crucial to the function and sustainability of nonprofit organizations. Individual donors now represent almost 99 percent of nonprofit funding in India,[2] 80 to 95 percent of nonprofit funding in the US[4] and 53 percent in Europe.[5] But donor giving is undergoing dramatic changes.

While the number of donors has remained steady, the average gift they give is much lower. As donors struggle with tightening their own household or corporate philanthropic budgets, they are more selective about which causes they will support. With fewer dollars available for giving, donors may seek a perfect fit with a cause before making a commitment. And when fewer donors are receptive to giving, the competition for charitable dollars increases.

In this environment, it is increasingly important for nonprofits to not only increase the number of donors, but increase the donation amount as well. In addition, they must find ways to reduce the high costs of donor processing and correspondence, and accelerate the turnaround time for funds availability. Most importantly, nonprofits must not invest their limited time, effort and expense soliciting potential donors that will likely never contribute. All of these challenges require a more effective strategy for the overall task of donor engagement.

Fundraising encompasses a wide range of capabilities within a nonprofit organization. These include tracking and managing a complex array of donors, members and volunteers; anticipating which donors are most likely to give; building loyal donor relationships for repeat giving; identifying which donors will provide the biggest returns; creating campaigns and donation request levels to appeal to different donor types; understanding which communication channels are most effective; knowing when donors should be solicited and when they should not to avoid saturation; and deploying limited resources more cost-effectively.

Predictive fundraising analytics

Forward-looking nonprofit organizations are now using predictive analytics to improve donor engagement and returns on fundraising efforts. Predictive analytics helps these organizations unlock hidden insights within their data so they can:

- Identify prospective donors
- Understand and anticipate donor needs, behaviors and preferences

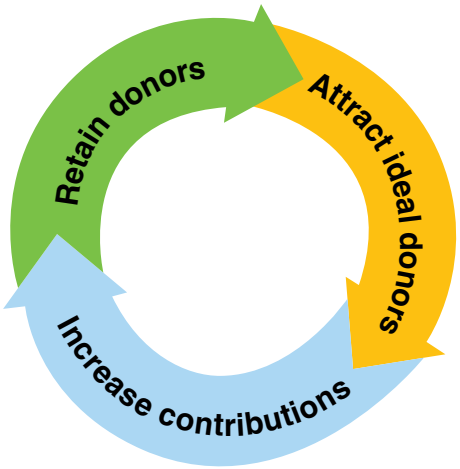

Figure 1. Predictive analytics helps nonprofits gain a 360-degree view of the donor experience that they can use to attract ideal donors, increase contribution amounts, and retain current donors.

- Know where to deploy donor resources for the biggest returns
- Predict which donors are most likely to donate, how much they will give, and when they would likely donate
- Determine the most effective messages and channels for solicitation (such as email, phone, direct mail or others)
- Optimize the frequency of donor contact to maximize contributions
- Anticipate when staff should provide additional attention to a specific donor

What is predictive analytics?

Predictive analytics uncovers patterns, trends and associations hidden within all types of data to help predict future outcomes, solve problems and guide smarter decisions.

Commercial businesses across many industries use predictive analytics to understand their customers and build stronger, more profitable relationships. These capabilities are also used by nonprofit organizations to gain similar benefits with their donors.

Predictive analytics uses advanced algorithms to analyze donor data and deliver a 360-degree view of individual donors. These analytic results provide detailed insight into the needs, preferences and behaviors of donors. Predictive models can be created which enable nonprofits to anticipate how donors will respond to certain campaigns, which contribution amounts they would be likely to give, when they should be solicited and when they should be left alone, which communication channels they prefer and much more.

By deploying these insights to decision makers and frontline systems such as call centers or direct mail initiatives, nonprofits can significantly increase the effectiveness of donor campaigns and strategies. And because predictive analytics learns from every donor interaction, it can also help to build more loyal relationships over time and provide an "early warning system" of donors that may be dissatisfied and require extra attention.

Predictive analytics also helps nonprofits prioritize their resources based on anticipated returns and thereby reduce the costs of donor management. Organizations can determine which donor targets, messages and channels will yield the best results. The wasted effort and expense of low yield donor processing and correspondence can be minimized.

People's Dispensary for Sick Animals

PDSA, a leading veterinary charity that provides free treatments to sick and injured pets, needed to improve its direct mail campaigns and increase contributions. It used IBM® SPSS® predictive analytics software to target donors who were most likely to respond favorably. PDSA's direct mail response rates increased significantly—with one campaign showing an 18.75 percent improvement and another a 26.6 percent increase.

Four steps for using predictive analytics for fundraising

So exactly how can nonprofits use predictive analytics to carry out their donor management strategies? There are four basic steps that follow an analytical process: align donor data, predict what donors want, personalize donor interactions, and integrate what you learned back into the process to optimize your future predictions.

Step 1—Align: Integrate donor data

The first step and the foundation of this process is to align your existing raw donor information. Donor data from all sources and systems across your organization, including spreadsheets, surveys, databases and social media, can be integrated within a single solution. With IBM predictive analytics solutions, it is not necessary to create a separate data warehouse to store this consolidated data. The predictive analytics software can access data from disparate sources and perform the required analysis on your desktop PC or a server.

This data does not have to be "perfect" before you move forward with your analysis. Because this is an ongoing process, you will have many opportunities to improve and refine your data with future iterations.

Although these volumes of information are already available within many nonprofit organizations, they are often unused or not used to their full advantage. By accessing, organizing and analyzing this data, you can unlock valuable insights that you can put to good use. Some key data elements you should focus on in order to ensure success in the following steps of this process include:

- Demographic data such as age, income, occupation, family status, business and personal relationships
- Campaign data such as contact history, responses and donations, and results of test campaigns
- Opinion data captured from donor feedback in social media, emails and surveys that provides insight into donor needs and preferences
- Any other structured or unstructured (text) data regarding donor activity

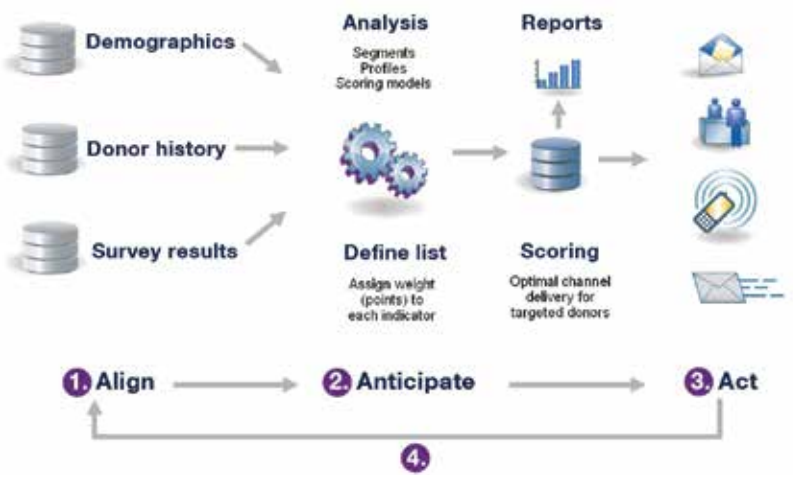

Figure 2. Predictive analytics creates a cycle of continuous improvement that helps nonprofits align donor information, anticipate donor responses, act on predictive insights and optimize predictions for greater effectiveness.

Step 2—Anticipate: Predict what donors want

The information you consolidated can now be analyzed by predictive models that help you understand and anticipate what donors want and will do next. These models use predictive analytics to determine ideal donor segments, score the data and predict the likelihood of future events. For example, you could use predictive models to determine how likely it is for an individual donor to respond to a marketing campaign. Or predict the most effective actions that will build long term, profitable relationships with donors. Along with predictive modeling, another key capability of this step is decision optimization.

Once your predictive models tell you how a donor will likely respond, decision optimization tells you how to use that information most effectively. For example, outreach managers would not only know which donors are likely to provide the biggest returns, but also which precise messages or campaigns to implement in order to maximize the success of every donor interaction.

Step 3—Act: Personalize donor interactions

Now that you know the best actions to take, the next capability is to personalize interactions with donors by integrating those insights into your operational processes and systems. For example, you could integrate predicted donor responses into your direct marketing programs. Individual donors would receive direct marketing offers that appeal to them and your organization would not waste time or expense targeting donors that have no interest in a particular solicitation.

You can also use predictive donor insights to guide the actions of your donor outreach representatives. With at-a-glance, aggregated donor information, your employees will know which donors may be dissatisfied and need a little extra care, and where to focus their retention efforts. In this way, personalizing donor interactions can help improve loyalty, boost response rates, reduce marketing costs and maximize contributions.

And because analytics provides the capability to predict the likely amount of donor contributions, you can further customize solicitations to ensure that they will increase a donor's value and giving over time. The predictive intelligence you gain from this process can also be sent to upper management via dashboards and scorecards to guide their decisions and strategies.

Step 4—Optimize your predictions

Predictive analytics isn't a linear process. With each iteration you gain new insights from donor responses. That valuable source of information can now be integrated back into the analytical process to continually improve future performance. By adding more data sources to your analysis over time, and refining your existing sources, you can significantly enrich your donor view and sharpen the accuracy of your predictive models. And with direct analytical insight into the results of your donor initiatives, you can isolate KPPs, or key performance predictors, that will guide your efforts moving forward. This capability provides insightful data on what worked and what did not within your marketing or campaign initiatives. You are then able to anticipate what you can do next time to gain better results, reduce costs and improve overall efficiency.

This final step also includes an analytical asset and process management capability. This allows you to easily manage important donor analytic assets, such as predictive models and donor scores. These assets should be centrally and securely stored with role-based user access. You can also automate all or part of the analytical processes so models and scores are automatically refreshed in order to sharpen their accuracy and boost response rates.

The insights you've gained from predictive analytics can also dramatically improve your planning, budgeting and forecasting processes. Drawing upon your analytic results helps answer key questions about how to allocate resources and what returns to expect from which investments. For instance, you could determine how much budget you should allocate between different campaigns and marketing initiatives, or what the costs will be to solicit a certain category of donors.

UNICEF Netherlands

UNICEF Netherlands needed a way to raise maximum funds with minimum resources. Using IBM SPSS predictive analytics software, the charity was able to analyze massive volumes of donor data and create highly targeted campaigns. The technology yielded a dramatic improvement in results. In one instance, it more than doubled the response on its door-to-door campaigns.

IBM Predictive Fundraising Analytics

Leading organizations around the world rely on IBM predictive fundraising analytics software to help them anticipate and understand customer attitudes, needs and behaviors. IBM predictive fundraising analytics can help your nonprofit organization gain the full benefits of this powerful technology. Based on more than 40 years of analytic expertise, our solutions are easy to use and provide you with the ability to:

- Incorporate all donor data sources (structured and unstructured) for predictive analysis
- Conduct survey research and social media analysis to gauge donor sentiment
- Quickly build and deploy predictive models that increase the success of campaigns and fundraising efforts
- Apply powerful affinity, cluster and propensity analysis to donor outreach efforts
- Deliver predictive intelligence to decision makers, front-line systems and stakeholders across the organization
- Integrate predictive insights into IBM Business Intelligence for a forward-looking view of your fundraising strategy

Conclusion

Nonprofit organizations need to improve their fundraising capabilities so they can become as efficient and effective as possible. Predictive analytics provides an effective way to understand and anticipate donor needs in order to increase the success of fundraising and marketing campaigns. Using this technology, nonprofits can gain a significant return on investment by increasing donor contributions, reducing costs and building stronger donor relationships over time.

To learn more about how IBM predictive fundraising analytics can help your organization achieve its fundraising goals, please visit: **ibm.com**/spss or **ibm.com**/software/analytics/spss/12/non-profit

About IBM Business Analytics

IBM Business Analytics software delivers actionable insights decision makers need to achieve better business performance. IBM offers a comprehensive, unified portfolio of business intelligence, predictive and advanced analytics, financial performance and strategy management, governance, and risk and compliance applications. With IBM software, companies can spot trends, patterns and anomalies, compare "what if" scenarios, predict potential threats and opportunities, identify and manage key business risks and plan, budget and forecast resources. With these deep analytic capabilities, our customers around the world can better understand, anticipate and shape business outcomes.

For more information

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[1] *http://www.credoreference.com.ezproxy2.library.drexel.edu/entry/prewe/nongovernmental_organizations_ngos*

[2] *http://southasia.oneworld.net/todaysheadlines/india-more-ngos-than-schools-and-health-centres*

3 *http://nonprofitfinancefund.org/state-of-the-sector-surveys*

[4] *http://southasia.oneworld.net/globalheadlines/global-meltdown-leaves-ngo-sector-in-dire-straits*

[5] *http://www.who.int/civilsociety/partnerships/en/index.html*

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