Analytics in finance and accountancy: Tips, tools and techniques of the predictive practice

Four key pillars inform the development of the predictive practice and help reconfigure today's accounting work for an online world:

1. proactive behaviour
2. predictive models
3. use of big data
4. providing online professional services.

Proactive behaviour

In his classic book, *The 7 Habits of Highly Effective People*, Stephen Covey calls the first habit 'being proactive'. Unsurprisingly, for the predictive practice to achieve success, participating professionals must maintain proactive behaviour. A proactive personality has been said to be a prime predictor of entrepreneurial success. This can be a useful asset for the practice with goal- or plan-driven future-focusing actions directly affecting clients.

The predictive practice not only services SMEs but includes service centres in major corporates or institutions fulfilling the demands of a financial function and adding value to different business areas. Opportunities exist in a predictive practice through shifting attention from being reactive and waiting to act, towards developing an approach to predicting customer scenarios before they occur. This helps to maximise opportunities, limit risks and proactively advise clients about matters of business and finance. For example, such advice would include warning clients in advance about tying up working capital in debtors and inventory, and identifying abnormal transactions or doubtful debts owing to seasonality.

Predictive models

Looking beyond these situations, predictive applications perfectly complement proactive behaviour. In fact, the examples from different industries have immediate applicability and can be repurposed as predictive models for use in the practice. These applications use the KNIME open-source platform.

Other equally powerful and free tools include Orange, NLTK, Rapidminer, R-programming and Weka. All these tools are capable of handling big data in the form of unstructured information, extracting the data and transforming it into a useful output for predictive analytics and decision making. The hard part is determining the ensuing action to take from the insights derived from the analytics.

Use of big data

Setting aside these scenarios, the predictive practice needs to achieve mastery of new tools and techniques, including big data and analytics. A natural starting point is using Google and its well over 1.2 trillion searches a year (approximately 59,596 per second) to help your clients evaluate opportunities for new customers in new markets. Google Trends provides online capability for understanding the purchasing intent of people by showing the search volume of a term relative to the total number of searches globally. Let's say we have a plumbing client. This client is considering expansion of business out of Sydney into other parts of Australia, and New Zealand. Search Google Trends for 'plumbing' and similar words with 'Region' set to either Australia or New Zealand. Further, we can review the locations making up the search volumes and select relevant city locations on the basis of the volume of querying taking place. This data from Google Trends is available as a CSV file and can be used alongside existing financial information as non-financial information (termed NFI) helping us to discern any future trends.

In this manner, we use the search term as a proxy for the growth of consumers and businesses seeking plumbers. Remarkably, in spite of the enormous volume of data, Google Trends provides information on searches that have taken place over the past hour in Australia and New Zealand. To get some idea of the number of people in each location with an interest in 'plumbing', Facebook advertisement placement provides

details of the estimated reach of people who click 'like' for '#plumbing'. Complementing this research, SimilarWeb and Alexa (an Amazon company) provide competitive intelligence on sources of traffic, upstream sites, and keywords for search as well as audience demographics.

Free versions of these services are available on these companies' websites. At this stage, we have generated sufficient data and using relevant search terms generate the report. Presenting the report to the client in a proactive fashion, combining it with your own knowledge of similar businesses as well as additional open data sources, eg National Map in Australia and data.govt.nz, unleashes tremendous value for you and your client as a catalyst for conversations on business growth.

Professional services online

Perhaps the best way to deliver this proactively driven work to a client is online as a data story using a new generation of online storytelling apps, including Storify or Sway. The expectation for the predictive practice is that 50% of the business will be done online by 2020. If you think this is unlikely, think again, as the interactions between professionals and clients online will soon enter a new stage of growth. While Fiverr and Freelancer might have been early to the talent-sourcing marketplace, LinkedIn has launched the Profinder Service (https://www.linkedin.com/profinder) connecting service providers with customers seeking inputs for a freelance project or a long-term professional service.

As a B2B social network, LinkedIn appears ideally positioned for the creation of a global marketplace of professional service providers. The practice or professional without a solid online presence is about to find challenges generating new sales opportunities. There is no better time than the present to start selling predictive practice service capability online, breaking out of a local niche and serving a global marketplace.

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