Bank Strategy Briefing

Ideas and analysis for community bank executives

Go big or go home?

In this age of information in which we live, endless data about us is becoming increasingly accessible. We insist on sharing information about our kids, hobbies, families and even the meals we eat on a myriad of social media portals. We buy everything from groceries to kitty litter on Amazon. We send money to each other using Venmo. What does all of this have to do with banking? Believe it or not, quite a bit.

Increasingly, lenders are moving away from relying strictly on FICO scores and towards "big data" and "machine learning" for credit scoring processes. This could arguably lead to more accurate predictions about borrowers' ability and willingness to repay loans; however, it is not without risk.

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What the heck is big data?

Every time you post something on Facebook or tweet something on Twitter, you are creating a record about yourself that is publicly accessible. You also create a record of yourself based upon your bill payment history, patterns of purchases, the schools you attend, your social circle, how good of a speller you arr (sic!) and your cellular phone usage. By itself, this data is largely useless to the average lender, since there is so much of it and our human brains cannot compute how it inter-relates to predict borrowers' credit risk… enter machine learning.

Machine learning

Those of us who are of a certain vintage recall HAL9000 from the film 2001, A Space Odyssey. While a fictional account about the power of machines, it was an eerie portent of things to come. Today, artificial intelligence is able to accumulate large sets of data about us and spit out increasingly accurate predictors of the credit risk we pose.

Pitfalls and concerns

Community banks considering exploring these new tools should be aware of the following potential pitfalls:

Disparate impact/treatment – You need to be careful that the data used will not result in disparate treatment or disparate impact on protected classes. For instance, using zip codes or education levels could result in disparate impact on certain ethnicities.

Adverse action – Under Regulation B, creditors are required to provide borrowers notice of reasons for any adverse actions taken. How will you be able to give accurate adverse action notices in a machine learning environment? In addition, in certain instances, big data partners may be considered Credit Reporting Agencies under FCRA, which also has implications on the notices required to be given to borrowers.

False correlations – Just because there is a correlation between two sets of data does not mean that one is a cause of the other. For instance, there is a 99.9% correlation between Apple iPhone sales and the per capita consumption of American cheese: coincidence?

Other concerns – A number of other issues should be considered as well, including data security/privacy issues, as well as potential UDAP/UDAAP concerns.

Big data may soon lead to much more accurate credit risk modeling, but bankers need to understand the risks involved and how to mitigate them.

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Bank Strategy Briefing is prepared by the Banking & Financial Institutions Practice Group at Godfrey & Kahn, S.C., Milwaukee, Wisconsin, as a service to the community banking industry. It features commentary focusing on strategic business and legal issues relevant to community banks. Each written edition contains 500 words or less and no more than two editions are published per month. Information found in Bank Strategy Briefing is for educational and informational purposes only and is not to be construed or relied upon as legal advice.

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