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Delivering Big Bank Analytics in a Community Bank Environment Using SAS® Viya®

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ABSTRACT

The call for industry-leading analytics at financial institutions of all sizes grows every day. Rising expectations from regulators, senior leaders, associates, and customers on topics as far reaching as "how do we measure and mitigate risk?" to "why can't my bank send me the right targeted offer?" seem at least difficult, if not unattainable. Over the last two years, Trustmark began its transformation to bring "big bank" analytics to a mid-size bank with a community bank mindset. Driving this kind of change requires changing people, process, mindset, and technology. Like similarly sized and smaller banks, Trustmark is challenged with a limited talent pool of analysts, traditional IT-driven processes, the "it's always been that way" mentality, and deeply rooted Microsoft® Excel®. This customer journey explores strategies to overcome these obstacles, and how SAS® served as a technology partner along the way.

INTRODUCTION

I find banking to be a fascinating field. The core concepts have remained the same for ages; I'll hold someone's money and lend it to someone else for a premium. Yet, banking is ever evolving. There are layers upon layers of sophistication that surround this basic exchange of funds from pricing to execution. This complexity is the open door for analytics. It answers the questions of how to optimize and how to innovate.

For a large financial institution, this has been a given for at least the last two decades. Big banks can employ scores of associates to implement cutting edge technologies, create useable data sets at scale, and empower various business units and levels of the organization to incorporate data-driven decision-making as a standard of practice. For anyone working in the community bank space, i.e. much smaller banks, you will not typically see such robust practices.

Trustmark is no exception. In this paper, I want to describe our experience over the past few years in trying to overcome this gap and start to deliver analytics that empower decisions. The different sections outline our thinking in developing a roadmap for this transition, highlighting successes and challenges we've seen.

CHALLENGES TO CHANGE

The first challenge is talent. Without the right associates, an analytics renaissance is impossible. Looking inwardly, existing resources (titled various forms of 'analyst') are not necessarily a modern analyst at all. In fact, these roles are often repurposed associates who showed an aptitude for something analytics adjacent, like a spreadsheet or report. They effectively self-select themselves into an analyst role by being interested in something their co-workers do not do or do not like to do. A combination of on-the-job training and low turnover create a corps of capable analysts with a wealth of institutional knowledge but limited true analytics capabilities.

An outward view is potentially more challenging. Depending on the location of headquarters, community banks will have difficulty finding talent locally or cost effectively relocating new hires. In a profession where newly minted graduates are inculcated with how talented and innovative they are, it is exceedingly difficult to fight expectations of high starting salaries

and chic urban apartments. In the majority of rural America, wages are lower and prime rental property is scarce.

Though seemingly counterintuitive, IT is the second challenge. In a small bank, IT associates are some of the only people in the business of data. They construct reports, they run/support applications (loans, deposits, platform, mobile, etc.), they build a web of interfaces and middleware to keep the doors open and the lights on. For all that they do, IT resources can know more about how the bank works than anyone within a line of business. Over time, this can build and reinforce a role as keeper of all information, think the Wizard of Oz, when in fact the opposite role is much more desirable. IT should be a conduit, not a dispensary.

Next is the challenging mindset: "we've always done it this way". Granted this can be pervasive in any business of any size, but in particular to the small bank, where one person wears multiple hats of mostly inherited tasks, many processes have always been done a certain way. Within one generation (Bob creates process, Bob trains Steve, Bob leaves), lack of redundancy breeds rote, mechanical processes. Moreover, processes can extend to management. Long-time bankers make decisions on intuition, a difficult thing to change when it has anecdotally served them well.

The final challenge is technology. As Microsoft products have become ubiquitous, so has the pervasive quality of our small bank analysts to use what they know. Dump it in Excel. Everyone has heard that, or something similar. With a small stack of technology, it is quite common for enterprise tools for data manipulation, reporting, statistical modeling, visualization, etc. to be nonexistent. Without the right tools to bear, data-driven decisions become slower and more cumbersome, precisely losing much of their value.

CATALYSTS FOR CHANGE

Our view over the past few years has been to leverage the challenges as catalysts for change. We know what they are, and we designed our roadmap around them. An imperfect science at best, but when executed in concert, should overcome institutional inertia. In fact, these are the four pillars of our approach: people, process, mindset, and technology.

PEOPLE

For existing associates, we are evaluating analyst roles and their current purpose. The goal is to engage these associates and challenge them with efficiency. By empowering associates to identify and get assistance to enhance inefficiencies in their current role, they are able to free time and energy to refocus on what their role should be. Naturally, this is a hands-on approach requiring an abundance of internal and external training.

For new associates, we are attempting to build a pipeline of interested students as interns, building upon their interest with practical experiences over the summer. We are also flexible on the students' programs of study. Sometimes it can be easier to teach an applied math student about banking than expecting a business student to be interested in forecasting.

PROCESS

In order to breakdown the IT silo, we are changing the way we access data. Qualified associates across the organization are requesting access to information. This distributed analytics strategy serves two purposes. First, by drastically increasing the volume of requests from analysts, IT resources can no longer create reports and directly control dissemination of data. Secondly, by distributing analysts in the business units and functional areas, we avoid the tendency to create tension between a centralized analytics function and an incumbent IT function.

MINDSET

In all of the cross-training and educational efforts, we make light of the "always done it that way" mentality and offer instead for analysts to "build what you need". This powerful new mantra focuses analysts on not studying the existing process but rather studying the business purpose. Old processes were developed based on what someone knew how to do, not necessarily what needed to be done. By reevaluating everything we do, low hanging inefficiencies can be remediated.

TECHNOLOGY

The foundation for these efforts was finding a platform that could support the previous three components. We were interested in a single, enterprise wide analytics platform which would support a variety of analysts with varying levels of sophistication, flexible connectivity to integrate well with all of our existing data sources, and a stable environment to build new things such as reports, dashboards, and models that can be delivered to drive decisions. We ultimately chose SAS Viya® as the technology foundation for our analytics journey. In a single deployment, we have:

- Users of all experience levels (new to data, learning to code, advanced programmers, and statisticians);
- A single web interface accessible by all associates;
- An ecosystem for creating and implementing new tools; and
- Unbeatable speed, scale, and reliability.

ADOPTION AND MEASURING SUCCESS

The previous sections make this transformation seem easy; let me reiterate that this is a journey. The roadmap must evolve by measuring success and adapting. In particular, we are shining in finding internal associates interested in making a change. Our existing tools are old (when someone says programming, they may mean in Cobol). When exposed to the capabilities of what is being developed on Viya, analysts are drawn to how much more functional and easier it is than a spreadsheet or typical report writer.

Additionally, we have a growing list of practical applications built within Viya. We are testing a new outbound lead process built on classification models. We are measuring and reporting success to executives on their tablets, replacing reams of individual paper reports. We are analyzing products to inform and engage sales managers.

On the other hand, this has not been an easy path. I would emphasize a few key items to keep in mind for those who are a part of their own change culture. First, be patient. Doing the right thing consistently will bear fruit over time, but know that entrenched cultures cannot be changed overnight. Second, have one or more executive champions. There is tremendous power in changing culture by influencing those at the top; having a leader who understands the power of building a data-driven culture and will advocate for it is invaluable. Finally, cultivating a grass-roots ecosystem for analysts to collaborate across business units and functional areas is potent. The demand generated by this group working together creates a prevailing and positive wind that can sustain the transition.

CONCLUSION

For those that are skeptical, I will say definitively, it can be done. Big banks do not have a monopoly on an analytics culture, nor do small banks need to feel beholden to vendors or service providers to build and execute a transformation for them. While Trustmark evolved from a community bank to a mid-size regional bank over the past century, it has (until

recently) had limited ability to execute analytics capabilities internally. By creating a unique roadmap based on the pillars outlined in this paper, we have started our journey and are already seeing victories along the way.

CONTACT INFORMATION

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