CHFA's Executive Dashboard

Colorado Housing and Finance Authority

Management Innovation: Financial

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Summary

CHFA's Executive Dashboard is an interactive tool used internally that provides a streamlined, visual representation of information collected from CHFA's enterprise data warehouses. The dashboard was completed in August 2019 and has become a key resource for CHFA leadership to identify trends and inform decision making. It features all available data from CHFA's homeownership and community development areas of business focus in a well-organized and intuitive structure.

Meeting the challenge

HFAs are complex organizations. As a result, HFAs have many different systems storing critical business data. Accessing and analyzing data are critical to CHFA executives and other leadership, however, methods previously available to them were siloed and inefficient. Data requests had to be made to the appropriate staff members or groups, which were then typically presented as spreadsheets or narratives. The data was only as current as of the day it was received, which sometimes varied if multiple pieces were coming from multiple staff members. These methods made it challenging to analyze and use the information.

To address these challenges, the Executive Dashboard was created to aggregate information from CHFA's data warehouses into a singularly located format that was easily accessible, highly visual, and up to date. The dashboard represents over 20 million data points from 14 different systems. The data is refreshed nightly and contains data going back several decades.

"CHFA's Executive Dashboard has significantly increased the velocity of decision-making and reduced the amount of time between identification of concerns and implementation of solutions," said Jaime Gomez, CHFA's Chief Operating Officer and Deputy Executive Director. "The dashboard provides leadership with the ability to quickly analyze financial profitability metrics, portfolio performance, demographic make-up of our beneficiaries, and availability of resources. These improvements all help to allow us to meet our mission more effectively."

Thomas Bryan, CHFA's Chief Financial Officer, added, "Before the creation of the dashboard, I'd have to pull multiple reports and wait on multiple individuals to gather information together, before being able to make decisions. The velocity at which I can access the information makes all the difference in today's environment."

Innovation

With the Executive Dashboard, CHFA's goal was to bring together all the relevant business measures that its Executive Team wanted to see, in one place, that was accessible and easy to navigate. Now, at their fingertips, is straightforward data that is virtually real-time and layered

with additional information so it can be studied deeper when needed. CHFA also made it available to all staff members so everyone can explore the data.

A tool like this had never been created before at CHFA and it helps the organization proactively monitor and manage its business. Specifically, the dashboard helps CHFA:

- ask questions of the data,
- visualize information and gain insights into trends,
- inform decision making, and
- turn information into insight.

In addition, the Executive Dashboard functions as a table of contents for additional dashboards, reports, and analyses at CHFA. Dashboards built for detailed analysis already existed for specific users and groups, however, it was difficult to know what dashboards already existed and how to access them. Development staff incorporated links and contextual drill-in capabilities in the Executive Dashboard so that if a related dashboard exists with additional detail, the user can simply click on an embedded link and is taken to that dashboard. Users no longer need to bookmark links or search for an existing analysis.

Also, space is reserved on the main Executive Dashboard tab for links to key dashboards. New links can also be added as business changes. For example, CHFA was immediately able to add a new link to CHFA's COVID-19 dashboard early on during CHFA's initial pandemic response. This has been essential in allowing CHFA's business units to stay abreast of the immediate and evolving impact that the pandemic has on customers, enabling CHFA to respond accordingly.

Replicability

The dashboard was created through Tableau, which is a widely-used software that any HFA can adopt. There are also numerous other software vendors that provide similar dashboarding capabilities. Also, what is key to other HFAs replicating a similar dashboard is having the right combination of staff, process, and technology.

Staff must reliably use each system and make sure transactions are recorded accurately. Processes must be efficient and effective to collect the necessary data. The technology must be in place to take the data from these systems and combine it into a well-organized structure so that it can extracted easily and intuitively.

Measurable improvements in operations

The dashboard has greatly improved leadership's ability to be able to discuss business matters, make adaptations, and respond to questions timelier and in most cases, in real-time. To view current or emerging business trends in this matter has led to proactive operational decisions for the organization.

For example, Bryan explains, "Having access to real-time data has given us insight into how quickly loan portfolio characteristics can change. With the dashboard available, we can now see how loan level profitability, as well as, loan characteristics such as average FICO and DTI, delinquencies, and buyout obligations change on a daily basis. More than ever before, this has allowed us to make programmatic changes much quicker and with relevant information."

Benefits vs. costs and effective use of resources

The efficiencies of the dashboard have significantly reduced staff's time to gather data and conduct analysis, ultimately leading to better investment and/or portfolio decisions—all of which demonstrate effective fiscal responsibility. These benefits already outweigh the estimated costs of developer and design time to create the dashboard and will have a long-lasting financial impact.

Strategic objectives achieved

The dashboard is contributing to achieving a top 2020 strategic objective, which is to increase financial flexibility by generating sustainable net income for varying market conditions. One part of this process is to leverage data and statistical analysis through forecasting and modeling to enhance scenario planning. According to Bryan, the Executive Dashboard has put CHFA in a place to accomplish just that because the dashboard pulls key information from data warehouses and provides analysis all in one place for ease of access.

In addition, the creation of the Executive Dashboard achieved one of CHFA's 2019 strategic objectives, which was to strengthen technology capabilities, specifically in terms of expanding CHFA's utilization of data and analytics.

Visual Aid

CHFA has created a video to showcase the functionality, features, and aesthetic design of the Executive Dashboard. View the video here.