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Note: The final version will be submitted by Gabriel Herman.

Pitch: We decided to use an origination where I worked before because it is in an interesting place with regard to analytics. The organization, Markets Group (MG) of the Federal Reserve Bank of New York, is quite old but has a strong desire to implement quantitative decision making. Several attempts have been made over the years, with varying degrees of success to implement data warehouses, automated dashboards, and analytical decision making. However, while support exists at the executive level and throughout the organization, in large organizations, people will have many different opinions about what the proper approach is. Therefore, the situation is ripe for thinking about the intersection of leadership, projects, and analytical management.

The Firm Under Consideration*:* The company that we wish to propose for the team-based project is the Markets Group (MG) of the Federal Reserve Bank of New York. The MG is responsible for conducting most of the financial transactions for the entire Federal Reserve System and conducting market outreach and analysis. The MG has recently undergone a shift in leadership, and analytics have been described to staff as a key focus in the hiring of a new manager. However, the MG is an old institution—it has existed since at least the 1920s and is oftentimes slow to change to adapt to new circumstances. in which it operates. Any mistakes made by MG can make national headlines, which seemingly enables managers to fire anyone below the senior level for anything other than deleterious performance, as being anathema to the culture.

Analytics Specific Background*:* Over the past few years, a significant amount of resources have been dedicated to creating a data warehouse. However, not all of the data that each staff needs is contained within the database. In part, this is because the creation of the database focused on operational and holdings-based data necessary for producing financial reports. The data available in this database covers some parts of most of the analysis that staff is asked to do but not all of it. Further, while several dashboards were made for staff they are unwieldy, require an approval process to change, and are often missing key data. Oftentimes, the data that staff wants is actually in the database, but it is not accessible because it is not in a dashboard, and there is no good documentation as to what data is in the database (many tables remain completely undocumented). Other data is unavailable in the database because it is market data that is accessed via external providers who own the rights to storing the data in one form or another.

Maturity Models and Self-Assessment IQ*:* The MG is in an interesting place where it has attempted to progress its analytics, but many tasks have been 'left behind,' and the organization is in between leadership and seemingly in between analytical capacities. For this reason, we apply Wayne Eckerson's Self-Assessment IQ to the MG—this will help to focus leadership on what the goal of upcoming analytical projects should be.

Data Maturity—In Eckerson's Self-Assessment IQ, the MG features current analytics across the entire maturity spectrum—from Excel workbooks to cloud-based servers, hosting Big Data datasets. In large part, the more archaic analytical tools are being replaced with automated processes. However, there are considerable limitations to what can be done with the existing infrastructure because data is missing, and there are no-sandbox environments for people to use. According to Eckerson, "Today, the enterprise data warehouse is one of several critical pieces of

infrastructure within an analytical ecosystem that supports reporting and analysis applications. New entrants into the analytical ecosystem include Hadoop, master data management, analytical sandboxes, and in-memory visualization applications" (Eckerson 35). *Since the MG wants to move toward a modern analytical environment, the focus should be on updating data that currently exists and given talented staff an easy ability to improve the data and analytical processes that are integral to their jobs.*

Scale and Scope—In Eckerson's schema, as the scale of data (how much data there is) and scope (what decisions are subject to data analytical analysis, the company's IQ grows. Currently, analysis is mainly done on the departmental level, with a few, very critical tasks done at the enterprise level.

Analytical Culture—For Eckerson, culture is defined as "what things an organization does and how they do it" (Eckerson 35). Specifically, it relies on the executive setting, the tone and teams executing a strategy. In the MG, there is a desire for an analytical culture but a lack of awareness as to how to achieve this culture—how teams need to be constructed and what resources are necessary. Currently, analytical culture is caught between the cost center and tactical resource.

Analytical Maturity—Analytical maturity for Eckerson corresponds to how analytical processes are built into decisions. The scale moves from reporting to analytics to dashboards to modeling. As with most of these dimensions of analytical IQ, the MG has some decisions that are relatively more advanced—chart packs and modeling prevail—and other places where decisions are made based entirely on 'expert judgment'—i.e., people using their gut instinct.

Overall Assessment: In Eckerson's taxonomy, the MG seems to be moving between Analytical Potential and Pocket of Analysis. For example, the firm should focus on making all of its decisions in an analytically savvy way and should invest more in the proper data and database and analytical architectures to allow for this sort of analysis. Putting the entire organization on consistent, solid ground with respect to analysis, analytical capacity, and consistent analytical decision making. Once this is done, the firm can then turn to moving into being an Analytical Competitor.

Making this move is a problem that has been difficult for similar companies—consider this observation from Davenport and Bean, "Another important and continuing issue is the slow speed with which these established firms make the shift to a data-driven culture. Virtually all respondents (99%) say their firms are trying to move in that direction, but only about one-third have succeeded at this objective. This gap appears every year in the surveys, and the level of success hasn't improved much over time. Clearly, firms need more-concerted programs to achieve data-related cultural change. Many startups have created data-driven cultures from their beginning, which is a key reason why large, established firms fear disruption from them" (Davenport and Bean, 2018). And this further observation from a separate article: "The companies in the survey are investing heavily in big data and analytics… Many companies have invested heavily in technology as a first step toward becoming data-oriented, but this alone clearly isn't enough. Firms must become much more serious and creative about addressing the human side of data if they truly expect to derive meaningful business benefits" (Davenport and Bean, 2019).

Works Cited

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