

Appendix B: Datafication Next Steps (Continued from paper)

IRR professionals must develop advanced analytics capabilities; however, remember that the great majority of data problems do not require advanced analytics nor data scientists to solve them. And many problems that could be solved using predictive analytics and AI should not be, because the benefits do not match the effort and resources that must be put in. Choose data projects wisely.

First, identify the problem the business needs solved. For example, “customer engagement” might be low. If so, canvass experts in the organization to get their thoughts. Next, test their hypotheses with the data. Data analysis will eliminate all but the best ideas and reveal insights into actions and decisions to take. Finally, implement the solution on a trial basis, test it, and then roll it out. (Jain and Sharma 2014)

Faced with many difficult problems and a lack of time and resources, an organization can attempt to randomly hit on a solution or can analyze the situation, narrow the focus, and dramatically increase the odds of solving the problem. Around 2000, when Circuit City faced financial problems, it responded by releasing top talent, moving from prime locations to cheaper suburban spots, and by closing its home appliance business. Each of these decisions was made and implemented without analysis or evidence and each proved disastrous, contributing to the collapse of the company (Carlberg 2018).

Instead of acting on hunches, analyze. About 80 percent of business problems can be solved using basic business analytics, like those provided in Excel. The rest—a small minority—require predictive analytics and the skills of an advanced data analyst. Use the following five analytics techniques to discover insights and improve decision-making.

The BADIR Approach (Jain and Sharma 2014)

Follow these five steps in order. Combine analysis and insights with knowledge of the business.

1. **The Business Question** – First, pinpoint the question or questions the analysis will answer. Ask the five W's. Who wants the information and why? What is the problem it will address? When and where is the problem occurring? By what date is the analysis needed? Who does it impact? Take the time to find the right questions; solving the wrong ones wastes time.
2. **Analysis Plan** – Start by setting goals for the analysis. Next, assemble the people closest to the problem – the stakeholders. Ask them their thoughts on the causes and solutions to the problem and questions at hand. Bring the group together a second time to rank and prioritize the various hypotheses that will be tested. Next, choose the analytical technique best suited to the problem. Then identify the data that is needed and in what form and granularity. For example, in analyzing a sales problem, is sales data needed by the week, month, or year? Collect data only after the analysis plan is agreed to. Finally, document a project plan that identifies resources, responsibilities, timelines, risks, phases, and priorities.

3. **Data Collection** – After the plan is approved, collect data from the sources according to the plan. Test small samples to make sure the data pulled meets expectations. Next, validate the data to screen for missing and bad information.
4. **Insights** – Now focus on analysis and insights. Perhaps use Aggregate Analysis to look for the components of the organization's customer base that account for the most sales and revenue, for example. Once it is determined that young people with smart phones buy more than older customers using laptops, for example, calculate the increase in revenues one might expect if more of the marketing budget were spent on targeting young smart phone users.
5. **Recommendations** – The analysis and investigation should result in insights. With the insights, present a concise set of credible and supported recommendations to stakeholders. Know the intimate details but focus on the broader story unless asked to delve deeper. Include an executive summary with short points covering the problem, main insights from the analysis, recommendations, and suggested next steps. Subsequent slides should go into more depth around insights and recommendations, all supporting the main conclusion (Jain and Sharma 2014).