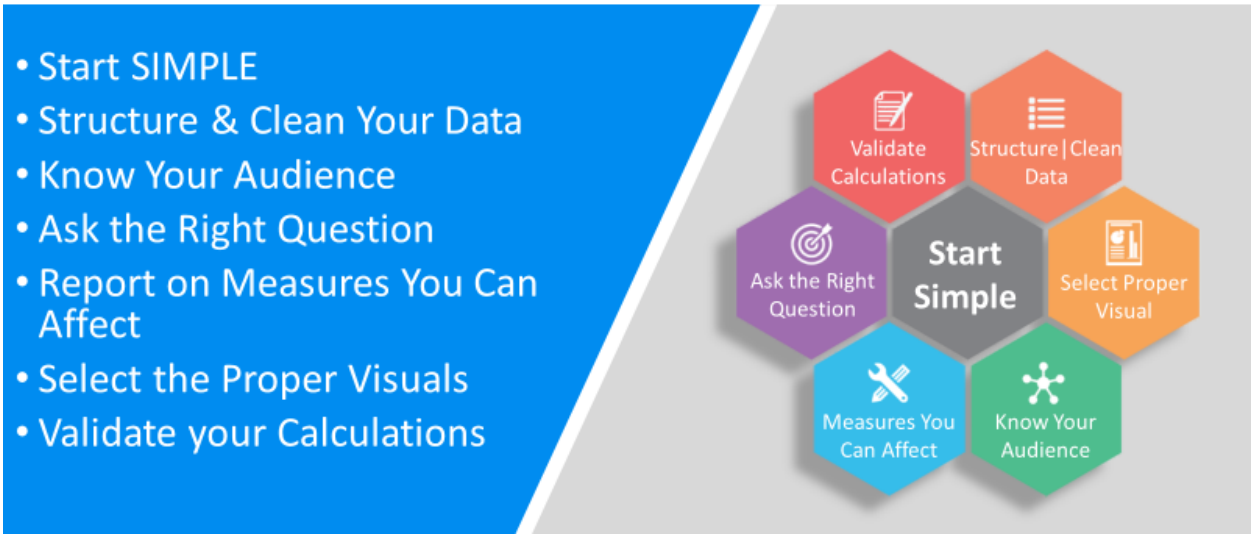
From the Desk of:
Stuart Macanliss
Director, Health IT Practices
US Medical IT
202 S. Austin Drive
Allen, Texas 75013

7 Essential Elements to Successful BI



Start SIMPLE…

How many projects start off with a small, focused, reasonable scope only to grow with every follow up meeting, articles in CIO magazine or talking head on CNBC? This is a recipe for disaster. Not to say that a scope can't be redefined in early discussions, but adding layers of complexity slows down data clean up, building the architecture, dashboards and delivering a positive and impactful result. **What you want are real insights and you want them now.**

Scope creep makes data projects 2.5x more likely to fail. Adding "wishful" elements midstream delays or stops most projects beyond the organizational will, reflects poorly on the data team, strains resources and fails to create meaningful results.

How do you keep it simple? Write down the top three things that are most important to deliver to the stakeholders and don't change that list without VERY good reason. I like to ask, "should I displace one of these priorities for this?" Remember, there can always be additional phases to projects. Most top level decision makers value focus and taking the emotional elements that can sidetrack these projects

off the table is the path to success. Stick to a well-constructed target for Phase One and make a list of asks prioritized for Phase Two, Three and beyond.

Structure and Clean Your Data

Every journey starts with the first step. To begin, it is important to validate the data contains the fields necessary to produce meaningful reports. A unique identifying field is critical when dealing with multiple data sources to simplify and ensure valid relationships between these sources exist and enables accurate, correlated outputs. Nothing happens in a vacuum, complex organizations have multiple analytical teams and KPI's, so having an "analyst mashup" to review best practices, challenges, overlap, unique values and priorities can get projects started faster and finished quicker.

See some work US Medical IT did that saved millions in overtime costs by correlating multiple sources.

Data Refresh and Sources:

- Is your data fully under your control, or is a third party involved?
- Do you have a plan in place to account for data source changes?
- Where is your data stored, and how will you connect for data refresh?
- Does all data require refresh, or will some be kept static as a reference?

Another way to think about it. Everyone has heard the acronym GIGO. Garbage In, Garbage Out. The term was so popular in the late 80's and 90's that many of us today take for granted or believe that good data practices are ubiquitous. If only that were the case. As many organizations have learned when looking to gain benefits from historical and real time data; often spending small fortunes in time, effort and tools; data mining can become a sink hole. There is no one thing more important in today's data driven economy than clean, well structured, accurate data as a base to good decision making.

Know Your Audience

Who will consume your reports? A common error is assuming the information meant for the C Suite is relevant to field level management or employees. Power BI allows you to configure easy to understand dashboards, tailored for specific audiences, that deliver "real time" information that impact's decision making at all levels within the organization. This empowerment can produce innovation from the bottom up, increase efficiencies, reduce costs, risks and help an organization be more competitive. Where do you see the need for better decision making in the organization today? Focus your effort there and the results will speak for themselves.

Ask the Right Questions?

Just like peeling an onion, there are a lot of layers to organizations; people, processes, vendors, clients, prospects, deadlines, relationships and on and on. A broad assumption made at the beginning of most of these projects is "WE KNOW OUR BUSINESS". Although likely true, this sort of myopic perspective may hinder insights that can truly deliver business impact. A good idea is a brainstorming session around, "Where do we see our business in 3, 5 or 10 years?" The best hypotheses usually result in the best experiments and results. Serendipity isn't the aim of good science or good data mining. So think of

the questions you want to answer with a data mining initiative in terms of the answers you would like to get. Most organizations want to increase revenue or productivity, decrease costs or reduce risks.

Report on Measures You Can Impact

Lead with these questions: "If we can give you this data, what is the expected impact to the organization and how would we measure it?" We all have metrics to achieve in our roles and simply delivering a great looking chart isn't enough when it comes to these initiatives.

How are these insights delivering results? It is vital to provide metrics that report consumers can directly impact. Providing generic metrics that cannot be affected only serves to frustrate and confuse report consumers without providing valuable insights. The key concept here is to drive change in your organization by providing the proper tools and reports to each area of your business.

Too any times great dashboards are built and despite changes in structure, process or needs of the organization continue to be used regardless of whether they are meaningful any longer. This is the data equivalent of aging hardware that consumes 70+% of most IT budgets. Data needs are always in flux and making sure you are measuring results helps determine the efficacy of ongoing and future projects.

For instance, providing a report on revenue to a store manager may be helpful, but how does the manager go about affecting that revenue and seeing the outcome from his/her actions? A better report would be to display several key metrics: store sales over time, store traffic (average customers per day), customer conversion % (actual transactions/store traffic), and revenue by items or groups of items. The store manager could then work towards increasing store traffic with targeted discounts or advertisements for the items that are the top sellers, as well as, create displays and in store promotions that increase customer conversion and increase the average consumer's 'basket size'.

Select the Proper Visuals

Most people are visual learners. Understanding the role, responsibility and capability of the consumer of Power BI deliverables is key to successfully meeting the goals these projects have at the start. Too often, the portal is not linked to the way the target consumes the data. Over 50% of data is now viewed on a mobile device; if the graph, chart or table isn't designed to fit the device, the content is less likely to be useable by the intended target and consequently the objectives will be missed and the next data project is likely to face more resistance when budgets are up for grabs. Understanding the person and context of their role also helps decide the complexity of the data to be delivered to them. Make the data visually appealing and formatted in a meaningful way and you will have the hearts and minds of your end users and create a positive business impact.

Validate Your Calculations

Complexity adds potential hazards in any Business Intelligence initiative. We all have worked with excel files where some value seems a bit off, and the cause is a mistake in the value's formula. If such a

mistake were to occur in revenue reports distributed to your entire organization, you can imagine the negative fallout from a financial perspective.

Most report creators don't consider is the impact inaccurate information can have on the **perception** of reporting. If a report consumer believes, even for a moment, that the information displayed in a report is inaccurate, they will never return to the report again. Best practice is to provide initial reports to the relevant end users and validate that they are getting correct, up to date and well formatted data. It also makes sense to provide a **feedback loop** so that they can report on any issues, real or perceived, and have them addressed in a timely manner. Worst case, *if consumers have doubts*, reporting no longer provides a positive impact on the organization and we are back to square one.

Thank you,

Stuart Macanliss
Director, Health IT Practices
US Medical IT
202 S. Austin Drive
Allen, Texas 75013