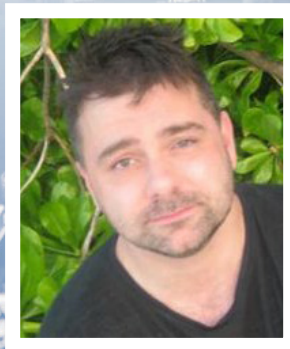




eBook

Using Traditional BA Tools for Business Intelligence

(Part 1)



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Introduction

Today we're going to talk about how traditional Business Analysis methods and tools can be repurposed to formalize and structure Business Intelligence analysis work.

Ralph Kimball gave us the Business Matrix that is likely to form the basis of most data related analysis - whether building a data warehouse or not, it is a valuable tool whenever there is a need to collate multiple data set based requirements.

This is a helpful technique across the data analysis spectrum, but specialized additional methods for Business Intelligence are thin on the ground. Fortunately, a lot of tried and tested analysis tools can be tweaked (or hacked, if you prefer) to provide a workable approach to Business Intelligence based analysis.

SWOT Analysis

I personally consider SWOT analysis to be a life skill as much as an analysis technique and have applied it to every big life decision since learning it in college. And as such, it makes a great starting point for us.





SWOT: A Quick Recap

The SWOT methodology applies four areas of focus with which to evaluate a subject, and can be applied to almost everything from buying a house to choosing a restaurant.

SWOT is an acronym that denotes an extended 'Pros and Cons' list which is summarized below:



Strengths

The 'Pros' of a 'Pros and Cons' list which identifies the benefits of the subject and should form the bedrock of any requirements and justification towards new or remedial work.



Weaknesses

Weaknesses are a lot like 'Cons', except whereas a 'Con' is often considered an unavoidable downside, a Weakness is something to investigate further and resolve if possible.



Opportunities

How to improve the subject, whether proposed or already in existence, to increase its usefulness and value.



Threats

This is anything that can potentially impact the subject in a negative way and the starting point from which to investigate the true risk and how to mitigate any issues.

Figure 1: Traditional SWOT Analysis

Both Weakness and Threats of a great enough magnitude and likelihood can veto any Strengths and Opportunities. However, with a focus on Business Intelligence reporting there is seldom anything serious enough to warrant the rolling back of any request.

From a Business Intelligence viewpoint, there are three main areas to which SWOT analysis can be applied in a meaningful manner - New Requirements, Review of Existing Reports and Dashboard and Reporting Packs.

We will look at each in detail with common (and not so common) examples for each element of SWOT and how it applies to the above areas.

SWOT for New Requirements

'If I had asked people what they wanted, they would have said faster horses.' - Henry Ford

While gathering requests for new Business Intelligence based reports, SWOT gives the analyst a framework for eliciting comprehensive requirements by introducing their own expertise to complement that of the stakeholder.

Analytical work is a soul destroying undertaking unless real benefits and improvements can be delivered. Business Analysis is all about adding value and SWOT enables requirement gathering for Business Intelligence to be approached in a way that encourages improvement.

The underlying motive for this eBook is to make it easier for Business Analysts to add value and get more from their work, rather than blindly cataloguing requirements. By applying tried and tested analysis tools to Business Intelligence we can enrich the role of the Business Analyst and the working life of the BI consumers.

To this end, the rest of this discussion on SWOT analysis will feature examples of what to look for within each section in the form of prompting questions that focus on Business Intelligence type subjects.

Note: Strengths and Weaknesses are polar opposites (unlike Opportunities and Threats which are very different to each other) so whether a property is a Strength or a Weakness determined on the answer to each prompting question below.

So, with no further ado, these are the sorts of things to look for when applying SWOT to new requirements for Business Intelligence related report requests:

Strengths / Weaknesses

Does this report provide data that is not available elsewhere?

What unique need(s) does the report fill?

Is it aimed at a wide audience?

How does the report aid the business in its goals?

Does the report impact data warehouse/server performance?

Is there anything the audience/owner considers an unavoidable flaw in the report?

Is the charting present at all/ there but superfluous /too small/badly labelled/in the wrong place/the correct type for the data?

Opportunities

Would this report be of value to others in the organisation with a similar role to the requestor?

Can the report be parameterized to provide different views of the report? (Even date range parameters can make a report more malleable.)

Will the addition of another field(s) add value to the requestor that they have not considered?

Can any summaries or calculations be added to the report?

Could the report audience be widened?

Would rearranging the report content make it more readable?

Is there any existing Dashboard to which the report would add value?

Threats

Is the report reliant on reference tables which aren't maintained?

Will a significant increase or decrease of data make the report unusable? (i.e. is it scalable?)

Is the report related to a part of the business that is subject to regular change?

Not all the above points will need raising every time but it will become obvious with experience which are required in which instances. For example: familiarity with the data warehouses lookup/reference table will tell you when it is likely to be an issue.

SWOT for Review

Carrying out regular reviews of BI solutions should happen a lot more than it does. Resource and time constraints are the main culprits for reviews not happening, but there is the added aspect of 'review' being a vague activity.

SWOT analysis provides four very distinct arenas with which to give a review set objectives that give a very good chance of uncovering issues and highlighting possible improvements.

Unlike the SWOT applications for requirements gathering, which are per instance, using SWOT analysis for reviews of BI solutions really becomes a valuable tool when results are consolidated across the solution as a whole and approached as one piece of work.

This enables a rationalization of multiple findings, their prioritization based on impact and urgency.

Strengths / Weaknesses

What is good about this report (or metric, etc.) and can be used as a template elsewhere?

Can positive business benefits be ascribed to this report?

Is the format the best it could be?

Is the charting present at all/ there but superfluous /too small/badly labelled/in the wrong place/the correct type for the data?

If applicable, does the report export cleanly into all required file types?



Opportunities

Does the report owner/audience have any suggestions for improvement?

Is this report similar enough to another report that the two could be merged?

Threats

Is the information presented already available elsewhere?

Has the accuracy of the information been called into question?

Is the report still being viewed?

Are there business process changes looming that will compromise the report?

The assumptions for this section are based on the reviewed reports having been through detailed analysis as part of their initial requirements - not necessarily SWOT analysis, but enough thought that we can be confident the reports were implemented initially in a good solid state.

If the Report Library is not so stable and individual reports are routinely questioned as to their validity, then apply a level of SWOT analysis more aligned with new requirements.

SWOT for Dashboards and Reporting Packs

Dashboards and Reporting Packs are included as a separate item from the rest of the Reporting Library as they have their own subtle attributes that do not apply to standalone reports.

The assumption here is that all compilation type reports are based upon individual reports that would be covered in a more general way in a SWOT based review. However, I appreciate that this is seldom the case in the real world and often reports will be developed purely for inclusion in Dashboards and Reporting Packs.

A Side Point Regarding Dashboards

What constitutes a Dashboard varies greatly between reporting software. With older style reporting software, a Dashboard is likely to be little more than a collection of reports displayed on one 'page' with nominal drilldown functionality linking them together.

The component parts of this type of Dashboard tend to be individual reports strung together and (depending on the software) either:

- 1 Any remedial work can be done on the individual reports with cascade to the Dashboard(s) holding them, though will require separate testing in the Dashboard in case a change has unforeseen consequences when implemented as part of a drilldown.
- 2 If uniquely developed for the Dashboard or if new instances of the reports do not automatically update with changes, the component reports should be reviewed in a similar manner to the previous section as well as specific Dashboard focused SWOT analysis.

More up to date reporting software (and a few of the older ones too) facilitate the building of Dashboards as one, very complex report. These types of Dashboards tend to have more features and functions, as well as being more visually appealing but it does mean that analysis, SWOT or otherwise, will be more involved... as will any remediation work or alterations.

Strengths / Weaknesses

Is the Dashboard used regularly?

Is all required information accessible/'drilldown-able'?

Is the charting present at all/ there but superfluous /too small/badly labelled/in the wrong place/the correct type for the data?

If applicable, does the report export cleanly into all required file types?

Opportunities

Does the Dashboard contain any meaningful component that does not exist as a Report already?

Can the Dashboard be extended to include other reporting components that will enrich the overall message?

Threats

Does the Dashboard view of data conflict that of individual report? (Note: this may be a Threat to the 'individual report' if that is found to be the faulty of the two.)

Is the report still being viewed?

Are there business process changes looming that will compromise the report?

At this level of reporting, any improvements are likely to be cosmetic and minimal but that does not mean it is not worth doing. Something as simple as changing the order of the reports in a Reporting Pack can improve the flow of review meetings and reduce the time taken looking at data, freeing more time for decision making.

RACI: A Quick Recap

RACI is an acronym that collates the level of interest held by different stakeholders in an activity and what sort of engagement is required to ensure all parties are sufficiently informed.

The illustration below outlines the RACI components. I have included likely job titles for each level of RACI for clarity, though this can vary wildly depending on the scope of the project and/or company structure.



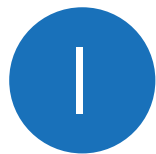
Responsible: The person(s) who has responsibility for getting the work done or decision made. This is often one person, but may be a shared commitment on bigger programmes of work. Commonly a Business Analyst, though a Lead Developer easily fits into this role on smaller projects.



Accountable: The individual accountable for the quality and reliability of the task and to whom the 'Responsible' present their work for sign-off. This one person tends to be the Project Executive or Sponsor.



Consulted: These are the individuals with which on-going two-way information exchange is required in order to progress the project work. This can encompass a wide variety of people depending on the scope and/or complexity of the work.



Informed: This category is for anyone within the business that will be impacted by, or have an interest in the work, while not having any formal input beyond initial requirements gathering. This can be a broad category and can cover people from various levels in an organization but is generally made up of those who will be using the item being worked on.

Figure 2: Base RACI Audience Types

Using the above categories, a matrix can be easily built that identifies who in an organisation requires what level and frequency of information they receive.





RACI for Business Intelligence

Using RACI for Business Intelligence is not different to using RACI in any other analysis scenario as a method, however the potential audience can differ at most levels. So, I am presenting this more as a quick cheat sheet of how a Business Intelligence version of a RACI looks, rather than a new way of using it.

I have used the word 'Report' to indicate a piece of work but this can just as easily be a change to an existing Metric or something a lot more substantial as a bespoke Dashboard or Report Pack.



Responsible: This is still likely to be a Business Analyst or Lead Developer as before, though may be the Report Owner on smaller projects.



Accountable: When dealing with Business Intelligence, this category is impacted the most - rather than one individual, different people are likely to be responsible for different aspects of the same report:

Data Warehouse Owner – performance impact and scheduling accountability

Metric Owner – metric accuracy and relevance accountability

Report Owner – content and relevance accountability

Process Owner – applicable if the report is process-based.

Note: The above positions are in addition to the Project Sponsor, who still holds the overall accountability.



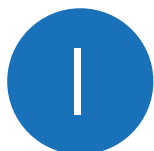
Consulted: These are the individuals with which on-going two-way information exchange is required in order to progress the project work. This can encompass a wide variety of people depending on the scope and/or complexity of the work.

Data Warehouse Owner – scheduling and performance consultation

Metric Owner – metric accuracy and relevance consultation

Report Owner – content and relevance consultation

Process Owner – applicable if the report is process based



Informed: This category is for anyone within the business that is a likely audience for the report.

Figure 3: Business Intelligence RACI Audience Types



The main difference between the RACI illustrations is not so much the additional job titles (which is just a broadening of audience), but rather that the same people appear in both Accountable and Consulted (with the Report Owner potentially also appearing in Responsible).

This is an important difference in regards to Business Intelligence as the role an individual has in the development life cycle changes over time. These individuals are Subject Matter Experts, and in the early analysis phases of the project fulfil the 'Consulted' criteria as no meaningful progress can be made without their input. Once the work they have consulted on is done however, they are the only people with the knowledge and authority to sign off on said work becoming accountable at this stage.

The trick is to align the communications to the stage in the development life cycle so people are informed to a degree that matches their current RACI category at that point in time.

Summary

The two techniques covered in this paper are nothing new from a pure business analysis mind set, but I hope I have shown that they are truly valuable for the Business Analyst who is working on Business Intelligence and wants more tools at their disposal.

As such, an experienced Business Analyst delving into BI can utilize their existing knowledge and BI experts can extend their skillset to aid in their current work as well as provide a gateway to wider business analysis duties.

Coming soon: Part 2 of Business Analysis Tools for Business Intelligence which covers further examples of easily transferable, analysis techniques and how to use them for maximum efficiency.

About Jason Dove

Jason Dove is an ISEB accredited Business Analyst, Developer and Professional Writer.

He consults for multiple leading businesses across various industries – from marketing to counter-terrorism.

Jason specialises in Business Intelligence related disciplines, with a strong emphasis on ITIL systems - a commonly overlooked opportunity for organizations to get the most from their IT investment.

With over 15 years of experience in the industry, Jason has leveraged his knowledge into that of author, blogger and is a contributor to print and online publications.



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