Becoming a Business Intelligence Analyst

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Current status of the BI Analyst

In many organizations the role of the BI analyst is performed by a person who writes reports and creates queries when a business manager requests certain information. The BA produces the results and delivers the information to the requester and that's it. There is no follow-up to determine if the results were appropriate, useful, and if the results satisfied what it was the requester truly needed. There is no further delving into the results to twinkle out some additional information, perhaps by writing a another query, or consulting with the requester to determine what other aspects of the information would be relevant. The potential contribution and value of a BI Analyst goes far beyond what most are achieving today.

Future state for the BI Analyst

If we think about where we want the BI Analyst to be, we want much more. The BI Analyst will often support other users in his or her department, especially the casual users. The BI Analyst knows the BI tool(s), its functions, capabilities, limitations, ease of use, and what functions are appropriate for each class of business user. When there is more than one tool, the BI Analyst knows which one is most appropriate for the user and consults with the user on its application. The analyst knows the user community, who will be using the tool, their level of education, propensity to use the tool, and problems they are experiencing. The BI Analyst either trains or is heavily involved in training the users. He or she monitors use of the tool, monitors user satisfaction and responds to problems, builds and maintains the query and report library and disseminates information about the library, provides user support, monitors problems with the software and communicates the problems to the vendor, stays current with the tool(s), functions, tips, hints, best practices, and networks with other organizations in their best use of the tool(s)

Understanding the business perspective

The BI Analyst should be very familiar with the industry (healthcare, manufacturing, banking,…) and very familiar with your organization including knowing where the power lies, the culture, what is and is not acceptable, and what's hot (what the C-level managers [CEO, CFO, COO, CIO,…] care about today – because it's likely to change tomorrow). The BI Analyst should know how the C-level managers are measured because those measurements will be what drives them and their decisions. Most importantly, the BI Analyst should know the strategic goals, vision and mission of the organization. For example, the C-Level managers may care about certain measures such as sales, customer attrition, ARPU (average revenue per unit) (customer), SAC – subscriber acquisition cost, and customer satisfaction (these measurements compared to the competition). It's important that the BI Analyst ask the requester how the results will be used.

Relationship with IT

The relationship with IT is critical. IT is needed for the data they provide and for the software that's used. IT deals with vendor software issues and provides reasonable performance and acceptable availability. The BI Analyst needs timely response to their requests and problems. IT needs to know they are appreciated, supported, and given the credit they deserve as an integral component of your success. The BI Analyst should take every opportunity to thank them for their work. They should be thanked both verbally and in writing – it helps them get the resources and attention they need to continue to support the business. A study showed that IT is 23% more responsive to requests when donuts (or their equivalent) are provided at the meetings.

Data quality issues that must be addressed by the BI Analyst

What is data quality?

Data quality includes the accuracy of the data, completeness of the data (no missing data), that the data conforms to valid values, that it does not violate business rules, that there are no anomalies or outliers that would distort the results, that the data is current, and that the data is what you think it is. There are data profiling tools and techniques that can evaluate the data and identify problems. The exception is data accuracy which is more difficult to identify.

Why do you care?

If the data is wrong, your results will be wrong and it will be too late to blame the data. You should have been aware of the problem and not allowed a misrepresentation of how the business is running or an inaccurate report to go to your regulators or stockholders.

Validating data quality

Your job will always be to validate the results of your query or report but validating the quality of the data should have been done prior to running the query. You may feel that it is someone else's job to validate the data and you may be correct but you have the responsibility to know that the validation has been done and that you are working with data of reasonable quality. If you are lucky there is someone in IT who is profiling the data and is taking appropriate action when the data is substandard. This person in IT should be able to provide you with the profile results so that you have a good understanding of the data you are accessing and know whether it's sufficiently clean for your analysis.

Promoting your efforts

Measuring your effectiveness

At some point the BI Analyst will want to know how well he or she is doing. There are a number of criteria that should be considered. The first is how well you understand the request and then how quickly you can deliver. To become a true BI Analyst you should be able to generate the next question that will provide the information the requester needs. Please note that some of the requirements for the information could not have even been generated by the requester. You will be looking to see if you can take the problem to the next level. You will be measured on how well you deliver to your sponsor including how they want to see the results, how intuitive are the results, and your ability to explain the results.

Where you report in the organization

The age-old question continues to be where the BI Analyst should report. Does it matter if you report to IT or to the business? It does. Reporting to IT should give you more immediate access to tools and to new capabilities and might give you a broader audience of requesters. Reporting to the business will usually mean you are more of a subject matter expert (SME) with in depth knowledge of your department with an understanding of the importance of what is being asked and it can also give you better access to the organization’s decision makers.

Measuring benefits from your analysis

Not everything you do will result in benefits, either tangible or intangible but some will and when those benefits can be identified, take the opportunity to capture them. For example, your query may have been able to identify some potential fraud. If in the past, before this information was available, 2% of insurance claims were fraudulent and each fraudulent claim resulted in a loss of $1000, and with your analysis, fraud was reduced to 1.5%, you can identify tangible benefits of the number of claims times .5% times $1000. Only take credit for your participation and the contribution of the information that made the fraud reduction possible. Do not take credit for yourself but identify each application or query that potentially contributed to your organization’s achieving its objectives.

Setting sponsor expectations

It’s important for the requester to know what they will be getting and when. If you deliver what is achievable in a reasonable amount of time and the requester is expecting it much sooner and a result that requires data that is not available, your work will be considered a failure or, at best, substandard. It is therefore imperative to let the requester know that some of the request cannot be fulfilled because the data does not exist and to give the requester a reasonable schedule for completion. Informing the requester should not be delayed; otherwise it will appear as an excuse for failure rather than a reasonable setting of expectations.

Sidebar – Further Your Career.

Follow-up with requester

You want to be sure the requester understands the results. If you feel that the report or results require explanations or discussion, schedule to meet, deliver, and present the results. Call or meet (meeting preferred) – don’t email and ask the following questions:

1. Was the information received useful/valuable?
2. Was the form and presentation of information acceptable? Would any other form or means of delivery be preferred?
3. What information was missing?
4. Did the results result in any action? What action?
5. Were there any tangible or intangible benefits that were derived from the action?
6. Is any follow-on information needed?

Status Report

The status report is normally produced weekly for your boss with a possible subset to your prime requesters. The report should be a maximum of two pages. The report should not contain any criticism of people or departments (a forwarded report will earn you an enemy for life). Any criticism should be verbal and limited to areas in which your boss could effectively take action –

if there is no action that needs to be taken, your criticism becomes whining. The report should contain the following data:

1. Number of requests, number fulfilled, which departments, which requesters
2. Turnaround time – from the time the request is made to the time the request is fulfilled.
3. Feedback from the requester about the value of your efforts
4. If anyone worked with you (DBAs, DAs, person responsible for the data source) they should be given credit in your report
5. Identify opportunities and what needs to happen to make the opportunities happen.

What to do when you work for “the pointy haired boss”

Your way out and your support will come from the business requesters. Make sure you have a never-ending list of projects from your requesters and this list should be shared in your weekly status report. This type of boss can load you up with worthless activities and staff work that he or she should really be performing. This boss probably knows the power and importance of the requesters and wants to keep them satisfied. When your boss wants to assign one of those worthless tasks, ask which of the requester’s requirements should be cancelled and would you like to tell them or should I? Do not accept more work than you can handle in the hours you intend to work.

What to do when you are overworked

There will never be a respite from more and more work. Once you are successful at delivering valuable information to the business requesters, you are officially tagged as the one to go to. This will probably result in waves of requests, usually with exaggerated importance and impossible deadlines. Accepting all requests is not the answer. There are three approaches.

1. Just say no. This is the wrong answer.
2. Build and maintain a list of requests, when they were requested, who they came from and some indication of the value of the request, not exactly a cost/benefit analysis but just a qualitative estimate.
3. Ask someone else, perhaps your boss, to prioritize the requests. Your boss will most likely give low-level people some place near the bottom.
4. Put in reasonable hours to perform your work.
5. Build a set of pre-defined queries and reports and use this set to satisfy requests and teach the requesters how to run these queries and reports themselves.

What to do when there are problems

There may be problems with the source data, data quality problems, and data that is not available in a timely manner. The results you get may appear invalid. There may be problems with the system that cause time-outs. Keep the requester informed but not in any greater detail than he or she wants to hear and give the requester an estimate of when you or someone else will be able to solve the problem and when he or she might expect their results.

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