

Handling Sticky Situations - The Paper

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ABSTRACT

Have you ever been asked to perform an analysis where you were presented with the expected outcome? What about analyzing personnel data to help with salary negotiations or promotions? Report on metrics that can't be measured? These and other scenarios will be discussed in an effort to help you, as an analyst, perform your task but also to make it meaningful and ethical.

INTRODUCTION

Every analyst has stories about the project that went off the rails or the manager that wants the most recent trendy analysis run regardless of proper application. Luckily, less common is the situation where you are asked to make the data fit the answer that the VP wants. This paper will go over an assortment of these common issues and how to handle them with style.

Please note that the presentation associated with this paper is designed to be interactive so the discussion may have varied from the topics herein. Examples of actual situations will be provided that are not provided here for the sake of brevity and confidentiality.

THE ETHICAL ANALYST

A good analyst is an asset to any company and will provide more than just reports and numbers. However, accuracy and "correctness" is also part of the job. Decisions where large sums of money hang in the balance may ride on information produced by the analyst. Therefore, the output of the analyst must be accurate and any uncertainty in the numbers (statistical uncertainty or otherwise) must be made known to the decision makers. In some industries the decisions are literally life or death so a lot can hang in the balance.

Knowing the data and the appropriate analysis or reporting method is a given for the analyst. What should you do if there aren't enough data and you are being pressured for results? Maybe you are unsure of what the data represent, then what? What if the numbers are just not coming together and you have a tight deadline? You are being looked to as the expert but what if you just don't understand what is being asked? These are the times when you need to do the right thing and ask questions and let people know the true constraints.

One way to avoid problems up front is to be realistic with project timelines. Do not agree to complete a project when you do not have access to the computing power to make it happen in that amount of time. Realistically state what can be done in that amount of time or what you need to make it happen in the time requested.

Avoiding a problem up front is much easier than trying to fix something once a project gets started. Unfortunately, there are times when the analyst is not in a position to make adjustments and has to "make do." If that scenario plays out more than you being involved as an integral member of the team, you may want to consider whether or not you are in the right place. Compromising your integrity will not do anything more than make you unhappy.

WHEN THE "SUGGESTED" TECHNIQUE IS NOT THE RIGHT ONE

Have you ever been told to go and run an "XYZ" analysis and after doing so been told that it was wrong? So you do it again and get the same "wrong" result? Maybe the issue isn't your ability to run an XYZ but

the request itself. There are times when a director or VP hears about the latest analytic technique and thinks it can solve all problems. In reality, the underlying issue is a business question that needs to be answered. A savvy analyst will inquire what the person is looking to answer before running the analysis.

In doing so, you can see from the beginning whether or not the technique will answer the question. Suggesting a different approach up front will depend on your relationship with the person making the request. If you are not in a position to make the suggestion up front, you can run what is asked for and then add in a secondary analysis that does answer the question. Yes, this is more work but it will avoid multiple re-dos trying to put the square peg into the round hole.

Over time your goal is to develop the relationships where you are seen as the person who answers business questions. How the analysis is done in many respects is irrelevant to the decision maker as long as they have accurate information to make the decision.

IS THERE A BIAS?

Sometimes an analysis is requested to determine whether or not there is a race or gender bias. These projects can be fairly straight forward in terms of programming and analysis. The challenge is when a bias is found. Are there possible consequences to the company? For example, what if you find that all employees of a particular gender/race combination are paid significantly less than other employees? Does this demonstrate discrimination that could result in a lawsuit or sanctions against the company? How the results of this type of analysis are handled is very important. Whom you share the results with is also relevant as this is not necessarily the type of project to discuss casually over lunch in the cafeteria. Discretion plays a role here.

The opposite can also happen. You may be running an analysis for something completely different and find a bias. Should you report it or ignore it as it isn't part of your assignment? What you should do depends in large part on what your analysis shows. Is it suggesting a glaring case of discrimination or a possible skew toward one demographic? If the numbers seem to strongly suggest an issue, discuss them with your supervisor. Work together to determine if this is an anomaly or real issue. Be prepared that you may need to present this work to human resources or corporate counsel. Document your work and make sure your data are clean.

MESURING THE UNMEASURABLE

Key metrics. Every organization wants them and they want them on a dashboard. Occasionally, these metrics are identified without thinking about how they can be measured. Worse yet, opposing metrics may be chosen where increasing one, decreases another and overall "success" cannot be achieved.

As much as possible, work to define the wording of the metric and quantify it. "Increase sales" is too vague and open to interpretation. Increase sales over what time period – last year? Last month? Last year? Define sales – net or gross? Dollars or quantity? Depending on what you select you may increase or decrease.

Make sure that the metric can be calculated from the data and that the comparison or target is available. Work to quantify the measure of success as opposed to a generic increase or decrease. Getting everyone on the same page in the beginning will make it easier at the end of the period when the call is made as to whether or not goals were met.

THE ANSWER THAT IS REQUESTED

The worst scenario for an analyst is to be told to run an analysis that shows "X." This may not seem so bad but it really can be. Maybe an example will help. Let's say you work in a marketing department and the latest ad campaign just finished up. Your boss comes to you and asks you to run a report that

demonstrates the 20% sales lift that he promised in a meeting to his boss. So, you run the analysis and lift is 5% or maybe even 17% - or worse nonexistent! Now what?

Your responsibility is to show the actual number to your boss after confirming the results of your work. If this is truly a data driven work place, your work will be accepted and life will go on. On the other hand, what if your boss tells you to go back and make the lift show 20% - this is statistics after all and it just depends on how you choose to do it, right?

This type of reply puts you as the analyst in a truly bad situation. Double check your methodology and see if you get the same results. If so, have another conversation with your supervisor. If you are flat out told to report a specific number, use your best judgement to address the situation at hand. There is no clear cut answer as it depends on the person you are dealing with. Once this situation is over, take an honest look at whether or not this is the best position for you. Remaining in this type of environment will drain you over time and make you less valuable during the course of your career.

OPPS! NOW WHAT?

Every analyst makes a mistake at some point in their career. What differentiates analysts is how they handle it. Option one is to keep quiet and hope no one notices. While you may think this is a safe option, it can hurt you in the long run. If someone attempts to replicate your analysis they will not be able to do so. Decisions may be made based on your results which could lead to losses or other negative consequences for the company.

The best approach is to make the correction and restate what needs to be. Share this and how significant the change is with your supervisor and they can assist in handling the situation. Let them know if the error was the result of a misunderstanding of the data, programming error, or misapplied method. Then you can share what you learned and how it can be avoided in the future.

While it is painful to admit an error, it is better to do so in the long run. Admitting to it will be better for your long run credibility than an error found by someone else.

KNOW THY BUSINESS AND DATA

The best way to handle many of these situations is to understand the culture of your company, the business they are in, and the data you are using. Before accepting a new position, try to learn as much as you can about all three before taking the job. Are analysts viewed as resources or just report generators? Is there a culture of development and respect or are employees belittled for mistakes? What are the challenges facing the company and industry? Are there standard types of reports and analyses common to this business area?

Getting a feel for these questions can help you succeed on the front end as well as during your tenure. What you don't know can hurt you in a professional sense. The more you know the more valuable you are to the company and in the job market.

Understanding the data will help you avoid mistakes up front. Know what each variable means and if another variable is used in conjunction with it. For example, if you are looking at a cost variable, determine if the cost is for one item or the cost of a case of items that are split apart and broken up for re-sale. Here the cost of \$100 for a case of 10 makes each cost \$10. If the retail is \$18.99 and you use the case cost, it will look like you are losing money by selling the item.

Data is not always what it appears to be. Take time to understand it and this will greatly help you in your work. It can also avoid mistakes and re-work. Not getting into a sticky situation is better than having to handle one.

CONCLUSION

At some point in every analyst's career, they will encounter a sticky situation. How you handle it will set the tone for future interactions. Hopefully these situations will be few and far between. If you find yourself in them on a regular basis, it might be time to step back and see if this is a case where you may be in need of training or if the company culture is a bad fit. Being honest in this review will help you determine if this is a place you should stay or if a change is in your future.

In the long run, honesty and integrity will pay off. Knowing that you have done your best and communicated accurate results is important. Unfortunately, we cannot control how others react or what they request from us.

CONTACT INFORMATION

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