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A Framework for Prioritizing Analytics Efforts

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Project prioritization is one of those activities that seems simple and straightforward on the surface, but scratch at it just a little and hidden complexities are quickly revealed. While there is general agreement that “good” prioritization contributes to the overall effectiveness of an analytics function, rarely is any effort taken to define “good” and map out an agreed-upon approach to get there. The obvious outcome of a prioritization process that lacks intentionality is general chaos -- analytics teams are overwhelmed and expressing a need for more resources, business leaders are frustrated that their needs aren’t being met, the loudest voice often gets his or her way, and the enterprise isn’t optimizing the return on its investment in analytical talent.

When the prioritization process is operating effectively, however, analysts feel empowered, business leaders’ expectations are reliably met and the enterprise can track returns back to deliberate decisions.

Most analytics leaders grapple with a series of basic questions: What should the analytics team work on

first/next/most/least? What is the optimal mix of project type? Are business partners requesting good projects or bad ones? When does an analytics leader need to add new skills and/or additional resources? Etc. The specifics vary by organization, of course, so **this paper is meant to lay out a simple prioritization framework, foundational to which is a communication schema with the demand-side business leaders.** Establishing goals early and revising them often ensures analysts are working on the right problems and, in so doing, deepens relationships with internal partners, creates alignment with business objectives, facilitates improved analytics ROI and raises employee engagement.

Additionally, because this prioritization framework sits inside of existing team culture and a larger operating framework, I’ll also address supporting elements that will magnify the impact of instituting the prioritization framework alone.

Seven Steps to Project Prioritization





I. What is the purpose of the analytics organization?

The first question to consider is the purpose of the organization's analytics function itself. For the purposes of this paper, I am assuming that the analytics organization aspires to working on “more valuable projects,” which typically means going beyond data and/or reporting requests and moving toward more predictive and prescriptive modeling. My definition of “more valuable projects” is orthogonal to that notion, however, and is centered on the business-value the project will help achieve. In other words, **the value of an analytics project isn't driven by the analytical technique that is used but by its ability to influence and enable effective business decision making.**

Prioritization through this lens is typically more complicated. It requires a different type of stakeholder engagement, prioritization within and across multiple lines-of-business (LOBs), strategic decisioning at senior levels of leadership, and monitoring and tracking of actualized (not potential) ROI. It might also require a new mindset around who owns the decision-making authority and balancing the analytical needs of the organization with the interests of individual analysts.

It is vital before going any further that the analytics leader and the broader organization explicitly agree on the primary purpose of the analytics function, whether it be to support strategic business decisioning or any other. This can be achieved through individual and team-based conversations that are open and honest, focused on current-state vs. desired-state, and

end in a decision around which all stakeholders are willing to rally.

Analytics leaders should understand that this pivotal step is potentially as difficult for their partners as it is for them. Upending the status quo is a risk and although the potential reward is high, there is also the chance -- however remote -- that things could end up worse than before. Analytics leaders have to ask for trust that might not yet be fully earned, and acknowledging the risk and empathizing with business partners through this process will go a long way toward growing and deepening these critical relationships.



II. How can we develop a meaningful portfolio of analytical work?

The topic of prioritization usually comes up in response to an overwhelmed analytics team that is responsible for delivering a portfolio of analytical work that grew out of a passive and/or haphazard intake process. Often that presents itself as a reactive model driven by specific business requests that, from the perspective of the analyst, are devoid of any business context and sound something like, “Hey so-and-so, can you get me this data?”

Under this model, analysts wonder why the business isn't asking “better” questions. What she means, however, is that the request is simplistic and she wonders why the partner isn't asking for more sophisticated solutions. The answer is simple: The partner can't ask for a more sophisticated solution because he's not trained in the broader analytics ecosystem and when various techniques are most applicable. On the flip side of the coin, the business

partner sometimes wishes that the analytics team would take a more “proactive” approach. In response, the analyst might use a data mining approach that reveals interesting insights only to be told that, while interesting, acting on the insight isn’t a current priority. It’s easy to see how both sides would become frustrated with the lack of meaningful work and wasted effort.

These might seem like two different problems, but the root cause is the same -- the analyst is operating in a silo, disconnected from business strategy. To address this knowledge gap, **I recommend establishing a business strategy review in which top-level priorities are set on an annual or semi-annual basis.** I have typically done this as a half-day session for each LOB my team supports and included three primary agenda items:

1. A business-led deep dive on the LOB strategy and current priorities
2. An analyst-led review of the LOB’s existing portfolio of analytical requests
3. Alignment of the business partner’s top priorities to the existing portfolio of requests

This routine has several benefits. First, it gives the analyst a much deeper understanding of what the partner is trying to achieve. Now she can not only provide more complete answers, she can even recommend comprehensive solutions that span the analytics eco-system -- from data and reporting to predictive modeling and optimization. It also ensures that the cross-functional team of business leaders and analytics experts have a shared understanding of what matters most and a comprehensive list of must-haves that are explicitly differentiated from the nice-to-haves.



III. How do we maintain alignment as priorities change and new requests are made?

Setting top-level priorities and aligning resources to the “big rocks” enables a cross-functional team to work toward long-term objectives, but it doesn’t solve for the inevitable emergence of unexpected needs and new requests on a more frequent basis. Used in combination with the business strategy review, a portfolio management routine can be used to maintain the integrity of the overall portfolio of analytical work.

I have found that a 30-minute meeting for each LOB once or twice a month is usually effective as long as the right stakeholders are active participants. Generally speaking, that would include the analyst who manages the partner’s portfolio of analytical work, the head of the LOB and anyone on his or her team who is making requests of the analytics team. This is where new requests are prioritized, conflicting priorities are decided, and roadblocks are knocked-down.

In my experience, the portfolio management routine functions best when it is run *by* the analyst, *for* the analyst. That is to say, this routine is not intended to be a report-out for the business partner. Instead, it is where the analyst can clarify questions, raise risks, and facilitate decisions with his partners so that the work can continue in a meaningful way. Interestingly, I have found that this forum is often just as useful for alignment within the LOB. I’ve seen it happen many times that through this forum the head of an LOB becomes aware of requests that aren’t aligned to his

priorities, providing him the opportunity to reset his own team's focus as well.

Note that a business strategy review and a portfolio management routine are complementary. Together they not only ensure teams maintain alignment, but also facilitate a higher level of productivity overall. Consider the rocks-in-the-jar analogy. If you start by adding your sand and small rocks to the jar -- your day-to-day data and analytics requests -- it is quickly filled. It then becomes very difficult or even impossible to add your larger rocks -- those that represent your strategic initiatives. If you place your large rock in first, however, it is easy to fit the sand and small rocks into all the open space around the large rocks.



IV. How do we decide what to work on, and who owns the decision-making authority?

I am a firm believer that ultimate decision-making authority resides with the business leaders I support. That doesn't mean, however, that my team are order takers. Instead, it is our responsibility to influence and enable effective decision making, ensure that decisions are fully informed, and facilitate the decision-making process when it comes to how analytical resources will be used.

There are three primary factors I emphasize when facilitating these decisions:

1. Is the request aligned to a top priority?
2. What is the potential ROI of the request?
3. Is the business poised for action?

Answering these questions isn't always straightforward and they aren't intended to be decision criteria. Instead, they should be used to guide a dialogue that ultimately results in a deliberate and reasoned decision.

For example, in late 2018 I was asked to estimate the impact of the impending government shutdown. Was the request aligned to a top priority? No. What was the potential ROI of the work? One could argue \$0. Was the business poised for action? In that case, yes, but no one quite knew what that action would be. Nonetheless, it was clear that this work was critical to the company's understanding of the potential risk it was facing.

On the other hand, when I hear someone say, "You know what would be interesting to see..." my instinct is to put these questions to work to ensure resources are diverted away from existing (and presumably high-value) work only after a deliberate debate and conscious understanding of the value trade-off.

It is also incredibly important to understand each request within the larger context of partner relationships. For example, if there is a partner who routinely asks for work but rarely follows through with implementation, then I should keep that in mind when another partner who is action oriented asks me to find additional support. While I won't make the decision in isolation or on anyone's behalf, I can help draft a data-based narrative that supports a realignment of resources on an interim or permanent basis. Similarly, if a partner is demanding more resources for a pet project the solution is a very simple conversation: "If you want more analytical resources, we need to prove the value of your initiative is worth more than your peers' or is so significant it warrants adding incremental headcount. How can I help you do that?" In neither instance is it my role to say yes or no. My role is to ensure that the decision makers are fully informed as to which effort will likely yield the higher



Sample LOB Prioritization Planning

Name of LOB Exec	This is the main internal client for whom all of the below should be relevant and in alignment with her goals. Even though this type of LOB portfolio tracker is to help the analyst manage projects to their positive outcomes, the LOB exec needs to want and agree with everything below.
Name of Requester	Often the exec will wonder why certain requests have been made. This column helps facilitate alignment within the LOB when the Exec isn't familiar/in agreement with requests being made at lower levels of the org.
Original Request Date	This can be used to determine relative importance. If it keeps getting pushed down the list, it's not that important. We keep it on unless the LOB says it's ok to drop it outright, but even if they say to keep it we know we don't need to put much mental energy toward it.
Request Description	What did the LOB request specifically? That way, we can always tie a straight line back to what is actually delivered. It also yields valuable clues to the LOBs specific concern/hypothesis.
Purpose of Request (i.e.: What is the LOB trying to achieve?)	This is the deeper why and it is the analytics partner's job to discover the context of the request. If we can't say WHY the LOB asked for a certain piece of data, then we should not start working on it. "They were just curious to see x, y, z" is never an acceptable answer. This is NOT "what work is the analyst going to do." That would go in the notes column.
"Big Rock"	This is where the individual request can be tied to a strategic "big rock" if that is the case. If the request is NOT tied to a big rock, that is important to note as well.
Notes / Activity & Decision Log	This is the MOST important field. Note that this spreadsheet is primarily for the analyst responsible for managing the portfolio of work that this spreadsheet represents. On a daily basis, these notes only need to make sense to him or her. Having said that, a "cleaned up" version of this spreadsheet (usually meaning without this column) is a useful and easy way to maintain full transparency with all stakeholders.
Priority	Could be 1 - 10; High, Medium, Low, etc. The truth is, there will only be 3 to 5 projects being actively worked at any given time and that's where the analyst's energy should be focused and the rest of the columns should be built out in most accurate detail
Expected Value	This could be revenue, tied to a business case, TBD, etc. It is critical to track realized ROI but I do that as a separate activity. This is here because we don't know realized value until the work is done, so we need to think in terms of potential value and/or consider exploratory work that will tell us if a certain body of work would have a big enough return to make it worthwhile. This column isn't about "prove to me the value is there." It's about "Let's make sure we remember that business value needs to be top of mind".
Target Completion Date	This is simply a guide, not a contracted delivery date. The need from the LOB could be "I need it for a meeting next week." It could also be, "2H of this year is probably fine". It's often aligned to priority, but not always and is another clue that helps keep a pulse on what REALLY matters to the LOB.

NOTE: This spreadsheet is modeled after the one I used for myself when I was leading my own verticals. It can easily be customized by each analyst to create a tool that works best for him/her. However, from experience, keep it as simple as possible. If there is more time spent working on the spreadsheet than using the spreadsheet for its intended purpose, then it's become overly complicated. It's not about the spreadsheet, it's about the conversations with the LOB that the spreadsheet enables.

return and then support a decision-making process that is in the enterprise's best interest.

And for analysts who feel like they have to fulfill every request as soon as it's made, consider this example: Through a business strategy review, we had a very clear understanding of an LOB leader's only priority. In spite of it, the work wasn't getting done. The LOB leader assumed the analyst lacked the proper skill set, but upon investigation I discovered that the analyst had diverted his attention to a new request. This new request, while valuable, wasn't as high a priority for the LOB leader. Unfortunately, instead of engaging in a dialogue or even asking for clarification, the analyst assumed this new request took priority. With the best of intentions, he exhausted himself by working 14 hours a day and felt totally unappreciated for his efforts. What he didn't realize until after we debriefed, however, was that the LOB wasn't being "demanding;" instead, it was the analyst who was making unilateral decisions that were not aligned with the partner's needs.



V. At what level should prioritization occur?

In order to optimize the use of analytical resources, prioritization should be facilitated at three levels within an organization:

1. Within business units
2. Across business units
3. At the enterprise level.

Prioritization within a given business unit is the easiest and happens most frequently, as described above. Prioritization across business units happens less frequently and usually comes into play when a leader

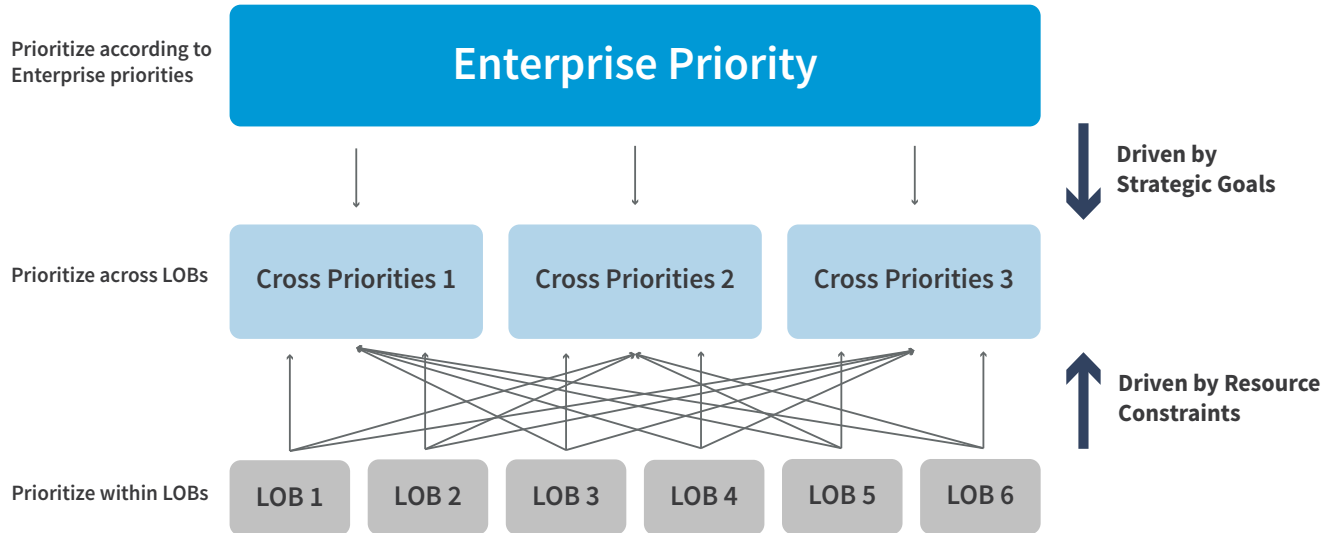
has a significant opportunity but no available baseline analytical support. In that case, we might jointly approach another LOB leader and have an ROI-based discussion about re-aligning a resource for some period of time.

At an organization in the Midwest where I was head of enterprise analytics, there was a specific month-long period each year when the analytics team was involved in intense goal-setting work for the sales team. During one year in particular the organization was simultaneously revamping its physical-channel strategy, and the goal-setting work became even more intense. It was unlikely that the analytics team could meet the usual year-end deadline without additional support. Although the goal-setting work was owned by the head of the physical channel, the sales executives ultimately benefited from the work and had a vested interest in it being done well. So, in this case, the head of the physical channel and I met with the head of sales to express the need for additional goal-setting resources. We jointly decided there were activities underway for the sales executives that could be put on hold for six weeks, and those resources would be temporarily aligned to the goal-setting work.

Enterprise-level prioritization is the least frequent and is aided significantly by the business strategy reviews. That is the time to look enterprise-wide at all of the business opportunities in play, the potential ROI of each, and jointly decide with all business stakeholders where to align resources to achieve the greatest possible value. Because these decisions are cross-functional with potentially significant implications, this usually involves operating at a higher level of leadership.

This became a significant consideration for me and my business partners during a period of strategic transformation, from product-based to financial wellness-based, at the same organization referenced above. Under the legacy strategy, it made sense to

The Three Layers of Project Prioritization



have a significant number of analysts aligned to the head of product. As the new strategy emerged, however, the head of financial wellness needed more and more support for his cross-product initiatives. Note that the transformation was mainly driving a different approach to the same work (meaning the same resources could be leveraged), not just incremental work (meaning more resources overall). In this case, it was as simple as one or two conversations with the three of us -- me, the head of product and the head of financial wellness -- to understand the transition of work and how the alignment of resources would follow. We then jointly communicated the decision to their boss and the rest of his leadership team to formalize our decision and move forward with transparency.

In fairness, asking one leader to “give up” resources for the benefit of the enterprise (as embodied by another leader) is usually a much more difficult process. In those cases, I take the same general approach but plan on more conversations upfront to

prepare all primary stakeholders and to garner support from others. A final conversation in a public forum to formalize the recommendation is of greater importance here, and it might even be necessary to obtain a decision from the leader’s boss.



VI. When is it time to add more resources?

Never have I heard a business leader say she has enough analytical talent at her disposal, nor have I heard an analytics leader say he has enough resources to satisfy demand from the business. In fact, good analytics beget good questions so the more good work is done, the more demand increases. It is, therefore, impossible to staff to demand.

Instead, **staffing levels should be driven by the LOB’s ability to take action on the insights and solutions developed by the analytics team.** No

matter how sophisticated an analytical solution, if the business can't take action no value can be achieved. When a business is poised for action and a business case is in place, however, adding incremental analytical talent can be decisioned based on the potential ROI of the overall initiative.

When it is time to add incremental resources, I recommend a hybrid funding model. In some cases, the organization might need additional baseline support that should be funded by the shared services organization or some other centralized body. In other cases, it might make sense for an individual LOB to fund resources that are fully dedicated to that LOB and whose capacity is managed outside of the routines described above. Either way, it's important to note that even when those resources report to the head of analytics, they still work for the LOBs.



VII. How do we know the prioritization framework is working?

There are three primary measures of success I use to determine progress with my partners:

1. Is my LOB partner including analysts in strategic planning or only asking for data?
2. Once a solution is developed, is it implemented and adopted by the LOB?
3. What is the realized (not potential) ROI of the business initiatives in which analytics played a key role?

A useful prioritization framework isn't simply about managing analytics through-put. It should

also aid in relationship building, credibility, relevance and impact.

The first metric above is incredibly easy to measure at a sufficient level of precision and is a marker that tells me whether or not I am making progress with individual business partners. Relationships transform at various speeds, but if a partner never seems to evolve past context-free data requests then it's critical to revisit our agreed-upon purpose of the analytics organization and work together to develop an operating model that is mutually beneficial.

The second metric is, again, relatively easy to measure at a sufficient level of precision to achieve its purpose. In this case, the analytics team might be doing very good work, but the best analysis yields no value if no action follows. In this case, it's important to first investigate the root-cause of inaction to resolve it. But if the problem persists, this becomes an objective input to future resource alignment and prioritization cycles.

The third and most important metric is how I demonstrate the organization's return on its investment in analytics. My first objective with this metric is to demonstrate that my team has at least covered its own cost. Calculating ROI is easier for some projects than others, and once I've demonstrated break-even I have a bit more flexibility in my measurement strategy. A critical factor, however, is that it is based on realized value and is a shared metric with the LOB for whom the work was done. Sometimes this means calculating incremental benefit, and often it means aligning with an existing business case. Just as a business leader doesn't tease out the portion of the overall value each individual member of his project team contributed, it's counterproductive to require the individual analyst to prove her portion of the overall value. Instead, the goal is to align analytical efforts to the business initiatives that result in measurable benefit to the organization.



Conclusion

Prioritization of analytical projects cannot happen in a vacuum. Instead, if the purpose of analytics is to influence and enable effective business decision making, analysts need to be steeped in business strategy and meet regularly with their business partners to ensure ongoing alignment. While the business leader ultimately determines his or her priorities, analysts should influence those decisions by ensuring those decisions are fully informed. To optimize the ROI of analytical talent, prioritization should happen at all levels of the organization and staffing levels should be aligned to the organization's ability to take action.



ABOUT THE AUTHOR

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Kathleen Maley is a business leader specializing in the science of data and analytics. She is a cultural change agent in the adoption of analytical strategies and guides business leaders toward better outcomes by integrating data into their business processes. Fortified with 15+ years of success, her passion is now found in helping organizations leapfrog her early experience to accelerate their journey toward value-generating analytics.

Kathleen started her career on the leading edge of a revolution in data-based decision-making at Bank of America. She built predictive models, ran a model risk management group and led several business-analytics verticals. In her culminating role as the bank's consumer deposits pricing executive, she transformed the business from intuition-based to predictive model-based, creating an efficiency of \$65 million per basis point saved.

As the head of consumer and digital analytics at KeyBank, Kathleen increased the economic impact of her team by elevating their role from data provider to strategic partner. She established a discipline for measuring realized benefit of analytically informed business initiatives and engineered a shift toward collaboration, ensuring analytical solutions are developed hand-in-hand with business execution plans.

Kathleen is a board member and volunteer statistician for Turner Syndrome Society of the United States, a published writer and frequent speaker. She holds degrees in Mathematics and Applied Statistics. Previously, Kathleen taught high school mathematics and statistics in Costa Rica, Mexico and China.

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