BPTrends COLUMN

Essentials of Business Architecture Measuring Performance Part 2 of 2 Roger Burlton

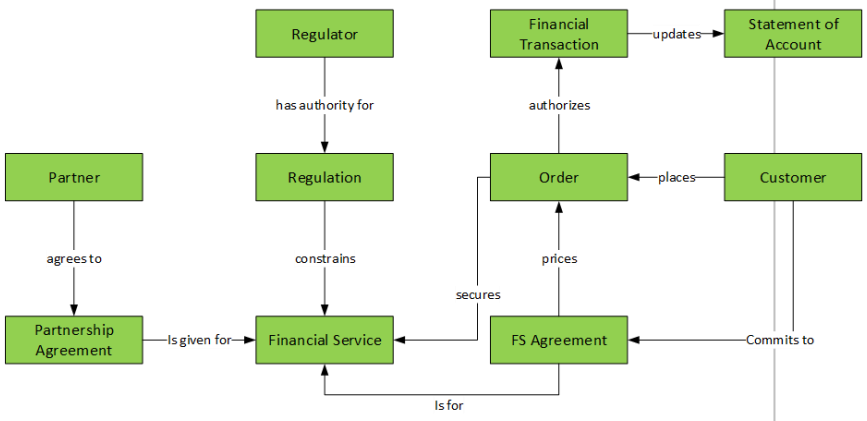
Preface

This Column is the second part of a two-part series that should be read together. In it, I will present a bottom-up approach and alert you to potential problems regarding the use of measurement information. Part 1 dealt with the general measurement principles as well as a top-down approach to gaining the appropriate measurement data.

The Bottom-up View

The structure of detailed measurement

One tool that can help us with determining performance indicators is the Concept Model **(Figure 1**) that we used previously to determine information, capabilities, business rules and processes. If we look at every box (noun=thing) there is the potential of having a count for several of them if we feel it will be useful to someone to be able make an operational or management decision. We can look for the relevant measures among the concepts. Please note that I am not assuming that these decisions are managers' decisions but are decisions required to be able operate or manage regardless of who makes them. Organizational structure is irrelevant to what you need to know at this point.



A way to structure and represent the determination of possible PIs and KPIs based on the concept model is shown in Figure 2

Concept	Customer	Financial Service	Financial Transaction	FS Agreement	Order	Partner	Partnership Agreement	Regulation	Regulator	Statement of Account
Customer	1									
Financial Service	4									
Financial Transaction										
FS Agreement										
Order	5	7			2					
Partner		8								
Partnership Agreement							3			
Regulation		9								
Regulator										
Statement of Account	6									

	Count
	Association Pis
	Counts not needed - does not measure performance
	Concepts

Counts (things)

The starting point for all measurement is to count things; an inventory if you like. Clearly there are lots of things we could count but typically we choose the ones of importance to us because of risk, strategy, or some form of operational importance. Stakeholders are important so we count them. How many customers of various types do we have? How many Employees of various classifications do we have? Physical items are the next most obvious. How many branch offices are there? How many mobile phones are there? How many locations are there? There are also many non-physical items that need to be tracked such as orders, transactions and agreements. Do we know what the counts are? In addition, can we determine other important attributes about each such as the size of the branch office, the longevity of tenure of staff, how old is each brand and model of mobile devices we have.

In this sample matrix each concept on the process model is listed in both the columns and the rows. Then we look at the top left to bottom right diagonal of same concept to itself where we determine which concepts are worthy of being counted – i.e., of relevance – for tracking and decision-making purposes. In the illustration, we decided that only three of ten shown are of interest – things to be counted or quantified, and reported. The business representatives will have answers of what is useful for them.

Associations (things per thing)

In other cells or intersections of concept to different concept shown below the diagonal, we can first identify which set are relevant in combination. Not every combination is of importance. Item 4 in the sheet shows that we have chosen to

know about Financial Services as related to Customers. The other combinations of relevance are also shown in the high-lit cells – such as Customers to Orders and Financial Services to Orders. This shows us the places where PI or KPI data must be captured in the process execution as well as defining what any IT requirement must include for data capture.

Many things are relevant in their association with the other things. Typical factors would be counts of some things of interest relative to items such as organization unit, role, or person. They can also be tied to some work mechanism such as a system, a process, or location. Some examples would be:

- Number of orders received and the total dollar amount by location for each order type
- Number and size distribution of financial service transactions for each channel of customer interaction type (web, kiosk, branch…)

Possible measurement associations can often be seen directly from the concept model by looking for the direct linkage of concepts (nouns) by the wordings between them (verbs). Some examples would be:

- Number of orders received by and the total dollar amount for each consumer category (link from the consumer to order)
- Number and size distribution of financial service transactions for each financial service type (link from the financial transaction to financial service linkages)

Looking at every direct link in the concept model between concepts will allow us to question whether or not there is some associative measure of importance to the decision making or execution of the business.

Timing of things

I often see organizations initially defining measures in non-comparable ways. When it comes to nailing down useful KPIs the timing factor has to come into play to see trend lines. The examples just above are examples that are still not yet fully formed since we have not defined the period over which we will compare and contrast them. Are we counting daily or annually? The numbers will be hugely different and the reporting period and systems requirements for gathering and consolidating quite different also. By adding in the time factor we now are able to compare apples to apples meaningfully in all places and time periods that we sell apples. Reframing the previous examples would give us useful measurement data to work with:

- Number of orders received by consumer category and the total dollar amount for the category ***per month***.
- Number and size distribution of financial service transactions for each financial service type ***per quarter***.

Ratios

Most of the associative performance indicators are based on counts factored by the counts of other associated things. For example, 'number of orders per customer category per month'. It is typical to see performance indicators report on exceptions to the norm or to the desired outcome as a ratio. Many meaningful indicators are best expressed as a comparison of one count by volume of another such as:

- The percentage of all financial transactions delivered by partners per month.

- The ratio of returned orders over total orders by sales channel per month.

Again, the usefulness of the performance indicator is gauged by how well it informs those who need to know in order to act and change something about how work is performed.

Who cares?

So far, I have delved into the quantifiable part of measurement; counting and comparing the things and associations that are discrete and for which data is more readily available as a bi-product of doing the work so long as we have the capture mechanism or can derive it from our work mechanisms like IT systems. Now the hard part, which is the soft part, comes in. With the unrelenting push toward customer focus comes the question 'how do we know how they feel about us?' Customer journey mapping, customer satisfaction surveys and the drive to customer experience improvement are all aspects of this phenomenon. In an earlier writing I discussed the issue of stakeholder expectations of value and the fact that great experience in terms of how things were being done was not so useful if the main value delivered through the product or service was not up to par. For example, the staff were nice and fast but sold us the wrong product. We have to evaluate both factors in light of the customer expectation. The challenge is that the expectation may be easily met if you do not expect much in the first place. A great example of this is seen in hotel ratings listed online by various travel sites. The super high-end hotels often do not get the best ratings because the expectation of visitors to the hotel anticipated perfection due to the high price they paid. In the same survey ranking list you will often see much lower priced hotels with great ratings because no one expected the features and services of a five-star property in a two-star hotel that was one quarter of the price. Comparables here are much harder to rationalize. Nonetheless we can still evaluate the satisfaction level and the experience perception of the external stakeholder. If this can be captured through counts and associations that may be the best that we can do. Sometimes proxy measures are an easier way to judge this factor although they may be imperfect. For example, can we trust that easily measurable indicators of repeat business are a good indicator of satisfaction or should we ask or do both?

Reconciling the measurement indicators with your current measurement scorecard

We all know that a clean sheet is unrealistic when it comes to defining measurement. There are invariably lots of pre-existing measurements being reported today but are they useful for current managers? A good idea is to reconcile these with your concept model and process architecture measures to see if all your current measures will have a home in our future and to see if any can be retired for better ones based on either the top down or bottom-up point of view.

By cross correlating the list of KPIs to the process hierarchy several questions can be asked:

- Are there too many KPIs for this bucket of work?
- Are there too few KPIs for it?
- Are existing KPIs sufficient or do we need some new ones as well?
- Can we drop any current ones in favor of some new ones?
- Do we have KPIs which have no process associated?

- Does a KPI cover too many processes or should each have more specific indicators?

This is a good sanity check that should be done with the management team to gain commitment on a better way of measuring and of managing.

Measurement opportunities, challenges and the problem of bias

Gathering the data: How much is enough?

As we have seen, measurement can be overwhelming if taken too far. Our challenge is to capture just as much as we need to make good operational and management decisions. It is easy to get caught up in trying to get absolute precision in all our measurement data. If you are fortunate to have measurement data-capture built into all your IT systems, or smart enough to have designed them to capture everything as you go, then congratulations, you are on your way. The challenge is that for all the things you want to know that are not systematizeable you will have to design data capture into your processes and go out and capture that information. At worst, you will have to sample the population of transactions. The question of sampling becomes one of need for statistical significance of the measures and you will have to decide what a sound sample looks like according to the rules of sampling theory so you can remain unbiased and assured. You also have to decide what degree of precision you need since, if not careful, you will expend more energy gathering the data than the effort required to do the work itself. There is a fine line between enough and not worth it. Furthermore, some data may be wonderful to have but the methods to get it may be convoluted and the results unreliable. Perhaps some simple proxy may be better and still give sufficient insight as to what's going on. Attention to how the data can be acquired is an important consideration.

Alignment with personal motivation

There will always be arguments over what data to collect since managers know that if we are going to capture it then someone (herself?) will become accountable for it; something he may shy away from. Performance indicator data and the associated targets are almost always tied to the formal or informal incentives of an organization and the people within it. Peter Drucker is attributed to have said that without measurement it is hard to hold onto staff's attention. He also said the without feedback data it is like having staff hit 'golf balls into the fog'. So long as the individual's measures are in alignment with everyone else's indicators and are traceable to overall strategic objectives then personal incentive will positively push behavior and decision-making in the intended direction. Sadly, much of the time, this traceability and alignment is lacking, and indicators are not well connected. If done poorly, laser focus on the official personal and organizational objectives can actually lead to significant sub optimization and conflict in terms of end-to-end results for the stakeholders and non-realization of strategic intent. Everyone drives toward targets but oftentimes these are the wrong targets since they are biased towards divisional motivations, not the customer. It is imperative that, when deriving the hierarchy of measures to be sought, that it not be done based on the organization chart but on the concept model, process architecture and the results of value streams, all of which are agnostic to the formal organogram. With the right set of performance indicators aligned to value delivery, rather than an arbitrary formal hierarchy that fractures value propositions, we can ask who can take accountability for monitoring and advocacy for whatever needs to be done to attain intended results. Then and

only then can we see how the organization structure can map to the performance hierarchy.

Customer Measurement Bias

There is also a challenge with perception-based measures since it has become easier to ask the customer for their opinion than ever before. So, what is a good measurement strategy? With so much online booking of services and digital delivery it is simple for the service provider to be able to automatically generate surveys for perception-based feedback and scoring. Since I travel a lot, I expect to see survey requests coming at me for everything I do. On a trip in 2019, I had survey e-mails from my airline for each of two flights, from the hotel I stayed at for the few nights and from my restaurant booking company for three restaurants I visited. I responded to exactly none of them. My concern is that we may have reached the stage of survey overload (at least for me) and that we are back into the old realm of the customer comment card in hotel rooms that guests rarely filled out. The only time I filled them out was when I was over the moon by the great service I received (e.g. someone going out of their way to satisfy a critical requirement of mine) or if something happened that was so poorly dealt with, I just had to tell them. Anything in between got no action from me. I have reached the same point with online surveys now. I typically just delete them, and I think I am not alone. I have to wonder how representative the samples are of reality. I call this measurement fatigue. Are too many surveys of customer experience detracting from the actual experience? Furthermore, we have lost the ability, in my opinion, to truly score or trust the results. Differences between vendors and service providers seem to all be between 4 stars and 5. What happened to the real estate from 1 to 4? If we notice that our Uber driver only has a 4.8, we are conditioned to ask what's wrong with the person since it was not a perfect 5 every time. Differences are so minute and offer little in the way of valuable differentiating feedback knowledge that I cannot trust what I see as a consumer. This is made worse when the organization actually games the numbers by telling the customer what the score should be or has fake reviewers who jack up or down the ratings in ethically questionable ways.

The observer effect

In science, the term 'observer effect' means that the act of observing will influence the phenomenon being observed. In business it means that the act of measuring itself will bias the measurement data. We all know from high school physics days that the insertion of a thermometer into a substance may not accurately capture the temperature of the material because it will change it. The classic business example goes back the observations that led to the observation of the Hawthorne effect in which it was shown that when people are watched they change their behavior. Experiments at the Hawthorne Works in the 1920's adjusted working conditions in multiple ways to observe worker productivity. No matter what they did, such as brightening the workplace and then later dimming it, the performance improved but only for short periods. The conclusion was that the fact that workers were getting attention and wanted to please the experimenters was the driving reason not the innovations per se. As a former Industrial Engineer forced to do time studies in full view of the work subjects, I can assure you that the workers did not work the same way when I was not there watching.

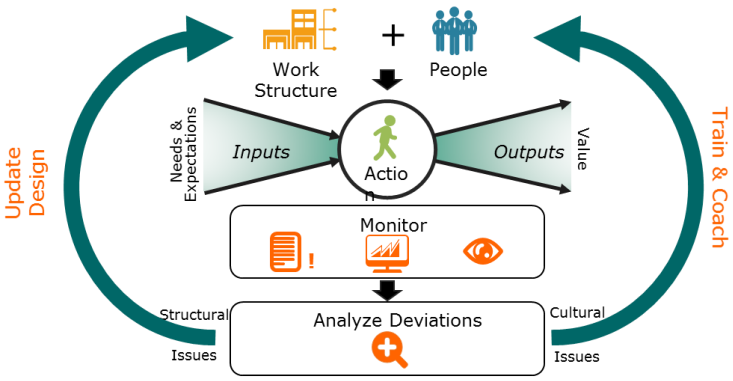
Visibility of measurement data alone can be a blessing if done appropriately. On a recent process improvement exercise we noticed a significant amount of disagreement regarding the straight through processes (STP) rate for loan

applications (% of applications without manual intervention). We got estimates from 40% to 70% from different groups including executives. Once we gathered 100% of the universe of transactions from the preceding year, we found it was unquestionably 55%. The measurement indicator was then added to the scorecard for all branch locations and for all staff to see and within two months the results jumped to closer to 70% with zero process or technology changes. Being aware of the data was a powerful virtuous motivator affecting behavior in its own right.

Discovering bias-free ways of getting the data and aligning them with motivation is as important as the data being sought.

Measurement and Behavior

One of the benefits of measurement is its ability to align process work to results assigned to people, analyse those results and to discover causes of poor process and individual performance. This allows us to help people do better. A problem, however, comes when the organization wants a culture that is different from today and the hard measures are not sufficient to capture the behaviors of the individuals which collectively reflects that culture. The jury is still out on appropriate measures to indicate behavioral consistency with what's needed. There is no simple scorecard to show this yet. It is till our view that defining the behaviors desired under a set of circumstances is a key part of defining requirements. Designing the observation and coaching roles required **(Figure 3)** as part of process design and development is a critical aspect that is often missed. It is an essential complement to measurement.



Measurement and organizational maturity

Making a serious commitment to aligned and traceable measurement is a big ask. It does not mean that your organization has no measurements today and should get some more. You all probably have lots already but a real commitment to foundational measurement as a more formal discipline based on the business architecture and the operating model of the organization implies that responsibilities for measurement outcomes be established and honored. Typically, that requires certain aspects of the architecture be in place. It is hard to assure traceability if no clear strategic framework exists and if no business process architecture is available. If they are not in play, do your best to get some measurement thinking and some common-sense indicators in place while you build out the operating model. If you have these models then determine your performance structure, your indicators and your targets and strive to make measurement a key part of managing. Everything will reconfigure itself because there will be a 'why' to aim for.

Measurement ability builds on the business model and the operating model. Gaining alignment for all and assuring a traceable measurement dashboard and data capture mechanisms will be worth it. These will help us to become better focused on customers and end to end management. With clear strategic requirements framed earlier in our journey, good architectural models for concepts, processes and capabilities and measurable performance, we will be able to prioritize the changes of biggest strategic importance and performance improvement potential as well as the capabilities that should be tackled from which a transformation roadmap can be derived.

Author

Roger T Burlton, P. Eng., CMC, is the President of Process Renewal Group and co-founder of BPTrends Associates, the services arm of the BPM knowledge portal BPTrends.com. He is the author of the thought leading book 'Business Process Management: Profiting from Process'. He is considered the industry leader in the introduction of realistic ways of implementing enterprise Business Architecture and BPM programs as well as innovative approaches for organizational and process change. He is the editor of the 'Business Process Manifesto' which is now available in fourteen languages as well as the 'Business Agility Manifesto' and the set of 'Self management Principles'. He is regarded as a realistic practitioner, who delivers pragmatic solutions for his clients. He has helped over two hundred organizations implement BPM as a corporate strategy in many different industries, countries, and cultures. An exceptional speaker, he has chaired over fifty high profile conferences on Advanced Business Architecture and Process Management around the world. To date, he has conducted over seven hundred seminars and has presented to over sixty thousand professionals. His seminars have been translated for diverse audiences around the globe.