

Key Result Areas and Critical Success Factors

Christena C. Shepherd, M.A.O.M., ASQ-CMQ/OE, CQA

Jacobs Space Exploration Group

Measuring government agency performance is a relatively hot topic, yet the process continues to be problematic to implement. Identifying goals and objectives and determining the right measures is the subject of much literature and discussion, but according to the General Accounting Office (see below), there has been little success in the actual use of performance metrics. Fortunately, there is a logical thought process that can serve to facilitate the identification and implementation of appropriate measures.

In his book titled *Actionable Performance Metrics*, Marvin T. Howell, P.E., introduces the concept of Key Result Areas. Key Result Areas, or KRAs, are aspects of an organization's operations that are key to successful delivery of products or services, essential for strategic planning and continual improvement, tied to mission requirements, and serve to make the connection between Mission/Vision, and Goals/Objectives/ Metrics.



Examples that Howell provides are quality (performance), safety, cost, delivery, timeliness, security, people and service. These KRAs are universal, but may not all be considered *key* at a given point in time, or there may be others. It is important to decide which set of KRAs are truly *key* for your organization. The chain above indicates that metrics should be thought of as part of a system. If tied to the organization's purpose and direction, they become a meaningful way to tell the organization where it stands and where it is headed. Metrics on their own without some type of context may tell the organization something about where it stands, but do not illustrate improvement or negative trends.

Why is this important? For U.S. Federal Agencies, there is the Government Performance and Results Act (GPRA) of 1993, the GPRA Modernization Act of 2010, and the President's Management Agenda. Metrics, or performance measures, are not only essential for improvement, they are required by law. In spite of this, the General Accounting Office issued a report in September 2018, which stated that use of performance information in the federal government has actually declined since 2007.¹ Identifying useful metrics may be the way to reverse this trend and KRAs answer the question "What should we measure?" The system shown above illustrates a logical thought process for identifying what is important, how the organization can establish and implement specific steps to achieve the goal, and what metrics would be useful.

¹ GAO-18-609SP; *Government-wide Actions Needed to Improve Agencies' Use of Performance Information In Decision Making*, Sept. 2018

The table below from the book illustrates the process of identifying KRAs, and then determining the respective goal. Note that the goal is always to improve.

KRA	Goal
Security	Improve security
Communications	Enhance communications
Productivity	Increase productivity
Quality	Focus on quality
Efficiency	Efficient application
Profit	Increase profits
Service	Improve service

Table 1 Turning KRAs into Goals²

KRAs and goals are somewhat broadly stated, but should reflect a sincere desire and effort on the part of the agency to perform its mission and to improve performance continually. Continual improvement is a major aspect of the ISO quality standards, and whether in business or government, if you are not constantly working to improve, things will soon be headed in a negative direction.

Turning goals into objectives is where specificity enters the equation. The term “SMART” Objectives is now commonly used and George T. Doran is credited with being the first to use the concept in 1981. The acronym stands for:

- Specific
- Measureable
- Actionable
- Realistic and Relevant
- Time-Frame

To borrow a phrase from systems engineering where requirements are “decomposed” into a design solution, likewise goals are “decomposed” into objectives. Objectives should point specifically to those actionable steps that need to be taken to achieve the goal. Metrics can be derived from objectives, so objectives should be stated in measureable terms; they should be realistic and specify a time-frame for achievement.

² Howell, Marvin T., *Actionable Performance Metrics*, ASQ Quality Press, Milwaukee, WI, 2006.

In the recent Government Accounting Office Report on the 2014 IRS Future State Plan³, it was noted that little progress has been made in achieving the Plan's Objectives. The objectives were listed as follows:

- Facilitate voluntary compliance by empowering taxpayers with secure innovative tools and support;
- Understand noncompliant taxpayer behavior and develop approaches to deter and change it;
- Leverage and collaborate with external stakeholders;
- Cultivate a well-equipped, diverse, skilled and flexible workforce;
- Select highest value work using data analytics and a robust feedback loop; and
- Drive more agility, efficiency and effectiveness in IRS operations.

When measured against the "SMART" format, the above list fits the definition of goals, rather than objectives, since they are not specific or measureable. When goals and objectives are conflated, managers and employees do not have a clear roadmap for direction of their efforts, and have no way to measure results.

When in 1961, President John F. Kennedy announced the goal of putting a man on the moon by the end of the decade, NASA had to outline many specific technological objectives to achieve the result. These objectives were very specific and a schedule was established. The table below is a very simplified example of the breakdown of the goal, the objectives, and the results; however, it illustrates the process. The KRA was defined as: to win the battle between freedom and tyranny, or in other words, to win the Cold War. The President used this logical thought process as he outlined the KRA, the goal and the objectives in his speech to Congress (bold type is mine):

“Finally, if we are to win the battle that is now going on around the world between freedom and tyranny, the dramatic achievements in space which occurred in recent weeks should have made clear to us all, as did the Sputnik in 1957, the impact of this adventure on the minds of men everywhere, who are attempting to make a determination of which road they should take.

First, I believe that this nation should commit itself to achieving the goal, before this decade is out, of landing a man on the moon and returning him safely to the Earth. No single space project in this period will be more impressive to mankind, or more important for the long-range exploration of space; and none will be so difficult or expensive to accomplish. We propose to accelerate the development of the appropriate lunar space craft. We propose to develop alternate liquid and solid fuel boosters, much larger than any now being

³ Clark, Charles S., *IRS Rebrands Obama-Era "Future State" Efficiency Reorganization*; <https://www.govexec.com/management/2018/10/irs-rebrands-obama-era-future-state-efficiency-reorganization/151884/>

developed, until certain which is superior. We propose additional funds for other engine development and for unmanned explorations-explorations which are particularly important for one purpose which this nation will never overlook: the survival of the man who first makes this daring flight.”⁴

Goal	Objective	Metric
Landing a Man on the Moon by 1969, and return safely.	Human sub-orbital flight by 1960.	First US Astronaut, Sub-orbital flight May 5, 1961 and safe return. Mercury-Redstone 3
	Human orbital flight by 1962.	First Orbital flight February 20, 1962 and safe return. Mercury-Atlas 6
	Seven step plan developed in 1967 to launch and test the rocket and spacecraft incrementally, to maintain schedule. Hardware problems caused a rescheduling of the plan.	Apollo 8 orbited the moon in December, 1968, and returned safely. Apollo 8 was moved forward in the schedule to maintain the 1969 deadline. Saturn V
	Land on the moon by the end of 1969 and return safely	Moon landing by Apollo 11 in July, 1969, with safe return. Saturn V

Table 2 Identifying Objectives and Metrics

Any type of goal, such as improving customer satisfaction, improving safety or quality, or reducing the time it takes to perform a process, has to be decomposed into more specific objectives that give direction about exactly what steps need to be taken. Facilitating, leveraging and cultivating do not really point in any particular direction. It is useful to think in terms of the goal being the “What” and the objective being the “How”.

In his book, Howell includes a few paragraphs at the end on the topic of Critical Success Factors. More information can be found in Dr. J. J. Mairani’s paper titled *Toward the Development of an Enhanced Quality Body of Knowledge for the Reduction of Quality Program Implementation and Sustainment Issues*.⁵ Critical Success Factors, or CSFs, describe the culture of the organization. Mairani includes 38 CSFs, some of which describe an organization that is

⁴ Kennedy, John, F., *Excerpt from the Special Message to the Congress on Urgent National Needs*, May, 1961, retrieved from https://www.nasa.gov/vision/space/features/jfk_speech_text.html

⁵ Mairani, Jerry J.; *Toward the Development of and Enhanced Quality Body of Knowledge for the Reduction of Quality Program Implementation and Sustainment Issues*; California Coast University, 2015.

supportive of the employees and customers, has commitment from executives, and has a supportive quality culture. Other CSFs in his list describe effective systems and processes relating to both management and to the product or service. CSFs illustrate Dr. Joseph Juran's "Big Q" (quality management system) and "Little Q"⁶ (quality of product or service). Without the right culture or CSFs, the best laid goals and objectives are unlikely to be realized. It should be noted that these aspects of effective systems and processes and a supportive culture are included in ISO 9001:2015, *Quality Management Systems-Requirements* and the *Baldrige Excellence Framework*. To emphasize the importance of CSFs, almost any investigation report in which a thorough root cause analysis is performed, will identify a lack of such cultural factors as management commitment and effective processes.



Figure 1 The Complete System

Jerry Z. Muller in his article for Government Executive, *The Problem With Metrics*, discusses the negative aspects of metrics, or "metric fixation": problems go unreported or operations with higher risk are not undertaken in order to make the data look better than it is in reality, or to avoid negative numbers.⁷ Another negative that he mentions is the potential cost of compiling the data with little return on the investment. Associating metrics with Key Result Areas, can serve to mitigate these negative effects, in that the process of identifying goals and objectives will point to truly key areas for accomplishments and improvements, thereby putting the focus on the organization rather than the employee. The supportive culture and effective processes described by Critical Success Factors are also essential to ensure both the

⁶ Bailey, Dawn M.; *Big Q, Little Q, and Baldrige*; Quality Digest; December 2014; retrieved from <https://www.qualitydigest.com/inside/quality-insider-column/big-q-little-q-and-baldrige.html#>

⁷ Muller, Jerry Z.; *The Problem With Metrics*; Government Executive report; *The Push for Performance*; August 2108; retrieved from <https://www.govexec.com/assets/push-performance/portal/?oref=ge-digest>

accomplishment of goals and objectives, and the mitigation of the above-mentioned negative use of metrics. Figure 1 illustrates a complete system for support of the agency's mission, with CSFs being central to achieving the intended results.

References

- Bailey, Dawn M.; *Big Q, Little Q, and Baldrige*; Quality Digest; December 2014; retrieved from <https://www.qualitydigest.com/inside/quality-insider-column/big-q-little-q-and-baldrige.html#>
- Clark, Charles S., *IRS Rebrands Obama-Era "Future State" Efficiency Reorganization*; October 2018; retrieved from <https://www.govexec.com/management/2018/10/irs-rebrands-obama-era-future-state-efficiency-reorganization/151884/>
- GAO-18-609SP; *Government-wide Actions Needed to Improve Agencies' Use of Performance Information In Decision Making*, Sept. 2018.
- Kennedy, John, F., *Excerpt from the Special Message to the Congress on Urgent National Needs*, May, 1961, retrieved from https://www.nasa.gov/vision/space/features/jfk_speech_text.html
- Mairani, Jerry J.; *Toward the Development of and Enhanced Quality Body of Knowledge for the Reduction of Quality Program Implementation and Sustainment Issues*; California Coast University, 2015.
- Muller, Jerry Z.; *The Problem With Metrics*; Government Executive report; *The Push for Performance*; August 2108; retrieved from <https://www.govexec.com/assets/push-performance/portal/?oref=ge-digest>
- Powell, Marvin T.; *Actionable Performance Measurement*; ASQ Quality Press; Milwaukee, WI, 2006.
- Risher, Howard; *Metrics are for Playmakers*; retrieved from https://www.govexec.com/excellence/management-matters/2018/09/metrics-are-playmakers/151400/?oref=govexec_today_nl