



QUANTIFYING THE FUTURE



Measuring and Managing Organizational Performance in the Government

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Overview

- Implementing a Performance Management Process
 - GPRA and GPRA Modernization Act of 2010
 - Four Key Areas of Measurement
 - Using Program Management Tools
- Metric Development
 - Goal Question Metrics
 - Informational vs. Motivational Metrics
 - Suboptimization
 - Measurement Framework
- Meaningful Analysis
 - Cost Drivers and Forecasting
 - EVM Tree Map
- Results

GPRA

“

(a) Findings.-The Congress finds that-

- (1) **waste and inefficiency** in Federal programs **undermine the confidence of the American people** in the Government and reduces the Federal Government's ability to address adequately vital public needs;
- (2) Federal managers are seriously **disadvantaged in their efforts to improve program efficiency and effectiveness**, because of insufficient articulation of program goals and **inadequate information on program performance**; and
- (3) **congressional policymaking, spending decisions and program oversight are seriously handicapped** by insufficient attention to program performance and results.

(b) Purposes.-The purposes of this Act are to-

- (1) improve the confidence of the American people in the capability of the Federal Government, by **systematically holding Federal agencies accountable** for achieving program results;
- (2) initiate **program performance reform** with a series of pilot projects in setting program goals, measuring program performance against those goals, and reporting publicly on their progress;
- (3) improve Federal program effectiveness and public accountability by promoting a **new focus on results, service quality, and customer satisfaction**;
- (4) help Federal managers **improve service delivery**, by requiring that they plan for meeting program objectives and by providing them with information about program results and service quality;
- (5) improve congressional decision making by providing **more objective information** on achieving statutory objectives, and on the relative effectiveness and efficiency of Federal programs and spending; and
- (6) **improve internal management** of the Federal Government. ”

-Government Performance and Results Act (1993)

GPRA Modernization Act of 2010

- More frequent reporting and reviews
- New requirements to designate cross-cutting federal priority goals and agency level priority goals
- Quarterly reviews requirement
- Better training for program managers
- Codification of governance framework:
 - chief operating officers
 - program improvement officers
 - government performance improvement council
 - government performance web site
- Requires link between agency's annual performance goals and its strategic goals and resources required to achieve them
- OMB enforcement
 - 1st year unmet goals: performance improvement plan to OMB
 - 2nd year: Submit plan to congress, outline any added funding to meet goal
 - 3rd year: Director of OMB submits recommendation to Congress RE: reauthorization, statutory changes or executive actions

Efficiency

Private

- Units Output vs. Units Input
- Objective: maximizing profit

Government

- How well agency implements its goals
- Objective: maximizing social capital

Reluctance to Change

Argument



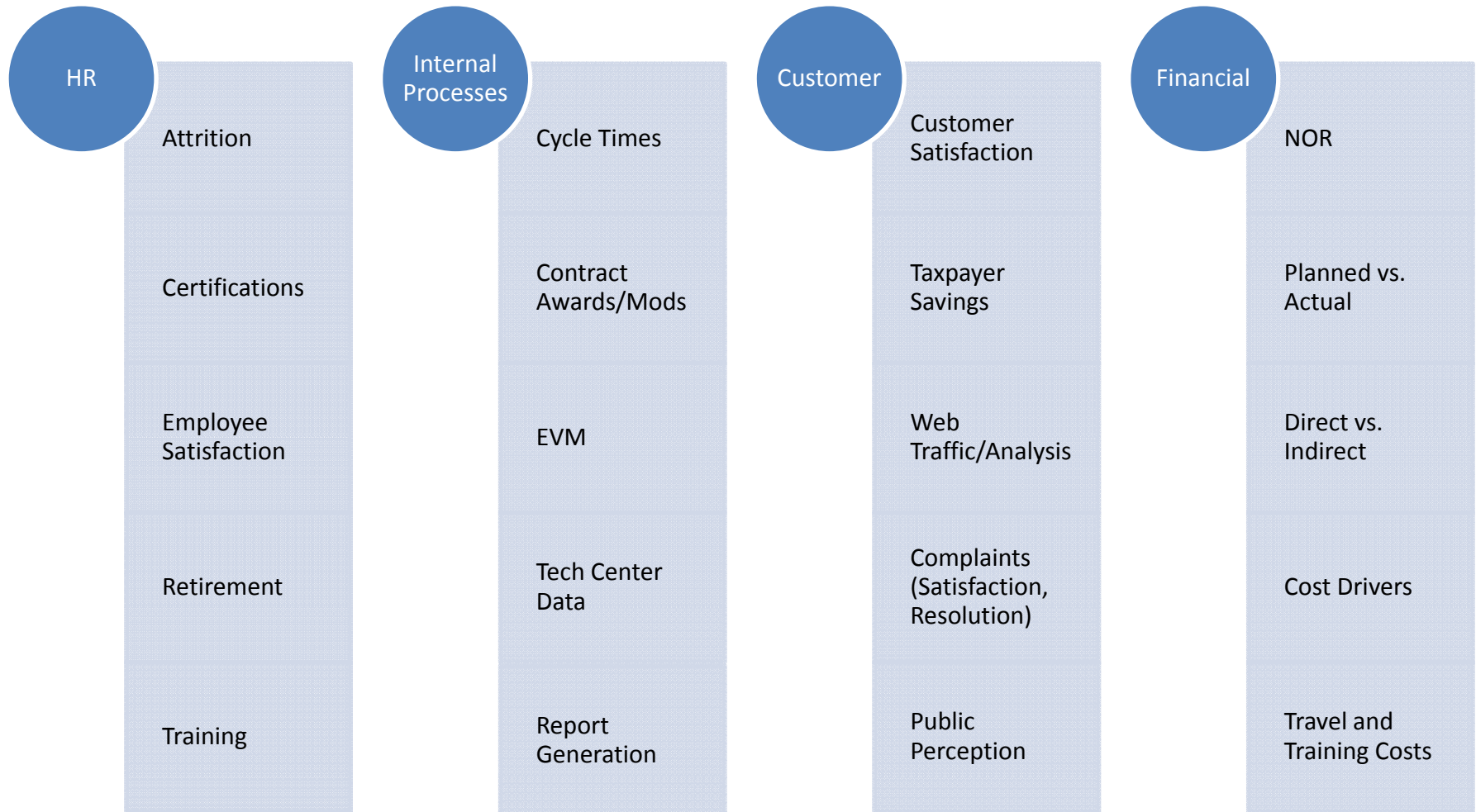
- There is no data
- It is too difficult to measure what I need
- People won't want the added task of reporting data
- Disconnect between what is reported and the resulting analysis (it's too fancy or complicated)

Answer

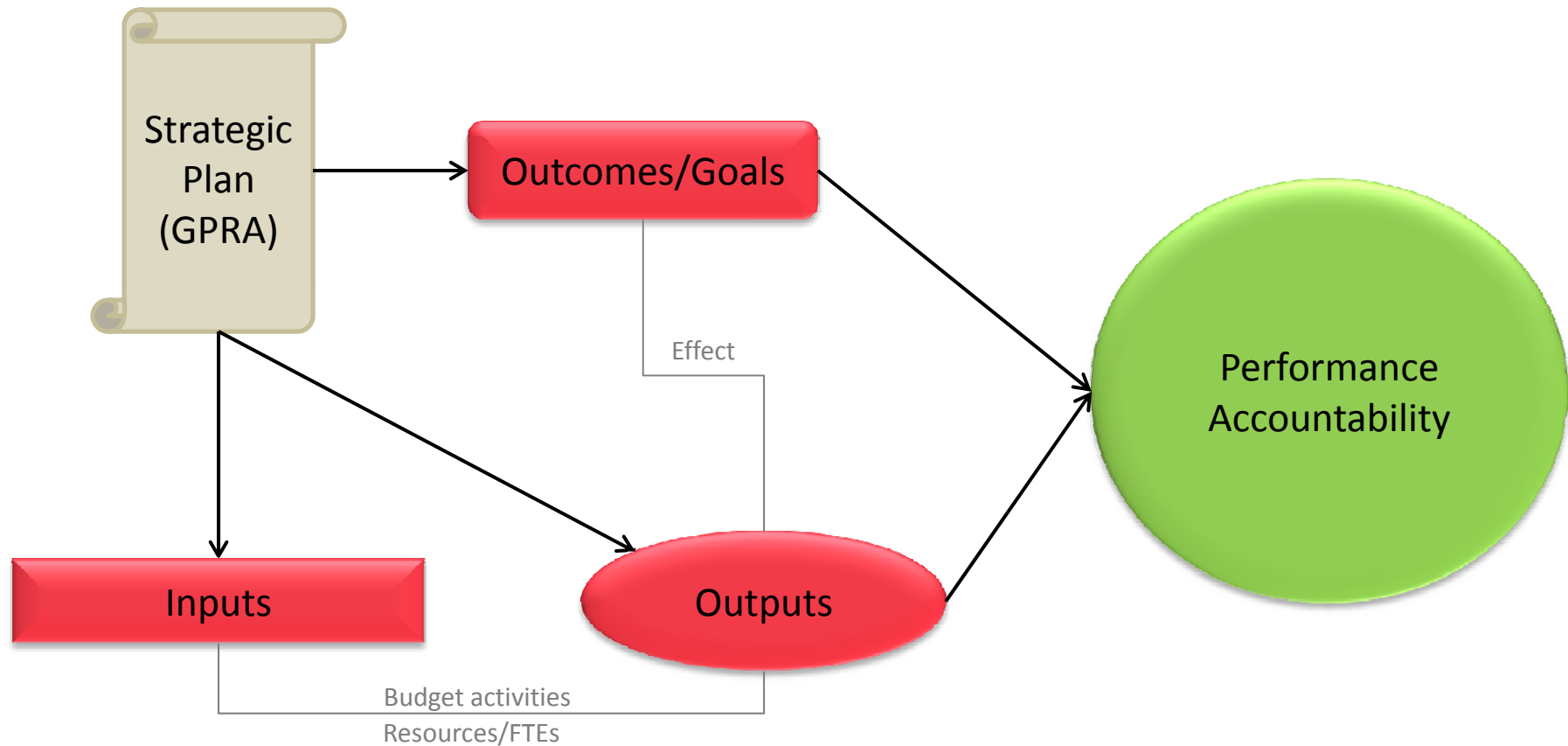


- Data is routinely tracked in agencies, but often it is not shared or made readily available
- A little creativity can shed light on a simple method to measure. Start small and refine as necessary.
- Odds are, they're collecting it anyway, and probably inefficiently. When it's built into their performance plans, they'll adapt to the new culture.
- This is a trust issue as well as a communications issue. Present facts and clear recommendations.

Four Key Areas of Measurement



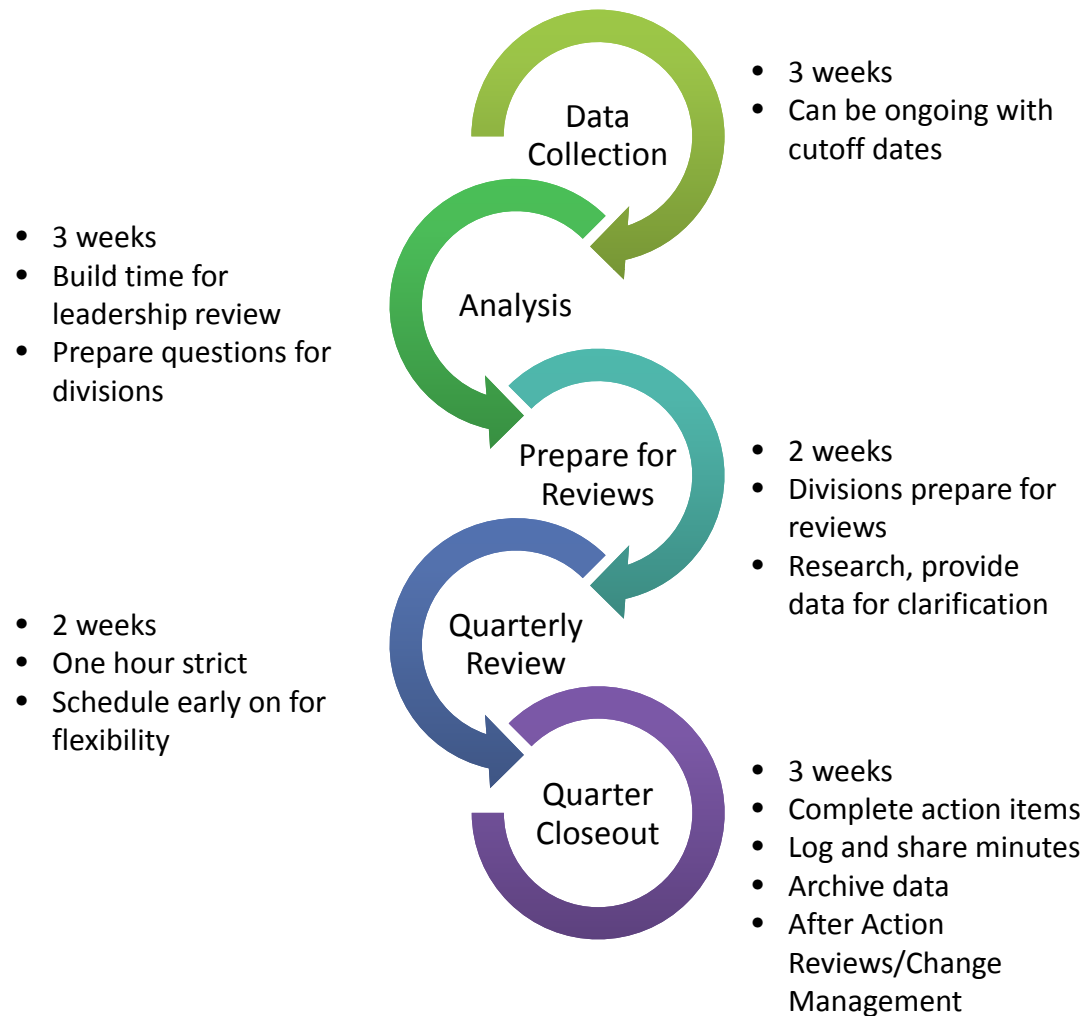
Establishing Knowledge Gaps



Consider the Systems Approach

- Each project manager or division leader is concerned with optimizing his own “herd”
 - No regard for impact to other teams
- Limits-to-Growth model
 - Attempts to improve organization succeed initially but ultimately fail
- A systems view forces everyone to look at the big picture
 - Identifies inter-related processes, potential duplicate functions, shareable resources

How Project Management Can Help



Metrics

Goal Question Metrics

A good measurement can answer the following questions:

- What strategic initiative does this measurement support?
- Knowing this measurement will enable what to improve?
- What is the value added from this information?
- How will you know if you've succeeded?

If I achieve goal _____, then I will observe _____



Goal:

The end toward which effort
is directed
(Happy Customers)



Metric:

A standard to measure such
effort
(Customer Sat Survey Score)

The Rule of Five

Consider a sample population of size n where n is large*.

The odds of choosing a data point below or above the median is 50%.

The odds of choosing five points that are either all above or all below the median is:

$$(0.5)^5 = 0.03125 = 3.125\%$$

Likewise, the odds of choose five points which are not all above or below the median is:

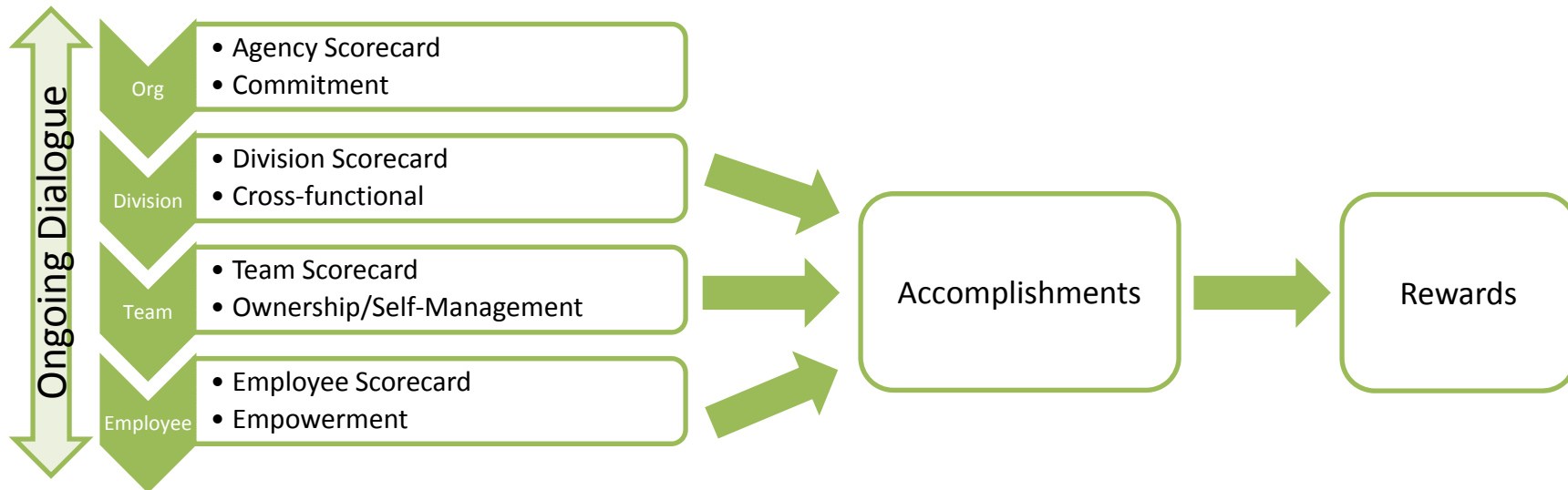
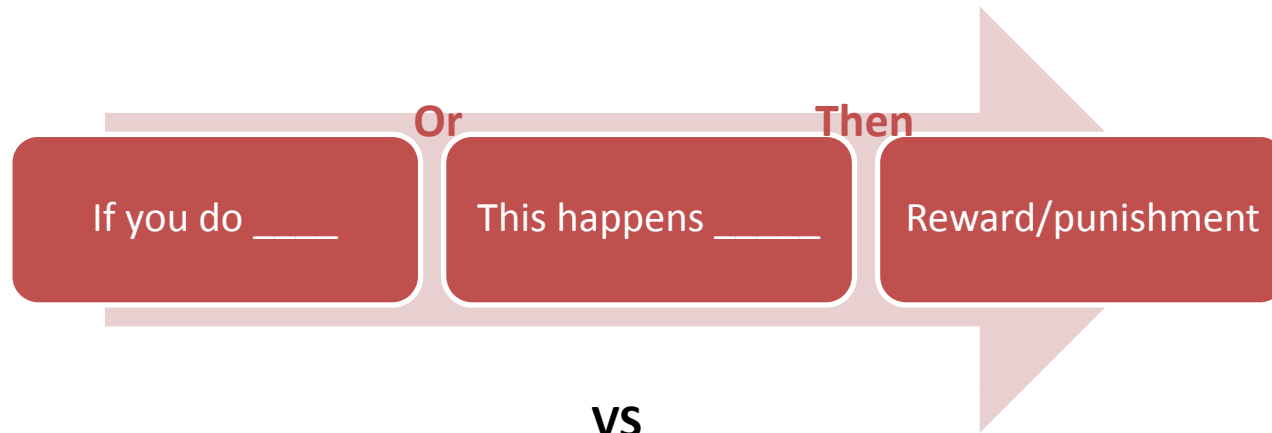
$$1 - (0.03125 * 2) = 0.9375 = 93.75\%$$

Therefore:

Given a random sample of 5 data points, there is a 93.75% chance the median of the data set is within the sample's range.

*Don't freak out...this is a way to dip your toe in the water before considering a serious effort. It's not rigorous by any means.

Motivational vs Informational Metrics



Suboptimization

Definition:

- “Focusing on, or making changes to, one component of a total system, without consideration of the impact on the whole.”¹

Avoid measurement silos

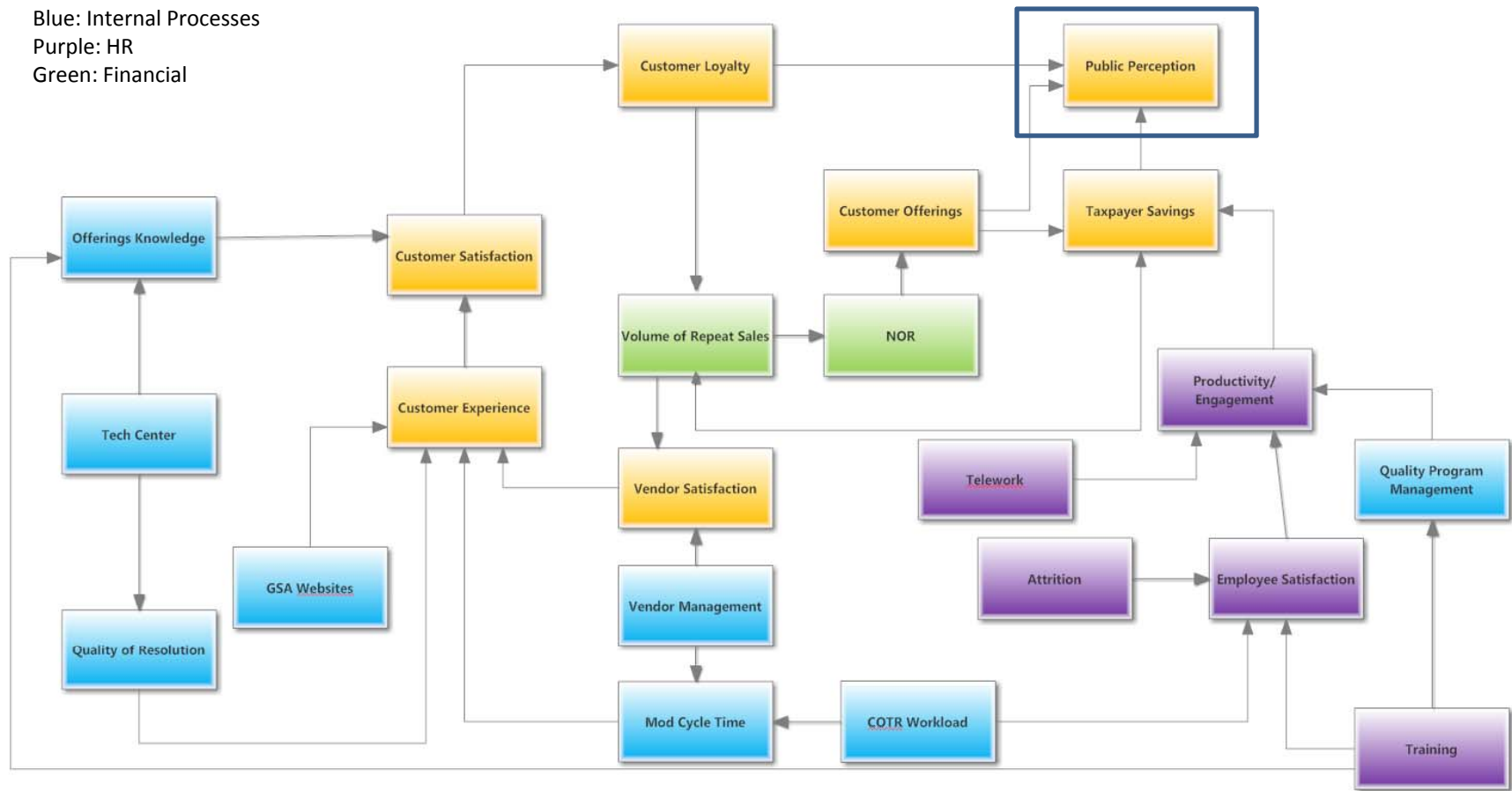
- E.g. Managing according to the budget
- Static metrics that are never reviewed/changed when no longer useful

Example:

- “Use it or lose it”
- Personal Experience: Training
- Can lead to cheating

Measurement Framework

Yellow: Customer Service
 Blue: Internal Processes
 Purple: HR
 Green: Financial



Framework for Strategic Goal to Improve Public Perception

Analysis

Delving into Analysis

- Cost Drivers: Linear Regression
- Operations Research
- Stats:
 - Mean, Median, Mode
 - T-tests, tests to reject null hypotheses
 - Monte Carlo
 - Forecasting
- Stop Light Charts
- EVM Tree Maps

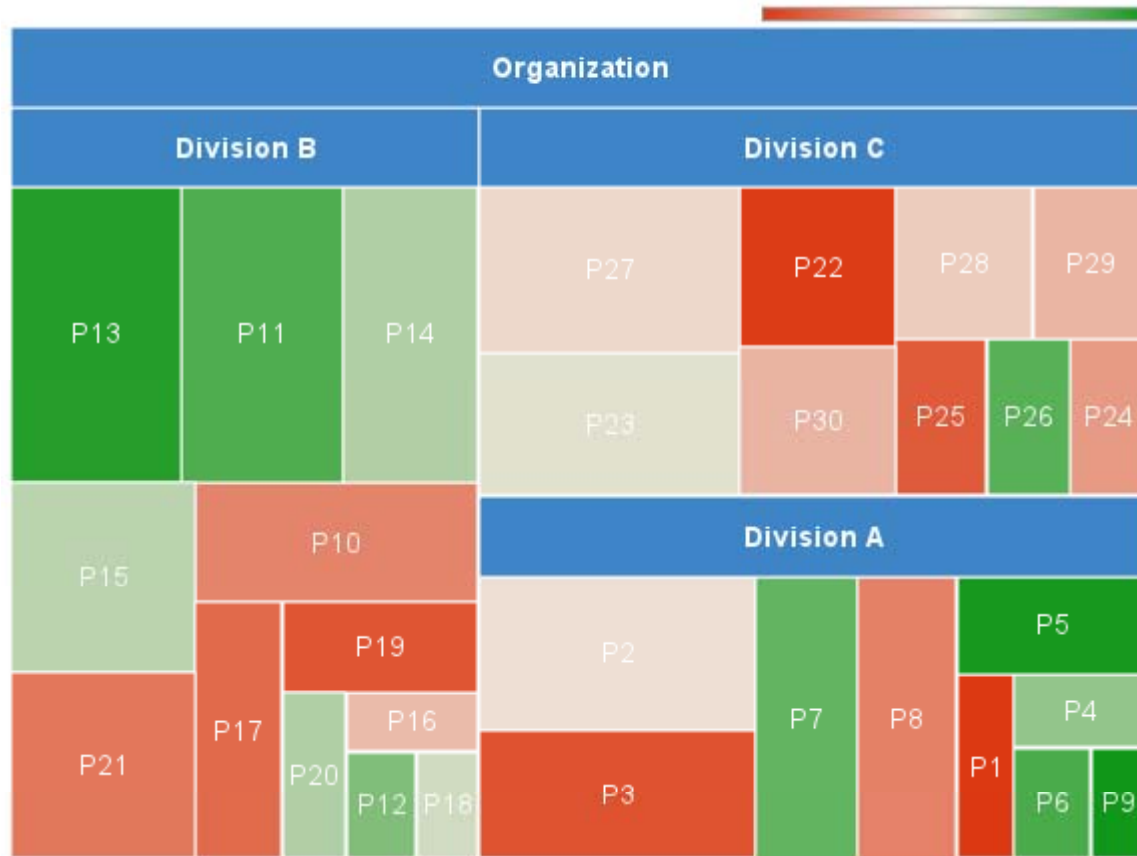
Examples

- Standard Service Costing
 - Cost drivers for each service
 - Can translate to major budget categories
- Correlation between Grade and Training \$
- Does increased telework reduce operating expenses?
- How much of attrition is retirement? Transfer to other gov agencies? Termination? Separation?
 - What is projected retirement eligibility for next ten years?
 - How does this translate to actual forecasted retirements?
 - How many leadership and critical positions are at risk for attrition?
- Is a change in a survey score/satisfaction rating statistically significant?

Cost Drivers and Forecasting

- Linear Regression
 - Normalization/Denormalization
 - ANOVA
 - Outlier analysis
- Forecasting
 - Budget and revenue
 - Retirement-> Future knowledge gaps
 - Use historical data and future eligibility
 - Training
 - Given the budget, positions where certification is required, and training left to achieve certification can determine when desired % is achieved (“It will take approximately x years to have 95% of these positions certified”)

EVM Tree Map



- Can do just Critical Ratio or SPI, CPI and CR
- Visual for leadership overview, data for further exploration
- Size of box=size of budget

Results

- Analysis of RPAs for vacant positions showed that hiring lag was due largely to delays in posting positions, not HR processing time. Reduced agency hire lag from 9 months to 3.
- Analysis of retirement eligibility spurred a much needed (and often avoided) conversation regarding the agency's future and its mentorship programs
- Review of the agency's process for modifications to contracts on vehicles showed a large misunderstanding between customer perception (the agency was dragging their feet) and reality (the agency turned the mods around quickly but vendors were slow to respond). The agency was better able to handle their customers expectations, work more carefully to ensure quick vendor response, and better outline the mod process and the agency's and vendor's responsibilities.

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