Transforming the Sponsored Programs Office: Steps Towards a Holistic Assessment Framework

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Introduction

In this study, we carried out a diagnostic evaluation of overall service quality and organizational culture at the UPRM R&D Center (Pre and Post-Award Divisions).

- *Perceived Service Quality* is determined by the discrepancy between investigators' expectations and actual service performance.
- *Organizational Culture* is defined as a function of trust, measured by employee perceptions about information flow within the organization.

The aims of the case study are to support data-driven decision-making at UPRM, and to contribute to the development of the fields of research development and administration by enabling other institutions to carry out similar assessments.

Context of the Study

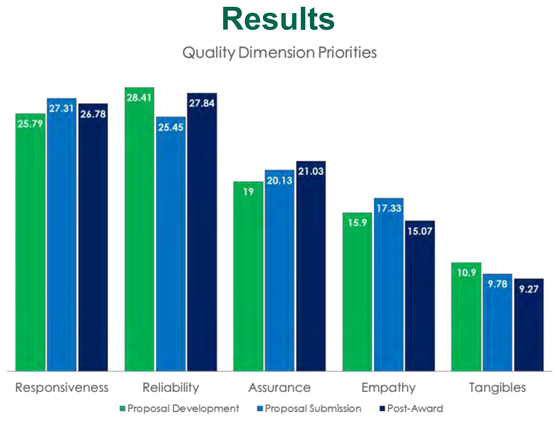
- The UPRM R&D Center provides Pre and Post-Award support to investigators under a unified academic leadership/supervision model. Maintaining research stakeholder support for the Center in Puerto Rico's challenging fiscal environment requires evidence of data-driven initiatives and continuous improvement efforts, and measurable results.
- While the R&D Center tracks and publishes its research metrics, this is the first time it has engaged in a formal assessment of *service quality* and *culture*. These variables will be measured over time, along with *service time metrics*, to guide improvement initiatives and document unit strengths.

Methodology

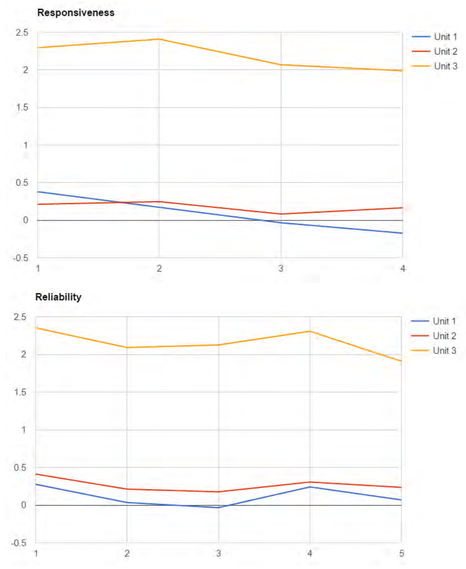
- A modified ServQual instrument was prepared in Qualtrics and provided to investigators.
  - Pre-Award evaluations were divided by office (Proposal Development and Proposal Submission), as each component unit maintains its own record of services provided.
  - The Post-Award Division was grouped under one evaluation, distributed to PIs and Co-PIs of all projects in UPRM's Kuali Coeus database.
  - To increase response rates, staff who have developed positive relationships with researchers sent follow-up emails, and faculty were visited in their offices.
- Forsgren's organizational culture questionnaire was translated to Spanish and, after IRB approval and discussion with a union representative, was provided to R&D Center staff.
- After the response windows closed, statistical analysis and text mining were carried out on the data to determine unit gap scores and visualize comment content.

Voyant Tools is an open-source program that facilitates basic text mining functions.

Results



Investigator priorities by unit. Responsiveness and Reliability were prioritized over all other aspects.



Comparison of unit gap scores for the Responsiveness and Reliability dimensions. A positive gap score indicates investigator expectations are not being met. Larger gap scores indicate areas with more room for improvement. A negative gap score indicates expectations are being exceeded.

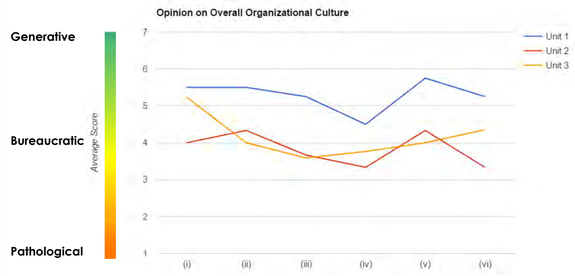
Data-driven Decision-making

Priority	Dimension	Item	Gap Score	Initiative Impact
4	*Empathy*	Giving researchers individual attention	-0.2	Unit Strength
4	*Empathy*	Having employees who give researchers personal attention	-0.03	Unit Strength
4	*Empathy*	Having their researcher`s best interests at heart	0.05	Unit Strength
4	*Empathy*	Their employees understanding the specific needs of their researchers.	0.08	Unit Strength
2	*Responsiveness*	Their employees never being too busy to respond to researchers' requests	0.1	Unit Strength
2	*Responsiveness*	Their employees are always willing to help researchers.	0.23	Limited Impact
3	*Assurance*	Their employees being consistently courteous with researchers	0.23	Limited Impact
1	*Reliability*	Showing a sincere interest in solving researchers' problems.	0.25	Limited Impact
1	*Reliability*	Insisting on error-free documents	0.25	Limited Impact
4	*Empathy*	Having operating hours convenient to all their researchers	0.28	Limited Impact
5	*Tangibles*	The physical environment is welcoming	0.29	Limited Impact
3	*Assurance*	The behavior of their employees instilling confidence in researchers	0.32	Limited Impact
1	*Reliability*	Performing the service right the first time	0.33	High Impact
3	*Assurance*	Their employees having the knowledge to answer researchers' questions.	0.35	Medium Impact
5	*Tangibles*	Their employees are neat in their appearance	0.38	Low Impact
3	*Assurance*	Researchers feeling safe in their proposal design decisions.	0.42	Medium Impact
5	*Tangibles*	Have modern looking equipment.	0.44	Low Impact
5	*Tangibles*	Materials associated with the (pamphlets or statements) are visually appealing	0.47	Low Impact
2	*Responsiveness*	Their employees giving prompt service to researchers.	0.57	High Impact
5	*Tangibles*	The physical facilities are responsive to investigator`s workspace needs.	0.58	Low Impact
5	*Tangibles*	The physical facilities are conducive to productive work.	0.67	Low Impact
2	*Responsiveness*	Telling researchers exactly when services will be performed	0.75	Critical-High Impact
1	*Reliability*	Providing the service at the time they promise to do so	0.89	Critical-High Impact
1	*Reliability*	Promising to do something by a certain time, and doing so	0.92	Critical-High Impact

Prioritization matrix with unit strengths and anticipated impact of improvement initiatives, based on gap scores and researcher priorities.

Culture: Predictor of Team Performance?

Question	On my team…
(i)	Information is actively sought.
(ii)	Failures are learning opportunities, and messengers of them are not punished.
(iii)	Responsibilities are shared.
(iv)	Cross-functional collaboration is encouraged and rewarded.
(v)	Failure causes enquiry.
(vi)	New ideas are welcomed.



Comparison of average organizational culture scores. For the self-assessment, units evaluated their own office. For the overall score, participants were asked their opinion about all the units of the R&D Center.

Research Metrics

- Obtained from Kuali Coeus (eRA) and university financial systems. These will be expanded to include broader research activity and research impact indicators.

Service Quality (Clients)

These external metrics provide insight about value delivery and customer satisfaction.

Five Dimensions to Service Quality

- *Responsiveness* – encompasses promptness, scheduling, and attitudinal aspects.
- *Reliability* – timeliness and professional knowledge.
- *Assurance* – knowledge, courtesy, and ability to convey trust and confidence.
- *Empathy* – caring, individual attention.
- *Tangibles* – physical facilities, equipment, personnel, and communication materials.

Parasuraman, A., Zeithml, V. A., & Berry, L. (1991). "Refinement and Reassessment of the SERVQUAL Scale."

Unit scores for each dimension are measured through the use of a modified ServQual instrument.

A gap analysis is performed to quantify the difference between investigator expectations and perception of services received. This information is used to drive improvement efforts (annual process).

To view a sample ServQual instrument, visit:

http://www.developresearch.net/servqual/

Organizational Culture (Staff)

Organizational culture is a factor that correlates with performance and predicts job satisfaction (Kelk, 2016). It can impact the outcome and sustainability of improvement efforts.

Westrum's (2004) typology identifies three types of organizations:

- *Pathological* – "characterized by large amounts of fear and threat. People often hoard information or withhold it for political reasons, or distort it to make themselves look better."
- *Bureaucratic* – "protect departments. Those in the department want to maintain their 'turf,' insist on their own rules, and generally do things by the book — their book."
- *Generative* – "focus on the mission. How do we accomplish our goal? Everything is subordinated to good performance, to doing what we are supposed to do."

Westrum, R. (2014) "The study of information flow: A personal journey."

Forsgren (2014) developed an instrument to assess culture at your organization. View this instrument at:

http://www.developresearch.net/culture/

Service Time Metrics (Processes)

These internal metrics can be used to identify process bottlenecks, inefficiencies, and areas that require additional resources:

- *Lead time* – "elapsed time from receiving a customer request to delivering on that request."
- *Process time* – "begins when the work has been pulled into a doing state and ends when the work is delivered to the next downstream customer."
- *Wait time* – "The time that work sits idle not being worked."
- *Work-in-progress* – "the amount of work in a system that has been started but not finished [at a given point in time]."

IT Revolution (2015) "Metrics for DevOps Initiatives."

Obtaining this information in a standardized, reliable way will require implementation of a Request Tracking System, such as:

osTicket Zendesk JIRA Suggestions?

Is your office/institution using a request tracker? I'd love to hear your thoughts!

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