STATE OF IDAHO PROCUREMENT OF IT SERVICES

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ABSTRACT: The State of Idaho, Division of Purchasing has identified the traditional procurement system as a source of risk to the State and their constituents. Using a new paradigm of treating the delivery of services as a supply chain, the State has embarked on the procurement of several large service projects, including a $36 Million Student Health Insurance Program and a $30 Million Division of Motor Vehicles Information Technology system. The new paradigm requires the State and their end users to minimize management, direction, and control of the vendors. The test of this new paradigm has identified the obstacles and challenges to successfully transfer risk and accountability to the vendors.

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INTRODUCTION

The traditional procurement process has several major entities involved in the procurement and award of a service (Bennet, 1990; Gordon, 1994; Masterman, 1996). First there are the clients, or end users, that are requesting a project or service. They have particular needs and expectations. Then you have procurement personnel that are responsible for contracting with a service provider or vendor. And lastly, you have the service providers or vendors that will propose on the project and ultimately one of the vendors will be awarded a contract.

Projects that are not awarded to the lowest bidder are awarded through a Request for Proposal (RFP) process. In a typical RFP for the procurement of services, the following occurs (Kashiwagi, 2011; Sullivan et. al., 2010; Liao, 2002; Andersson, 2002):

1. An end user puts together a group of individuals with technical experience and expertise to generate technical requirements. In some cases, these individuals use their personal experience and expertise to determine what they believe is the best solution to their problem. In other cases, these individuals may not know what the best solutions are, so they seek help from the industry experts or consultants. Vendors will often form relationships with these individuals and provide gratis technical support and suggestions with hopes that their ideas/systems will become the technical requirement of a solicitation.
2. Once the technical requirements and minimum standards are specified, procurement personnel add boilerplate terms and conditions and then issue an RFP to a targeted supplier community.
3. The vendors then interpret the technical requirements and standards and submit a proposal to meet these requirements.
4. Once the proposals are submitted, the procurement personnel review the responses for compliance with the RFP instructions and requirements. Proposals that meet all of

the instructions are then provided to the end users for review.

5. Evaluators, who normally are the same personnel who prepared the technical requirements, will then review the responses. These individuals develop evaluation criteria based on what they know, heard, or what they have seen in the past. This may be the reason why individuals oftentimes revert to their own comfort level in working with a particular vendor. This bias inadvertently becomes a primary evaluation factor. At the end of the evaluation process, the technical individuals will make a decision on which system or vendor they believe is the best option.
6. The procurement personnel will then negotiate any terms and conditions and sign a contract with the vendor.

The fallacy in the typical public procurement process is that owners do not know what experts truly look like. In this model, since the RFP is based on technical requirements put together by the end-users, the process of decision making may become very subjective, biased, and prone to protests. Since the end user has specified what the solution must be, and subjectively made a decision on the best solution, if the awarded vendor cannot actually do the work, the owner has a problem. Moreover, each group of individuals in their respective part of the procurement process often wants to manage, direct and control the process.

PROBLEM

Owners in the public arena have faced many problems with the typical procurement process in the last 20 years. Some of the difficulties have been as follows (Cahill and Puybaraud, 1994; Egan, 1998; Adrian, 2001; Chan, and Chan, 2004; Flores, and Chase, 2005; CFMA's, 2006; Lepatner, 2007; Grady, 2010; Lesca and Caron, 2008; Schneider, et. al., 2009; Al-Ahmad, Al-Fagih, et. al., 2009; Computer Weekly, 2010; Post, 1998):

1. Inability to defend protests
2. Cost overruns

3. Project time delays
4. Unsatisfied clients
5. Poor quality of service

Many of these problems have been identified in the State of Idaho's procurement system. The authors propose that the traditional public procurement model must be changed. The process change must involve the entire supply chain and the procurement department may be one of the best organizations to change the process. A process must be identified that (Kashiwagi, 2009; Meyer, et. al., 2010; Kashiwagi, 2012):

1. Minimizes the subjective decision making by the client's technical personnel
2. Identifies the best value expert vendor while minimizing the client's decision making Allows the vendor to take responsibility and control in the delivery of the service
3. Requires the vendor to clearly layout their plan and address how they will complete the service
4. Requires the vendor to document their previous service and provide dominant performance metrics to show project capability

THE BEST VALUE PERFORMANCE INFORMATION PROCUREMENT SYSTEM (PIPS)

The State of Idaho was first introduced to the PIPS process in early 2008, and subsequently contracted with ASU to train, mentor, and assist the State of Idaho on several best-value implementations. The Performance Information Procurement System (PIPS) is a procurement and management tool developed at Arizona State University. This system has been tested and refined on over 1,000 projects during the past 18 years. The major concepts behind the process focus on the five tasks identified in the hypothesis. The PIPS process is made up of 3 major components or phases, including (PBSRG, 2012; Kashiwagi, et. al., 2003; Kashiwagi, et. al., 2009; Sullivan and Michael, 2008; Goodridge, et. al., 2007; Adeyemi, et. al., 2009):

- Phase 1 – Identification of the Potential Best-Valued Vendor
- Phase 2 – Clarification Phase and Pre-Planning, and Contract Award
- Phase 3 – Post Award Performance Metrics and Documentation

During Phase 1, the client prepares and issues a best-value RFP. Vendors must then respond to the RFP by providing past performance information on the firm and key personnel, providing a brief and concise proposal of project capability, a risk assessment plan of the project, value added ideas, and a cost proposal to meet the client's intent of this project. Additional functions such as interviews of key personnel and product demonstrations (on IT projects) may also be performed. The purchasing officer will then prioritize the competition based on all of the evaluated criteria.

During Phase 2, the client will invite the highest ranked proposal into the clarification period. In this phase, the vendor will preplan the project/service and clarify their proposal with the objective of having the buyer accept their offer as the best value. They must identify what is included and excluded from their proposal, identify their assumptions, and identify all of the risks that they do not control. If the client is satisfied with their clarification, the procurement officer will then proceed to issue an award.

During Phase 3, the awarded vendor will provide weekly risk reports that document any impacts or deviations from the awarded cost or schedule. The vendor will also document and provide performance metrics on the project or service.

At first glance, the PIPS process seems very similar to traditional RFP process however, there are many differences. One of the largest differences is that the PIPS process looks at the entire delivery of a project (from project inception all the way until the project or service is complete). Most traditional processes focus entirely on the selection phase of the project, and do not take into account pre-planning or post award performance. The following are additional

differences between the PIPS process and traditional systems (Kashiwagi, 2012):

- Identification of Project Requirements / Scope of Work: The requirements and scope of work can be generated in the same manner as they are done in a traditional procurement. Because the buyer and their technical representative are not experts (otherwise they would be doing the work), the buyer simply identifies the "intent" of the owner. Each vendor identifies what they will offer, and the buyer must then select the best value. In the end, the expert or the best value vendor will determine what is being delivered. .

- Detailed Proposals: In traditional procurements, vendors are allowed to submit marketing brochures and binders containing hundreds of pages of very detailed technical information. In the PIPS process, the proposals are limited to a handful of pages (2pages), which must be simple, concise, and dominant (information that minimizes the decision making of the buyer and user's technical expertise.)

- Technical Evaluations: Unlike traditional processes, in the PIPS process the evaluators do not need any technical experience or expertise on the service being procured. Since the proposals are no longer technical in nature, evaluators are simply required to use common sense and logic. To assist the evaluators in not making decisions, an evaluation scale of 1-5-10 is used to evaluate and score all data. This prevents the evaluators from ranking proposals, or looking for minor differences to determine a 6 rating or a 7 rating (as is done in traditional procurements that are rated on a 1-10 scale).

- Preplanning: The goal of most procurement personnel in a traditional environment is to make an award as soon as possible. This environment has attributed to the lack of preplanning done on both the vendor and end user. In the PIPS process, a dedicated period of time is set aside for

preplanning. This is done prior to award to enforce the importance of this period to all parties.

- Post Award Performance Metrics: In the PIPS process, the vendor is required to provide dominant performance metrics that can clearly show their performance on the project or service. Although many service vendors can provide a vast array of post award data, it is very challenging for vendors to actually minimize the data and convert it into useful performance information.

HYPOTHESIS

The authors propose that the Performance Information Procurement Process could minimize the current problems with procuring services in the public sector.

Methodology

To test this hypothesis the State of Idaho implemented PIPS on two services:
1. State of Idaho Student Health Insurance Plan
2. State of Idaho Division of Motor Vehicles Software System

This paper will review the implementation and results of the PIPS on both of these services.

STATE OF IDAHO STUDENT HEALTH INSURANCE PLAN

The first contract that the State of Idaho procured was for a health insurance plan for Boise State University, Idaho State University, and Lewis and Clark State College. The goal of the procurement was to minimize internal University resources, maintain or increase customer satisfaction, and maintain or increase cost-effectiveness of program to the students.

A best-value PIPS RFP was created that outlined the current conditions and expected goals of the program. As a consortium, the three Universities were able to standardize the majority of their benefits. Proposals were evaluated on a 1,000-point system based on: premium rates, a risk assessment plan, a value assessment plan, a work plan, past performance information, and interviews of key personnel.

Vendors were allowed to submit a five-page (maximum) assessment of the project for the risk assessment, value assessment and work plan. The vendors were instructed to not provide any names in these documents (firm names, project names, personnel names, etc), in order to minimize evaluator bias. The evaluation team consisted of individuals from each University and the State of Idaho's Division of Purchasing. Each individual rated the plans separately and not as a group rating (to avoid individual influence or bias). After the plans were evaluated and scored, the State then interviewed the Program Administrator, Claims Administrator, Waiver Administrator, Data Base Manager, and Marketing Manager from the vendors. It is important to note that at no time during the evaluation process did the evaluators see any cost information from the proposers.

After prioritizing all of the data, a best-valued vendor was selected. The vendor had proposed a student premium that was 2% lower than the previous year and 19% lower for spouses and dependents. This savings was significant, since the premiums for students had increased approximately 11% per year (over the last four years), and the premium for spouses and dependents increased by 6% every year (over the past four years) (Table 1).

School Premiums	2006-2007	2007-2008	2008-2009	2009-2010	Average Increase Per Year ($)	Average Increase Per Year (%)
Student	$1,012	$1,182	$1,263	$1,385	$124	11%
Spouse & Dependent	$1,843	$2,022	$2,104	$2,220	$126	6%

Table 1: Vendor Data Selection

The best value vendor was then brought in for the clarification phase of the PIPS. During clarification the vendor was able to satisfy all the client concerns and clearly show how they would document and

measure their performance throughout the contract. However, due to the significant savings in premiums, the client and procurement personnel did not properly enforce the post award documentation and performance metrics, which caused some difficulties with the service. The main difficulty that occurred on the service has been the vendor's ability to relay issues that occur in terms of dominant performance information. At one of the University's the vendor found that there were issues with students being denied coverage. The vendor was not able to identify what was causing the issue or the impact that the issues had on the overall performance of the contract. It took the supplier several months to identify what was happening and what the plan to fix the problem would be.
After some help the supplier was eventually able to mitigate the issues occurring and document their performance. It was found that the total number of enrolled students/spouses/dependents exceeded the vendors anticipated enrollment by 3,318. This resulted in additional premiums collected by the vendor. The overall loss ratio based on claims was 53% (which is 27% below the anticipated loss ratio of 80%). So financially, the program did very well.

NO	CRITERIA	ANTICIPATED	ACTUAL	Δ
1	Total Enrollment*	7,895	11,213	**3,318**
2	Total Premiums Collected	$ 11,350,311	$ 15,926,766	**$ 4,576,455**
3	Total Claims	$ 9,080,249	$ 8,484,393	**$ (595,856)**
4	Total Loss Ratio	80%	53%	**-27%**

Table 2: Supplier documentation of performance, which includes Students, Spouses, and Dependents

The vendor was also required to collect student and university satisfaction surveys to ensure their service was equal to the previous supplier's service. The survey results showed that the vendor increased their university satisfaction by 18% (7.2 to 8.5), but their student satisfaction went down by 2% (see Table 3). An analysis was performed on the student surveys to discover why the students were dissatisfied. It was found that the dissatisfied students were identifying issues with claims from the previous supplier. This information prompted the vendor to find ways to educate the

student's on their new insurance program to clarify the current misunderstandings.

NO	CRITERIA	2010	2011	Δ
1	Overall Student Satisfaction	4.5	4.4	-2%
2	Overall University Satisfaction	7.2	8.5	18%

Table 3: Satisfaction Surveys from Vendor

Running PIPS on the student health insurance plans has shown the following:

1. Cost decreases and Customer Satisfaction increases when the expert (vendor) takes control of a service.
2. Measurement can minimize risk and help to improve services.
3. High performance does not equate to higher service fees.

STATE OF IDAHO DIVISION OF MOTOR VEHICLES SOFTWARE SYSTEM

After successfully piloting the Student Health Insurance Program (SHIP), the State of Idaho embarked on a $30 million project to modernize the Idaho Transportation Department's Division of Motor Vehicles (DMV) software system. In general, the IT industry has a very low success rate in terms of performance, which is why the State sought to use the PIPS process to identify the best available vendor for this project (PBSRG, 2012; State of Idaho, 2012).

This modernization effort posed significant challenges. First, the competition is extremely limited in this specific type of service (only a limited number of vendors have experience in DMV systems). Secondly, the industry has been so accustomed to the traditional environment, that the State was unsure if any of the vendors could respond to a best-value RFP (and actually acts as an "expert"). The final challenge was to gain acceptance of the process by the end-client's leadership and project management (whom have also been accustomed to the traditional environment of minimizing risk using direction, management and control).

A best-value PIPS RFP was created that outlined the current conditions and expected goals of the system. Proposals were

evaluated on a 1,000-point system based on: a cost proposal, past performance information, a risk assessment plan, a value assessment plan, a work plan, meeting base system requirements, interviews of key personnel, and product demonstrations. Note, similar to the SHIP project, vendors were instructed to not provide any names in the documents (firm names, project names, personnel names, etc), in order to minimize evaluator bias.

After evaluating the proposals and prioritizing all of the data, a best-valued vendor was identified. This vendor was then invited into the clarification and pre-planning phase, in which the following occurred:

1. The Vendor had a difficult time explaining their own plan/proposal
2. The Vendor's project manager appeared to have limited experience with the proposed vendor system
3. The Vendor identified that they did not have an actual in-operational system that had been successfully installed as was required by the RFP
4. The Vendor stated that it was not their job to test their system (they assumed that the client would perform all testing and de-bugging of their product)
5. Vendor realized that they may not have a solution that fit the client constraints
6. The Vendor submitted several drafts of their scope and schedule but the State was unclear on what the vendor was proposing. It appeared that the vendor had sales personnel prepare the proposal, and when the experts came in during the pre-planning, they did not understand the requirements of the RFP.

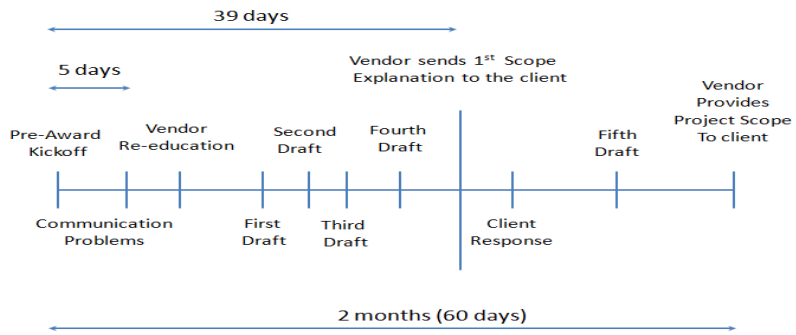

Figure 1: Supplier's project schedule

It took the vendor 2 months (60 days) and 5 drafts to provide the client with a scope of work that was understandable. It also took over 8 training sessions and 50 days before the supplier realized they would be expected to take full control of the project and full accountability for its success (see figure 1). Hence, it was not a surprise when after several months of clarification and education, the State dismissed the vendor and moved to the next vendor on the list.

# of Days	# of Educations	Vendor Understanding
1	1	No solution is needed before contract signing
28	2	A solution is needed to deal with client and sign a contract
31	3	The solution must be explained simply and dominantly
32	4	Trying to grasp what is Dominant Beginning to realize solution must take into account risk
37	5	PBSRG has to help minimize scope document to 1 page
38	6	Vendor realizes they create the scope (solution) Solution has to work and take into account risk
46	7	Solution must take into account items out of the vendor's control Solution must work within the constraints of the client
50	8	They need to take accountability for the success of the entire project.

Figure 2: Suppliers Performance Metrics

The State then invited the second highest scoring supplier into the clarification period and required the supplier to perform the same tasks as the first supplier. After the second supplier was educated, it became apparent that they had a team that was more understanding

than the previous vendor's team. However, despite the increase in skill level, the vendor still had problems being able to perform the following requirements:

1. Dominantly explain how they would track their performance throughout the entire project (see figure 2). At the end of the clarification period they did not have performance measurements that they would track during the contract.
2. Creating a plan to minimize potential risks that could occur out of the control of the vendor. The vendor knew what risks would occur, but was not experienced enough to know how to mitigate the risk and initiate proactive behavior to prevent the risk.
3. Tracking deviation to changes in the project schedule.

It was also observed during the clarification phase, that the buyer's technical experts had problems releasing control, minimizing their decision making and direction to the supplier. The buyer began directing the vendor and the vendor quickly reverted to the traditional buyer/supplier system. Key elements of the pre-planning phase were overlooked, such as a detailed project schedule, a clear project/implementation plan, and a post award performance metric plan. However, even without these documents, the end client felt very comfortable proceeding to award with the second vendor.

During the clarification phase, it became apparent that the end client’s project managers and technical personnel were not comfortable releasing control, decision making, and risk to the vendor. They began instructing the vendor on how to preplan their project, and the vendor quickly reverted back to a traditional role of following the client's experts. Key elements of the pre-planning phase were overlooked, such as a detailed project schedule, a clear project/implementation plan, and a post award performance metric plan. However, even without these documents, the end client felt very comfortable proceeding to award with the second vendor.

Currently the project is still in progress. Although the schedule is delayed, it looks like the implementation is doable and both parties have high hopes of being able to complete the project. Although the

PIPS has not been adhered to throughout the entire project, the vendor and buyer have both determined to try and enforce them throughout the remainder of the project. They have found it is the only way to move the project along.

Running PIPS on the DMV Software System has shown the following:

1. The clarification phase of the PIPS protects clients from hiring non-expert vendors.
2. When the client does not ensure a vendor has pre-planned the entire service before contract signing it brings risk to the service.
3. The client increases service risk by trying to direct, control, and manage the vendor.

CONCLUSION

The State of Idaho has embarked on a new best-value procurement program in an attempt to increase performance and accountability. The result of the Performance Information Procurement System has given support to changing the paradigm of the traditional procurement process. The new paradigm will be to align the best experts to the project, and minimize management, direction, and control. The initial success of the program has prompted the State of Idaho to test other service areas. The State has documented several challenges to successfully implementing the program. The process of collecting proposals and prioritizing vendors has been easily adapted. However, all parties (State procurement personnel, end users, and vendors) have struggled with the clarification phase of the process. This phase requires the client to release control, direction, and management, in order for the vendor to accept accountability and risk. Education is needed for all parties but especially project managers and technical experts for the end clients, whom have struggled the m with the new paradigm.

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