

Procurement Test Results Prove FMs Can Slash the Cost of Services

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Abstract

A major problem of FMs is to get their procurement departments to procure expert vendors. Oftentimes hiring an expert is overcome by a low bidding vendor who has a relationship and can meet the minimum technical requirements. A new approach has been tested which proved that FMs can use procurement to get experts that preplan, identify what they will deliver ahead of time and track the service time and cost deviations. The new approach automatically filters proposals that are not feasible and minimizes issues that are caused by other relationship-based client stakeholders. Recent testing of this approach for a large traditional organization led to 25% savings in cost and 50% savings in procurement time. The presentation will review the case studies and the method of application. The presentation will also identify how FMs can get assistance through an ongoing volunteer IFMA Fellows research opportunity in 2021.

Introduction

Delivery of FM services is becoming increasingly more complicated. The rate of change in the FM environment is exponential. The owners of facilities are being forced to become more nimble, competitive, reduce their costs while improving the value of their services. This last year brought the unexpected coronavirus lockdown and forced organizations to change by operating remotely, utilizing virtual desktop infrastructure (VDI) platforms. The changing building systems, new environmental requirements and changes caused by events such as the coronavirus pandemic are forcing the FM professional to relook at their role in the delivery of FM services. The FM industry is made up of FM Professionals and FM Associates services. The current paradigm is that the FM Professional is the technical expert and directs the FM Associate does the work the Professional directs. This is a traditional configuration. The FM Professional identifies what and how the services will be delivered. The FM associate is the contractor who responds to the direction. To reduce cost, a movement to outsource the FM Professional from the client to real estate services and developers has been observed. However, because the configuration between the Professional and Associate has not changed, the cost of services has stayed the same. The FM Professional has utilized the procurement to specify the requirement and identify the low-cost vendor. The Professional has maintained the responsibility to be the expert and manage, direct and control the Associate vendor. This approach has assured the FM professional to be important but not value added.

New FM Paradigm

The new approach to deliver the FM service of the future is to (Kashiwagi et al., 2020):

1. Change the Professional from a technical FM expert to the representative of the C-Suite. Their role will be one of an "information worker".
2. The Professional will identify the best value expert Associate that delivers the service for the best value and the lowest cost by using the semi-automated Best Value Approach (BVA).
3. The expert Associates compete based on delivering the best service for the lowest cost.
4. The BVA minimizes any need for the Professional to be the technical expert, nor to manage, direct and control the expert Associate. The BVA forces the expert Associate to manage their own service, by proposing their own technical service and tracking project time and cost deviations that they preplanned.

5. Once the expert vendor is identified, the expert Associate manages and delivers the service. They become the certified technical expert.

The new FM approach automates the identification of the technical expert Associate. The automation of the approach minimizes any need for the FM Professional to manage, direct and control the expert Associate vendor and makes the vendor accountable for the performance of the service. The new configuration transforms the Professional to an information worker who can identify and utilize the expert service for all construction and building systems. The advantage of the transformation is (Duren et al., 2008 State of Hawaii, 2002):

1. FM Professional can do work faster and do ten times the work with the new configuration.
2. The new configuration delivers services at 5 – 30% less cost.
3. The new configuration utilizes the latest building and construction technologies delivered by the expert Associates.
4. The expert Associates communicate their performance in terms that the C-Suite can understand.

The Industry has tried two movements to reduce cost. The first is to identify FM as a cost and outsource the FM outside of the organization. The second movement has been to educate and certify the FM Professionals to be the expert in FM services. Both of these traditional movements have not brought an increase in value and performance because they do not change how or what the professional FM does.

Automation

The new FM approach uses automation [minimize human decision making, management and control] (Kashiwagi, 2019) to identify the expertise of the expert Associate vendor to deliver the FM service. The approach will:

1. Minimize what the FM needs to know and communicate to the expert FM services. Because thinking and decision making of the expert vendors should be minimized, the FM will capture the service requirements in terms of metrics that do not require interpretation.
2. Identify the expert vendor in terms of expertise to do the specific service in terms of what the expert has done before.
3. Experts have the following characteristics: they can identify differences, they can see into the future of the service before they have performed, and they can simplify their performance.
4. Experts consider deviation from their plan as risk. Experts have no risk. They mitigate the risk. Experts identify and mitigate the risk of the service they propose.
5. Experts always propose added value that can be achieved.
6. Experts know the cost and time of their services.
7. The experts are asked to identify the above verbally in an interview. The expert can tell the difference between this service and previous services, between the current conditions and final conditions, between what they will do and other services will do, and will do the communication with metrics that will simplify the explanation.
8. After the competing experts are prioritized, the best expert vendor will clarify their proposal by going through a technical review with the client's technical staff. They will also identify how they will report the performance of their service.

This is a radical paradigm shift for the FM Professional and the FM Associate. The FM Professional will increase their capability, increase their responsibility, but decrease their workload, and the expert FM Associate vendors will be more accountable to manage their expert services. The key in the transformation is for the FM Professional to use the procurement system to identify the FM requirement by specifying and identifying the requirements by metrics instead of technical directions and having the procurement process identify and utilize the best value expertise instead of the low price. This approach has been tested

successfully over 2,000 times over the last 30 years (Kashiwagi, 2020). This paper will review the results of the last two case studies. The two case studies were selected because the FM professionals did not know the actual requirement [budget, amounts, deliverables] and did not have a method to identify the requirement quickly. The first project was the delivering of recycling services and the second project was the delivery of janitorial cleaning materials.

Recycling Services Project

The requirements of the recycling project included:

1. Meet the requirements of the local city ordinance [not being enforced and the city did not know if it was enforceable] for recycling programs for one year with options to renew.
2. Output defined as “from the curb” of recyclable materials.
3. Minimize the amount of waste material sent to the landfill.
4. Maximize the revenue of recyclable materials to the client.
5. Meet the current legal and operational requirements of the client.

The competition was between two recycling vendors, the incumbent and their competitor [blacklisted by the client]. The competitors submitted the following five submittals: level of expertise, identification and mitigation of risk, value added [all three documents with claims and supporting metrics of previous performance and limited to a maximum of two pages] and a price breakout. It took an average of 11 minutes for the reviewers to rate both submittals. The selection committee then interviewed the expert representative of both vendors. The interview ratings were added to the ratings of the three written submittals. Vendor B was looking at increasing the client’s recycling revenue, and Vendor A was looking to take over the management of the service for a specified cost. After reviewing the submittals of each proposal, the purchasing agent identified a difference of ~\$300K in the price proposals for each vendor (see Table 1). The ratings for the submittals and proposed revenue were put into the selection matrix including their raw scoring and revenue, normalized scores, and awarded points and prioritization (Table 2). Vendor B was identified as the best value vendor.

The prioritize best value vendor proposal included the following:

1. The plan provided services beyond the RFP requirements. It not only included the management of recycling services, but also took over the billing and optimization of all waste collections.
2. The vendor committed to provide total transparency of all cost transactions.
3. Optimize recycling revenues by changing client and recycling operations.
4. Pricing model that would not charge a management fee for recycling and waste management but would charge 22% of all recycling revenue and give the client 78%. This would allow pricing to be fair regardless of changes in recycling material prices or changes in the recycling industry.
5. The plan would accommodate all implementation costs. This would include replacing any recycling bins from the incumbent vendor.

#	Description	Previous Year Cost	Vendor A	Vendor B
1	Recyclable Revenue	\$ 485,000	\$ 444,000	\$ 569,000
2	Total Costs	\$ (150,000)	\$(341,000)	\$ (94,000)
Total Revenue		\$ 335,000	\$ 103,000	\$ 475,000

Table 1: Cost Proposal Analysis

Average Raw Scores

Criteria (Raw)	Units	Vendor A	Vendor B
Level of Expertise rating	(1-10)	6.7	5.8
Risk Assessment rating	(1-10)	5.0	6.7
Value Added rating	(1-10)	5.0	8.3
Interview rating	(1-10)	7.5	7.5
Total Revenue	\$	\$103,000	\$475,000

Normalized Scores

Criteria (Normalized)	Best Score	Vendor A	Vendor B
Level of Expertise rating	6.67	1.00	0.88
Risk Assessment rating	6.67	0.75	1.00
Value Added rating	8.33	0.60	1.00
Interview rating	7.50	1.00	1.00
Total Revenue	\$475,000	0.22	1

Assigned Points and Prioritization

Criteria (Assigned Points)	Weight	Vendor A	Vendor B
Level of Expertise rating	35	35.0	30.6
Risk Assessment rating	10	7.5	10.0
Value Added rating	15	9.0	15.0
Interview rating	30	30.0	30.0
Total Revenue	10	2.2	10.0
Total Points	100	84	96
Prioritization		2	1

Table 2: Vendor Awarded Points and Prioritization

The seven stakeholders working on the project rated the new FM approach against the traditional delivery of services [Table 3]. The difference in time of the new approach is noted in Table 4.

Clarification Phase	Clarification Phase	
The process requires the vendor to pre-plan, identify, and minimize risks before the project begins.	10.0	
Vendor's communication, explanation of risk, and documentation.	9.3	
Overall customer satisfaction with the clarification phase	10.0	
Process Survey Questions	Traditional	Best Value
The process is simple and easy to implement	5.0	9.4
The process is efficient (minimizes cost, time, and effort)	4.4	10.0
The process identifies the highest performing and lowest costing vendor	4.4	10.0
The process minimizes the risk to the client	6.0	10.0
Overall satisfaction with the selection and clarification process	4.8	10.0

Table 3: Satisfaction Survey

BVA Process Metrics	Traditional (estimated)	Best Value (actual)	% Diff
Time to procure project	270 days	67 days	75%
Estimated project revenue	\$334K	\$476K	42%
Customer Satisfaction	4.8/10	10/10	52%

Table 4: BVA Process Metrics

Case Study: Janitorial Supplies

A large organization had an ongoing initiative to minimize the cost of janitorial materials used in their 7,000 facilities [3,000 to 25,000 SF]. To accomplish this, they developed an RFP in nine days. The RFP contained four pages of requirements and 19 pages of submittal forms. The submittals were the same as in the first test. The following are results of the ratings and interviews:

1. Four of the proposals [Vendors A, E, F and H] didn't meet the requirement to service all the facilities.
2. Three of the proposals could not provide all facility supplies in the client requirement.
3. Two of the proposals [Vendors A and E] didn't include a total price in their proposal. Some vendors had a relationship with the client, and although they submitted other cost information, did not understand that they were required by the BVA to submit an overall cost for the 7,000 facilities for the year.

The three remaining vendors who met all the RFP requirements were then prioritized. The prioritization and distribution of points is shown on Table 5. The difference in time and cost of the new approach from traditional methods is shown in Table 6. Vendor G showed their value by identifying that their proposed cost was based on documentation of previous services. They presented that:

1. Their cost compared to their competitors was 25% lower based on transitioning documentation.
2. They could control inventory as they documented that 85% of the supplies were predictable.
3. They proposed a further cost reduction of 5% if the clients monthly spend ratio reached a specified amount for three straight months.

Average Raw Scores

Criteria (Raw)	Units	Vendor B	Vendor G	Vendor I
Level of Expertise rating	(1-10)	5.0	7.0	7.0
Risk Assessment rating	(1-10)	7.0	8.0	6.0
Value Added rating	(1-10)	7.0	8.0	5.0
Interview rating	(1-10)	5.0	10.0	10.0
Total Cost (million)	\$	\$9.39M	\$7.50M	\$10.63M

Normalized Scores

Criteria (Normalized)	Best Score	Vendor B	Vendor G	Vendor I
Level of Expertise rating	7.00	0.50	0.70	0.70
Risk Assessment rating	8.00	0.70	0.80	0.60
Value Added rating	8.00	0.78	0.89	0.56
Interview rating	10.00	0.50	1.00	1.00
Total Cost (million)	\$7.50M	0.80	1.00	0.71

Assigned Points and Prioritization

Criteria (Assigned Points)	Weight	Vendor B	Vendor G	Vendor I
Level of Expertise rating	35	17.5	24.5	24.5
Risk Assessment rating	10	7.0	8.0	6.0
Value Added rating	15	11.7	13.3	8.3
Interview rating	30	15.0	30.0	30.0
Total Cost (million)	10	8.0	10.0	7.1
Total Points	100	59.2	85.8	75.9
Prioritization		3	1	2

Table 5: Final Scoring and Prioritization of Vendors

BVA Process Metrics	Traditional (estimated)	Best Value (projected)	% Diff
Time to procure project	180 days	85 days	53%
Estimated cost	\$10 M	\$7.5 M	25%

Table 6: BVA Process Metrics

The client did not immediately award the contract. However, after changing the requirement to include the delivery of the materials into the client’s facilities and automate the ordering of 85% of the cleaning materials [which they identified and offered as a value added, the vendor was directed to go ahead with their delivery of services according to their proposal in the RFP.

Conclusion

The two case studies confirmed the success of the new approach for FMs to deliver FM services. As predicted, the increase in value [faster delivery, lower cost and expert Associate vendor documented performance execution, which is outside of the scope of this paper], was dominant. The major challenge is the change of paradigm for the FM community. As a method of overcoming the challenge of the changing paradigm, the authors have in conjunction with their research program are in the next two years assisting FMs and procurement officers to implement at no cost.

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