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## SERVICE CONTRACTS: AN UNDER LOOKED AREA OF OVER PRICING AND UNDER PERFORMANCE, A TACTICAL IMPLEMENTATION - CASE STUDY

Anubhav Kukareti and Vivek Srivastava

### ABSTRACT

**C**oncept of service contract is not new to corporate world. This has been into existence since long. Service contract allows taking services from vendors in lieu of payment. The difficulty in this area lies in judging the quantum of work and most of firms end up either paying extra or accepting inferior services obtained against desired. This paper focuses on approach and implementation of the service contract that a firm should adopt if going to tender. The paper studies different phases of service contract process, reporting and cost modelling techniques used to optimize the output of service contract. The contribution of this paper is to identify the key areas of improvement in the area service contracts.

**KEYWORDS:** Tactical



Implementation , quantum of work , service contract process.

### INTRODUCTION :

Service contracts are agreements for specific purpose i.e., erection and commissioning, hauling and transferring, civil work, fabrication etc. They're used predominantly to hire contractors, freelancers, and consultants and, generally involve one party paying another party to perform a certain act (Matthew, no date).

Service contracting is a commercial process which seeks to sustain a system or capability at an agreed level of readiness, over a period of time, by building a partnering arrangement

between customer and service provider. Cost assessment of such service offerings a challenge and requires detailed and systematic approach.

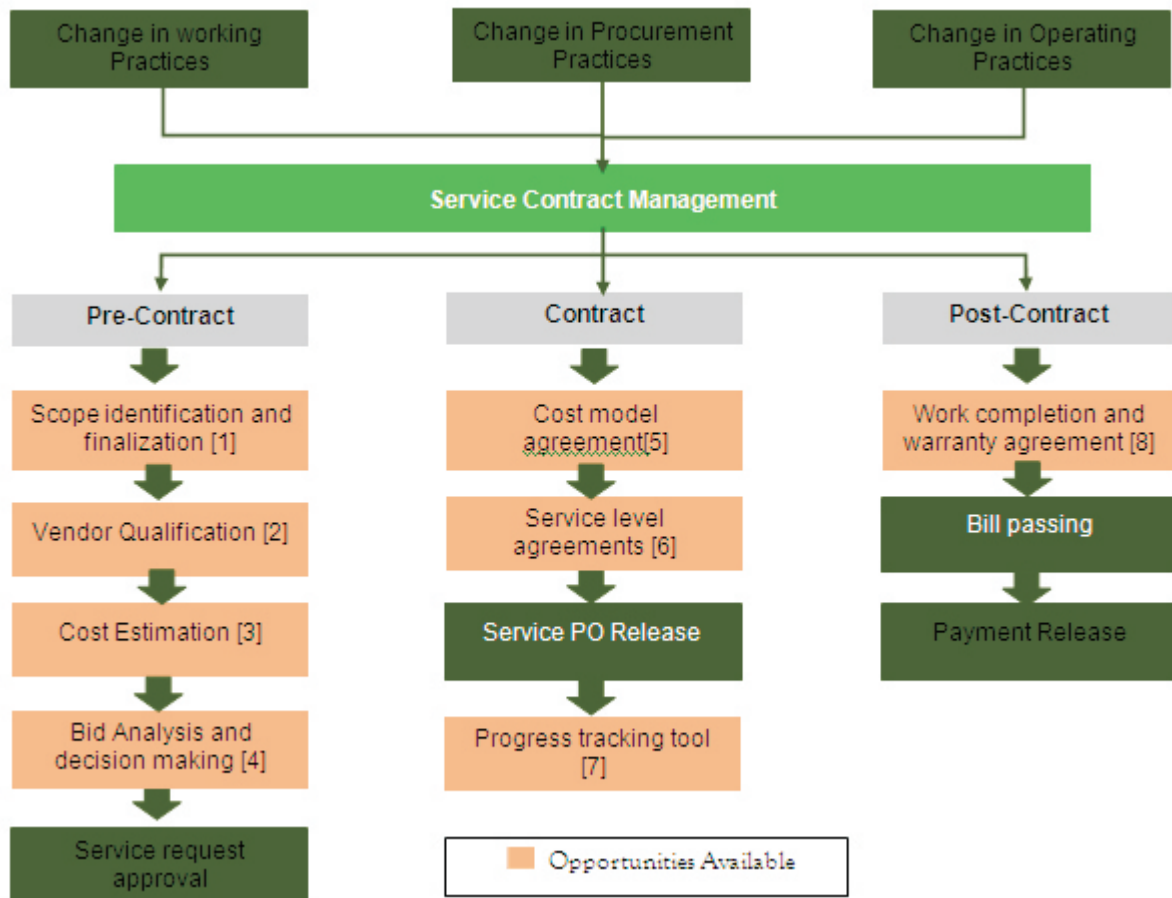
### OBJECTIVE

This paper aims to review the overall viability of the service contracts. To identify the opportunities and to implement key enablers. This exercise being carried out to reduce spend on service contracts. This paper presents an integrated approach for service contracts starting from "need identification to after care" and covers all the necessary systems, techniques and documentation required.

### APPROACH

A detailed approach was developed to capture the nuances, right from service requisition phase (pre-contracting) to till post contract. All critical concerned stages considered to have a detailed plan into place to identify opportunities in the system.

Figure 1: Service Contract Implementation Approach

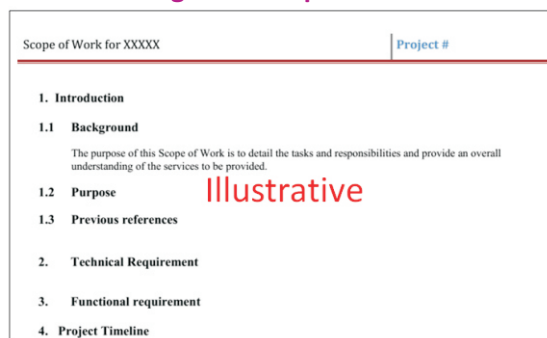


Let’s discuss all available opportunities in details to have solution in place to manage and leverage the service contracting.

**1. Scope Identification and Finalization**

During approach process the first opportunity we found in pre contracting process is the non-availability of scope document. There is very little any one can do before the start of a project without first defining the project scope. Executing the Scope of a contract will allow a buyer to create and maintain the Scope Statement that outlines the deliverables that a service provider need to produce by the end of contract completion. This phase also helps buyer to estimate the cost by ensuring and communicating that only the work that is defined in the Scope Statement is actually executed. Below is the sample of a scope document.

Figure 2: Scope Document



Some of the must have enablers in scope document that a buyer should seek from requisitioned before the query of Service contracting is floated to vendors. Scope document should contain.

i. Administrative details:

- a. Date the service requisition is prepared and being sent to the buyer
- b. Printed name and signature of person submitting requisition.
- c. Single point of contact of the department where services are required.

ii. Service requirement details:

- a. Brief introduction of the services required, Purpose and previous reference if any. Name of the team members involved and budget allocated.
- b. A detailed description of the service needed along with functional and technical requirements i.e., any special tool, machinery, qualified manpower
- c. Period during which services are actually needed.
- d. An indication if the service is for one time or if repeat purchases are anticipated. Expected annual usage is helpful for negotiating purposes.
- e. Turnkey or non-turnkey contract
- f. Assumptions (if any)

## 2. Vendor Qualification

After scope document is finalized, the next opportunity lies in vendor qualification. The process of vendor qualification was divided into two parts. First was technical qualification and second was commercial viability. This is also called two step bid qualification process.

Any vendor bidding to offer services are first assessed on technical ability. This can be achieved by adding technical requirement in the scope document. Vendor conforming to all requirements will qualify. Only written conformance is not sufficient, a reference letter from reputed customers stating such types of technical ability will only make vendor qualify for the job. In addition to this buyer has to visit the facilities of the vendor and assess him of his technical abilities.

In second step, vendor is qualified on their financial stability. Financial capability of a vendor can be assessed by obtaining balance sheet, profit and loss and fund statements. Comparing this data for three years will provide a fair understanding of financial strength of the supplier.

## 3. Cost Estimation

Once qualified vendors are up for concerned job, cost estimation is must before we finalize the quotations. There different techniques available to estimate the cost. Before moving on to which estimation method to opt for, it is necessary to understand the different types of estimation techniques. We are reporting here some of the different techniques used.

### a) Top down costing

Top down costing first calculates the total costs of the service at the organizational, provider or departmental level, and then disaggregates the total costs to the sub-department or the units of services (or products) level depending on the richness of available data and the homogeneity of services provided.

It can be done through multiple steps, e.g. allocate costs to cost centers (e.g. support services workshop, project management), then divide the total costs of the cost center by the number of units (e.g. spares supplied etc). Top-down approach is less detailed and so accuracy can suffer. (Datta and Roy, 2010)

### b) Bottom-up costing/Activity based costing/Zero Based Costing (ZBC)

The bottom-up approach records resource utilization at the individual service level, and aggregates service level utilization data to identify the type of resources used and to measure resource utilization in order to calculate the costs of specific services. It is particularly useful when cost data are not available from other reliable sources. The disadvantages of this approach are the huge cost and long time required for costing complex services. Refer Table-1 (Datta and Roy, 2010).

**c) Mixed Approach**

Mixed approaches are based partly on bottom up and partly on top-down approaches. The mixed approach could avoid some of the disadvantages of both methods. A mixed method could be cheaper than using only bottom-up approach and it could be more accurate than using only top-down approach because it can reflect variation in resource consumptions (Datta and Roy, 2010).

**d) Target Costing**

Target costing was first introduced by Toyota in 1965. In a target-costing approach, the target profit is established and subtracted from the market driven cost (selling price) to determine target cost of services. After target cost determination, the functional cost analyses are performed in order to reach the target cost (Datta and Roy, 2010).

**e) Analogy based estimates**

In some cases, when similar services or activities have already been valued and the unit costs calculated, information can be extracted from published reports or analysis. It may be helpful to contact the authors directly to discover more details about the costing exercise in order to assess the quality and reliability of these estimates. However, published studies may suffer from weaknesses as good internal validity and poor external validity (Datta and Roy, 2010).

**f) Extrapolation based on expert opinion**

Although expert opinion is generally seen as the least reliable source of information about effectiveness and costs, several studies had to rely on multiple sources when assigning monetary value to resources, including expert opinion. Sometimes this helps where the experts are particularly experienced in the service delivery process (Datta and Roy, 2010).

Based on above estimation techniques and their areas of application, we zeroed on zero based costing because it is activity based approach and variation is estimated and actual cost is very minuscule.

**Table 1: Zero based Breakup Sheet**

Owning and Operating Cost Template			
Conditions: See descriptions below to enter your values			
Parameters	ITEM	Units	Base Working
	Machine Model		Tata Hyva
	Year of Purchase		2012
A	Purchase price-Landed	INR	₹ 26,00,000.00
B	Purchase price Ratio	INR	₹ 27,53,500.00
C	Depreciation time	years	
D	Residual value		₹ 10,00,000.00
E	Depreciation cost ((B-D)/C)	per year	₹ 2,50,500.00
F	Interest	%	10.65%
G	Interest cost (F x (B-D))	per year	₹ 2,34,590.20
H	Machine tax (if applicable)	per year	₹ 17,000.00
I	Insurance	per year	₹ 29,500.00
J	Fuel Cost	per Ltr	₹ 53.70
K	Fuel Consumption	Ltr/Hr	1.38
L	Oil/Lube Cost	per Hr	₹ 1.00
M	Oil/Lube Consumption	Hr per Hr	₹ 7.41
N	Cost of a Set of Tires / Tracks		₹ 1,96,000.00
O	Lifetime of Tires / Tracks	hours	6670
P	Repairs and Maintenance	per year	₹ 1,20,000.00
Q	Operator Cost	per year	₹ 4,05,000.00
R	OPERATING HOURS	per year	6670
Note: Oil cost can be included as part of repair and maintenance			
	Machine Model		Tata Hyva
<b>1. Fixed Cost per Hour</b>			
	Depreciation (E/R)		₹ 38.13
	Interest (G/R)		₹ 35.71
	Machine Tax (H/R)		₹ 2.59
	Insurance (I/R)		₹ 4.49
	Profit (10%)		₹ 8.09
	<b>TOTAL FIXED COST PER HR.</b>		<b>₹ 89.00</b>
<b>2. Variable Cost per Hour</b>			
	Fuel (J x K)		₹ 74.11
	Oil, Grease, & Filters (l x m)		₹ 7.41
	Tires / Tracks (N/O)		₹ 29.53
	Repair & Maintenance (P/R)		₹ 19.29
	<b>TOTAL VARIABLE COST PER HR.</b>		<b>₹ 129.61</b>
<b>3. Fixed + Variable Cost per Hour - Sub Total</b>			
			<b>₹ 218.62</b>
<b>4. Operator Cost per Hour (Q/R)</b>			
			<b>₹ 62.10</b>
	<b>TOTAL COST PER HOUR</b>		<b>₹ 280.72</b>

**4. Bid analysis and Decision Making Tool**

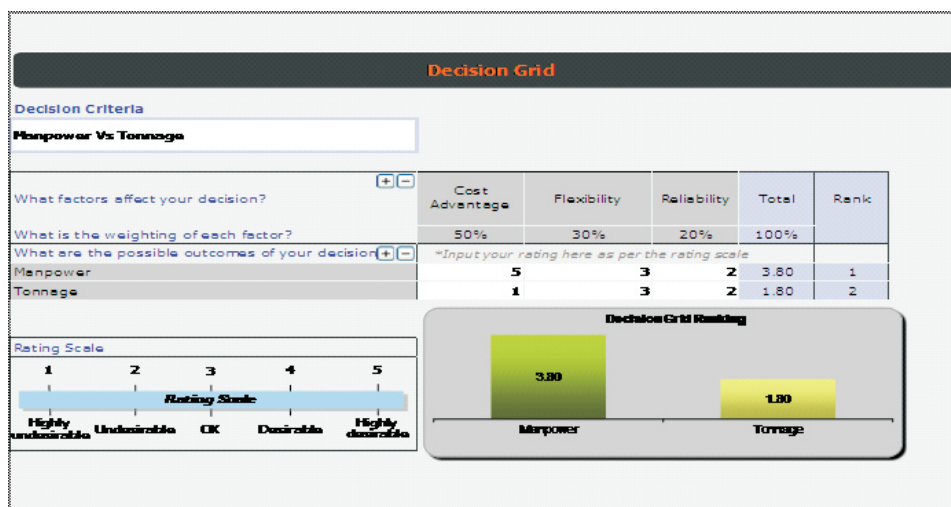
After receiving bids from all competent suppliers, we set a system of comparing the bids using



spreadsheet where each supplier is compared with other on cost, delivery time, after care etc. To make this process more objective we introduced decision making tool (Figure-3). This tool helps an individual to award a contract on certain parameters.

Scoring based approach was used, vendor is judged on certain attributes and each attributes are finalized depending upon type of services required. Each attribute is given weightage and an independent PR review committee scores each vendor on above criteria. The score of each attribute is added to arrive on total score. The vendor having highest score is awarded with contract. Below is an example of one of the tool used.

Figure 3: Decision making Tool



5. Cost Model agreement

Once cost estimation is done, Cost model agreement is must to safeguard a firm from overpaying to vendor arriving out of deliverable of the scope document. If any service or a part is being overlooked, a firm can end up paying more for underperforming or vice versa. Today, firms do a thorough due diligence, and opt for a payment method where both parties end up having a win-win situation. Below are few agreement models mentioned.

**1. Cost-Plus:** Cost plus pricing is a cost-based method for setting the prices of goods and services. Under this approach, you add together the direct material cost, direct labor cost, and overhead costs for a product, and add to it a mark-up percentage (to create a profit margin) in order to derive the price of the product.

**2. Cost-Plus, Fixed Fee:** is a cost-reimbursement contract that provides for payment to the contractor of a negotiated fee that is fixed at the inception of the contract. The fixed fee does not vary with actual cost, but may be adjusted as a result of changes in the work to be performed under the contract. This payment method is best when deliverable is fixed for a contract.

**3. Cost-Plus, Guaranteed Maximum:** Ideally, regardless of how high the actual cost of the Work, plus the working side’s fee actually gets, the paying side won’t pay more than the GMP in exchange for the Work.

**4. Cost-Plus, Incentive:** is a cost-reimbursement contract that provides for an initially negotiated fee to be adjusted later by a formula based on the relationship of total allowable costs to total target costs.

We zeroed on Cost plus Fixed fee and the reason was well defined and finite scope. Quantum of activities to be done decides the cost and is fixed for the services. Different company can use different types of payments terms depending upon the nature of services required.

6. Service Level Agreement (SLA)

SLAs are prepared post cost model agreement and placed to benefit in all aspects of the contracts. Few of them are:

- To define clear performance expectations of both the customer and provider.
- To clarify the roles and responsibilities of each party.

- Promoting a service quality culture and driving improvement.
- Creating a document for both parties to avoid any conflicts for the future.

**7. Progress Tracking Tool**

An output screen or work progress tracking tool need to be developed to track the progress of the project on weekly. This will help to avoid any cost implication arising out of delay (if any). We developed a detailed activity based tracking tool which is measures on activity against time allocated. Progress completed in the stipulated time is shown green and one which fell behind of time is marked red. Below is the screen shot of tracking tool.

**Figure 4: Progress Tracking Tool**

Activity Schedule		15-Feb	22-Feb	29-Feb	7-Mar	14-Mar	21-Mar	28-Mar	4-Apr	11-Apr
<span style="color: green;">■</span> Planned <span style="color: blue;">■</span> To be Planned <span style="color: yellow;">■</span> In Progress <span style="color: red;">■</span> To be done <span style="color: orange;">■</span> Completed		1	2	3	4	5	6	7	8	9
Project Phase										
<b>Initiation</b>										
Admin Set Up:										
Office Setup										
Project Setup										
Task Force Selection and Induction:										
Selection of Taskforce										
Completion of Task force Training										
M&T Set Up:										
Selection of M&T Team members by Senior Management and Renor (3 M&Ts)										
Formal Initiation of M&Ts (Introduction to the Project and Renor)										
Verification of scope and finalization of activities										

**8. Work Completion and Warranty agreement certificate**

Any promise made by the service contractor to the buyer which relates to the services and becomes part of the basis of the bargain creates a warranty that the service shall conform to the affirmation or promise. It is advisable to ask for the warranty of service when the work is about to complete in line with scope. A work completion certificate with a promise of warranty is developed and made necessary for requisitioner/buyer to obtain this certificate from service provider post completion of work. Below is the sample of a work completion certificate.

**Figure5: Work completion Certificate**

**WORK COMPLETION CERTIFICATE**

**To,** ..... **Date** .....

**Sub :** Certificate of completion against the ..... mentioned work.

**Ref. No:** .....

Dear Sir,

We are very pleased to inform you that the below mentioned work has been completed with clear finish as per our requirement and the further actions should be taken for closing of the account .

**Name of work** :- .....

**Name of Contractor** :- .....

**Date of Commencement** :- .....

**Date of Completion** :- .....

**Total Expenses:-**

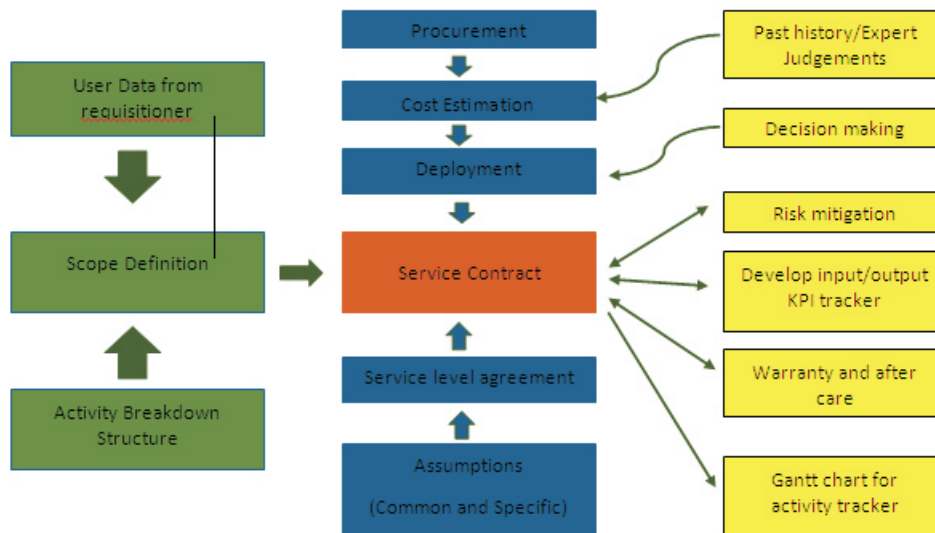
1. Labour Cost :- .....
2. Material Cost :- .....

**The Service Contracting Process**

Based on the above findings and data inputs a generic service contracting process is constructed and shown in Figure 6. The figure represents the components of the service contracting process. The framework in the figure is broken down into a number of areas. Each area can be related to the approach above.



Figure 6: Service Contract Process



### BENEFITS

We implemented above mentioned detailed approach and system for service contract and observed results for period of three months. We found great amount of reduction in spend and improvement in quality of services obtained.

- 15% reduction in spend base (annualized) is observed.
- 10% reduction in delivery completion lead time
- Zero payment dispute

### CONCLUSION

Presently, service contracts in any industry are dominated by poor implementation leading under performance from contractor and over payment. Industry practice of awarding a contract is highly dependent on the requisitioner. Buyer use to bend to the request as he has a little exposure on cost estimation techniques, hence leading to multiple cost estimation techniques in place of one. The most popular method used is analogy based cost estimation. Organizations make use of expert opinion in most contracts. Too much reliance on expert opinions might limit innovative thinking of uncertainties and risks, uncertainties of customer's contribution to availability performance, difficulty of not using bottom up cost estimates in every case.

Also under defining the lead time also creates an urgency to opt for mix cost estimation techniques. This case study provides opportunities for implementation of end to end service contracting process. Firstly, companies should make people own the cost estimation process and involve people across the entire supply chain who deliver it. Secondly, risk, cost and opportunity should be estimated jointly with customers and suppliers. Hence this case study identifies some key focal areas for further research. Another area for future study is to use the entire supply chain cost data to improve estimate accuracy and involvement of suppliers at bidding stage. Simulation techniques applied to cost estimation models and modeling uncertainties and obsolescence costs of such contracts remains an area for further research.

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