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Department of Information Technology

Course Name – IT8075 Software Project Management

IV Year / VII Semester

Unit 4 – Project Management and Control

Topic 8 – Managing Contracts







- External resources required in the form of services.
- These can be arranged in form of contract.
- Example staff on short term contracts to carry some project tasks

Contract for completed software package include (Acquiring software)

- a bespoke system created for one customer
- Off-the-self package or shrink wrapped software
- Customized off the self (COTS) core system is modified to meet the needs of the client.
- Equipment purchase contract for supply of goods
- Software purchase (supply of software) supplying a service (write the software) or granting a license to use the software





Types of contract

Fixed price contract

price is fixed when the contract is signed

Time and materials contract

 customer is charged at fixed rate per unit of effort

Fixed price per delivered unit contracts

associate with function point counting





Fixed Price Contract

- Price is fixed when contract is signed
- Customer requirement has to be fixed in early
- Under development customer cannot change requirements without renegotiating price of contract

Advantage

- Known customer expenditure
- supplier motivation

Disadvantage

- Higher prices to allow for contingency
- Difficulties in modifying requirements
- Upward pressure on the cost of changes
- Threat to system quality







Time and Material Contract

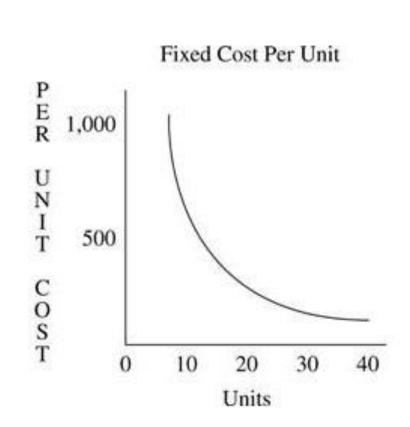
- Customer is charged at a fixed rate per unit effort
- Example per staff-hour.
- Supplier provide initial estimate of the cost based on requirement
- Invoices customer for work done at regular intervals

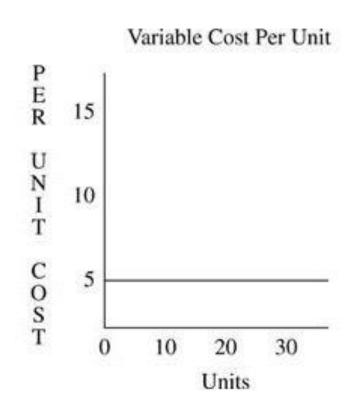
Advantages

- Ease of changing requirements
- Lack of price pressure

Disadvantage

- Customer liability
- Lack of incentives for supplier









Fixed price per unit delivered contracts

- Associated with function point counting
- Size of the system to be delivered is calculated
- Size is estimated in lines of code. Price per unit is quoted.
- Final price = unit price X number of units

Function point count	Function design cost per FP	Implementation cost per FP	Total cost per FP
Up to 2000	\$242	\$725	\$967
2001 – 2500	\$255	\$764	\$1019
2501 – 3000	\$265	\$793	\$1058
3001 – 3500	\$274	\$820	\$1094
3501 – 4000	\$284	\$850	\$1134





Fixed price per unit delivered contracts Advantages

- Customer understanding
- Comparability
- Emerging functionality
- Supplier efficiency
- Life cycle range

Disadvantages

- Difficulties with software size measurement
- Changing requirements











Another way of categorizing contracts

- Open
- Restricted
- Negotiated





Open tendering process

- any supplier can bid in response to the invitation to tender
- all tenders must be evaluated in the same way
- government bodies may have to do this by local/international law (including EU and WTO - World Trade Organization)

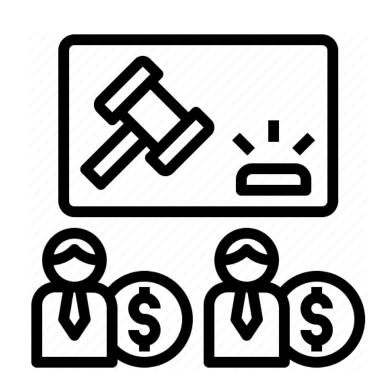






Restricted tendering process

- bids only from those specifically invited
- can reduce suppliers being considered at any stage



Negotiated procedure

 negotiate with one supplier e.g. for extensions to software already supplied





THANK YOU