Estimated Rate In Your Area Using Prototype Android Model

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***Abstract* - the internet is an ideal vehicle for integrating and disseminating information around a network of participating groups and organisations. it has become a cost-effective, universally accepted and readily available delivery system. the web offers unparalleled communication opportunities for the construction industry, particularly its facility to accommodate a wide range of media types (text, voice, objects, etc). it is now possible for construction firms to build up local and/or global information networks with low access cost using affordable hardware and software. the access control and security measures available on the internet can ensure data protection and integrity. web-based construction information management systems can make use of browsers, data handling devices and other internet technology to create a network for sharing and manipulating corporate information in a way that will assist construction project managers to complete work on time and within budget. computer information systems (cis) are widely regarded as an important building block and today's project management. the nature of these systems has changed considerably during the last decade they are in fact still developing from single-user single-project management systems to complex, distributed, multi-functional systems that no longer only cover project planning.**

***keywords* - network, cost, management, systems, developing.**

I. INTRODUCTION

A CIS provides information so the team has a common understanding of the facts: a prerequisite for collaboration. It's the cheapest way to gather information because it's only done once. It is the most reliable way to host information because many eyes scrutinize centralized data and mistakes are more likely to be found and corrected. The first line of defences against political or legal attack and a clear window into the project that leaders can use instead of relying on delayed or biased reports filtered through layers of information is helped using CIS. CIS improves performance because it measures a report card for both team members and most important, it educates the team and makes better managers because it tells true stories.

The CIS defines the program and the projects: cost, time, scope and quality. It defines the team: people, organizations and their roles. It helps to inform agreements: contracts, permits, approvals and commitments. It produces standard and custom reports. It presents vital signs on dashboards. It guides collaboration and communicates best practices with policies, workflow diagrams. A CIS is built around documentation and communication of project-specific information so most of the engine is devoted to that purpose. Basic project information includes the project location, a current calendar and the project goals. There may be web cameras that record on-site activities for public relations or for evidence in case of conflict. There may be general public relations web pages with access for the community, users or other stakeholders.

As the CIS develops it will accumulate detailed project information on:

Cost - Each contract and each project will have the budget, estimates, contract amounts, changes orders, contingencies and forecasts of completion cost. There may be a capital plan with projects scheduled over future years. It may include funding sources.

Schedule - There will be a master schedule, design schedules, procurement schedules, global "push" construction schedules, short interval "pull" schedules, closeout schedules, occupancy schedules and commissioning schedules. Or there may be a project-specific calendar so the extended project team can coordinate their work. It may display meetings that the user must attend, show deadlines for the user's work products and send automatic reminders. There may be a user-customized calendar for specific responsibilities.

Quality - Given that most owners choose to define quality as "conformance to requirements," the CIS may include space programs and other requirements. The CIS may include procedures for quality control or quality assurance programs, post evaluation data and include checklists to meet regulatory requirements.

The team- people, organizations and their roles - Within the CIS database there is a simple list of the projects with contact information for each company, its key people and their project role. Since so many people deliver a project it makes sense to have a resource where everyone can find everyone else. And it sure helps to know how they fit into the project. A web-accessible database with that information improves communication. That speeds the project. It also adds to the quality of the work. When starting a new project, it helps to know what companies have done similar work and how they performed.

II. METHODOLOGY

- Review the past literature to find the gap between the existing method and other method using technological tool for project management.
- Collecting information of the ongoing construction rate by studying site project about cost data, transmitting, processing, maintaining and storing process on constructional site taken in consideration.
- Identify the factors affecting the cost and time which ultimately increase the construction rate of project.
- The coordination between the activities plays an important role in the construction management and maintaining economy of project. This leads to develop a standardize rate analysis flow process generated on bases of workflow of project to approximately estimate the rate of construction in any specified area.
- A model is generated to promote rate analysis in particular area based on market value of material and contracting.
- In this model it will specify guidelines as per client requirement for the construction site and can be easily accessed by any person.
- Conclude the efficiency of the generated model comparing the cost and time of the considered site with produced application.

III. GENERAL VIEW OF THE FRAMEWORK

The detailed purpose of establishing the framework should be two-fold. One is to help the developer to understand the range and aspects related to the information management system. The other is to establish evaluation criteria for the project managers to use when they want to introduce such a system. As a result, generally speaking, the framework should cover the following four aspects, i.e. the management pattern of projects, the integrated utilization of potential information technologies, the utilization of existing software products and the evaluation criteria for the information management systems,. Among these aspects, the former three aspects reflect the major issues on an information management system, and the latter represents the criteria for measuring these major issues.

1. Management organizations in construction projects

Normally, construction projects involve five types of participants, i.e. owner, general contractor, subcontractor, engineer, supplier and relative agency. Theoretically, many varieties of organizational hierarchy for management are possible by combining these participants in different ways. In the first hierarchy, the general contractor signs a total contract with the owner, and then signs subcontracts with the subcontractors, while in the second hierarchy, the owner signs only a contract on the major parts of the project with the general contractor and signs contracts on the left parts with other contractors. In the latter case, it is normal that the contractors have to conform to the coordination of the general contractor in the process of construction.

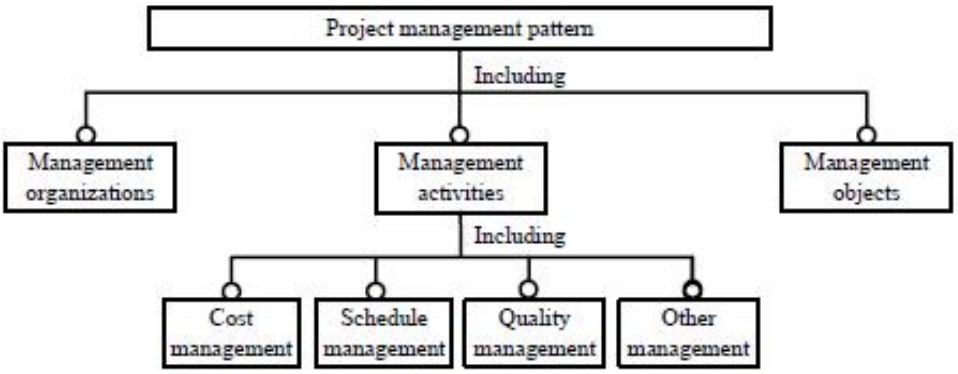

Figure No: 3.3: The structure of project management pattern(Ref. No. 5 Ma Zhiliang and Qin Liang)

The general contractor companies set out to seek construction projects and establish a project team headed by a project manager to implement the project after a project is awarded. In the process of construction, the company side will monitor the project and assist the project team, while the project team will carry out most of the management works.

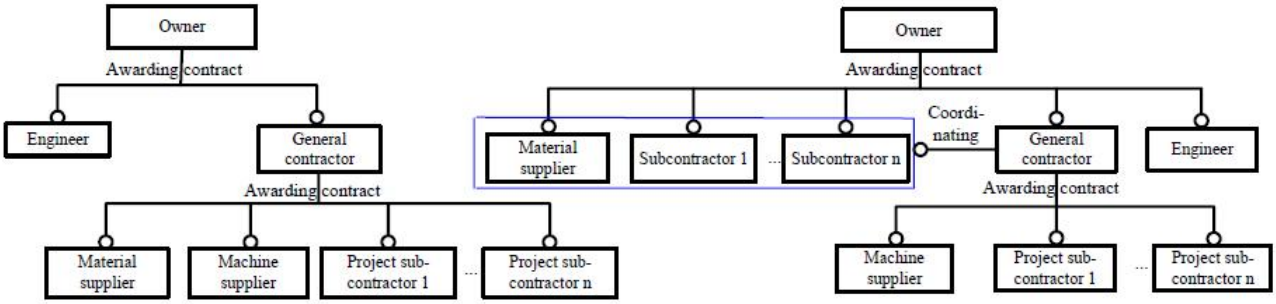

Figure No: Two typical hierarchies of management organizations(Ref. No. 5 Ma Zhiliang and Qin Liang)

IV. EVALUATION CRITERIA FOR THE SYSTEM

Many indexes, such as applicability, maintainability, expansibility, portability, etc. can be used for evaluating if an information management system is suitable or not. Similarly, it is helpful to have specific criteria for the evaluation of the information

management system for construction projects. Based on the above analysis, the concept of "functional measurement" is put forward in this study and a set of nine functional measurements is summarized to represent the functional characteristic of the information management system for construction project. Obviously, the more the system conforms to these functional measurements, the more it is widely applicable and is able to bring along advantage to project management.

1. Major project organization patterns are considered. This measurement is to ensure that the system can adapt itself to different organizations of project management.
2. Major kinds of regulations on project management in general contractors are considered. This measurement is to ensure that the system can cope with the variety of project management due to the difference in enterprise culture.
3. It is possible to set and modify the workflows. This measurement is to ensure that the steps and the actors in the workflows can be set or modified to reflect the real management procedure instead of its being hard-coded in the system.
4. It is possible to integrate popular existing software products such as Microsoft Office easily. This measurement is to ensure that the system is open so that mature application software products can be utilized easily.
5. It covers the major managerial aspects, such as schedule management, quality management, cost management, safety management, contract management, material management, machine management and human resource management etc., by itself or through integrating existing software products. This measurement is to ensure that the major management work can be improved by using the system in multiple managerial aspects.
6. It facilitates setting and modifying the formats of exchanged document conveniently. This is to ensure that the system is easy to adapt itself to the change in the form and contents of the exchanged documents.
7. It integrates the potential information technologies as mentioned in the above. This measurement is to ensure that the potential information technologies can be utilized fully in the system to increase the effectiveness and efficiency of the project management.
8. It provides the user with the necessary interfaces to cope with various situations in practice, such as importing the information from documents of different format, or having to provide output in paper form. This measurement is to ensure that the system can cope with the current practice.
9. It facilitates the reusability of information. This measurement is to ensure that the information is collected and stored in the database of the information management system can be exported properly for information reuse.

V. PROCESS OF INVENTORY MANAGEMENT

There are three stages of work to develop an inventory. The same developmental process has been used to develop measurement scale for managerial trust, organizational trust and interpersonal trust. Stage I involves the development of a theoretical trust framework. Stage II operationalized the framework into an inventory to be tested in Stage III. In essence, the elements of trust in the framework are firstly operationalized into trust behaviour statements. The inventory is then validated by a test–retest (Stage III). The validation involves the checking of reliability and constructs validity.

Table No - 5.1:Item wise - Building

SrNo	MATERIAL DESCRIPTION	UOM	RATE	(S)	Total cost		total inventory cost
					(TOC)	(TCC)	
1	Excavation for column pits in soft soil etc.	Cum	270	68.865	18593.55	511	19105
2	P.C.C. for footing	Cum	3800	6.174	23461.2	645	24106
3	R.C.C. footing	Cum	8500	13.829	117546.5	3233	120779
4	R.C.C. columnup to plinth	Cum	10050	2.049	20592.45	566	21159
5	R.C.C plinth beam	Cum	10050	6.676	67093.8	1845	68939
6	Murum filling in plinth	Cum	550	45.47	25008.5	688	25696
7	P.C.C for plinth 1:3:6	Cum	3700	9.09	33633	925	34558
8	R.C.C column in super structure	Cum	10000	11.4	114000	3135	117135
9	R.C.C beam	Cum	12000	26.549	318588	8761	327349
10	R.C.C SLAB	Cum	11000	32.373	356103	9793	365896
11	R.C.C staircase	Cum	13500	2.02	27270	750	28020
12	Providing brick work for superstructure	Cum	5500	143.87	791329	21762	813091
13	R.C.C lintel beam, R.C.C loft & chajja	Cum	9000	10.5	94500	2599	97099
14	Providing Sand faced plaster for External Wall including scaffolding, curing etc.	Sqm	435	538.43	234217.1	6441	240658
15	Providing Neeru Finish plaster for Internal Wall including scaffolding, curing etc	Sqm	370	932.21	344917.7	9485	354403
16	Providing & laying coloured glazed tiles for flooring & dado etc .comp	Sqm	1005	32.424	32586.12	896	33482
17	Providing & laying Vetrified Tile Flooring on a lime mortar bed including filling joints with cement slurry curing ,polishing tc	Sqm	1150	268.71	309016.5	8498	317514
18	Providing Granite Kitchen otta with tile Fitting, Granite cup - Board ,etc comp.	Nos	37000	3	111000	3053	114053

19	Providing S.S.grilling for Staircase ,Balcony & porch etc	Rmt.	2296	13.5	30996	852	31848
20	Providing & applying Oil bond distemper for Internal wall etc.comp	Sqm	190	932.21	177119.9	4871	181991
21	Providing & applying approved quality Cement paint including cleaning &curring etc.	Sqm	140	538.43	75380.2	2073	77453
	Cost				**3322952**		**3414334**
	4% Electrification				**132918**		**136573**
	3% Water Supply & Sanitation				**99688.6**		**102430**
	5%Supervision charges				**166148**		**170717**
	Total Cost Rs.				**3721707**		**3824054**
	Say Rs.				**3721707**		**3824054**
	sqft				**1512.716**		**1512.71**
	Total Cost per Sq.ft.				**2460.281**		**2527.93**
	Fluctuation of cost						**67.657**

In this table calculate total inventory cost of the order quantity of each material for building P. Also find the total ordering cost (TOC) and total carrying cost (TCC). Total inventory cost is more for brickwork for superstructure is Rs. 813091, for R.C.C. slab is Rs. 365896 and for plastering Rs. 354403. In this table consider cost of 4% electrification, 3% of water supply & sanitation, 5% supervision charges. The total cost per sq. ft. is Rs. 2527.939and fluctuation between two costs is Rs. 67.657.

Table No - 5.2:Item wise – Building

SR.NO	DISCRIPTION OF ITEM	UNIT	LABOUR RATE	RATE (Rs)	QUANTITY	AMOUNT
1	Excavation for column pits in soft soil etc.	Cum	185	270	68.865	18593.55
2	P.C.C. for footing	Cum	885	3800	6.174	23461.2
3	R.C.C. footing	Cum	1060	8500	13.829	117546.5
4	R.C.C. column upto plinth	Cum	1505	10050	2.049	20592.45
5	R.C.C plinth beam	Cum	1505	10050	6.676	67093.8
6	Murum filling in plinth	Cum		550	45.47	25008.5
7	P.C.C for plinth 1:3:6	Cum	885	3700	9.09	33633
8	R.C.C column in super structure	Cum	1505	10000	11.4	114000
9	R.C.C beam	Cum	1505	12000	26.549	318588
10	R.C.C SLAB	Cum	1505	11000	32.373	356103
11	R.C.C staircase	Cum	1505	13500	2.02	27270
12	Providing brick work for superstructure	Cum	1450	5500	143.878	791329
13	R.C.C lintel beam, R.C.C loft & chajja	Cum	1505	9000	10.5	94500
14	Providing Sand faced plaster for External Wall including scaffolding, curing etc.	Sqm	100	435	538.43	234217.05
15	Providing Neeru Finish plaster for Internal Wall including scaffolding, curing etc	Sqm	53	370	932.21	344917.7
16	Providing & laying coloured glazed tiles for flooring & dado etc .comp	Sqm	350	1005	32.424	32586.12
17	Providing & laying Vetrified Tile Flooring on a lime mortar bed including filling joints with cement slurry curing ,polishing tc	Sqm	550	1150	268.71	309016.5
18	Providing Granite Kitchen otta with tile Fitting, Granite cup - Board ,etc comp.	Nos		37000	3	111000
19	Providing S.S.grilling for Staircase ,Balcony & porch etc	Rmt.	260	2296	13.5	30996
20	Providing & applying Oil bond distemper for Internal wall etc. comp	Sqm	11	190	932.21	177119.9
21	Providing & applying approved quality Cement paint including cleaning & curring etc.	Sqm	18	140	538.43	75380.2
	Cost					**3322952.5**
	4% Electrification					**132918.1**
	3% Water Supply & Sanitation					**99688.574**
	5%Supervision charges					**166147.62**
	Total Cost Rs.					**3721706.8**

	Say Rs.					**3721707**
	sqft					**2553.04**
	Total Cost per Sq.ft.					**1457.755**

It is observed that in the table total estimation cost item wise for building . In total cost consider the cost of 4% electrification, 3% water supply & sanitation and 5% supervision charges. Total cost is Rs. 3721706.8 and total cost per sq. ft. is Rs. 1457.755 and the area in sq ft is 2553.04.

Table No - 5.3:Average Rate Per Sq. Ft For Item Wise for Building

SR.NO.	DISCRIPTION OF ITEM	Building	
		AMOUNT	AVERAGE RATE PER SQ.FT FOR ITEM WISE
1	Excavation for column pits in soft soil etc.	18593.55	7.28
2	P.C.C. for footing	23461.2	9.19
3	R.C.C. footing	117546.5	46.04
4	R.C.C. column upto plinth	20592.45	8.07
5	R.C.C plinth beam	67093.8	26.28
6	Murum filling in plinth	25008.5	9.80
7	P.C.C for plinth 1:3:6	33633	13.17
8	R.C.C column in super structure	114000	44.65
9	R.C.C beam	318588	124.79
	R.C.C SLAB	356103	139.48
10	R.C.C staircase	27270	10.68
11	Providing brick work for superstructure	791329	309.96
13	R.C.C lintel beam, R.C.C loft & chajja	94500	37.01
15	Providing Sand faced plaster for External Wall including scaffolding, curing etc.	234217.1	91.74
16	Providing Neeru Finish plaster for Internal Wall including scaffolding, curing etc	344917.7	135.10
17	Providing & laying coloured glazed tiles for flooring & dado etc .comp	32586.12	12.76
18	Providing & laying Vetrified Tile Flooring on a lime mortar bed including filling joints with cement slurry curing ,polishing etc	309016.5	121.04
22	Providing Granite Kitchen otta with tile Fitting, Granite cup - Board ,etc comp.	111000	43.48
23	Providing S.S.grilling for Staircase ,Balcony & porch etc	30996	12.14
24	Providing & applying Oil bond distemper for Internal wall etc. comp	177119.9	69.38
25	Providing & applying approved quality Cement paint including cleaning & curring etc.	75380.2	29.53

In the table we observed that the amount and average rate per sq.ft for each item for building. The maximum average rate brick work for superstructure is Rs. 309.96and the minimum rate Excavation for column pits in soft soil etc is Rs. 7.28 and R.C.C. column up to plinth is Rs. 8.07.

VI. CONCLUSION

There is agreement that it can be measured as a tool for development of the organization procedure in construction projects, as it allows using the corporate information. On the same subject, people cost the access to what their generation has learned on dissimilar projects of the corporation, rank out that the organization allows them to get a greater access to knowledge, with an active contribution in the knowledge process. To have a successful learning process, the interview professionals admit the need to develop a culture of improvement within the association, as this is the first step to modify the status quo and include new technologies and process inside the company. Concerning the improvement that can be done to the system, they pointed out the improvement of the notification of new supplies or messages in the system, the in order search system and the overall look of the system.

- Acknowledging the material and literature it was noticed that they all do needed to improve the system of construction. Companies acknowledge the need to develop a culture of innovation within the organization, Users consider the system as a tool that could really contribute to improve the construction project management process, and the system needs improvements regarding database search and the internet support before being fully implemented in the company as a project management tool.
- When this is achieve, the use of a system like the one presented could give support to project management as it: Allows the storage of the organizational knowledge, giving an easy access to all the people who require the information; Reduce the time

spend in decision making, as the knowledge and information stored in the system could be use as part of the decision process; and Reduce the asymmetry of information among projects and professionals of the same company.

- All of these suggestions will increase the system usability. About future developments of the system, it is considered that the design of a recommendation system can be a very useful tool for construction professionals and that it will answer some of the observations about improving the search system.
- Besides, next to the worry about internet access quality, the implementation of the auto save function of lessons learned forms, especially for people that are in the construction field, is a very useful improvement to the system, that will avoid information re-entry in case of an internet connection failure during the process of writing a lesson.

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