

Article on Handling Challenges in Construction Projects

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Abstract:

India, an agrarian economy, is fast developing in industrialization. The rapid growth, especially in Construction Sector, is taking the country to great heights. The swift movement of people from villages to cities for occupation and also the vast employment opportunities prevailing in cities necessitate a boom in construction activities, particularly in the outskirts of cities.

Next to Agriculture, Construction Industry is the sector where millions of people get occupied in one way or other – right from Engineer to uneducated “Sithal” (a Helper).

This is also a field where companies of international renown and also a local mason with his own group of people do the same job of “construction”.

Keywords: Design, Manpower Constraints, Dwindling Cash flows, Project Performance, Contract Provisions, Liquidated Damages.

Scope of Research

Personal observation in some sites in the city outskirts and also from the secondary data available.

Discussion

Traditionally, Construction industry was also like agriculture with more of labour intensive activities. With passage of time, especially in the past two decades, construction industry is having a galloping leap in all spheres. From the more of labour intensive nature, it is moving forward to use of more of machineries and less of labour.

Even in labour, the necessity has come in that the working people are expected to have minimum practical knowledge of what they are doing and what is happening in the site. The Sithal (Helper) is also expected to know the basic information about the Concrete Mixer and other machineries being widely used in the site. This is more to guard themselves from getting into accidents.

In other words, the construction sites demand some basic qualification and working knowledge for all the people in the site.

Challenges confronting the industry

It is quite true that more of the challenges in the construction practices, per se, it is the operational pattern and

performance basis that contribute and determine the site progress. More than construction issues, they are managing issues both men and materials that occupy the major time and concentration of project managers.

Some of the critical construction issues are workforce considerations, safety, time factor and the changing nature of work. While these can be attributed as the performance related things, the other challenges are legal issues, government regulations and environmental concerns etc.

Hence, construction activity can be said as the activities in the site and also the activities that are outside the site which have a bearing on the site performance.

Design

Design is the basic and fundamental aspect of construction. Design does not merely mean the number of floors to be constructed in the site or the square foot area of each room in an apartment.

Before actual start of construction, soil test and thorough structural tests are to be conducted. Many buildings collapsed during construction state itself due to faulty structural design or due to the soil structure.

When the soil is slushy or unsound for construction purposes, whatever up to date technologies used in construction will only prove counterproductive. Thoroughly

tested bricks, site mixed concrete and best quality rods and all others will only end in collapse of constructed portion or result in messy outputs.

After the collapse of Moulivakkam Twin Towers, great deal of attention is now being paid on soil testing and structural designs.

Man Power Constraints

Construction Industry is labour intensive one. While majority of reputed construction companies are gradually switching over to large scale use of machineries, medium and small builders rely more on labour force.

The workers who come for construction activities are more of necessity struck for livelihood than of any choice. They are quite aware that the job is more dangerous and is also quite dirty in nature. Going by comparisons, other industries offer a more lucrative job description. Hence, there is a telling effect that young and talented people prefer to avoid construction jobs and look out for something else. This is forcing the youngsters shun construction industry. Consequently, there is a severe and acute shortage of young and talented people willing to come forward for construction work.

Material Sources

Material sourcing occupies a predominant role in construction industry. Materials constitute a substantial portion of total cost of production. Leave alone the cost aspects; it is the material quality that withstands the very building as such.

Many projects which were going in full swing came to a standstill due to material shortage.

It is the foremost duty of Project Manager to chalk out a more realistic material requirement with a perfect blend of quantity, quality and time schedule.

He has to also ensure regular supply of materials by vendors, without any reminder from the project manager. This is of paramount importance because late supply of materials will only inflict delays in execution of the project causing legal entanglements.

The Real Estate Regulation Act (RERA) tightens the belt of builders. It imposes more restrictions on the builders to offer promises and in strict adherence of same while execution. The RERA is friendly for customers and coming heavily on builders. (Net Source: Handling Challenges in Construction Projects – India's First News Portal)

The Construction Industry, unlike any other industry, is facing lot of difficulties today. The demonetization of Rs. 500/- and Rs. 1,000/- notes had a telling impact on construction sector. In India, most of the transactions,

especially in secondary sales, are dealt with by cash to a large extent. Those who have surplus money also find it easier and safer to invest on second hand purchases. The demonetization was a blow to them. This has, at least, for the time being, halted the transactions.

While this is the case of second hand purchases, the Builders are facing innumerable other problems and are very badly hit now.

Dwindling Cash Flows

Capital is of paramount importance, particularly for construction industry. Most of the payments are disbursed weekly. This is for not only to workmen but also to traders and others. Almost all the purchases are done on weekly credit. The shop owners are generous enough not to charge interest for one week. This gave a cushion to both the builder to buy conveniently as and when needed without worrying for money, which is only a weekend activity and also the traders were assured of sizeable off take by builders from them.

There has been a sudden stop of cash flow now. While purchases can be postponed till such a time construction takes off in full measure, for the materials bought already, making payment has become a big issue to them.

Traders are unwilling to take back the huge materials off loaded by them. They also insist for quicker settlement of bills which is already a delayed one. Both the builders as also traders are in a fix now. The sudden blow in cash flow has driven them to a standstill.

Plans have gone awry

While there was a smooth ride for long, the demonetization has thrown a jolt in the business. Mega constructions which were half way through are abandoned for want of money. The interest burden is on the neck of builders for the capital borrowed at very high interest rate from private lenders.

It did not stop with this. The new bookings have virtually stopped. The inflow of money is totally stopped and practically nil to many builders.

They are adopting various aggressive marketing techniques by way of price reduction, more facilities at no extra cost and a host of others. Their advertisement budget has become very liberal. Their only hope now is to make a loud call to public through media.

They are quite aware of the calculated risks they take but no other go, they opine. (Net Source: **5 challenges the Construction Industry is facing right now iSqFt**).

Availability of right type of workers is a major constraint

Construction sector is basically a labour oriented one, though we are steadily progressing towards more of machines in the business. In most of the projects visited by the Author, work came to a grinding halt due to fleeing of labour from the site. It is an understandable issue. When Project people are unable to disburse wages, the workers plight was mounting up. This was more acute in the case of migrant workers.

Some Site In charges expressed that majority of the work force left the construction site and gone to different small construction sites and some workers have chosen different avocations.

While this sudden movement can be attributed as a consequential effect of demonetization, majority of the sites do not have the skilled workers needed for the job. This leads to delayed completion of projects and also resulting in doing the same job more than once due to lack of perfection.

Compounding to delays, this also gives rise to cost penalty. This additional cost has to be borne by builders only as it cannot be passed on to purchasers. **(Net Source: Construction Executives Discuss the Main challenges Their Teams Face).**

Reducing Profitability

Construction Industry is a sector where besides innumerable small firms doing construction in a small scale, more number of large scale builders are also competing with each other trying to take away the customers from each other.

Traditionally, the construction companies were just doing only construction activities and now, they have expanded their activities to marketing and advertising. Many large builders have a full fledged marketing department and advertising departments.

It has become more of a survival issue now. Many companies have a good allocation of budget for advertisement. Some builders also expressed, off the record, that their advertisement expenses are eating away the dwindling profits from the business. Nevertheless, they have to continue with Ads, as; they otherwise, fear that even the existing business may go down.

Project Performance

No doubt that the opportunities in construction sector are growing. The urbanization, the increased income level to people and also the institutional finance enable people to buying apartments. Those who already own apartments still go in for another purchase for tax benefits. Definitely, the demand for apartments is on the increase and so the influx of builders in the profession.

Going by the expansion of customer requirements and also the multi storeyed construction, the design complexity is compounding the problem. Greater efficiency and perfection are aimed at by all the builders, the design complexities literally eat away the profits arising out of business. Any compromise may imperil the very construction; the builders have to necessarily accommodate the same by foregoing their returns.

This is also leading to delay in completion of the projects. Even the established companies struggle in this regard.

Sustainability Concerns

The construction industry is the top global consumer of raw materials. The industry generates about 40% of the world's emissions.

Climate change and water management are two environmental issues that pose a growing challenge to the construction industry. In rapidly developing countries like India and China, this is posing a major challenge. Perhaps, smart planning and sustainable design could reduce energy consumption and pollution. **(Net source: Top 4 Challenges facing the Construction Industry – Digitalist Magazine).**

Sub-Contractors - a cause for concern

Almost all the Builders admitted that finding a reliable subcontractor is a major thing in the business. As the demand for subcontractors is increasing day by day in the field, they look for more of opportunities than of loyalty.

A mere shift of a subcontractor with his fleet of people would bring the project to a sudden stop. As the builder is only accountable to customers, he has to make many compromises with the subcontractors to keep the projects going on.

Many Sub Contractors are also trying to exploit the situation by demanding more wages to their personnel. It was also observed that some subcontractors have sub divided the activities with further subcontractors. It can be said that construction industry is a "Network of so many people with so many people". **(Net Source: The 10 Biggest problems in Construction solved).**

Procurement Mix and Purchase Methodology

Construction Industry is depending on so many resources and sources. The timely execution of a project does not just depend on the commitment of the project personnel alone. It is not merely the technology advancement alone that is used in the project.

It is the proper and perfect mix of men and material that is needed for the success of the project.

While the Project Engineers and Site In charges take care of the execution of physical activities in the project, the purchase methodology is of great importance in the successful completion of the project.

Supply Chain Management (SCM) which was given great deal of attention only by established large scale construction companies hitherto, is gaining popularity in almost all the construction companies now.

From the days of merely a group of Masons, it has now come to an organized structure of various groups of people with their skill and products which is required for the success of a construction project. Hence, the Supply Chain Management (SCM) concept is gaining momentum in, almost, all the construction projects now.

No builder is prepared to stock materials and block money in advance. They are now making the Suppliers to take the responsibility of delivering the things that are needed, just at the call from them. In other words, the onus of timely delivery rests only with the suppliers. The Builders are greatly relieved now. **(Net Source: A study on the role of supply chain management in infrastructure).**

Contract Provisions

Construction Industry enjoys the uniqueness that the “Project is Sold even before it is Made”. For many highly reputed companies, two weeks of continued advertisements will complete the booking. Whatever is needed is got in advance. Hence, the Builders are worry free and solely concentrate their time and energy in strictly adhering to the construction activities.

As the builder is only answerable to the Customers and Government, nowadays, builders show great care not only in their construction, but also in their business dealings with the suppliers.

The Contract Provisions with the Suppliers clearly spell out that any additional expenses that may incur due to the delays on the part of the supplier will be deducted from the payments to the supplier. Some established companies also insert a clause “Liquidated Damages” through which, not only the losses, but also penalty is recoverable from the defaulting suppliers.

This clause makes the Suppliers more binding in their word and deed.

The contract provisions with customers also relieve the builders that in the event of any delays occurring due to circumstances beyond the hands of the builder (various details are spelt out) coming under “Force Majeure”, the builder is having immunity. **(Net Source: Effective Contract Management: Some important issues and).**

Cautious Builders and Customers

Now a days, builders are more cautious than anxious. Even if customers insist, whatever is not possible or allowable under Legal Provisions, they squarely say no. They do not mind even losing such a sale.

Their attitude is a sale should be safe and sound. Waiting is not a matter considering the safety of dealings.

Customers are also equally well informed now a days. They do not go by the glib Ads appearing on Media. They merit the builder only by their past constructions. In other words, they use the past performance as the yard stick to measure the capabilities of the builder for the present project. This is a welcoming situation. **(Net Source: Getting things done – Building Construction Done Right).**

Conclusion

From the studies made and discussions had with the builders and also prospective buyers, it is understood that:

Builders are no longer blunt and authoritative. They are amenable and accommodative.

Customers are quite aware of the builder, their building techniques and they seek and get the details of their past constructions.

The customers also insist on the builder to take care of maintenance of the building, at least for a period of three years, though on cost basis. This will relieve the customers from running from pillar to post for any maintenance related activities. This will also act as a “Binding” on the part of the builder.

The Real Estate Regulation Act (RERA) imposes stringent restrictions on the part of builders by compelling them to comply with so many clauses and conditions. This also ensures protection of customers.

Availability of Labour, especially skilled personnel, is a continuous problem even with established builders.

Subcontractors are always a cause for concern to builders.

Suppliers cannot restrict themselves to merely supplying what is ordered. They are accountable for their delivery and also for the consequences. Any consequential loss due to delayed delivery by a supplier is recovered from his payment.

No builder takes the risk of making violations.

Transactions are insisted to be transparent – both from buyer and seller point of view. This is a welcoming change - thanks to demonetization.

Recommendations

While Established builders are always cautious in their Planning, Practice and Performance, some builders (Elevated Masons) pay scant attention on this. Their deviation will put the purchaser in constant apprehension throughout. Hence, all the builders – Big or Small must be Regulation Complaint in all aspects.

Cash transactions must be forbidden. All dealings should be only by bank so that nothing goes unaccounted. This should be strictly monitored, especially in second sales.

Soil Test must be insisted upon, even for 2 floor apartments. No Planning Permit should be issued without recognized Soil Test Certificate Attachment.

As Cash Flow is a constant threat even to established builders, Government must insist that proportionate to construction expenditure, the builders must deposit money in bank. This would also serve like a Security Deposit, in the unlikely event of anything going otherwise.

Almost, all the builders comply with planning permission. Some stray incidents are there. It is necessary that the Planning Authorities should also make visits to ensure whether construction is going on as approved. Any unauthorized construction could be stopped then and there so that calamities can be avoided.

All the builders should be brought under the ambit of Real Estate Regulation Act (RERA).

Contract provisions must cover the customers and also the builders.

Suppliers cannot have immunity for delayed delivery. They should be made to accept Liquidated Damages (LD) clause while entering into business contracts.

Builders must be firm in their technical specification and job description. No work, however small it is, if it is different from the approved specs, must be entertained at all, even if customers insist for same.

Building Codes should be fully complied with while construction.

No compromise should be permitted in safety standards.

Legal Provisions and Environmental compliance must be fully adhered to. Even for small deviation, high penalty should be inflicted in order to deter such things in future.
