Introduction to Lean Construction
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Module 1, Lecture 5
Status of Lean implements in India through Industry Panel Discussion with ILCE Directors

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Hello, welcome now to this industry panel discussion, which we had as a part of the CIDC construction week sometime back. So, the ILC directors had a panel discussion moderated by Dr. Ashwin Mahalingam of IIT Madras.

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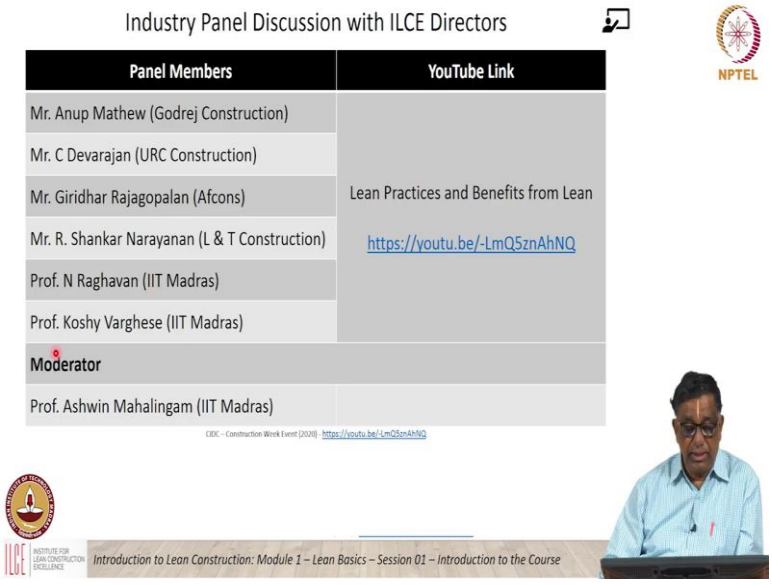

Though there were the number of learnings from that, to the directors involved were Mr. Anup Matthew, Mr. Devarajan, Mr. Giridhar Rajagopalan, Mr. Shankar Narayanan, Myself Professor Raghavan and Professor Koshy Varghese from IIT. So, we had four people from the industry, and two from the academic side.

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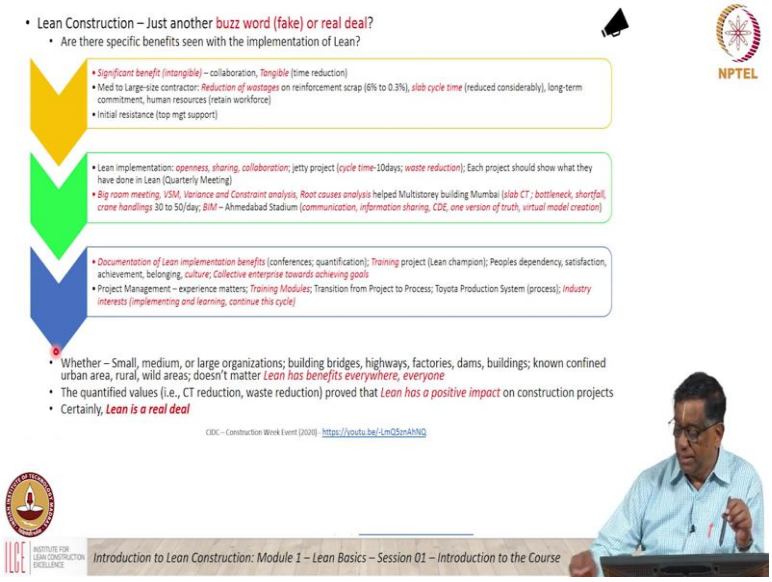

And we had a very interesting panel discussion, you can listen to the full panel discussion in the link provided. But I will give you what are the highlights? Dr. Ashwin Mahalingam asked a number of questions to the panelists one by one. And the first one was, is lean construction just another buzzword? Or is it something real? Or they are really tangible and intangible benefits by practicing Lean? And what are the general problems and how they were solved? If you look at the answers, I will just give a summary.

There were significant benefits, intangible benefits like the collaboration increase in the site, add tangible benefits like time reduction, waste reduction, and so on. And whether you are a medium to contractor or large contractor, the benefits were there,, mainly reduction of wastages. For example, reinforcement wastage or slab cycle time improvement, and so on. And the people had to overcome the initial resistance.

Another viewpoint was lean implementation improved the way openness, the sharing on the collaboration at the site. And the cycle type definitely reduced substantially. Also, reduction of wastages, at the practices adopted at the site included big room meetings, value stream mapping, then the constraint analysis, root cause analysis and so on.

And there were different kinds of projects which were using Lean implementation. For example, even in Ahmedabad Stadium, the advantages were good communications, then information sharing, add something called one version of truth, that means you have a common database, in which people can refer to or get the single version, which is applicable to all the people and virtual model creation for improving the construction processes.

Then the documentation of Lean implementation, the number of benefits which were documented, and the training programs were conducted. And then, the creation of a Lean culture and collective enterprise towards achieving the goals. These were the main points. So, there were many training modules used for improving the project management and the industry interests, for example, implementing and training the people and continuing through this through the site various cycles of operations and so on were done.

So, Dr Ashwin concluded that whether it is a small contractor or a medium contractor, whatever be the type of projects, in everyone, there were lean benefits to be obtained for all the projects, there were no problems at all. The main quantified values related to reduction of wastages and reduction of cycle time. So, it proved that lean definitely has a positive impact on construction project. Summarizing is definitely a real deal. There is nothing fake about that.

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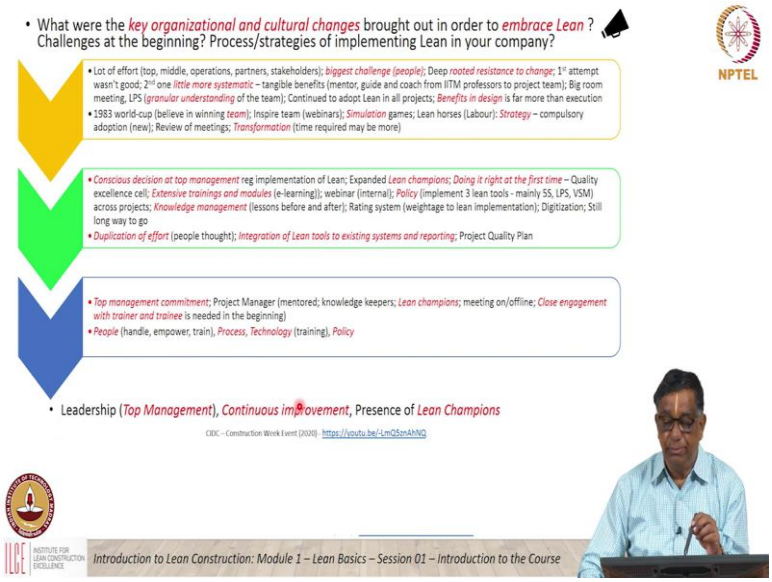

The second question asked about what were the challenges for implementing lean in the sites and the processes and strategies adopted to practice lean in the various sites. So, the people definitely mentioned that a lot of efforts were required initially to bring lean to the site. And

the main challenges was, of course, the people had to change, chain management as we know, always is a challenge.

So, there are deep rooted resistance to change. And first time you may not be able to succeed properly, but the second time, people are more systematic. And the IIT Professors also visited a number of projects and gave a lot of guidance and support. And the Big Room meetings and practicing last planner system or collaborative planning system that was very useful.

People did get a lot of benefits and continue to adopt lean in all the other projects once the concept was proven in the first project. Some people even mentioned that in the design concept they got in the design stages, they got more benefits than in the construction stages. Of course, it depends on the context and the particular project site.

And of course, people refer to that 1983 Cricket World Cup, there used to be a saying that believe in the team. So, if you believe in the team and build up the teams properly by proper training programs, having simulation games, and supporting the labor and so on, have the right strategy, then there is a good transformation.

And the time required maybe slightly more for complete transformation, but there was good evidence of transformation if you practice these concepts. Then very very important point is there has to be a very conscious decision and support from the top management to implement site and develop lean champions, who will be able to give the knowledge of how to practice lean and data about the various tools and so on.

And the feeling that you must do it the first time itself rightly, and then extensive training programs are always required, because the change processes involved not only as a process for the culture, but also for the technical points of how to do Lean and how to get the benefits.

So, internal benefits, internal webinars, and the common webinars have a clear-cut policy of how to implement lean and several projects actually adopted three common tools, 5S, collaborative planning system or last planner, and value stream mapping. These are very, very popular across the project, the knowledge management of the gains, which were obtained from practicing lean, they were properly documented, shared across the sites and so on.

And the people also tried to have a rating system the first week, how much benefit they got second week and third week and so on. So, there was even after so many weeks, people always felt that they still had a long way to go. The continuous improvement process never has an end, it is always continuous.

So, then some people thought the documentation part, there is some duplication of effort, something they required as per the earlier practices and something required for Lean does not really so, one can have common documentation which can cover both the Lean implementation and whatever the company practices demand as the standard work.

Then integrating the Lean tools, whatever they learn into the existing systems and possibly the project execution plan, project quality plan, safety plan and so on, that require some initial efforts, but once people get the hang of it, it is quite simple. Top management commitment was again and again, emphasized as something very very important.

The project manager, another key component, he has to be totally on board, and you should also have good knowledge about Lean and you have the Lean champions who are the knowledge keepers or knowledge propagators and then you have several meetings and the close engagement with all the people concerned. So, then, if you do all these, then lean practices definitely take place properly.

So, people we need to understand are the main prime movers, they need to be handled properly, properly empowered and trained, the process has to be in place and technology in terms of the various tools and training programs and the company policy itself has to be to implement lean. So, if you do all these always the leadership from top management a program of continuous improvement and having the Lean champions at site. So, these were considered to be some of the key elements for ensuring the success of Lean practices, lean implementation at the various sites.

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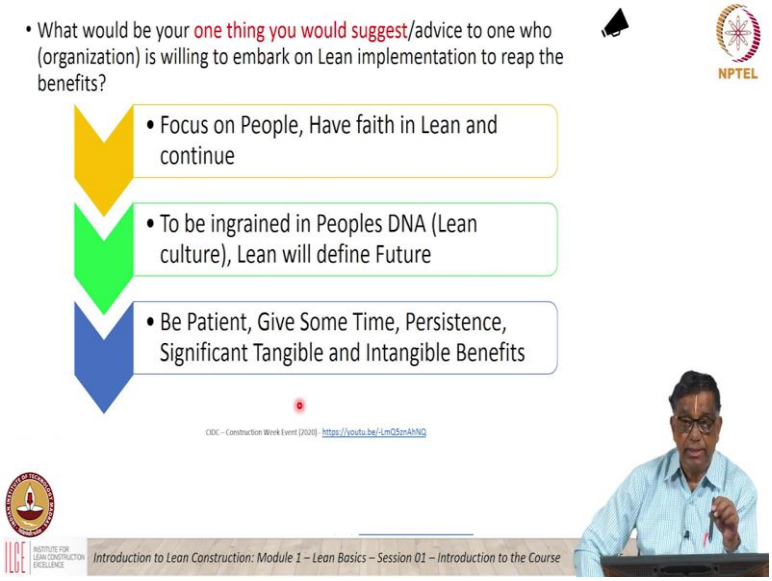

So, then, one more very interesting question was asked to all the panelists, what would be the one single point you know you will recommend for people to embark upon lean, how do you implement lean? So, different people gave different ideas but generally there were three broad answers.

One is focus on people and have faith in Lean and continue. Initially you may have some problems, but do not give up, just continue and you will definitely get the benefits. The second was Lean implementation to become a Lean culture and by and by it has to be ingrained in the people's DNA, then they will definitely practice it quite well.

And lean will be the project management technique, which will define the future of construction management. So, we should definitely persist with Lean and not give up a short Lean. We need to be a patient, give it some time. And then you will definitely get several tangible and intangible benefits only we need to be patient as always. Continue with Lean and you will definitely get the benefits. All the best.

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Quiz

1. Prof. Koshy Varghese has mentioned that for the successful Lean implementation, synergies required among ____, ____, ____, and ____.
   a) Process, Parts, Tools, Technology
   b) Parts, People, Process, Technology
   c) People, Process, Service, Technology
   d) People, Process, Tools, Technology

d) People, Process, Tools , Technology