

CXO **INSIGHTS**

THE GROWTH & DEVELOPMENT OF CONSTRUCTION INDUSTRY IN INDIA AMIDST COVID PANDEMIC

S.C. Dixit, Executive Director, Shapoorji Pallonji E&C shares his views with siliconindia about how the Indian construction contracting organisations coped with the pandemic situation and the outlook for the construction industry in the years ahead.

TELL US YOUR VIEWS ABOUT THE DEVELOPMENT OF THE CONSTRUCTION INDUSTRY AMIDST COVID PANDEMIC AND THE GROWTH OF THE SECTOR IN RECENT YEARS.

Over the last decade or so, India has been witnessing good economic growth and infrastructure construction is at the heart of this wave. A strong pipeline of upcoming & ongoing projects and large programmes are underway across sectors, presenting good opportunities for the construction sector. Several big-ticket initiatives have been rolled out by the Government of India. The government has identified the need for building physical infrastructure for the country to revive key sectors that lead to employment generation. The Govt recognizes that until private investment picks up, public expenditure in asset creation must remain as the driving force.

The growing investments in infrastructure, industrial, and real estate sectors have resulted in ample business opportunities for the engineering and construction (E&C) companies. As a construction partner, Shapoorji Pallonji E&C has played a pivotal role in the creation of public infrastructure in India while associating with central and state government undertakings, PSUs, and quasi-government bodies. Such projects include construction of airport terminals, convention centers, educational institutes, healthcare facilities, urban transport infrastructure, affordable housing, urban utility infrastructure, and many others. Apart from government projects, we are also executing many projects in the private sector. Despite the growth in business opportunities in the



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last few years, the construction industry was battling poor productivity, operational challenges, project delays, tighter margins, and increased competition. The pandemic has only accentuated the systemic hurdles that the industry was facing all along. In the COVID era, E&C companies are under greater pressure to improve costs, timelines, and efficiency.

Even though the government has relaxed the lockdown norms for the construction industry, E&C companies are grappling with slow progress, shortage of workers, disrupted supply chains, poor productivity, increasing costs, and new operating procedures for health, hygiene, and cash flow crunches.

WHAT ARE THE LATEST TECHNOLOGY PROGRESSES IN THE CONSTRUCTION SECTOR? PROVIDE EXAMPLES OF THE TECHNOLOGY DEVELOPMENT AIDING HUMAN PROBLEMS.

The evolving landscape of new technologies in the E&C sector has the potential to transform all stages of the project delivery process. The new technologies can change how companies design, plan, and execute projects. By adopting advanced software, construction-focused hardware, analytics capabilities, and advanced construction technologies, the companies can eliminate many of the problems that have dogged the E&C sector for decades. Technology could also enhance performance on the parameters of time, cost, quality, precision, and convenience. Shapoorji Pallonji E&C has begun incorporating new construction technologies into its projects, across all project phases' that is, design, preconstruction, construction, and operations and management. The various digital initiatives being implemented includes,

1. SPACE: This is the digital portal of SP E&C and offers

various applications like,

- HSE and quality to record & track all internal check processes.
- Labour Management System to record all labour data including their attendance and compliance.
- Action Module for organizing meetings and assigning tasks & assignments to individuals
- Knowledge Management portal to share case studies, articles, news feed, e-books, and many others.

2. BIM Implementation: At SP E&C, Virtual Design & Construction has been implemented across 100+ projects for modelling, clash-free design co-ordination, RFI production/resolution, quantification, scheduling & monitoring, and site logistics. We are leveraging BIM capabilities using multiple tools offered from leading digital tool suppliers.

3. Use of Drones & Cameras: We are using drones to capture site images and aerial survey data. We are also using PTZ cameras to monitor progress and to improve safety and security.

4. Back-office Integration on SAP: We are accessing and utilizing valuable project data on resources, finances, costs, and schedules on SAP. The system gives our managers immediate access to real-time back-office data and aids decision making.

SP E&C is amongst the leading Indian E&C companies using new building systems and construction techniques like precast construction, modular formwork systems, shear-wall monolithic construction, pre-engineered structural steel construction, top-down construction, and many others. These have been ably demonstrated at many of our projects.

HOW HAS THE CONSTRUCTION SECTOR EVOLVED IN INDIA COMPARED TO INTERNATIONAL MARKETS? WHAT IS THE USP OF THE INDIAN CONSTRUCTION SECTOR?

Being a developing country, India is investing heavily in new infrastructure creation. While investments in infrastructure are growing, many infrastructure projects are synonymous with serious time and cost overruns. The infrastructure development in India is prone to dependency on external factors like land, environment, socio-economic, community, regulatory, market forces, and many others and has its fair set of challenges. While there may have been a few success stories like the Delhi Metro, but as a whole, our performance falls short significantly, and on a consistent basis. This means that the Indian construction industry, although large in size, is lagging in terms of international standards in quality, safety, and productivity. While a few organizations have been at the forefront of adoption of advanced construction technologies, the rest of the industry has been slow to adapt to the new methods of construction or technology. The Indian construction industry is still seen as unorganized and heavily labour-dependent. Although, there have been many projects with successful demonstrations of advanced construction technologies in India, yet most of the projects are still being built using conventional methods. Therefore, there is tremendous scope for the productivity and efficiency standards of the industry to go up.

Excepting government organizations, PSUs, MNCs, and a few companies who have adopted Design-Build contracts in a big way, were a majority of project promoters and developers still prefer traditional sourcing models for their construction needs. Many projects experience poor cash flow that results in poor progress on account of delayed payments, onerous clauses in contracts, inadequate funding arrangements, poor dispute resolution mechanisms, and lopsided competition. These factors are actually proving to be barriers to innovation and adoption of new construction technologies. The GoI, over the last few years, has implemented numerous legislative and procedural reforms. India now stands at 63rd position in the World Bank's Ease of Doing Business Rankings 2020, up from 142nd position in 2014. This is a testament of a more seamless and efficient process of procuring construction permits.

The government has facilitated in debottlenecking critical infrastructure-sector projects, especially in the roads, metro rail, and aviation sectors. Such initiatives have been successful to an extent in easing out some of the core issues such as land acquisition and regulatory approvals. In addition,

NITI Aayog has recommended implementing model agreements for improving contractor procurement, which advocate adopting EPC contracting, incentivizing contractors for early project completion, and stage payments that can potentially align the interest of both clients & contractors to the project as well as reduce the number of claims. The current regime has also introduced GST and other reforms like the IBC Code, which are expected to boost growth in the long term. All these steps by the GoI should help the construction industry to scale up sustainably.

Beyond all these reforms initiated by GoI, a lot more needs to be done to make contract execution smoother. Although, the construction contracting fraternity has made multiple representations to GoI, the tender conditions continue to be archaic, onerous, and inequitable. Many government contracts involve contractual risks that are far higher than the margins that can possibly be earned through efficient projects execution. The government machinery needs to walk the talk when it comes to timely release of payments to contractors. The execution ability of contractors is dependent on many key decisions and approvals that need to come from the employer or the authority's engineer and these are often delayed. The leading E&C companies are implementing advanced construction technologies as preferred solutions for overcoming the existing challenges. This has also become imperative to address the needs of the large and complex projects like both public & private that are being planned in India. Moreover, technology has become necessary to achieve consistency, repeatability, scalability, predictability, and traceability.

HOW LEADERSHIP IS IMPORTANT IN THE CONSTRUCTION SECTOR? WHAT ARE THE MAJOR ASPECTS OF A LEADER IN THE CONSTRUCTION SECTOR?

Leadership is the most crucial, be it at an organisational, business, industry or at a national level. Effective leadership in construction requires combining technical knowledge with people management and business management skills. A leader in the construction sector needs to demonstrate project management capability and maturity in his organisation in addition to his domain or sector-specific knowledge. At SP E&C, we consciously nurture our high potential employees for senior leadership roles and are committed to develop project management competency at individual & organisational level. In the post-COVID world, top leaders in construction, must adopt digital and agile ways of working in order to model them for the rest of the company. Leaders are also required to raise awareness and excitement about the

new business models.

In the construction sector, most of the learning happens experientially and on-the-job. This includes training for leadership roles. In addition, instructor-led trainings and online modes also play a significant role. For leading E&C organisations like ours, employee attraction and retention are a priority. Learning and organisational development practices at SP E&C help us to create a competitive advantage. Keeping in view the ever-evolving construction processes, we have recognized the need for constant retraining of the workforce. Our training initiatives also include our workers. India as a nation has no dearth of engineering talent with decades of project delivery experience residing in pockets that needs to be tapped into help to improve the overall average performance levels. Deep techno-commercial expertise, robust contractual & legal systems, a passionate & driven workforce, with a strong entrepreneurial culture, leading technology advancements, and disruptions are some of the favorable factors that should be leveraged. As a nation, we

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need to build our leadership pipeline and overcome what has slowed us down in the past.

For India to become a developed nation, the successful implementation of public infrastructure projects is imperative. This requires leadership development at all levels. All stakeholders including key ministries, nodal GoI think tanks and key state undertakings that are implementing these projects, engineering and contracting firms in the country, to address and adequately respond to the challenges. These stakeholders need to organize themselves by adopting best practices in risk management, project governance, procurement and contract management. These stakeholders also

need to optimize their project management processes to achieve on-time and within-budget performances.

WHAT IS THE FUTURE OF THE CONSTRUCTION SECTOR IN INDIA? WHAT ARE YOUR THOUGHTS?

Despite the pandemic-induced setbacks, we see no long-term impact for the Indian real estate, infrastructure, and construction market. India has a huge economic opportunity in the coming years. With increasing per capita income and a population of about 1.30 billion, the Indian economy will continue to prosper aided by digitization, globalization, favorable demographics, and reforms. In addition, increased government spending on infrastructure and increasing urbanisation will provide plenty of opportunities for the construction sector. In the next few years, the government is expected to continue investments in the infrastructure sector. Both central & state governments are taking proactive steps to stimulate the economy and attract investments across sectors. The contracting fraternity in India has geared up for the 'new normal' amidst the pandemic. This level of interest amongst key stakeholders augurs well for the upcoming real estate and infrastructure projects.

In the Indian economy transitions and its workforce expands, it will offer vast development and investment opportunities for the real estate sector. The growth of cities is going to further influence the country's built environment, while technology, demographics, and environmental issues will become its new value drivers. The ideas, trends, and behaviours that will shape the real estate sector in the next decade are already perceptible today. In the years to come, the Real Estate, infrastructure and construction sectors in India will continue to be major contributors to the country's GDP. India continues to attract Private Equity and Venture Capital investments in the real estate and infrastructure sectors. Recent initiatives like Smart Cities, Real Estate Investment Trusts (REITs), and Housing for All are expected to bring huge investments. The Real Estate (Regulation & Development) Act is making the RE sector more transparent.

Despite COVID, India's resilient economic fundamentals and the ongoing reforms agenda make it attractive for foreign investors. It is also owing to the country's policy actions sustained focus on innovation, continued fiscal consolidation, and an anti-inflationary monetary policy that continues to move towards macroeconomic stability. This is an exciting time for the country. It also presents a different set of challenges for the E&C companies, which is to grow sustainably and support the economic activities as a growth catalyst. 