

# ‘Asset-intensive industries can excel if they focus on design, automation and incremental change’

In an interview with **Pallab De**, Partner and Manufacturing and Operations Consulting Leader, PwC India, **Vadiraj Kulkarni**, CEO, Paperboards and Specialty Papers Division of ITC, explains the inflection points that operations management is going through, highlights how asset-intensive industries can accelerate their business excellence journey and outlines why commitment of top management is necessary to drive digital transformation.



Pallab De (left); Vadiraj Kulkarni (right)



## Excerpts from the interview

**Pallab De:** Welcome to this edition of *Immersive Outlook*, Mr Kulkarni. The operations management system has undergone a lot of changes in the last three to four years. What do you think are the challenges and the benefits of that?

**Vadiraj Kulkarni:** Yes, thanks for inviting me. I would say there are two inflection points the industry is going through. One was, of course, COVID. I think all of us are familiar with the unexpected changes it brought in, especially in terms of complexity in the supply chain. We had challenges, even moving material from one part of India to another because of a lot of issues like lockdown, transportation issues, unavailability of truck drivers, etc. The second point is the geopolitical environment of the past one-and-a-half years. We may think that it is impacting only a couple of countries, but I think it is affecting far more because today supply chains are connected globally.

We had always done a risk assessment based on certain known factors. There could be

floods, transport strikes and labour unrest, but we never envisaged that the globe would be affected by a pandemic like this one. Normally, nobody knows when geopolitical issues will occur and how and what kind of implications they will have on a lot of organisations like ours that are manufacturing and connected to the globe.

So, I think our risk management strategies have completely changed. The framework has gotten broader. We have got more variables. We have people who are smarter, who can think on their feet, who can look at different kinds of risk scenarios, contingency scenarios, and be better prepared for them. Our supply chain has become more agile than it used to be.

**Pallab De:** Thank you for this. And do you foresee similar kinds of challenges will continue to arise in the future?

**Vadiraj Kulkarni:** I wish I knew. Surely not a pandemic kind of situation, but I think there could be a variety of factors that affect supply chains, and we are slowly getting better prepared for these.

**Pallab De:** But do you think that we are now better prepared as an industry to handle such situations in the future?

**Vadiraj Kulkarni:** Not only us, but I think even our business associates, partners, downstream manufacturers, upstream suppliers, all of them have become smarter. They're looking at sourcing models, they're looking at China Plus One kind of sourcing, and we got some benefit out of that. But we also have challenges out of that.

**Pallab De:** Tell us a bit about your journey in ITC. I think this is the only company you have worked for so far.

**Vadiraj Kulkarni:** Oh, yes. In fact, the current generation is very surprised that somebody can spend 27 years in an organisation. It's been an exciting journey, starting as a utility engineer, working in manufacturing, supply chain, working in a large division like tobacco, the cigarette business, and working across multiple factories. Finally, I moved into the paper and paperboards business which is far more competitive and tough while it is growing.

**Pallab De:** It's very encouraging to hear this. The ITC division particularly has been on a business excellence journey for the last two decades. Can you please tell us a bit about the journey? And also, if you have any suggestions for asset-intensive organisations that are starting their business excellence journey?

**Vadiraj Kulkarni:** I think for the pulp and paper industry, which is integrated with forestry, plantation, downstream processes and engagement with customers, sweating the assets is key. Also, improving the quality table. So, how do we do it? One option is to recruit the best managers and push them through improvements, through capital-intensive projects or via some new tools and technologies. But I think this division realised that if you want to have a sustained culture of improvement, we must involve everybody.

The business excellence platform that we've been working on with PwC for many years now, I think, is based on the fundamental assumption or hypothesis that there is always scope for improvement – if the improvement has to happen, it cannot be just a quantum improvement once in a while. If innovations are to happen, if improvement practices have to be established, it has to happen every day.

How do you make it happen? Managers will come and go. They will retire, they'll get transferred. But if you see the workers, the employees, the service providers, they mostly stay with you. So, if you involve them from day one of their entry into the factory through a very enabled kind of structure, it'll help us to have ideas for continuous improvement. For industry colleagues who may want to start on this journey, the commitment of top management is very important, in terms of the time that it commits, the time that you allot for hearing out the issues, spending time on the shop floor with them, also having the right structure in place.

We work with PwC, a process-based organisation, which will enable continuous improvement so that the issues between sales and production, production and engineering, production and quality, all these get resolved by standards and structures. We also need to commit resources, have centrally dedicated people at the units. At the same time, we need to provide them with IT platforms, tools, techniques and financial resources to manage this change. And it is very important to have ongoing recognition and rewards.

**Pallab De:** That's really great to hear. There are a lot of asset-intensive industries coming up in India. And of course, the Government is also pushing for it. What would be your suggestion for those setting up asset-intensive industries to be successful in the market?

**Vadiraj Kulkarni:** It has to start from design. If you're setting up a new manufacturing plant, or adding new capacities, go with the best in terms of technology. Also, build process automation. The third aspect is to empower people to innovate so that they make small improvements, etc., what we call Kaizen in Japanese. For example, at our pulp mill, without capital investment, we increased the throughput by 20% using digital technologies and consulting with experts, and that's significant because that is directly going into our bottom line without the addition of deployed capital.

So, I think asset-intensive industries can do a lot of things in order to improve process efficiency, and even the business excellence platform has helped us to ensure that the reliability of the plant goes up.

Some of our machines are operating at the world's best downtimes.

**Pallab De:** This is very encouraging. You know that the Government of India is giving a push to manufacturing and they want the manufacturing contribution to the GDP to go up to 25%. What do you think will make the Indian paper industry more competitive?

**Vadiraj Kulkarni:** I think one of the things is that we must dream big, which means we must set up large capacity plants. The moment we set capacities on a small scale, even if you're able to rebuild them and increase



**Pallab De (left); Vadiraj Kulkarni (right)**

throughput, you'll always be stuck with these small capacity inefficiencies. The second thing is to sweat the assets, have reliable machines and technologies, and the right people to upskill. Then comes our quality table.

And the third is green credentials. Indian industry has already started this journey. But if you're able to significantly bring down energy intensity, water intensity and people intensity, as well as bring in more renewable sources of energy, that will also make us competitive. And lastly, it is about having back-end integration in terms of fibre supplies. India is a fibre-deficient country. At ITC, we have massive agroforestry plantations working with small and marginal

farmers. And that will ensure that farmers also get benefits. They are partnering with you on your journey of growth. At the same time, you're able to secure raw materials.

**Pallab De:** Innovation is key in the paper and paperboard business. What's your plan in terms of enhancing your product portfolio in the short and long term?

**Vadiraj Kulkarni:** Yes, that's a good question. At least as far as virgin paperboards, premium recycled boards or decorative papers are concerned, we have a wide portfolio. In fact, globally, very few can supply paper

from 21 GSM to 450 GSM. Our latest laminator can go beyond that. Given this range, we have reached maximum end users and converters. The next phase of growth will come from these products which are going to be substituting single use plastics.

**Pallab De:** The Government has also banned single-use plastic last year. Do you see the demand for these kinds of paper products, which are replacing single-use plastics, increasing by leaps and bounds in India?

**Vadiraj Kulkarni:** There are corporates, MNCs and brand owners who are very committed. They want to replace plastic gradually if they have cost-competitive alternative solutions.

**Pallab De:** So, we know that ITC is focused on sustainability and eco-friendliness and a while ago you mentioned your afforestation drive. The Government of India has set a target of increasing the carbon sink by 2.5–3 billion tonnes of CO2 equivalent by 2030. And your Bhadrachalam unit has just got the Greenco Platinum Plus rating. Why don't you tell us a little bit more about afforestation and how it is going?

**Vadiraj Kulkarni:** We have afforested more than 9,00,000 acres across India. And I think the way we are growing in terms of capacities, we want to double this in the next decade.

We are working on new clones. In the last three years, we have released 10 new clones of Eucalyptus and Casuarina. We have covered different models of working with farmers. We work directly as a business on agroforestry plantations with farmers, investing in them. We provide farmers with saplings at nil cost or subsidies.

**Pallab De:** There are many other industries that are trying to work with farmers. Any specific input for them to earn the conviction and buy-in of farmers?

**Vadiraj Kulkarni:** I think the trick is to ensure that there is an assured market linkage and that we provide them with quality inputs, saplings and agri technical services. In fact, we have launched a mobile-based platform to share

best practices with farmers. I think it's a very long-term commitment, a partnership, and not just about looking at farmers only as suppliers. I think there is trust and confidence that we as an industry have to gain.

**Pallab De:** Your division is collaborating with Invest India. Can you tell us more about it? Do you believe that young India is going to help us achieve the sustainability goal?

**Vadiraj Kulkarni:** I think, yes. We came across Startup India and Invest India. We reached out and we had a lot of interest and evaluated various ideas. We are working with start-ups who need scale, market linkages, and financial support to help them come up with ideas so we can integrate those with our solutions and scale up.

**Pallab De:** Any success story on this front?

**Vadiraj Kulkarni:** Right now, it's confidential and we are evaluating them, so hopefully we'll have some success stories soon.

**Pallab De:** Nowadays, digital transformation is the buzzword for any industry that you talk about. Can you share your digital transformation journey with us? How are you using technology to remain ahead of the curve?

**Vadiraj Kulkarni:** I think ITC in general and the paper business specifically have always been leading in terms of the best technologies. We just upgraded our recovery plant to a high-pressure recovery boiler, the first in India, and that is helping us save 1.5 lakh tonnes of coal per annum. We also went for large-scale implementation of digital transformation. We used the internet of things (IoT), artificial intelligence (AI), machine learning (ML) and business analytics tools. In the last three years, we have got 2.5% EBITDA growth only through these digital interventions. And we have also set up an Industry 4.0 Centre of Excellence.

**Pallab De:** It's not just the paper industry, but other industries are also trying to digitalise. What is your suggestion for them?

**Vadiraj Kulkarni:** I think we must look at the potential application of digital technologies in our operations. We must support the right resources, give them approvals; let them try, fail and experiment. We must celebrate early successes, form a dedicated team and invest in the capabilities of employees.



**Pallab De**

**Pallab De:** Whether it is business excellence or digital transformation, you are a pioneer. What are you doing to upgrade the skills of your employees so that whatever changes you have brought to operations and manufacturing would be successful?



**Vadiraj Kulkarni**

**Vadiraj Kulkarni:** In typical organisations, when you see some successes, you close them as projects and move on. We didn't want to look at this as a project. We wanted to look at it as an ongoing programme which can help us to undertake sustainable digital transformation. We have Industry 4.0 Centre of Excellence and they train our managers. We have also tied up with digital learning platforms.

We are setting up our digital lab very soon to provide immersive learning opportunities with new technologies.

**Pallab De:** I can see a lot of initiatives and new thinking here. Thank you, Mr Kulkarni, for your time.

**Vadiraj Kulkarni:** Thank you.