

Resilient Indian Paper Industry – Gearing up for the New Normal

Driven by clear macro trends,
further accelerated
by Covid-19 impact



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Abstract: *This article intends to address the misgivings around the pulp and paper industry being non-sustainable and ESG risk area of operation. Just like the white revolution, this article outlines the various aspects of sustainability with optimization and better integration of reused paper in the production value chain. The article also advocates the amplification of facts like wood (including imported) pulp accounting for less than 15% of the paper produced, while the balance being recycled paper and agri waste by the Indian paper manufacturers. From circularity to platform-based entrepreneurship with collective responsibility of all stakeholders and not only the producers are some other factors elaborated upon to drive the transformation of this sector. The article also demonstrates how digital technology can be a catalyst and enabler of this change. This has been further accelerated by the pandemic situation. The author points out various ways in which this change for good in the new normal can be a sustainable phenomenon in the current times. The paper delves into various ways in which coordinated & co-led parallel transformational initiatives, beyond standard production KPI, designed & driven in a co-creation mode will help fast forwarding the overall sector maturity and growth trajectory through a “Prove once and mass Deploy” approach.*

Introduction: Indian Paper manufacturers continue to fight against the “Opinion bias” of being at logger heads with the green brigade / environmental policies, despite the committed efforts and significant investments towards sustainability goals and carbon leadership. Here is a huge potential and urgent need to demystify the public misgivings collectively and constructively on deforestation and environmental impact caused by Paper Industry by cascading the profound facts like wood (including imported) pulp accounts for only less than 15% (balance being recycled paper and Agri waste) of the Paper produced by the India manufactures. Building on this great achievement and sustainability leadership to their credit, they can critically evaluate something similar to what India started in 1970 with the WHITE revolution. Operation Flood was launched, and was the world’s largest dairy development program and a landmark project of India’s National Dairy Development Board (NDDB). It transformed India from a milk-deficient nation into the world’s largest milk producer, surpassing the United States of America in 1998 with about 22.29 percent of global output in 2018. Within 30 years, this led to the doubling the milk available per person in India and made dairy farming India’s largest self-sustainable rural employment generator. The bedrock of this pathbreaking success was the inclusive leadership and collaborative mindset, resulting in voluntary & active engagement of stakeholders, from cow to consumers, for a common cause and shared purpose.

On similar lines, Indian Paper Industry can disrupt the current practices of how the reused paper is pulled back into the production value chain, redefining the circularity principle of ESG framework. Leveraging collaborative and inclusive digital marketplace with easy transactions, impactful analytics and contextualized outcomes could foster the community participation. A digitally integrated partner network could unleash the collection Q & Q through a multifold expansion in the catchment pool by smart connection to every individual household / entity / business / cluster

and minimize the leakage / damage / wastage of reusable paper. The Green transformation initiatives should no longer be the responsibility of the producers alone but be a community driven social movement through sustained & elegant contribution for mutual gain and growth. On a similar cooperative framework & principles as NDDB, Indian Paper Manufacturers forum can enable & empower every stakeholder with a platform / a channel to direct their paper recycling opportunity and collect their credit points, which can be translated to money or goods terms. As someone said, the future is not all about mere “mass production”, but “production by (/ for) the masses”, hence inclusive innovation is not an option and “Platform based Entrepreneurship” is the way forward.

Incidentally, COP26 declaration endorsed the complexity and magnitude of the sustainability challenge while strongly establishing the need for a broad-based definition, expanded scope, and inclusive approach, notwithstanding what has been achieved up until now. In this regard, the industry leaders, domain experts and technical forums (like IPPTA) need to collaborate in contextualizing the fast-emerging ESG framework. This will help effectively set, monitor & publish the strong ESG commitment & performance anchored on sustainable operational excellence, energy leadership, Chemical usage & disposals, Circular approach & planning, in an integrated manner.

Complicating the situation even further, Covid pandemic had a sever and substantial bearing on the global economy, compelling the business leaders to review the priorities and revise the models. Every such major disruption usually opens an opportunity, if not more and this is true in case of Indian producers too. While the Paper industry in general is not insulated from the devastating fall out of the pandemic, in terms of socio-economic aspects like the health & safety, supply chain disturbances, production loss / shutdowns over last two years, it also triggered few leading indicators for this sector to evaluate & adapt to be relevant & successful in the world of a “New Normal”.

It's proved repeatedly that people, producers, and partners tend to forget relatively quickly and let go the key learnings & best practices, hence it's critical to be watchful so that industry doesn't fall too quickly back into "Business As usual" trap. Some of the COVID-19 driven practices & consumer behaviors are irreversible, additionally there will also be other things that affect and disrupt the overall business value chain and operations even after C19 pandemic. Coordinated & co-led parallel transformational initiatives / sprints, beyond standard Production KPI focused, designed & driven in a co-creation mode will help fast forwarding the sector maturity and growth trajectory through a "Prove once and mass Deploy" approach.

MATERIALS AND METHODS

Trends turning into new opportunities

Human behavior and social factors at large have changed radically because of the pandemic. But this development, as dramatic as the impact of COVID-19 has been, has by no means diluted / diverted, rather strengthened, the need to shape a more sustainable economy & operations.

Hence, the "New Normal" led strategies shouldn't be limited only to the context of C19 pandemic, but an impactful & smart blend of the already known environmental concerns & priorities reconfirmed through CoP26 agreement and the post covid consumer needs / preferences. This should be the compass for the Indian Paper industry and make it pause & reflect on the following 5 critical dimensions for an overall value chain efficiency and resilience.

1. Portfolio Mix / Grade shifts – Driven by consumer demand for convenience & sustainability

Packaging and tissue paper segment to outgrow the Printing & writing paper volumes, led by consumer preferences & surge in eCommerce. The sharp rise in demand for the personal hygiene paper products (like tissue papers, masks, toilet papers, etc.) food & medical packaging paper (thermal grade, food grade, medicinal parts / devices / materials), fast forwards the Machine rebuilds & Process modification investments. Also, upgrading for enhanced flexibility and responsiveness to meet fast changing customer preferences (from mass to custom production) is going to be the deciding factor for overall business continuity.



Of course, there should be a coordinated and focused open innovation / change leadership for an impactful adaption of the new technologies, production methods and materials for the "New Normal" manufacturing.

2. Footprint innovation – Hub & spoke approach

Secondary (satellite) processing facilities decentralized / distributed, closer to Point of Consumption (PoC), for customized, small batch size or multi-SKU production is an emerging need, post C19 pandemic. Indian Cement sector is a major adaptor and huge beneficiary of such a distributed footprint by setting "Ready Mix concrete plants, grinding units and Bulk terminals" closer to the urban areas or key points of consumption. This is to smartly meet the small batch size, special grades / specific quality demands with lean & smart transportation contributing tremendously to the holistic sustainability

goals and commitments, both on logistic costs and environmental impact. Also, improved OEE means recovered capacity that can be used to better manage changeovers (time & costs) between SKUs, transforming the whole outlook towards the asset integrity and operational insight investments.

3. Smart Sourcing – Secured availability, in addition to price & quality

COP26 conference was unanimous that it's not enough to look only at one's own value creation for delivering the sustainability commitments, as the upstream and downstream value chain activities generate far greater environmental costs than in-house operations. Hence, it's essential to reposition the supply chain function for its integral role in managing an organization's ESG vision / goals holistically, in addition to secured & cost optimal inventories for uninterrupted production, as learnt from the Pandemic experience. Companies with an over leveraged global sourcing footprint struggled to adjust to the effects of the pandemic. Hence, it's time to reevaluate & explore viable alternatives for an operational assurance and complementing contribution towards ESG targets.

4. Digital technology adaption / onboarding – Data driven decisions / actions, in time

Pandemic has brought in the objectivity and helped in changing the management outlook towards scope and impact of IoT solutions, sharpened SoPs, optimized human touchpoints and interventions, virtual & distributed working, etc. This momentum should now be sustained and accelerated through a comprehensive review of technology areas that could benefit organizations. The prioritized, could include contextualized ERP systems, automation & visualization, analytics, and integrated value chain insights, as well as the connectivity between these enablers and the application and use cases. In case of an integrated value chain, digital capabilities will further increase the visibility and traceability of products. For instance, raw materials, quality parameters, tolerances and facilitate the demand forecasting, capacity planning, production scheduling, cost optimization, energy efficient, carbon reduction / avoidance among others.

The essential success factor here is having a deep business understanding combined with Industry 4.0–related knowledge within Operations team. Hence, it's quite imperative to clearly define focus areas and build a roadmap by avoiding hype around big, complex business and benefit cases. Rather target specific and well-defined area of benefits and activities for quick & sustained impact that can be replicated broadly. It's proved useful not try doing everything at the same time and also by multiple plants / units. Leveraging Synergies of Scale & Skill in a collaborative and Co-creation manner is going to benefit the sector at large while reducing the duplicated spend / siloed efforts.

5. Talent Management and Empowered teams –
Not a cost, but business continuity focused

In the world of New Normal and Digital era, a sense of shared vision & common goals is more impactful rather than authority to get things done. By effectively integrating the partners, both internal & external, to make them feel they are part of something bigger and are positively contributing is a more sustainable culture in order to manage a wider, distributed and complementing ecosystem

Industrial Digitalization / IIoT has firmly exposed the clear limitations of any individual function, technology, organization, entity being capable of creating and delivering an end-to-end solution landscape. Hence the need for strong & mutually beneficial joint working systems and frameworks. That said, the conventional approach over the past several years, is to invest heavily in skill enhancement and the tools to support them in their roles. However, without the right investment in holistic people development, even the greatest system, the widest footprint, or even the most modern digital technology cannot yield the expected benefits over time. Hence to be

successful and relevant, it's extremely essential to reorient the working culture and operating models by recognizing the interdependencies and the multiplier effect through meaningful partnerships. So, focus should be to develop the inclusive mindset & collaborative working capabilities alongside functional skills so that the teams are equipped and empowered to manage any such disruptions and continue to help organizations thrive.

RESULTS AND DISCUSSION:

Conclusion

Indian Paper Industry is strongly placed and well experienced to push technology boundaries to embrace less/untried ideas and collaboration models. They could engage technology partners to co create and develop the solutions on fast-track mode, that can be productized and monetized elegantly, even outside of India. As a radical next step, Paper Industry leaders can explore the creation and leveraging a centralized framework and forum that can lead the development and deployment of futuristic solutions addressing the most profound & largely

common needs. A robust Industrial Marketplace connecting extended eco system stakeholders – paper producers, technology suppliers, OEMs, Service partners, transporters & logistics, startups / NGOs, Institutions, regulators, financial institutions, and public in general, shall unlock the huge latent value. This would reflect in terms of access to best-in-class talent & experience, price discovery and market insights, and procurement analytics. Other areas of benefits include synergies of bulk / pooled purchases, fast and focused innovation, cross learning and knowledge sharing, lean setup for common needs like training & certification, tech forums, ESG governance and practices, and efficiency & sustainability initiatives, among others. In terms of the ESG-requirements, the paper Industry needs to smartly adopt modern Sustainability reporting, analytics and compliance systems that help improve their processes by reducing environmental impact - mainly related to reduction in use of water and chemicals used in the Pulp & paper industry. Few Startups have done significant work that helps paper manufacturers attain Net-Zero scores especially on Emissions, Water pollution and solid waste.