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# MATERIALS MANAGEMENT REVIEW



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# Working in the gig economy

What are the advantages and disadvantages?

## Pros:

- **Freedom** - You are your own boss
- **Flexibility** - You decide when and where you want to work
- **Client choice** - you get to pick who you want to work with
- **No commute** - thanks to the internet you can work from home
- Pursuing your **passion**
- **Casual** work attire
- No office **politics**
- **Exposure** to different projects and clients all over the world



## Cons:

- No fixed **monthly income**
- Less chance for **career growth**
- **Isolation** - there's nobody to give you feedback on your ideas or talk to
- **Hustling** for new gigs
- No company **health benefits** or paid time off
- No **maternity leave**
- **Juggling** all your clients



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## *From the Desk of The National President*

Dear Members,

Greetings from National President!!

The last quarter of FY 2020-21 is ending on a gloomy note as far as the COVID-19 situation is concerned. All the good work done by various stakeholders including Central and State Government, local administration, healthcare workers, and frontline workers is getting washed away. We are again noticing a big spike in daily COVID cases. On one hand, people are getting vaccinated at a rapid pace, on another hand more active cases are getting reported. In order to arrest the rising cases, administration has again geared up and have taken various measures like imposition of night curfew, putting a ban on public celebration of Holi, shutting down of malls, relaxing the vaccination age to all individual above 45 years of age etc. We need to continue our spirited fight against COVID and together we all should prevent the second wave of COVID surge. 5 of our states are going for poll spread over next couple of weeks. We all hear various political parties making promises and counter promises to lure the voters. We as responsible citizens of the country should effectively utilize our rights of adult franchise and should vote for the right candidate and more importantly should participate in this festival of democracy. This is both our responsibility and duty since the popular saying goes 'Bad governments are voted to power by good people who do not vote.'



We successfully completed the NC meeting for Account passing on 11<sup>th</sup> March 2021 on a virtual platform. The financial results of 2019-20 has significantly improved over corresponding period of 2018-19. This was a combined result of the dedicated work put in by the Branches as well as NHQ. However only 36 of the 52 branches could complete their Balance Sheet within allotted time which is a real cause of concern. Also GST registration is pending for 7 states which is again a cause of concern. I urge the active branches in each of these 7 states to initiate the process of GST registration to comply with the statutory requirement. All required support and guidance will be provided by the NEC team to the Branches in their endeavor to carry out GST registration. Also we all need to ensure that in the current FY 2020-21 majority of the 52 branches complete their Balance sheet on time.

Many of the IIMM branches viz. Mumbai, Bangalore, Ahmedabad to name a few are actively organizing various online webinars for the benefit of their members as well as IIMM fraternity. Recently, Mumbai branch successfully hosted CPA Roundtable XI edition on virtual mode on 23<sup>rd</sup> March 21 which was a thumping success. Bangalore Branch conducted their monthly webinar on E-Invoicing in GST: Procedure, Implications and Benefits' on 20<sup>th</sup> March 21, which was well appreciated by all participants. IIMM Vadodara has announced the date for NATCOM 21 on 17<sup>th</sup> and 18<sup>th</sup> December 2021 on the theme **"Role of disruptive technologies in reshaping the SCM – Atmanirbhar se Atmasamantak"**. Hope by that time situation will normalize and the physical event can be held.

I urge all members of IIMM fraternity and their family members to take utmost care of themselves and do not lower their guard in our fight against COVID. Wish everyone a great start of FY 2021-22 and ensure that the new financial year brings all peace, prosperity and happiness in their lives.

With Warm Personal Regards

A handwritten signature in black ink, appearing to read 'Malay Mazumdar'.

**MALAY MAZUMDAR**

National President, IIMM

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## *From the Desk of Chief Editor*



Dear Members,

Covid 19 Pandemic has changed the way, how businesses are being operated not only in India but across the globe. Though, the work from home culture was forced upon business entities due to Covid 19, but many companies are finding it more advantageous than the traditional business operations, as it helped them in reducing the office running cost, remodelling their business operations depending on the continuity plans and hiring of Gig Workers or freelance/independent talents at much competitive rates that too without any long-term liability towards Gig Worker as in case of traditional work culture.

With an undue skepticism over efficiency & dependability of a GIG workforce being wiped out by pandemic-induced, remote work regime, many of the corporates have re-engineered their organizational structures and are comfortable hiring the services of GIG Workforce.

India is witnessing a rising trend in Gig Economy and is expected to grow to USD 455 billion by 2024 at a CAGR of 17%. Rapid technological innovations and digitization has led to the disruption in the labour market. Technology here plays a very important role in stimulating the scope of GIG workers regardless of the geographical boundaries. Independence of the project and flexibility of work hours have become the new work mantra which have redefined the meaning of labour.

GIG Workforce or GIG Talent have important role to play in formulation of Strategies, Procurement, Supply Chain, Logistics, Consultancy and other key areas, where there are short term knowledge gaps. Limiting spend on new hires and utilizing freelance and interim talent could be a route to a more cost-efficient supply chain. Taking advantage of the gig economy for temporary hiring needs can even allow recruitment managers to invest more in permanent hires when long-term talent acquisition needs arise.

As we are aware of, high logistics cost i.e. around 13-14% of GDP in India, more and more organisations are looking for innovations to keep costs down. To efficiently meet changes in demand, the logistics sector has a clear need for an agile & contingent workforce. GIG economy helps in maintaining the two pre-requisites for a successful supply chain: scalability and flexibility. According to research by McKinsey, companies with more agile supply-chain practices had service levels that were seven percentage points higher, and had inventory levels that were 23 days lower, than their less agile peers. One of the key findings reflected the importance of workforce agility and labor flexibility in achieving these results.

The GIG economy in India is still at a very initial stage with several challenges like a lot of skill gaps & lack of professional culture. Therefore, a GIG worker is required to up-skill, update and upgrade himself continuously so as to remain industry relevant and market ready. Short term courses particularly through online delivery mode in the areas of emerging technologies in SCM are the need of the hour. Adopting new technologies and best practices in SCM brings in focus the need for quality and certification. There is therefore, need for professional institutions to focus on these issues on urgent basis to help SCM professionals and Industry.

Materials Management day will fall between the present issue of MMR and the next one, on 23<sup>rd</sup> April 2021. It is a reminder to all of us of the need to develop the profession of SCM for overall prosperity of Nation.

I wish all the readers a happy MM day.

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# GIG ECONOMY ALIGNING CONSUMER PREFERENCES: THE WAY FORWARD

**HARPREET SINGH MALHOTRA**  
**CHAIRMAN & MANAGING DIRECTOR, TIGER LOGISTICS INDIA LIMITED**

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**T**he present business environment is also known as the “Fourth Industrial Revolution” of India. It has reshaped our past thought processes and changed the common opinion like how people interacts with companies, also created a new business environment which is much professional. Today the technology as a tool replacing older modes of work at an increasing rate and with an ever-growing search for profitability in an increasingly competitive world, the Government of India has welcomed the benefits of newer technology with open arms. And as it is with any system of interconnected entities, aspects such as labor markets have greatly evolved too in the wake of these changes. The gig economy is one such result.

**Understand the term: ‘Gig Economy’ :** ‘Gig’ – a word, coined several decades earlier, seems to have gained prominence in today’s time. In the present context, a ‘gig economy’ involves a temporary contractual job or short-term contract or freelance work that a person may take, on a project-to-project basis, for which the payment is made once the task is completed. The gig economy gets its name from each piece of work being akin to an individual ‘gig’. It can be defined as an “economic activity that involves the use of temporary or freelance workers to perform jobs typically in the service sector.” A gig economy encompasses all platforms that hire independent contractors, consultants, and workers in different sectors, such as information technology, content creation, social media marketing, and communications, food and beverages, creative fields such as art and design. A gig economy, hence, means the existence of a temporary or part-time workforce instead of a conventional workforce.

The recent spree of changes that modern-day economies are undergoing due to the adoption of newer technology, today, has loosened a previously structured and often regulated access to formal work opportunities. The rapid adoption of technologies, in addition to changing candidate preferences, today means that workers are able to procure multiple pieces of work or ‘gigs’ while companies have the option of reaching out to candidates with requisite skills. With such shifts within the labor markets, it remains important to note how pervasive has the impact of a growing gig economy been for an economy like India. With a large working population and an overall

workforce which grows by over four million every year, the advent of the gig economy in the country has had a major impact on the country’s labor market.

There has been a significant rise in both the number of gig workers across the country, as well as growing numbers on the hiring side. According to one such study that captured this growth, over 70 percent of respondents from the hiring side have used gig workers at least once or twice for solving organizational issues in the last year. Further, the report said, nearly 45 percent of the human resource (HR) heads surveyed wanted to hire a gig worker so that they can supplement skills of the existing workforce, 39 percent would do this to reduce the cost and 10 percent for filling temporary vacancies in their teams. India, due to its sheer number of the working population, many of whom are beginning to get digitally connected, has found a growing acceptance to gig work. It currently values the global freelancer market at \$2-3 billion which is growing at an annual rate of 14 percent. India currently accounts for \$1 billion of the global market. While the US leads the race with 53 million independent workers, India has 15 million freelancers with its gig economy workers increasingly gaining independent contracts in industries like IT and programming, finance, HR, and design, among others.

## **The ‘Gigs’: Driving force for the future**

An important aspect of the rise in tech usage in a country like India has meant that many who would’ve worked previously within the unorganized sector are now able to procure better employment. But that’s not to mean gig economy finds itself in a clear area when it comes to the ‘formality’ of the jobs it generates. With a large working population and an overall workforce which grows by over four million every year, the advent of the gig economy in the country has had a major impact on the country’s labor market. To look closely at the projected rise of the gig economy in India, one needs to follow the journey of how technological and demographical shifts have made companies and candidates evolve their interaction with each other. Increasing digitization has meant that remote working options have become an option in front of HR professionals, often playing a key role in incentivizing employees. Co- working spaces, both offline and online, have come up which allow people to connect

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and make the best use of each other's qualifications to perform efficiently. With talent pools today becoming way more diverse in their age constitution and with Millennials and Gen Z workers increasingly becoming part of the country's workforce, many have begun preferring to become part of the gig economy. Either under the force of lack of formal jobs and or just evolving economic conditions, studies show that as more and more companies undertake business transformation to make their processes more technologically driven, the number of gig workers are bound to go up. Increasing use of technology, like AI and automation, would also lead to the creation of new job profiles and a business's need to look for qualified talent. In the coming years, instead of hiring outright for such positions, it'll be possible for companies to just reach out to talent on a more project-like basis. Most jobs created under this growing trend exist in their own informal space. Although this might seem to be an effective measure for both professionals to set their working wages according to free-market operations and a company to hire people with specialized skills on a temporary basis, the real-life implementation of the model doesn't essentially come back without its red flags.

The evolution of the digital age can be considered one of the major reasons for the growth of the gig economy. Workers or independent contractors get paid for each gig or job they do, and this very principle is the basis of all internet applications that involve this temporary workforce. Several companies pay their partners, be it drivers or delivery executives or other such personnel, according to the number of deliveries and/or customers they serve in a day or in a month, or as per the schemes that these companies put in place. These partners can undertake various tasks of similar or different nature with different companies since they are not in the permanent employment of any establishment. It is possible that the amount earned by these partners, in a month, maybe equal to or higher than the amount earned by an individual in full-time employment in an establishment.

### **Gig Economy and Indian standards**

India constitutes about 40% of the freelance jobs offered globally, with 15 million skilled professionals fuelling the ever-so-increasing demand for contract-based jobs or the freelance industry. Freelancers are attracted to the gig economy because they can follow their niche and, at the same time, leverage the flexibility and independence that comes with it. A worker or independent contractor has the choice of selecting his or her work hours and at times, even the mechanism through which he or she wishes to complete the work. Such workers or independent contractors can work from home, especially when the project is related to arts and design, information technology or creative

writing. This also leads to freedom of choice for both, the employer as well as the worker or independent contractor, to look for other suitable options due to no restriction with respect to proximity to the workplace.

Gig economy is also cost-efficient for companies, given that they can accommodate temporary workforce, according to the customer requirements or business needs, leading up to saving administrative and compliance costs that they would otherwise incur if they choose to hire full time or regular employees, especially in cases where business models do not involve the engagement of permanent workforce. It may not be possible for companies and start-ups to afford skilled professionals as full-time employees. In such situations, companies may choose to enter into contracts with the professionals for a specific time period. This relationship is rather symbiotic, and both parties have equal freedom to look for options that cater to their needs. Meanwhile, both parties simultaneously spend their energy in cultivating connections and building relationships with their respective demographics.

A gig economy is not a new concept on the global front. In Europe and in the United States of America hiring part-time workers or independent contractors has always been prevalent. It eventually leads to employment generation and overall skill development. Gig workers control their employment with respect to the type of job they want to undertake and the time they wish to put in towards such a job. Therefore, a gig economy bestows upon these workers, the flexibility and independence to be able to expand into new markets and create a talent pool for employers to choose from. Industries like information and technology, art and design, and content creation see a high demand of gig workers and freelancers, and have relatively better-educated and trained persons who have access to better network infrastructure and more growth avenues. Over a period of time, the gig economy in India has brought under its purview several other occupations, as well. Further, independent workers working in the gig economy are paid according to the schemes that a company has put in place.

People who are part of the gig economy may have several benefits, including the independence to choose their hours of work, workdays, holidays and preferred organizations. However, the key disadvantages in a gig economy may include instability in a job, uncertain pay schedules, unsteady workload, and a lack of social benefits and/or any statutory protection akin to a worker in permanent employment. The market may not always be favorable to a particular industry and, therefore, freelancers are expected to be prepared for more than one type of skill. Due to the lack of permanent employment, there is no certainty pertaining to the pay scale and its continuity. Hence,

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people who choose such open work environments need to constantly keep updating their knowledge base and skill set to remain in business at all times.

The more an important downside of a gig economy is that, unlike traditional employment, workers in a gig economy do not seem to be eligible for any social benefits such as insurance, medical benefits, employees' provident fund, bonus or gratuity. These gig workers also do not have any employment-related rights, except in some cases involving any breach under their respective contracts. Not being a full-time employee of an establishment implies that an organization is not mandated to provide any social security or statutory benefits to an independent worker. Given the absence of any codified Indian laws in this space currently, the persons working in the gig economy, based on the nature of their engagement, are categorized as independent workers or independent contractors.

### **Regulatory Aspects: The Government of India take on 'Gigs'**

In the absence of an employer-employee relationship, such workers are mostly not entitled to any social benefits, such as provident fund, gratuity, annual leaves, sick leaves and overtime, besides a severance compensation. Hence, irrespective of no restrictions on the number of employments they might take, such workers may not be eligible for any basic rights at all. Cases in India have, time and again, dealt with situations where an employer-employee relationship could or could not be established. While the current focus of the central and state governments in India may be to deal with the larger challenges posed by the organized sector, it is possible that government may start focusing on the gig economy and aspire to extend the applicability of certain statutes to them, taking into account the growing strength of gig workers.

The Directive may also prove to be helpful, if it is determined that the intent of labor and employment statutes is to grant protection to the workforce and identify minimum rights for gig workers, as well. Given the nature of the engagement or relationship, gig workers, at this stage, may not be eligible to avail of any legal or statutory claim. However, given the continuous growth of the gig economy, it is possible that some benefits may be extended to them even if not at par with the regular or contractual employees of an organization. It is certainly an area to watch out for, in times to come. With the tech-enabled gig economy gaining more prominence, the Indian government has been keen on bringing such transient workers under the formal employment umbrella.

The Department for Promotion of Industry and Internal Trade (DPIIT) is reportedly now working on making it compulsory for online marketplaces such as UrbanClap,

HouseJoy and others to only engage service professionals who have a valid goods and services tax (GST) number or GSTIN. The move is aimed more at keeping a database of such professionals since the majority of them are exempted from GST charges as they have an annual turnover of less than INR 40 Lakh. The government is looking to get services professionals such as plumbers, electricians, and beauticians listed on tech-enabled service aggregator platforms onto the GST network. The workers may not be eligible for GST or quarterly filings, but the decision to get them listed onto the GSTN will make it easy for the government to trace the workers if there is any untoward event. Companies such as UrbanClap may be asked to keep a log of all the jobs done by these services professionals, which were facilitated through their platform. The move comes with a backdrop of the government finalizing its national e-commerce policy draft which will be released in the fiscal year ending March 2020. There are several issues that we are examining like consumer safety and protecting the rights of these workers.

Regulations here can come in various forms. They range from overarching schemes like the creation of a Universal Basic Income scheme and the provision of skill-building opportunities (even 'gigs' would soon require specialized skills) to looking closely at the freelance and gig-based employment and taking steps to make them an attractive and secure option for people to follow. Though proponents of the gig economy claim people can benefit from flexible hours, it has its fair share of detractors, who consider it a form of exploitation, with very little workplace protection. While gig work is a necessity for some, it is a luxury for others. It remains to be seen what journey we undertake.

The Indian government is also planning to extend worker benefits under the state-run Employees' State Insurance Corporation (ESIC) to gig economy workers, including delivery partners working with delivery startups such as Zomato, Swiggy, BigBasket, Dunzo, Grofers, UberEats and driver partners for Ola, Uber, Rapido and other mobility startups.

This is the first time that gig economy workers will be able to enjoy the benefits provided by the ESIC. The initiative is part of the government's Social Security Code Bill. The bill received a nod from the union cabinet in December 2019 and proposes setting up a social security fund using a corpus available under corporate social responsibility.

The proposed draft also ensures gratuity perks for fixed-term contract workers before completing five years of service and a gratuity bonus proportional to the time of their service at the company. They will basically enjoy almost the same benefits as permanent workers. Currently, any employee working in an Indian registered



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company has to complete five years of service to receive a gratuity bonus, according to the provisions of the Payment of Gratuity Act, 1972.

### **Ground realities of gig: Are you ready to gig it?**

The biggest difference between going gig and having a functional role with a steady income is that as a full-time gig worker, you have to become an entrepreneur. You have to understand financials, networking, and the human psyche deeply. That mindset is very difficult to cultivate, especially when you are conditioned in a single functional role. If that does not come naturally to you. You should understand the following:

- Network and be out there
- Develop partnerships
- Change your attitude – don't be stuck on past laurels

Going gig, It is like the first day of the rest of your life. You have to learn all the tricks afresh. A lot depends on the situation that drove you to take up gig work in the first place. If it was due to a passion, you have planned for it better (financially), however, if it was a coerced decision, you may not have ample patient-capital. It is then that the urge of going back to a full-time job is at its peak. It may also result from not getting the quality or consistency of gigs you expect. Many gig workers experiences that one in 10 gigs pitched for coming through. People who have been in such a situation, suggest the following:

- Be positive and use that time to upskill/learn a completely new skill
- Build credibility and get certifications in your field, so your specialization is taken seriously
- Gulp your ego! It is okay to intern with someone for your new role. Going gig is all about learning new skills

Unfortunately, in India, there is no regulation that standardizes rates paid out to gig workers. It becomes important then, for the gig workers to learn to negotiate. Imagine, the irony of this situation: you get paid very differently for the same deliverables when undertaken for a start-up, an MNC or a client in the US. Experienced gig workers shared some tips on negotiation that they have learned over the years:

- Initially, you have to learn to gauge a prospective client and how much can they pay. In the early days, you do lose projects because of the price. Find your sweet spot based on the nature and stage of the client – a base retainer is a good start, then devise a retainer/ project-based approach and a price range.
- Learn to set clear expectations, have written contracts with client success milestones clearly

listed out

- Negotiation is a demonstration of value. There is merit in investing in so-called optics. Go to meetings with a team, work out of a co-working space and have a professional email ID.

### **Advantages of going gig-route for companies are:**

- Access to highly specialized workforce
- No hassles of notice period/onboarding or training
- Timeline and milestone-based efficient work

Hence heeding the monetary needs, many have started moving towards temporary and flexible positions, treating them as a journey that fits their current gratifying lifestyles. This trend has eventually evolved to the gig economy – where temporary or fixed contract options are valued more than permanent ones. Conventional recruiting methods no longer work in the 'gig economy' and traditional engagement strategies cut no ice with a freelance workforce. 'Uberisation' of the workforce is happening in India too, with more and more people opting out of the daily grind and choosing to be 'fluid'. The number of workers being hired as freelancers or contract workers has risen from 20 percent to 25 percent in the contingent workforce in the past two years. This points to the rise of the Gig or Flex Economy. More are opting for a flexible style of work, one that lets them remain in control of their time and allows them to work when and how they want.

### **Implications on the Indian 'Gig' Industry**

The gig economy is firmly on its way to becoming a key part of India Inc's strategy. As many as 72% of all gig projects were in large corporates and professional services firms in 2018-19 compared with 52% two years back. Plus, most of the professional gig economy segments have seen growth double in two years, according to a foreign study. We find that large corporations are increasingly leveraging independent consultants and freelancers to drive priority strategic projects and to pilot new products or service models. This is driven by a need for specific expertise and new thinking, the urgency of deliverables and also a need for flexibility.

The whole thing is we have the unorganized sector, which is 92%. When the gig and platform economy comes in, when Uber came in, it brought drivers who were unorganized into the organized sector and only these kinds of things can help, but the quality and longevity of such employment still leaves a great deal to be desired. While automating jobs such as drivers will be harder in India, with government ministers saying they will step in to prevent the use of technology that will harm jobs, there is still the quality of jobs to consider, particularly in the gig economy. The Government's interest is because of demand for these

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kinds of jobs, though hiring appears to be plateauing. But fundamentally there are issues to be resolved.

The staffing company helps startups fulfill their requirement for delivery agents and other roles. Benefits such as retirement and insurance are of particular concern in India, as most are tied to the company where an employee works. Formal workers pay into a provident fund account and large employers typically offer group health insurance. This is not the case for gig workers, who may in some cases have some insurance for accidents on the job. Governments are aware of these issues. There is a need to look at safety nets in these kinds of jobs. Technology generally runs ahead of policy. So there is a need to catch up.

While it has reached a fairly mature stage in developed countries where recruiters and employers are used to a concept of a mobile workforce, organizations in India is still getting used to this departure from the traditional work culture. But as estimates show, flexible jobs and gig-based employment are certainly growing. Given the technological journey that Indian companies are still to chart, the gig economy is bound to grow. But in order to successfully utilize the gig economy as a way of engaging the rising workforce of the economy, many other factors like skill levels and technological access of the masses have to fall in the right place. But all is not ideal with the current work of affairs.

With talent pools today becoming way more diverse in their age constitution and with Millennials and Gen Z workers increasingly becoming part of the country's workforce, many have begun preferring to become part of the gig economy. Many end up becoming a part of the gig economy not out of a yearning to try out different things but rather a very real need to have a job. Given the rapid growth of India's working population, the employment generation capability of a gig economy has helped many within the labor markets to become employed. A stance which many have proposed as a way of creating jobs. Although this might be a temporary solution towards creating employment, independent workers by nature of their work are more exposed to market shocks than regular salaried full-time employees of a company.

A study by McKinsey has estimated that up to 20%-30% of the workforce in developed markets are engaged in independent work. And over a third of India companies estimates up to 50% reliance on flexible talent in the next five years. However, like with any profession, going gig is no mean feat. It takes a lot of hard work and persistence. Reasons for going gig can vary from following your passion to a life event or a career dead-end.

### Area of Scope

Remote workspaces that enable freelancing and

support the gig economy work structure are slowly replacing brick and mortar buildings. Randstad India's 2016 survey on workplace flexibility revealed that 1 in 2 Indian employees prefer telecommuting. As much as the steady but sure change in this trend has been over the past couple of decades, virtual teams working on multiple different freelance projects enabled due to technology and collaboration tools will be the wave that the future of work will ride on. Today, 1 out of every 4 freelancers globally is from India. Platforms such as Flexingit and Lancify are making it easier for them to earn on their own terms. Let's go through some steps to understand the area of scope.

**High-end technology:** Technological disruptions have in many ways changed the manner in which employers interact with their employees. A critical dimension of this change has been on the nature of work. Flexible work is slowly becoming a preferred option for urban employers. With reports showing the rise in the number of freelancers within urban spaces, many modern workplaces are also gradually shifting to this shift in working culture.

**Work-life balance:** The burgeoning millennial workforce, who according to the Business and Professional Women's Foundation will account for 75 percent of the global workforce by 2025, is driving the creation of this virtual workforce. Millennials being digital natives prefer work cultures that employ technology to accommodate their work and family life. This includes the preference of workplaces offering the option of freelancing with projects that suit them best.

**Super collaboration tools:** The future of work will include changing business models where technological empowerment will empower the rise of self-employment leading to a greater gig economy. The key to the success of virtually connected but geographically agnostic teams lie in deploying the right technologies that facilitates collaboration while aiding in strategy, planning, and knowledge sharing. This is what will maximize efficiency, productivity and help establish the future workplace

**Increased productivity:** The economics of freelance workers go beyond mere monetary savings. Increased productivity, which adds indirectly to profitability, is amplified with work from home workers. Entrepreneur.com stated that a telecommuter is twice as likely to be more productive as a non-telecommuter. Fifty-three percent of telecommuting workers work for more than 40 hours a week, compared to 23 percent of non-telecommuters.

**Freelance workers are happier:** Remote workers make happier teams: The greatest advantage of flexible work hours that cannot be measured in monetary terms is a happier, less stressed and more motivated workforce.

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Eighty-two percent of remote freelance workers reported lower stress levels according to a study by PGI, a leading provider of software services. Such happy and stress-free employees can be a huge competitive advantage in the marketplace.

### **Conclusion: Modern problems require modern solutions**

A gig economy, in simple words, is an environment in which organizations contract with independent workers for temporary, short-term engagements. Gig workers come with a lot of expertise and that saves time. The only challenge the company faces is when the gig worker is based overseas or another city. Coordination becomes a challenge and so does building a rapport with the team. Companies are open to hiring gig workers for roles like government relations, senior leadership positions as they move to new geographies, products, tech R&D and even for communication. The gig economy currently more prevalent in the USA, Europe, and India, is expected to bring transformational changes to traditional HR practices around the world, where gig and the traditional economy will thrive together. India with the uprising gig economy has the potential to become the top freelancing and crowd sourcing hub in the Asia region, even globally. A dramatic workforce transformation is underway and is changing the way companies find and deploy talent. Not long ago many were tempted to find lifelong careers that seemingly gave people satisfaction in their professional life. Today, tables have turned and a growing number of people believe that an ideal job doesn't stand in the way of being the boss of your own time/ personal life goals / self-growth.

In 2015, nearly a third of workers globally consider themselves freelancers. The rising numbers now comprise 34% of the workforce in the Asia-Pacific, 31% in the US, and 27% in Europe. These freelancers are independent by choice and chose to be part of the gig economy driven by the freedom and flexibility of the work-style affords. They are highly educated and skilled - 70% of freelancers in the APAC region possess a professional or technical skill-set. 35% of the total workforce comprising non-employee workers includes temps, freelancers, and contractors. As a result, 95 percent of businesses now view this new workforce as a key element to developing and running a successful business, which means big changes for hiring trends in the coming years.

Startups powering the gig economy hire talent across technology, marketing, finance and HR on freelance or need-basis. IT companies are opening roles for moonlighters, freelance consultants on non-mission critical parts of projects or as part of larger development efforts on a one-off basis. The changing needs of today's workers, the war for talent and the

globalization of the workforce are just a few reasons that today's technology is evolving so rapidly. All of these forces are driving workforce management to the top of the business agenda, especially as talent becomes a true differentiator for organizations. The biggest sources that companies use to find this new class of talent include online labor marketplaces, freelancer networks, and social media. By understanding where this talent exists, how it can be engaged, and the general parameters of how it should be managed, companies will be able to derive additional value from the wealth of skillsets available in the on-demand talent marketplace.

The gig economy can be the answer to talent supply chain challenges faced by professional or technology sectors. While critical roles would still be in the realm of regular employment, freelancers can reduce the burden on the supply chain, increase operational efficiencies and reduce project costs. Attracting and retaining top talent has been a consistent challenge for global pharma companies and this could be the answer to an acute talent shortage in the pharmaceuticals sector, particularly bio-pharma. The advantages are aplenty for the workforce too, and not just the employers, as they can pick and choose the gigs they want to work on. This means their skills will be current while retaining flexibility and autonomy and avoiding the occupational hazards of a regular job.

In effect, freelancers can operate as entrepreneurs. More importantly, they can have a work-life balance few can dream of. However, a freelancer's work life is fraught with uncertainties as compared to a traditional employee. So, freelancers entering the gig economy should be ready with a do-it-yourself, disruptive attitude. Although this trend is increasing in popularity, there are also challenges with the reality of contingent workers. In the study, 48 percent cited a lack of visibility and intelligence into the ultimate ramifications of the gig economy. For example, it's difficult to ensure these freelancers are up to speed on compliance, training and their overall impact on the business; all things you can easily teach a traditional worker.

Ultimately, companies are realizing that the gig economy affords companies access to pre-screened, pre-trained workers with niche skills, who can get to work quickly and stay on only for as long as they are needed. And, as a company's needs change, an external workforce can be scaled up or down quickly. Employers need to think beyond full-time employees and tap into the Open Talent Economy. The art and science of management wouldn't be about overseeing an ever-shrinking base of internal resources; it'll instead be about curating capability or contribution across a network of sources.

While companies need to transform and come up with

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strategies to cope, even the government will need to put in place a new labor relations framework. The rise of platform models like Uber and Airbnb has given rise to anxiety. The world over, governments are trying to figure out the size, scale, and loopholes associated with the gig economy, particularly against the background of unionization and regular protests demanding regularization or extension of benefits akin to traditional employees. What will be the counters of such legislation is the moot question. As key economies grapple with jobless growth, the gig economy can be a redeemer. Gig workers have flexibility but no paid sick leave, no time off, and certainly no pension.

The government may need to legislate labor platforms where there is an urgent need to redefine labor laws that must not stifle innovation but certainly prevent exploitation. In India, freelancing as an employment option has not yet penetrated the rural landscape. Regulations enabling such possibilities would be a step in the right direction. In India's huge informal work economy, 50 percent of self-employment is premised on self-exploitation. The larger workforce issue that needs to be addressed is workforce formalization.

The ground reality is that for a full-time employee, there are often statutory benefits such as provident fund, gratuity, and bonus, whereas for gig workers none of these hold true. There are no regulations to protect freelancers in India today and the most important document for them is the contract they sign. Today, 90% of these contracts are drawn in the company's favor. Freelancers have to read through the contract very carefully before signing. Some parameters that have to be well balanced and included in the contract are:

- A non-compete clause
- IP and who owns it
- The time period of the contract
- Deliverables
- Payment – specify if it includes an advance or not and timelines of payment

#### What companies can do for the betterment?

**a) Overturn traditional job descriptions into skills-based categorizations:** Currently, most organizations leveraging the gig economy to scale-up their business are small – to medium-sized enterprises. Larger corporations have been slow to adapt to this trend is still figuring out how their recruitment strategy and compliance practices can accommodate short-term contractors within their existing structure, especially in terms of how gig workers can fit their corporate culture and working style. With the rise of Robotic Process Automation

(RPA), data analytics and routine tasks are often automated to achieve higher efficiency and accuracy, allowing staff to engage in skills-based, value-added tasks. Hence, instead of holding up to the traditional categorization of job descriptions, corporations can creatively divide work into skills-based tasks, so as to simplify processes of briefings, handover processes and management.

**b) Revamp employee policy assessments and evaluations:** Corporations should evaluate existing internal policies and candidate assessment processes to cater to permanent employees. As companies look towards engaging gig workers, it is essential for talent acquisition teams to revamp their approach to assessment processes and job requirements, as well as staff benefits and policies. This is equally necessary for jobs that require gig workers to work on-site and off-site. An effective evaluation process is required to ensure consistent and quality work, where customized assessment procedures will need to be developed with the active participation of the relevant line manager.

**c) Effectively communicate employer brand:** Communicating an authentic corporate brand is needed for traditional talent acquisition processes, even more, important in a gig economy, where the foundation is built upon trust. Skeptics perceive that the gig economy's impact on the workforce undermines a corporation's dedication to the fair treatment of employees; it is vital for corporations to communicate their brand in a manner that is true and personal to permanent employees, potential candidates or contractual staff. By focusing on the company culture and its people, companies will bring a positive experience to existing and potential employees alike. To avoid disconnection, corporations must also bring brands to life, ensuring the corporation is relatable by giving it a distinct voice and personality. Many companies are already doing this on digital platforms, such as user-centric mobile-friendly career sites, mobile-enabled application and assessment tools, usage of video content and employee video blogs. Such practices enhance employer brand and communicate brand culture. All in all, a corporation will need to embrace flexibility to address the ever-changing societal evolution.

The gig economy is cutting across generations, is no longer restricted to the services sector and raking in high-value gigs. It has arrived and is here to stay.

Source : ASSOCHAM GIG ECONOMY REPORT

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# PRODUCTIVITY IMPROVEMENT THROUGH KAIZEN MINDSET

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**K**aizen is a Japanese Term (改善 : Kai means Change; Zen means Good) meaning "Change for the Better" or "Continuous Improvement."

It refers to Small & Incremental Continuous Improvement activities that Encompass all Processes and Involve all People in an organization in pursuing both Personal and Process Excellence.

**The History of Kaizen :** The history of Kaizen begins after World War II when Toyota first implemented quality circles in its production process. American business and quality management teachers who visited the country back then partly influenced such implementation.

A quality circle is a group of workers performing the same or similar work, who meet regularly to identify, analyze and solve work-related problems. This revolutionary concept became very popular in Japan in the 1950s. Now it continues to exist in the form of Kaizen groups as well as similar worker participation schemes.

The term Kaizen actually became famous around the world through the works of Masaaki Imai

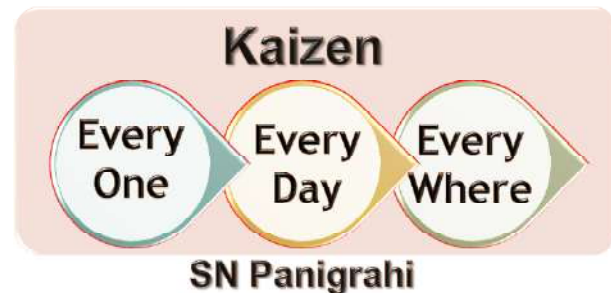
**Masaaki Imai** (born, 1930) is a Japanese organizational theorist and management consultant. His work on quality management, specifically on Kaizen is well-known. In 1985 he founded the Kaizen Institute Consulting Group (KICG) to help western companies introduce the concepts, systems and tools of Kaizen. At present time, the Kaizen Institute team has applied the lean methodology and kaizen training courses to virtually all business sectors throughout the globe.

Masaaki Imai published two fundamental books on business process management. "Kaizen: Japanese spirit of improvement" (1985), which helped popularize the Kaizen concept in the West, and Gemba Kaizen: A Commonsense, Low-Cost Approach to Management (1997).

**Kaizen : Everyone – Every Day – Every Where :** Kaizen is very Simple Method which Everyone can Practice. Kaizen is based on making little changes on a regular basis: always improving productivity, safety and effectiveness while reducing waste.

Kaizen is most commonly associated with manufacturing operations, as at Toyota, but has also

been used in non-manufacturing environments such as in Service Sector.



Kaizen refers to any activities that continually improve all Business Functions or Processes and Involves Every Employee from the CEO to the assembly line workers. Kaizen can be used in areas like Service and Customer Care, Marketing & Sales, Purchase & Logistics, Cross Organizational Boundaries of Supply Chain; Applied in Healthcare, Psychotherapy, Life Coaching, Government, and Banking, Human Resources, Finance etc. - Improving the Quality of Work in Every Sphere of Business & Personal Life.

## Benefits of Implementing Kaizen

With every employee looking for ways to make improvements, you can expect results such as:

- ✓ Kaizen reduces waste in areas such as inventory, waiting times, transportation, worker motion, employee skills, over production, excess quality and in processes.
- ✓ Kaizen improves space utilization, product quality, use of capital, communications, production capacity and employee retention.
- ✓ Kaizen provides immediate results with very less investments. Instead of focusing on large Capital-intensive improvements, Kaizen focuses on creative investments that continually solve large numbers of small problems.

Successful kaizen efforts can result in benefits such as

- ❖ **Increased Productivity,**
- ❖ **Improved Quality,**
- ❖ **Better Safety,**
- ✓ **Lower Costs, and**
- ✓ **Improved Customer Satisfaction.**

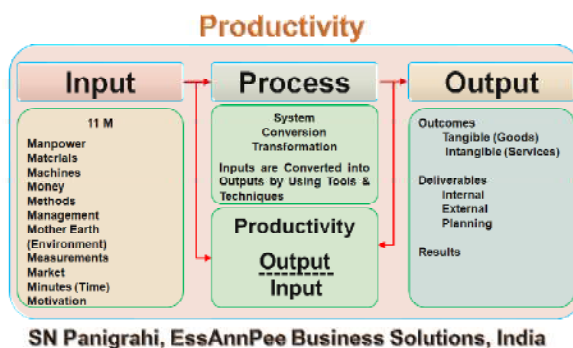


Kaizen can also lead to benefits in

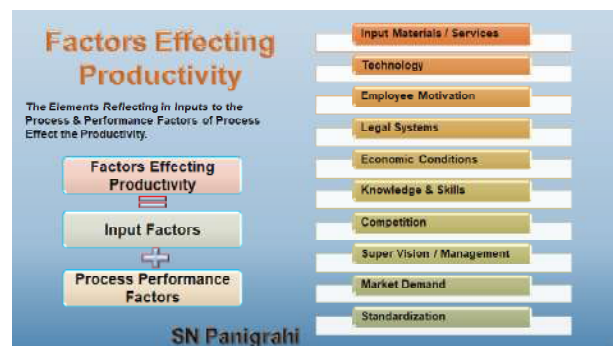
- Company's Culture,
- Improved Communication among Employees,
- Improved Morale and Employee Satisfaction, and
- An Increased sense of Ownership in the Company among Employees.

Large capital projects and major changes will still be needed, and Kaizen will also improve the capital projects process, but the real power of Kaizen is in the on-going process of continually making small improvements that improve processes and reduce waste.

**Productivity** : Productivity is commonly defined as a ratio between the output and the input. In other words, it measures how efficiently production inputs, such as Labour, Capital and other Resources, are being used in an economy to produce a given level of output.



**Factors Effecting Productivity:** The Elements Reflecting in Inputs to the Process & Performance Factors of Process Effect the Productivity.

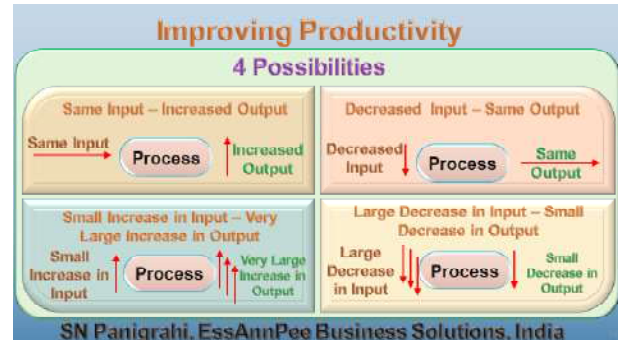


**Advantages of Improving Productivity**

- Ø Least Cost of the Product / Service
- Ø Competitive Advantages
- Ø Increased Sales Volume
- Ø Increased Earnings & Profits
- Ø Reserve Fund
- Ø Better Resource Utilization
- Ø Improved Safety & Operations
- Ø Customer Satisfaction & Increased Employee Morale
- Ø Organizational Expansion
- Ø Increased Living Standard Economic Contribution

**Improving Productivity - 4 Possibilities**

- ✓ Same Input – Increased Output
- ✓ Decreased Input – Same Output
- ✓ Small Increase in Input – Very Large Increase in Output
- ✓ Large Decrease in Input – Small Decrease in Output



**Productivity Improvement Through Kaizen :** This can be Achieved by Reducing Waste (Lean Practices) & Improving Process Capability by Reducing Variance (Six Sigma)



**Why Would You Need Kaizen in Your Business Operations?**

- ❖ Kaizen Helps You Think Outside of the Box
- ❖ Use Kaizen to Know How to Create Success from Failure
- ❖ Stay on Top of Trends with Kaizen
- ❖ Use Kaizen to Create Team Unity
- ❖ Very Less Investment – High Impact
- ❖ Continuous Learning for Continuous Success

**Leveraging 5S, Waste Elimination, and Standardization**

When it comes to Execute Kaizen, 5S, Waste Elimination, and Standardization are the hands-on activities that are the essence of improvement.



Kaizen tools are primarily used in the manufacturing industry to eliminate 8 wastes or DOWNTIME (Defects, Overproduction, Waiting, Non-utilized talent, Transportation, Inventory, Motion, and Extra-processing) and optimize business processes for global competitiveness. Kaizen tools help employees and management implement and monitor continuous improvement efforts in the workplace.

Kaizen tools can greatly improve the productivity of a Company, however Selecting the right tools for a given situation is challenging and using the tools effectively can be even harder. Some of popularly used Tools are shown below.



SN Panigrahi, EssAnnPee Business Solutions, India

**Kaizen Blitz** : A powerful tool-based method for making processes to rapidly improve your business processes is the Kaizen Blitz. The name comes from Kaizen, which is Japanese for “to make better” and Blitz, which is German for “lightening fast.”

Together they make for a series of fast steps for driving improvement based on customer defined success. Kaizen Blitz is a team-based, rapid, repeatable problem solving and implementation methodology.

Each successive short cycle of change brings you closer to the optimal state.



### Kaizen Mind Set – Cultural Changes

1. Discard your Fixed Ideas : Always Look for Betterment – Improved ways of Doing – Open up Your Mind for Critical Thinking & be Inclined to Change for New & Improvement.
2. Don't Try to Justify & Stick to the Best you have Done in the Past : Always Challenge & Start Questioning the “Best Practices” for even Betterment.

3. Keep Open Eye to See Waste (non-Value Added) and Consider Problems as an Opportunity for Improvement.
4. Develop Wisdom when Faced with Hardship or Problem - Maintain a Positive Attitude - Think of How to Do Something to Overcome Hardships, but not How cannot be Done.
5. Think & Choose a Simple Solution – Easy to Do – Less use of Resources & Cost
6. Involve Team – Discuss with the Team - Seek the Wisdom of Team Members (Catch Ball) Rather than Relay on the Knowledge of Individuals in a Silo Mentality / Thinking
7. Take the Decisions based on the Facts & Actual Data (Principles of Data-Driven) – Not with any Bias or only with Assumptions.
8. Do Every Time a Step Ahead - Initiate & Start with Some Improvement - Something Better
9. Do it Right Away, even if it is only a Small Improvement (Even 1% improvement is fine) - not Linger for Long and for Perfection (as there is always opportunity for Improvement & in the Next Time you may attempt further for even Better)
10. Jump into Action - Learn by Doing Some Improvements, it's called Validated Learning
11. If you Made a Mistake, Correct it Right Away – Consider it a Learning Experience – Don't Drop & Don't Stop – Continue with Your Efforts.
12. Kaizen is Endless – Non Stop – Continuous Journey for Improvement
13. Make it Part of your Life & Team Work – Fill with Fun - Enjoy the Continuous Journey – the Kaizen Improvements.

**Kaizen Project Success Factors** : Embarking on a journey toward continuous improvement is a long-term commitment, but important, undertaking. A Kaizen Project is a way to focus on improvement to an existing process. It typically involves gathering together the frontline employees, managers and stakeholders involved with a specific operation, mapping the existing process, soliciting ideas for changes that will address problems and then implementing those that make improvements. Below are some of the Kaizen Project Success Factors.





## LAST MILE DELIVERY- E-COMMERCE SUPPLY CHAIN

**PALLIKKARA VISWANATHAN**

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**S**upply chain Last Mile Delivery is the last leg of delivery, process, which starts from the distribution, centre, warehouse, to the end-user in supply chain. as stops in Last Mile delivery is made during the delivery in supply chain.

Supply chain shift to the Retail operations, with the coming up E-commerce policy, many retail organizations, quickly moved from brick and mortar to convenient E-commerce channels, with the advent of Internet, On-line policy, deciding to deliver the products on a convenient transfer to customer, consumers in supply chain.

Supply chain ideas to cater to their customers, consumers, in the prospect of Last Mile Delivery in E-commerce is constituent of delivery cost incurrence, of additional delivery cost, that has combined to make a larger budget in supply chain.

In supply chain the companies have also to deal with in-consistent demand, the urge to purchase during the holiday season, supply chain E-commerce companies have always been driving the efficiency of challenges for faster delivery of the products. The on-demand business planning model has penetrated to almost all organization in E-commerce retail, ensuring higher speed of delivery, services for products on-line in retail industry in supply chain.

Supply chain with increase efficiency can be achieved with the help of Last Mile Delivery on the same day, with help of technological development in automation, of dispatching, packing, moving, the products, to the right person, in the right area, which has a significant impact, with increasing efficiency, subsequently decreasing the total time of delivery in supply chain.

Supply chain friction on the delivery boom today, is to guarantee efficiency with the cut in cost, dealing with customer enquiries frequently, on the context of delivery, as this is considered as one of the biggest task, causing Last-Mile-Delivery, mostly enquiring about the type of package, packing, on preferably on a week day, to facilitate more efficient delivery, the distance maintained during delivery during pandemic stage, with no disturbance in ringing the door bell, this is well to be controlled in supply chain.

Supply chain delivery schedule software of Last-Mile-Delivery tracking movement, of shipment, from the distribution centre, can receive the real-time updates,

about the movement, of the shipments, with the distribution centre, able to track the en-route delivery until it reaches the customer, consumer by controlling the Last Mile delivery in supply chain.

Supply chain in order to enhance customer satisfaction, to know exactly the movement of the consignment, packing, the electronic proof of delivery, the next stop for delivery, making the invoice transparent, free from complaint are some of the activities followed in supply chain.

Supply chain in Last-Mile-Delivery, accepts good dynamic planning, due to last minute changes, in address, given by customer, consumers, with the help of E-commerce software, tries to accommodate the changes, with liberal payments systems, payment on delivery, debit cards, credit cards, on-line payments, in supply chain. Supply chain workforce receive update information, on the last minute changes schedules, as dynamic real-time, schedule management play a pivotal role in the efficiency in supply chain in Last-Mile-Delivery

Supply chain priorities schedules to optimize expected to deliver the shipments, faster, articulates the Last Mile delivery powered by Artificial Intelligence, machine building, Block chain technology, to charter the movement of the product, also to receive the positioning of the orders, based on preferred delivery, to customer delivery, preference of stores, road restriction, that to made use in supply chain, as delivery software automatically updates, considering the type of vehicles to be used, shipment specification, requiring the type of loading, placing, on the type or varieties of the products, ordered by customers, consumers in supply chain.

Supply chain route optimization in Last-Mile-Delivery, is envisaged to discover the best route available, where there is multiple deliveries, stoppages, is to find the best available routes, as it may vary due to traffic resolutions, rush hours, so the upfront becomes the cost effectiveness, route optimization, finding faster shortest distance, cross-docking if necessary, to reach the destination, from the distribution centre to the customer destination in supply chain.

Supply chain management Last Mile Delivery is increasingly used in number of Business to Consumer, (B2C) delivery, as today the companies in freight



transportation, in Last Mile Delivery are minimizing cost, ensuring transparency, efficiency improving infrastructure, generated with one-time password, generated with alphanumerical characters followed by delivery in supply chain. The trust on delivery is envisaged by opening the consignment, as the contents are examined by the customer, consumer, on delivery receipt, to examine damages, conditions, with the practices of reverse logistics on return of goods, if not as per requirement, or damaged, as created by trust in supply chain. The goods are replaced if damaged, not as per requirement, exchange, replacement, return (reversal logistic) in supply chain. This is practice is also envisaged with B2B business, among the various Kirana (shop selling grocers') stores in supply chain.



Supply chain matching the strategy of the Last Mile Delivery, of the company's fulfillment, the company's environment characterized by the products, as the products sometimes heavy, bulky, with high value, with uncertainty, the customer demands highly unpredictable fulfillment, require considerable inventory stocked, in numerous locations, as this should minimize the distance, so as to easily can shipped, from the source to the destination is considered an important factor in supply chain.

In the supply chain, transport planning, are some of the important aspect, and that are some of the focused on the Last Mile Delivery, the use of transport capacity for home planning delivery, load optimizing, scheduling on the focus of sequence of vehicles for delivery in the Last Mile Delivery. Drone schedule usage, location facility, crowd funding of articles, are some the logistic facilities in Last Mile Delivery in supply chain.

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Supply chain also focus on the design of articles, the size, weight, packing, the structure for the Last Mile Delivery logistics, as a fulfillment, of certain obligation in Last Mile Delivery, distribution, consolidation center', Mobile Bays, Loading Bays, Bar Code ethics, Logistic network, transportation network to align the best methods in supply chain.

Performance in supply chain in line with the Last Mile Delivery, is considered as a solution, goods receipt, receipt of materials, accounting for materials (receipt, inward entry, quality), innovation, maintain urban traffic, focusing on customer performance, satisfaction, of the Last Mile Delivery articles, the perception on the satisfaction, in supply chain, service, quality, customer requirement, the profitability of the supply chain.

Last Mile Delivery, does have complication in supply chain, when customers, indicate unclear unambiguous address, when distribution becomes complicated, or distribution is concerned with remote locations, this can be utilized with proper concept of machine learning algorithm, with geographical coding, as the can be converted into proper geographical coordination with the help of proper mapping in supply chain.

Supply chain Last Mile Delivery, require little intelligence system for sorting parcels, as E-commerce gets involved in manual parcel sorting, but with a help of an intelligent software, each parcel can be segregated, to size, weight, proper packing, delivery, area, with little or no human dependency, in supply chain, increasing the accuracy of speeding shipment in supply chain.

Supply chain Last Mile Delivery preparation require a smart logistic, planning, assigning delivery routines, duties, distribution, the different tasks with the best suited drivers, considering the areas of preference, delivering expertise, considering the preference, the delivery expertise required in supply chain, helpful on-demand home delivery, with the area to be executed orders in supply chain, as real-time orders, tracking inspire the overall visibility of the Last Mile Delivery, to keep each order of the order status, that have to use the complete knowledge, when how the package is to be shipped delivered at door step in supply chain.

Supply chain Third Party logistics have taken up the delivery system in Last Mile Delivery services, as they have been owners of vehicles deployed for the purpose for delivery, as they normally take up the Last Mile Delivery in E-commerce industry from warehouse to the consumer, in supply chain, using the Smart Technology, with greater visibility, at each of stage of points, fulfilling the requirement, of delivery process, with utmost tracking as per the requirement, in the Last Mile Delivery of supply chain. Products such are sensitive, like pharmaceuticals, frozen food products, agricultural products, with the use of temperature

control, maintain the humidity, with deployment of sensors to monitor the temperature, at every level of stoppage, in the Last Mile delivery in supply chain, as this requires additional care, packing, to take up the prolonged Last Mile Delivery in supply chain.

In supply chain if parcels, products, are to be delivered, with autonomous vehicles, Drone, Robotic delivery, deployed, the challenge of Last Mile Delivery, is limited to labor cost, with high cost of delivery, shift availability, as this is available to limited highly urbanized areas due to relative operational issues in Last Mile Delivery in supply chain.

Last Mile Delivery is made up of custom made models, to help to maintain speed, efficiency, density, of delivery, promising control, transparency, to customers, optimize a good control over the dispatch image, control activity, on the platform, managing, inventory, monitoring, performance of driver, to ensure that the turn-by-turn are benefited of the routes, welfare, status, analyze the route to improve the density, make a pleasant way in supply chain, as system, to monitor the status, combining the new update orders on traffic, weather optimizing routes in supply chain.

Last Mile Delivery builds its own futuristic part into the supply chain, with Dynamic forecasting, origin, destination, collection, delivery, through the available historical data, increase route efficiency, with better productivity, visibility, activity realized in supply chain, with dynamic routes optimization, rapidly dynamically, optimizing the routes during the process based conditions, status, updated orders, traffic welfare, with incremental knowledge, performance, with actual performance, to improve forecast in supply chain, with dynamic pricing, right balance, smooth demand, enabling efficient delivery routes, with determined of the best fulfillment location, maximizing the delivery speed, efficient inventory management in supply chain.

Supply chain also can improve the postal department with bringing the Last Mile Delivery venture into postal services, improve the traditional system, by partnering with good delivery system, efficient delivery system, than losing to E-commerce organization, couriers, desk-to-desk, with the advent of new technology, machine learning, internet of things, Block Chain, revolution to solve the Last Mile challenges, in supply chain by localizing, the delivery, handling parcels, letters, documents, for delivery, with optimizing the major routes, utilizing the best resources, manpower, technology, planning, reducing cost, increasing speed, delivery cost, to customers, as postal department to smart choices by investing in capabilities, in need to be control in Last Mile Delivery successful in order to gain better activity in supply chain.

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## BUILDING MOST EFFECTIVE AND FULLY PERFECT SUPPLY CHAIN, TO MEET THE NEVER ENDING ESCALATING DEMANDS OF BUSINESS CUSTOMERS/ CONSUMERS- IN POST PANDEMIC TIMES

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Pandemic situations are coming and causing untold troubles/ loss of lives and of course teaching entire humanity “the change that is required”, nonetheless we are winning such situations. The hidden weapon is effective Supply Chain, product of Materials Management.

As we do a positive approach, while the destructive effects of COVID-19 have (hopefully) passed/ will soon be passed, the new and disruptive ways of conducting digital business spawned by the pandemic will exist with us for a very long period to come.

Contactless payments, virtual meets, telemedicine, learning and working from home, curbside pickup of just about anything you can imagine, and combatting “Zoom fatigue” have all become, remarkably, perfectly normal elements of our lives in a span of 12 months plus.

Without any doubt, those disruptions have triggered similar or perhaps even more-intense upheavals behind the scenes in operations, logistics, and supply chains. With tighter regulatory and safety mandates occurred in the wake of COVID-19, many businesses are taking a hard and end-to-end look at the most essential function: The Supply Chain.

To meet the needs, new thinking's, new approaches, new methods, new ideas have come up and under the concept of “A MUST”, Companies are taking different steps/ decisions for reconfiguring their Supply Chains to be ready to comply with new regulatory requirements and meet the relentlessly escalating demands of consumers and business customers. Very important and suitable ones are dealt hereunder-

1. **Backshoring:** The COVID crisis revealed significant risks of having huge percentages of the essential materials for the different

industries mainly medical/ pharmaceutical industries sourced from offshore suppliers and they are looking to either replace those offshore suppliers with domestic suppliers.

2. **Lean manufacturing:** With the rapid and significant advances in manufacturing technology, some industrial companies deploy lean processes to reduce the number of steps and/or suppliers required to produce essential materials.
3. **Digital integration:** Regardless of how they have operated in the past and how resistant they might be to new technologies and approaches, suppliers in the post-COVID world have to be open for welcoming at least some digital technologies into their operations to enhance planning, accommodate changes, and accelerate all facets of their operations.
4. **Supply Chain applications:** Going a step beyond digital integration/ Transformation, many companies on both the supplier and customer sides are installing supply chain software. These can come as standalone applications or, in many cases, as part of an integrated set of ERP applications that automate everything from sales to inventory to procurement to finance.

It is apt to link here about Digital Transformation and its impact on Supply Chain. Brief details are only tabulated here.

Digital Transformation - Driving Trends in 2021 and Mistakes to avoid in 2021

Driving Trends: i) Transformation is ready, to mean Transformation again. ii) Generational Change will change business behavior. iii)

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Resilience building technology is more important than big bang innovation.

Mistakes to avoid: i) Lacked strong executive's participation. ii) Being too ambitious with first delivery. iii) Being wed to the past. iv) Hiring for skill sets rather than strategy. v) Choosing vendors, not partners.

5. **Additive manufacturing/3D Printing :** As 3D printers and other advanced manufacturing technologies become more capable, less complex, and less expensive, they are becoming viable and valuable options for businesses looking to optimize their supply chains. In some cases, businesses are taking on the production of some supplies themselves; in others, they are specifically looking for suppliers with aggressive deployments of additive-manufacturing capabilities to become strategic partners for the future.
6. **Robotics and advanced automation:** The severe challenges faced by food processing plants suffering COVID outbreaks among their workforces have inspired many types of suppliers to accelerate their evaluation and deployment of automation. This ranges from some basic steps within assembly lines to cutting-edge advances in robotics.
7. **Reimagining business models:** Many businesses were forced to dramatically alter the products or services they offer, and/or the way they took those products or services to market and how they engaged with customers. In doing so, smart companies are reducing their dependence on or even eliminating products and services that require risky supply-chain configurations.
8. **Reimagining processes:** As brought in above point (7), some companies are overhauling their ongoing processes to reduce or eliminate some risks by dramatically altering their traditional ways of working.
9. **Putting suppliers on the clock/required time line:** While responsiveness has always been essential in supply chain relationships, the sudden arrival of a largely digital world is accelerating the pace of change in personal lives and, correspondingly, in the business world

as well. Suppliers will be expected to accelerate everything they do, from shipments to creating new products and services for handling returns, and much more. Some suppliers will rise to the challenge, and others won't be able to make it, an issue under lots of deliberations.

10. **More focus on the end-customer:** Smart leaders will respond to customers' ever-increasing demands and expectations by enlisting the full support and capabilities of their entire supply chains in meeting and exceeding those escalating demands and expectations. Increased visibility throughout a supply chain makes this new approach possible. It is often built around modern and highly capable ERP systems that offer end-to-end visibility so that all parties can collaborate on meeting and exceeding customer expectations.

The comprehensive benefits of Supply Chain Optimization:

- i) Improved inventory management.
- ii) Better order fulfillment.
- iii) Customer service.
- iv) Operational decision making.
- v) Minimizing operational costs.
- vi) Better supplier relations.

It is past, and now start to adopt the Change , and avoid or not to limit review of the supply chain only to squeeze slightly better terms out of suppliers. Today, it's all about helping businesses and exceed customer expectations, which is the first step for creating great customer satisfaction. It's also time to realize this as a new reality for all. The sooner it is better that , every company begin figuring out how to leverage the above 10 advances to build great customer experiences in a better way for building optimized Supply Chains to meet the demand and to increase customer satisfaction, finally to grow in business to the desired levels.

Ref: Net working on line discussions, Experts views, Internet based opinions etc.

**LONG LIVE OUR MATERIALS MANAGEMENT DAY**

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## NUANCES OF DIGITAL SCM PLATFORM IMPLEMENTATION

RUPCHAND LOHANA

HEAD - SCM OPERATIONAL EXCELLENCE  
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**SUPPLY CHAIN:** For most industries Supply Chain is at the core of operations. With 40 to 70% cost of operations being managed by the supply chain, any improvement in supply chain can improve competitiveness and bottom-line through significant savings. Typical components of Supply Chain Management are shown in figure 1. Some of the industries/organisations may also consider distribution and customer servicing as part of supply chain.



Figure 1: Typical Components of Supply Chain

**THE NEED FOR SCM DIGITALISATION :** Digitalisation has become the buzzword today for every business. For new age businesses such as e-commerce and financial services businesses, it is already a hygiene factor. But in last 5 years even the core industry is moving towards digitalisation of its core processes to improve the overall efficiencies. Gartner report "Supply Chain – Top 25 for 2020" (1) has identified three key factors that differentiated leading supply chain as 'purpose- driven organizations', 'business model transformation' and 'digital orchestrators'.

The need is also being driven based on the increasing competitive environment and shortened project time cycles expected by customers. Digitalisation can improve SCM performance through three-pronged approach on improving cost performance (Cheaper), Quality (Better), and Speed (Faster).

### SELECTION CRITERIA FOR SCM DIGITAL PLATFORM

There are many software platforms available in the market to enable digitalisation of SCM functions and

they can be evaluated based on many parameters. Choice of platforms can be difficult exercise considering multiple dimensions. Gartner Magic Quadrant (2) evaluates the platforms based on two dimensions; Ability to Execute and Completeness of Vision. The report also describes strengths and weaknesses of various procure-to-pay suites.

However, the generic information is not sufficient for selection of suitable platform and detailed company specific evaluation is also required to be carried out and some of the following parameters shall be considered.

1. **Industry compatibility:** It is important to look at implementation of platform in similar industry. This gives confidence for success and availability of experience by platform licensor to reduce implementation time. Implementation of platform by respective Industry Leaders could also help in tilting the scale towards a particular platform
2. **Built-in digital capabilities:** Digital integration with ERP systems makes Procure-to-pay suites very complex and having standard integration with existing ERP system is very important. In absence of standard integrations, the development cycles could really get extended and cumbersome with lots of testing and debugging required to be done during implementation and adoption stage.
3. **Ease of use (UI/UX):** With wide variety of users working on the platform, user experience is crucial. This become more important on supplier side as typically wide variety of suppliers is required to be onboarded. While on buyer side, user experience level and skill sets are relatively uniform, supplier side could be far more diverse. Starting with large corporations with well-educated selling team to small scale entrepreneurs and service providers, who may have very limited skillset to handle complex digital systems
4. **Implementation model:** Considering the complexity of implementation, most large

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technology companies tend to use implementation partners who manage interface between end-customer and platform licensor to ensure smooth roll-out. Larger companies tend to get more implementation partners and a greater number of people with requisite skillset.

5. **Supplier Network:** This is very important factor in selection of the platform. Network helps suppliers to manage their business with multiple clients and get new customers through network functionalities. Network effect is the reason behind concept of 'Winner takes all' and led to success of many tech companies viz. Facebook, LinkedIn etc.
6. **Mapping of internal processes:** It may not be possible to map internal processes in detail with platform functionalities during evaluation stage. However, platform functionalities should be reviewed with respect to expected process landscape. Also, in many cases internal processes may require tweaking to match the standardization.

## DIGITALISATION PERSPECTIVE ON SUPPLY CHAIN FUNCTIONS

Supply chain can be broken into multiple processes and each of the functions has its unique perspective of digitalisation.

1. **Supplier management:** While supplier management processes tend to be common across industries, the rigour of processes could differ significantly depending on supplier group and industry also. E.g., Pharma industry may focus on track record and quality testing setup for their core ingredient suppliers, while overlooking these aspects for stationery suppliers. It is important to identify level of rigour at each stage on viz. Registration, Qualification, and Performance of past supplier behaviour during bidding could throw up interesting insight helping to create most effective category strategies and drive value for the business. This helps to drive SCM efficiency, realise value for digital platform implementation. This aspect must be considered while designing systems and templates.
3. **Source to Contract:** The process covers steps from issuance evaluation. While registration details are brief and generic across groups, Qualification and Performance can be supplier group specific and detailed.

Some of the key features include duplication check before new vendor code creation, grouping functionality for reporting purposes, supplier managed profile, single source of truth for vendor

information etc. Digital platform provides flexibility and template-based approach for vendor and performance evaluation of different supplier groups.

In case of EPC contractors, end-customers define the approved vendor lists and EPC contractor cannot insist on his own vendor base. Customers tend to have different quality specifications and testing requirements for similar items and may further limit choice of vendors. This creates excessive load on supplier management function due to onboarding and management of large number of suppliers.

2. **Strategy/Category Management:** This process is most difficult to digitalise considering evolving perspective, different strategies. However digital systems are important for providing data which could help in decision making and forming strategies. Normally past spend data is available from ERP systems, however supplier base information and unsuccessful commercial offers do not reside in ERP system. The same is captured by digital platforms to enable analysis and improve the governance standards. Analysis of Material requisition till placement of purchase order on supplier. This process is complex, however structured templates can be prepared for mapping the process. It is suggested that functional/technical attributes of items and service being bought are captured in separate database/tables and connected properly with the commercial attributes. Combining them in same database results in too many templates increasing complexity of implementation. Also, this may shift focus from commercial aspects of SCM to technical aspects thus diverting from true purpose of 'SCM digitalisation'.

In case of engineered goods, complex technical query cycles and changes in specifications/quantity could result in extended sourcing cycles and complex information structure. Capturing information from multiple stages and reporting properly could be cumbersome.

4. **Contract to Supply:** This process covers steps from placement of purchase order till delivery of materials. The levels of complexity vary significantly depending on category of goods and services. Most EPC players rely on in-house systems, starting with basic excel sheet templates to high-end Document management systems and workflows to cater to this part. Many complexities arise in this step especially for made-to-order capital goods. Sub-processes include vendor engineering, integration of vendor

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inputs in overall design, raw material ordering progress, fabrication progress, stage wise quality inspections, logistic movement etc. Standard source-to-pay solutions cover quality inspections, dispatches and logistics tracking however other processes are not covered. Integration may be required with existing systems to digitalise the complete scope.

5. **Supply to payment:** This is relatively standard process across industries and many digital solutions are available for managing this process. While process 1 to 4 above, variations exist due to complexity of various categories and supplier groups, Supply to payment process is largely similar across suppliers and goods with limited variations.

### DRIVING SUCCESS OF DIGITALISATION PROJECTS

Implementation of procure-to-pay suites is also complex considering the involvement of multiple internal and external stakeholders.

3. **Digital Architecture:** While digital system can provide you efficiency in terms of removing duplication in data entry and providing integrated view of the overall processes, technical challenges can be mind-boggling. Digital architecture needs to be thought out well before roll-out for large audiences. One of the key challenges is to interface with functions beyond SCM and mapping with the document management systems. SESA approach (Simplify, Eliminate, Standardise, Automate) should be seriously considered before and during implementation.
4. **Integration with Document Management Systems:** Typically, organisation has its own Document Management Systems (DMS) and workflow systems. It is important that the new platform integrates well with the existing DMS and workflows, especially considering that non-Considering communication / data flow across multiple departments within the organisation and large number of suppliers spread out, it could be challenging to adopt to standard forms. Workflow-based collaboration has become relatively easy with lots of platforms in place, digital collaboration is true test of platform's functionality.
1. **Factors affecting success:** There are many templates or models which defines key factors in project success. Different consultants propose different models. SAP Ariba propagates use of "12 keys to success" © model (3), which include multiple perspectives such as Program Vision, Executive Sponsorship, Governance, KPIs,

Simplification, Value monitoring, collaboration, planning, policies, incentives and training

2. **Detailed plan and case studies:** It is important to prepare the list of possible process variations and consider them in design before start of configuration/programming. Detailing these scenarios during initial phase itself, sensitizes implementation team regarding complexities. SCM functions may not shift completely to digital SCM platform.
5. **Managing Speed and user experience:** Slower response time (vis-à-vis local server-based systems) is one of the major complaints against cloud platforms. This remains a sour point reducing speed of adoption. However, it is important to keep benefits of cloud platform (4) which include reduced IT costs, scalability, collaboration efficiency (especially experience of the platform by external users - primarily suppliers in case of digital SCM platform), Flexibility of work practices, automatic updates, and secure computing. Continuously reducing costs of connectivity and improving internet speeds are easing this pain-point. The speed could be further improved by using simpler templates for sourcing and referring to existing DMS for heavy files.
6. **Managing Changes post implementation:** As implementation nears completion and adoption picks up, more and more inputs start pouring in, seeking changes to existing templates. Typically, no. of resources supporting digitalisation initiatives is reduced as the project enters adoption phase thus increasing response time. Managing changes in the system also becomes complex considering the impact on the live system. To avoid many changes being requested after go-live, it is important that requirements and scenarios are captured properly during planning and design stage and process flows are signed off by concerned stakeholders.
7. **Productivity trade-off:** Digital platforms are expected to improve overall productivity. In most cases, digital platforms reduce the efforts required for monitoring and reporting. However additional efforts are required to create a digital information pool, which could save efforts in later stages. E.g., If Purchase Requisition is created in digital system, efforts required in making Purchase Order are reduced significantly. Implementation of digital SCM may shift the data entry point in the process and this could mean more efforts for one group and less efforts for other group. However, on overall basis efforts could be same or less.



Process	Case 1		Case 2		Case 3		Case 4	
	Method	Data entry Efforts	Method	Data entry Efforts	Method	Data entry Efforts	Method	Data entry Efforts
Material requisition	Excel sheet	Low	Excel Sheet	Low	Excel Sheet	Low	Digital	Medium
Request for Quotation	Document	Low	Document	Low	Digital	Medium	Digital	Low
Purchase order	Document	Low	Digital	Medium	Digital	Low	Digital	Low
Transaction Reporting	Manual	Medium	Manual	Medium	Digital	Low	Digital	Low
SCM Governance	Manual	Medium	Manual	Medium	Digital	Low	Digital	Low

Sometimes productivity improvement may be marginal in the interim, till digitalisation spans across the organisation. Consider four cases as follows.

Adoption of digital inputs in early stages significantly reduces the efforts in later stages and improves the information quality. In today's world it is not just about information volume but quality of information that matters. E.g., Financials of a listed company are available in stock market, however they are difficult to analyse, as data needs to be converted into structured format. Many companies exist today to provide the publicly information in structured format and in one place e.g., OneSource, Infront analytics etc. The same information available in quality format commands a premium. Google is a prime example of value creation when random information is converted to structured information through indexing.

**8. Focus on value realisation:** While end users may look for productivity and their comfort, management needs to monitor the value realisation. Value comes from improved sourcing through reduced prices and improved productivity. While, as discussed above, productivity gains could be marginal considering overall efforts however the value gains can be significant through use of readily available enriched information. Enriched information can deliver tremendous value through improved sourcing methods, enhanced supplier base, shorter time cycles, and reduced prices. One of the most important lever for value in digital SCM is through implementation of multiple auction (5) types viz. Reverse auctions, Dutch auctions, Japanese auctions.

**9. Managing Master Data and needs significant change management :** Material codes, service codes and Supplier Codes are three most important masters from SCM perspective and need to be managed well. Supplier codes are typically governed well due to involvement of F&A function and governance related to payments. However, material and services

codification need well- structured approach with proper controls. This becomes far more complex, in case of EPC companies considering large variety of good and services being procured in different geographies, with varying client specifications for similar items. Codification is key to historical pricing and benchmarking, which in turn bring sourcing savings. Also structured codification helps in improving analytics, aggregation of material requirements from multiple sources, and providing basis for negotiation of rate contracts.

**CONCLUSION :** Digital systems open a new paradigm through transparency and ready availability of reports in real-time thus improving overall SCM efficiency. However, managing this transformation could be very challenging as it could be disruptive in the short to medium term efforts. However, it is not a choice anymore. Quote from Nelson Jackson stating 'You can't do today's job with yesterday's methods and be in business tomorrow' is so true in context of digitalisation which is fast becoming a hygiene factor for today's business.

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## SYMPHONIES & CACOPHONIES OF THE NEXT NORMAL!

SEEMA MOHANTY

**T**he year 2020 has been a momentous one for everyone across the globe. It has not only added words like 'lockdown', 'quarantine' and 'social distancing' into our daily vocabulary but has also changed the way we live and work. While on an individual level people scrambled to keep the invisible virus at bay, governments tried to take decisions on lives and livelihoods for their countries. At the same time, many industries collapsed because of almost zero demand. And those that had a demand to cater to, struggled to keep things running. Welcome to the 'new normal'!

The new normal or the new world is not so much about answers as it is about questions. Things are novel, some new dimensions are being discovered each day and developments are happening at a speed not known to humanity in any recent history and there is no playbook to lean on to as well. So, in this article, let us do just that - look at some patterns, put some questions forward for us to ponder over and find our way forward. Let us analyze the situation from the perspective of individuals, of societies, of governments and of organizations.

### INDIVIDUALS:

- § Individual priorities have inclined greatly towards nutrition and well-being. Health and wellness products have already registered multi-fold growth numbers. While there is tremendous scope in this area, people will also search for authenticity of the products. So, Supply Chain and Sourcing teams not only need to plan for a steady increase in volumes, they should also make sure that raw materials are being sourced from reliable and ethical sources which can be traced back if need be.
- § Buying behavior of people have seen significant changes and many of these behaviors are there to stay. Because people want to make less trips

to shops, they are buying more and keeping stock at home. Many have also switched to digital commerce. In addition to these, people are buying more consciously than ever before. In a way, the pandemic is shaping Consumer Goods industry in real time. Perhaps some of these new trends will endure beyond the short term. Will this pattern sustain over a longer duration? Do FMCGs need to focus more on retail pack sizes going forward?

- § More and more of us are avoiding common and shared spaces. Thus, preference for personal vehicles will see an increase vs shared one. Yes, this means some industries focused around the shared economy are getting vanquished. But it also means that people will show increased interest to buy their own vehicles, which in turn is a huge step forward to revive the automobile sector. The automobile industry in India is however hugely dependent on its sourcing from China. The lockdowns have reinforced the need to look at more local manufacturing of components and technologies. Are sourcing teams already relooking at their strategies?

### SOCIETIES:

- § A long forgotten Danish word 'samfundssind' (which means community spirit) helped people of Denmark mobilize during the Pandemic and in lifting community spirit. Danes came together through various social media, connected by this (hashtag) word, and felt inspired to do something for the society that was beyond their own needs. This drives home (yet again) that social media plays a huge role in bringing people together. Social media also shapes opinions and gives voice to people around the world from the comfort of wherever they are. It was already happening at a fast pace and the pandemic only increased it further. So, will not social media increasingly

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influence people's decision on what they buy and how they buy? Will this not further influence what gets produced and sold?

- § The United Nations says that hunger and malnutrition have further taken a backseat as economies have come to a standstill and the poor have become poorer still. Covid19 pandemic could tip over 130 million more people into chronic hunger by the end of 2020 adding to persistent hunger and malnutrition. A World Health Organization report highlights challenges to achieving zero hunger by 2030, which was the objective earlier. These events highlight the importance on reducing food loss and wastage. If loss and wastage are eliminated from farm to the fork, then hunger and malnutrition can be addressed more efficiently. This need opens up a great canvas for food supply chains to reinvent themselves. Is it not time that organizations start thinking this as a business proposition? Is it not time that each one of us starts taking baby steps towards zero food wastage on an individual level?

#### GOVERNMENTS:

- § The use of contactless money is at an all-time high. People are not only moving away from cash, but also from cards in order to minimize contacts and maintain hygiene. So, this means, a huge majority of the population will give up transacting in cash in due course. Do governments need a rethink on currencies in circulation? How will this impact the supply chain of notes and coins?
- § Governments in various countries have come up with stimulus packages favoring indigenous industries. This in turn will have a huge impact on how supply chains around the globe and across industries function. Is globalization slowly getting choked? In what ways will it impact industries and employment around the world?

#### ORGANIZATIONS:

- § We see how organizations and nations are coming together to work for a Covid19 vaccine. Is this not opening up scope for co-opetition rather than competition for events impacting the whole humanity? There are ample of areas and ample

of opportunities for organizations to work together. Are we seeing this coming soon in other areas as well?

- § Distribution of vaccine is another area where we will see the system of cold chain logistics coming to the forefront. This industry is bound to experience a traction. How much employment will this industry provide over the next two years? This is a positive which we can look forward to.
- § Many companies switched to remote working for its employees and some are already embracing it as a permanent concept. Does it mean a better way of working for those who travelled long distances to work each day? How will it impact operational expenses for the companies and corresponding commercial real estate decisions?

The pandemic forced everyone to take decisions with limited information. So, rather than waiting for that perfect solution, everyone (individuals, societies, governments and organizations) kept moving forward with pragmatic approaches. Speed, agility and adaptation are what it has all been about. As we all move forward, we faintly know that the future will not look exactly like the past. So, organizations, in order to stay relevant, need to innovate to cater to their consumers' changing patterns. The current changes happening are on a scale like never before in the recent past. We have more questions than we have answers to them. All we need to do is keep marching ahead, reflecting, learning from every event possible and hoping for a brighter tomorrow!

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## BLOCK CHAIN TECHNOLOGY -COMING OF AGE?

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**T**he COVID-19 pandemic has been a challenge for everyone, but it has created many opportunities. Robots, computer vision, big data analytics, block chain and other technologies are now being used widely at public places such as hospitals, airports, railway stations and more to confine the spread of the disease. It has been a strange catalyst for a decentralized way of working for a wide variety of industries & services. As a result block chain technology, which has been stagnating over last two years, is much in news. There are many projects under implementation now, other than financial and banking applications. There block chain technology was much in vogue few years ago, being regarded as one of the most disruptive technologies in decades. Block chain provides the new way of managing Trust and makes Organisations transparent and decentralised. It is a shift from centralised server-based internet system to a cryptographic transparent network. It was being considered for a range of applications like health care, real estate, media, Energy, record management, identity management, and supply chains.

Block chain's immutable ledger makes it well suited to tasks such as real-time tracking of goods as they move and change hands throughout the supply chain. Modern supply chains processes are perfect for its use due to its total security, quick return acknowledgement, and accuracy of information, full clarity or unambiguity to all involved, end to end visibility, indestructibility & traceability of network information. It has raised numerous new possibilities for its use in sustainable supply chain, like reverse logistics, recyclable packaging etc.

But somehow not much has happened on the ground, other than its use for crypto or digital currency.

Only 15% (out of 600 from 15 countries surveyed by PwC) said they have a live block chain project and just 10% said they are running a block chain pilot. 20% are researching block chain. Among industries viewed as blockchain leaders, retail and consumer ranked near the bottom with 4%, topping only entertainment and media's 1%. The financial services sector leads all others by a wide margin with 46%.

As per PwC survey, one of the biggest obstacles to the adoption of blockchain or distributed ledger technology is a lack of trust among users, with 45% citing it as a top three concern. The leading barrier is regulatory uncertainty, with 48%. Trust is followed by the ability to bring networks together.

As shown by the PwC survey above, good progress is

seen in financial sector

Currently there are 5000+ crypto currencies in use and barring few smaller countries, most have legalised it or those like India have not illegalised it (In last 6 months 125% new registrations on Indian block chain currency trading platform has happened with mainly under 40 Indians trading few million dollars daily). On other hand China has launched officially its digital currency DCEP (Digital currency electronic payment). Unlike crypto currency it is controlled by a central agency or central bank. But otherwise it is using block chain technology. Similarly Facebook Inc. has launched its own digital currency, Libra and has big plans for its propagation. Many countries like Canada, USA etc. are also in process of developing digital currency.

As the global digital economy expands frictionless exchange between individuals, organizations and devices will become increasingly important, necessitating technologies that improve trust and transparency. Self-sovereign identity (SSI) is an identity model that recognizes that an individual should own and control their identity. In the near future Identity module is likely to gain increased adoption as a tool that makes distance learning, hiring, and remote work more efficient and allows seamless integration across platforms.

Since pandemic has stuck the world, block chain technology progress seems to have accelerated in non-financial sector as well.

We know now about the blockchain passport being used by airport authorities to identify COVID-immune passengers. In an effort to resume the global travel and dodge unequal treatment once a vaccine against COVID-19 arrives, the WHO is teaming up with Estonian block chain firm Guardtime. The aim is to create digital vaccination certificates to prove international travellers have had a coronavirus shot and to help distribute vaccines to priority groups first. WHO, IBM, Oracle, Microsoft etc., government agencies, and international health organizations are partnering in building the blockchain-based open data hub called MiPasa. The platform created by the firm HACERA, aims to quickly and precisely detect Covid-19 carriers and infection hotspots around the world. MiPasa will securely share information among individuals, hospitals, and authorities that will aid in public health analysis. It is built to accelerate global resiliency by enabling a trusted, integrated, multiparty, transparent yet privacy-respecting and responsibly-governed data sharing network.

Since 2013, Colonel James Allen Regenor has been building a blockchain-powered platform for buying and selling traceable 3-D printed parts and printing instructions for them. He built the platform to enable a decentralized manufacturing process in which customers can order and print parts, for example for medical devices, for use where and when they need them. The blockchain ensures tamper-proof design and printing instructions. When Regenor realized that his platform could help with the medical devices needed to battle Covid-19, he founded a new company, Rapid Medical Parts, in March 2020. In just 12 days he won Pentagon contract for converting the abundant supply of sleep apnea machines into ventilators. The conversion required only few additional parts that Rapid Medical Parts printed for converting to ventilators rapidly, and at a tenth of the cost of a new ventilator.

Tymlez, a start-up is partnering with the Dutch government in a technology consortium, using its network modelling technology to map and analyse the medical supply chain. This provides the basis for a blockchain enabled decentralized market. This could create the transparency or critical supplies such as PPE and ventilators reducing the risk of price hoarding, quality issues and even fraud in the network.

China is a leader in leveraging blockchain in the fight against Covid-19. According to Coin telegraph, 20 blockchain applications were launched to address Covid-19 over the course just 2 weeks in February, including an online screening system that securely manages health records and a platform that supports the management, allocation, and donation of relief supplies. Another application uses disposable bracelets to enforce quarantine programs for foreign visitors entering Hong Kong.

As specialized connected medical devices become more common and increasingly linked to a person's health record, blockchain can connect those devices with that record. Devices will be able to store the data generated on a healthcare blockchain and append it to personal medical records. A key issue currently facing connected medical devices is the 'siloing' of the data they generate. The blockchain could be the link that bridges those silos.

What is happening with supply chains around the world?

Covid-19 pandemic has seriously exposed vulnerabilities of supplies chains. It has rattled supply chains around the world and created serious doubts about the future of commerce. Critical to recovery is regaining trust in these systems. This presents an opportunity for the integration of blockchain, a technology which could alter the future of supply chain.

Though digitalization has driven transaction costs down significantly, most business domains still operate in silos, creating issues which need to be resolved.

The need to process transactions quickly and verify the creation, transmit and receipt of a particular exchange of value is ever more critical to business success. To make a supply chains resilient, it needs transparency and integrity across domains, which can be improved through the deployment of blockchain technologies.

Block chain technology provides a transformational means to make supply chains more resilient. Whether its hospital systems procuring critical medicines, equipment or grocers acquiring noodles products, supply chains are dependent on trust, transparency, and resilience. As we move forward, beyond the COVID-19 crisis, blockchain has the potential to contribute to a more equitable system of commerce for producers and consumers alike.

In a statement, WEF has emphasized that resilience in supply chains depends on trust, transparency and integrity. Blockchain technology can assist in tackling the supply chain failures exposed by the COVID-19 pandemic and provide a boost to the economic recovery process.

In April 2020, the World Economic Forum published a Blockchain Deployment Toolkit with input from Deloitte and 100+ organizations, which provides global best practices and resources for building and scaling blockchain solutions (<https://widgets.weforum.org/blockchain-toolkit/>) The 14 modules cover some of the most important topics for blockchain deployments

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## OPINION: INDIA'S GIG ECONOMY NEEDS AFFIRMATIVE POLICY PUSH

*In India, there are about 3 million gig workers — temporary workers including independent contractors, online platform workers, contract firm workers and on-call workers*

**NILANJAN BANIK, PROFESSOR, BENNETT UNIVERSITY  
GREATER NOIDA**

**K**aushik Banik is a happy person these days. He is a software developer. After toiling hard for months to get a job, he finally found an alternative, thanks to an online digital job platform. His hourly wage rate is \$35. There are millions of others like Kaushik who are now benefiting from the advent of digital platforms.

At a time when fewer jobs are being created in the organised sector (on a daily basis, less than 2% Indians who apply for jobs get them), and the economy is slowing down, the silver lining lies in the spread of a platform-enabled gig economy.

In India, there are about 3 million gig workers — temporary workers including independent contractors, online platform workers, contract firm workers and on-call workers. The number is certainly small if one were to compare it with India's 500 million workers. However, the good part is that an estimated 56% of new employment is generated by the gig world.

Delivery boys, cleaners, consultants, bloggers, etc are part of the gig economy. Uber, Ola, Zomato, etc, are all part of this labour platform. As the work is job-specific, workers have the flexibility to work for more than one contractor and choose the hours of work. This has encouraged women in labour force participation.

Women, for instance, comprise more than a third of 15,000 users of the digital platform, Souktel, in the Palestinian areas of West Bank and Gaza in Israel, compared to only 19% of the entire labour force in the same areas. Capital platforms, such as Airbnb (lodging) and Quick Ride (car-sharing), have provided better utilisation of fixed assets such as houses and cars.

A global survey of platform companies found that

there are about 180 platform companies valued at \$4.5 trillion. Some of these services are bundled together. Uber not only provides taxi rental services, but also has Uber Eats, a food delivery service. There are other related benefits.

The lower price of service associated with the gig economy has generated consumer surplus, which can be spent on other sectors, with a multiplier effect on income and employment generation. Taxi services by, say, Uber and Ola, have reduced taxi fares in major cities in India. There has been a reduction in alcohol-related motor vehicle accidents and traffic congestion. Carpool and car-sharing have environmental benefits, as they contribute to a lower carbon footprint.

Growth of platform-enabled services has led to the formalisation of the economy, and has provided means to bank India's huge 'un-banked' population. People are using apps such as Google Pay and Amazon Pay for buying goods and services. Even in advanced economies like Singapore, studies show that the advent of the gig economy has led to an increase in credit card sales.

As there are no entry barriers, anyone and everyone can participate from anywhere. This has led to a demand for bloggers, researchers and consultants from developing countries such as India, the Philippines and Bangladesh. Their returns have gone up, as they are getting paid in dollars. There are also no barriers based on caste, religion, gender and location.

A 2014 Harvard Business School study found that in the US, before the advent of Airbnb, Afro-American rental hosts were getting 12% less rent than their white American counterparts for the same type of house in the same location. Companies such as

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Google, Facebook and Microsoft are now investing in start-ups, and even training workers, to make the best use of the online market.

There are several ways government can intervene to complement this self-evolving gig economy. It is important to ensure the supply of skilled labour. The British government is promoting robotics, 5G wireless internet and smart technologies, while asking private sectors to sponsor 300 master students and 200 doctoral students in artificial intelligence (AI) every year.

As much of the growth is supported through information and communication technology (ICT), GoI should undertake investment in telecommunications, cybersecurity and the internet, and ensure widespread access. Investing in complementary infrastructure such as electricity connection, lowering logistical costs for setting up a business, and enforcing contracts will help.

In fact, government should act as a facilitator and join hand with Industry and Academia. The government can provide an enabling platform for students, IT professionals and start-ups to interact with established corporates, leading technology companies and industry mentors to build collective capabilities for the industry to deliver on platform enabled technologies.

There should be a way to usher in the ease of doing business, for instance, streamlining regulatory issues. In case of Uber, Ola, etc., the government should minimize regulatory constraints so that is easy to obtain a driving license, ensure access to finance (giving soft loan to buy a car), and also see there is a way to harmonize the tax. Road tax paid in any state should be waived-off if the driver may choose to operate Ola/Uber in a different state in India. Likewise, for the provider of rental apartment services, the tax should be minimized if the provider is providing employment and lodging opportunities, particularly, in the rural areas. The small-time business-owners should not be charged any tax if they are accommodating transactions through paytm and e-wallets.

From the consumption side, regulations related to data privacy have to be formed and have to be enforced. In a digital world, an enormous amount of

data about individuals and their activities captured by platform is bundled and sold to various companies without taking consent from the consumers. A market can be created where, for instance, consumers are offered discounts on the online platform if they agree to sell their data.

At the same time, there is a need to formulate rules to protect consumers from unscrupulous operators. Here, the efficiency with which other institutions such as the Competition Commission of India (CCI) and consumer courts operate will be important. News reports abound with a bad experience with hotel and cab aggregators are not difficult to find.

For the workers, who are the main party in this gig-world, there is a need for ensuring social security. Cab drivers, delivery boys, technicians, etc., have reasons to be looked after in the event they fall sick, or meet with an accident. An overarching insurance scheme, the premium for which may be borne by the government will be a welcome move.

A few questions however still unanswered and can be the subject of future research. First, whether the newfound gig workers are the ones who are displaced from their earlier occupation because of online competition. For instance, does a cab driver or a delivery boy who earlier used to run a retail shop, is now in this profession because their shops got closed because of the platform economy. Second is there any instance of upward mobility or an increase in median income after the emergence of the platform economy. During initial years when Uber was operating, there are stories of software professionals leaving their jobs and working as Uber drivers. However, these days, the men this profession complains that the reward has gone down substantially. It is not surprising as every month close to 1 million Indians are entering the labour market. Hence, the wage rates for the low-skilled gig workers, like the delivery boys are likely to remain stagnant if not go down further. Finally, can the policymakers design some strategy as to ensure transfer payment from the super-rich to the low-skilled gig workers? We will see.

Source: [government.economictimes.indiatimes.com](http://government.economictimes.indiatimes.com)

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## GEM COMPLETES WORK FOR CREATION OF UNIFIED PROCUREMENT SYSTEM: CEO

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**GeM CEO Talleen Kumar said that a function of "custom bid" has also been created on the platform Press Trust of India**

**G**overnment eMarketplace (GeM) has completed work towards creation of a Unified Procurement System by integrating GeM with the Central Public Procurement Portal (CPPP) and consolidating the entire public buying of goods and services onto a single platform, a senior official has said.

GeM CEO Talleen Kumar said that a function of 'custom bid' has also been created on the platform, which will allow a buyer to float a bid on GeM even if the category of product or service that the person might be looking for is not available on the GeM portal.

"We have integrated GeM with the CPPP. Integration with Indian Railway Electronic Procurement System and the Defence Public Procurement Portal is underway. It would significantly improve the buying and selling experience and processes for ministries, departments and other agencies," he said.

Now all the big government buyers including railways, defence and public sector undertakings can publish their high value tenders for estimated order value exceeding Rs 50 lakh at the GeM portal even if the goods or services that a buyer is looking for is not on the platform, Kumar told PTI.

He said that the Unified Procurement System (UPS) will provide a single user experience to buyers and sellers and consolidate the scattered vendor bases on publishing portals onto GeM, leading to better price discovery and dissemination of best practices in government/public procurement/buying.

Highlighting the implementation of the UPS, the CEO said all central government buyers will be required to obtain a 'GeM Availability Report and Past Transaction Summary' in accordance with an office memorandum of the Department of Expenditure to take informed procurement decisions.

"If a buyer decides to publish the bid outside GeM on the CPPP for example, the corresponding ID of GeM Availability Report will be required as a mandatory input before publishing of a bid and that ID will be validated in real time with GeM," he said.

He further said that 1,328 software processes with 242 major ones have been implemented/enhanced from August last year till September 2020 for providing a number of features and functionalities for transparent,

convenient and cost effective procurement at the portal.

"An additional over 325 software processes with over 60 major ones are in the pipeline. These features will enable large buyers such as CPSEs, railways and defence to procure from GeM," Kumar said.

Further, the CEO informed that new modules such as seller invitation module and crowdsourcing of sellers and categories have been created for rapid onboarding of sellers and faster creation of categories of products.

Instructions have recently been issued by the finance ministry to make it mandatory for sellers offering their goods and services to be registered on GeM and obtain a unique GeM seller ID which shall be invariably incorporated in every purchase order by all central agencies with effect from November 1 this year.

He said that this will hold for all ministries except the Ministry of Railways and will be for order value exceeding Rs 25 lakh and this feature will also ensure onboarding of sellers on GeM.

The whole exercise is part of making government procurement platform GeM a more dynamic, transformational and vibrant portal by adding advanced features such as powerful search engine by using Natural Language Processing, advanced analytics using AI (artificial intelligence) including machine learning, revamped brand and product approval process and faster creation of categories for goods and services through tender analysis.

The portal was launched in August 2016 for online purchases of goods and services by all the central government ministries and departments.

Currently, government departments, ministries, public sector units, state governments, and central armed police forces are allowed to carry out transactions through this portal. The portal provides a wide range of products from office stationery to vehicles. Automobiles, computers and office furniture are currently the top product categories. Services, including transportation, logistics, waste management, web casting and analytics, are listed on the portal.

So far, 6,04,468 sellers and service providers are registered with the portal to sell 15,09,605 products and several services. Over Rs 68,000 crore worth of transactions have happened so far at the portal.

Source : Business Standard

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# FACTORS THAT WILL DRIVE THE GROWTH OF INDIAN WAREHOUSING AND LOGISTICS IN 2021

ADITYA VAZIRANI, CEO  
ROBINSONS GLOBAL LOGISTICS SOLUTIONS

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**While the pandemic impacted international trade, and transport of cargo, the domestic supply chain for essential goods, powered by an aggressive e-commerce growth, kept the domestic warehousing and logistics sector afloat.**

As per the Welspun One Logistics Part (WOLP) report released in May 2020, the Indian logistics and warehousing sector is set to witness a 35% growth by 2021, instead of the earlier estimate of 25%, and will be fastest to recover from the COVID aftermath. Fuelled by numerous factors, including positive government policies, international trade environment, and possibilities around India becoming one of the top manufacturing hubs in the world, the Indian Logistics and Warehousing landscape is set to become a strong supportive infrastructure pillar in the country's growth narrative, post COVID.

Listed here are some of the key areas that will drive this growth:

**1. Robust Cold Chain Network:** As per the 'Indian Cold Chain Industry Outlook 2022', the Indian cold supply chain sector is set to grow at a CAGR of 17-18%, till 2022, driven mostly by the seafood, meat, and bio-pharmaceutical sectors. Further, growth of organised food retail, processed food market, government initiatives for agriculture supply chain, and rise in nutraceuticals and bio-pharma, are other areas leading to accelerated growth of cold storage and cold supply chain.

**2. E-commerce boom:** The pandemic has facilitated a boom in e-commerce, which has now become a preferred marketplace for not just fashion and lifestyle but also for groceries, fruits, vegetables, medicines and other essentials. Driven by the comfort of ordering from home, paying online and receiving safe, contact less deliveries, e-commerce continues to be the preferred mode of shopping in the post covid era, which is helping strengthen the logistics and supply chain network, specialised warehousing, and reverse logistics.

**3. Investment in Warehousing real estate:** As the economic slowdown hampers the residential and

commercial real-estate, the industrial and warehousing real estate has gained attention of the investors. With factors like 100% FDI and larger/ safer returns on industrial and warehousing real estate, the monetary investment is further facilitating a robust growth of state-of art warehouses with provisions for specialised storage, digital adoption, and smart management features.

**4. Boost in Manufacturing:** India is on its way to create a self-reliant economy but also vying to be a preferred manufacturing hub for global businesses, seeking alternative destination that offers affordable labour and friendly business policies. This development is set to further boost the logistics and warehousing segment. Growth in sectors like automobiles, who are already relying on specialised warehousing for kitting and final assembly of parts etc., are paving the way for the warehousing and supply chain sector to evolve into a major support infrastructure for manufacturing.

While the pandemic impacted international trade, and transport of cargo, the domestic supply chain for essential goods, powered by an aggressive e-commerce growth, kept the domestic warehousing and logistics sector afloat. Further supportive government policies like conferring infrastructure status to the logistics sector, and initiatives to create Logistics parks, enhance cargo movement through development of roadways, special cargo trains for agriculture and food transport etc., are set to impact the growth of the sector.

Additionally, with the shift in real estate investment from residential and retail to industrial and warehousing real estate, FDI in logistics, digital adoption and application of emerging technology, it is not a surprise to learn that the sector has not only been a lifeline during the pandemic but will soar higher at the double digit growth rate, in the coming year.

The views and opinions expressed are not of IIFL Securities, [indiainfoline.com](http://indiainfoline.com)

Source: [indiainfoline.com](http://indiainfoline.com)

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## HOW MOBILE TECHNOLOGY IS HELPING LOGISTICS AND SUPPLY CHAIN SECTOR TO EVOLVE?

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Over the past few years, the transport and logistics industry has adopted mobile technology to improve their processes and operations. This sector is no different from others because now, it is greatly under the influence of digital technologies. From the time digital technology is introduced in the logistics and supply chain industry, the sector has evolved dramatically. By keeping the growing competition, complexities, and ever-changing consumer demands in mind, several user-friendly mobile applications are developed by IT experts and are used by many top companies that are offering transportation services in India.

Logistics companies have already realized that by using mobile technology, their business can achieve greater visibility in their supply chain performance. They are trying to identify different opportunities to gain efficiencies and cut down costs. Logistics and transport agencies work in an environment that calls for improved and more efficient management of the supply chain. Workers in these firms are required to work from onsite as well as off-site locations. So, these companies prefer to use smartphones with some important features such as barcode and label printers, built-in cameras, scanners, GPS, Near Field Communications (NFC), Voice Recognition Software, shared logistics networks RFID tags, etc.

### **Why transportation service companies should invest in mobile app development for the supply chain?**

Mobile app development for the supply chain ensures an integrated mobile fleet solution to have live tracking of goods. It will enable the mobile team to get adequate assistance from IoT to get the right information in multiple transitory touch points.

One of the major benefits of using mobile technology in the supply chain is that it helps in optimizing inventory management system that enables the faster movement of goods and reaches customers'

doors timely. Doorstep delivery mobile applications suggest the best routes for faster movement of goods and also help in locating customers using GPS coordinates. In overall, making it easier for the mobile fleet operator in finding the precise location and deliver the goods on time.

Many logistics companies are realizing the benefits of implementing mobile apps in their supply chain, but still, there are some agencies providing transportation services in India, have a dilemma whether to invest in mobile app development or not. Such companies can compensate for the cost of mobile app development for supply chain management by getting advantage from improved supply chain visibility, mitigating errors, shrinking down the lead time, and optimizing transportation networks resulting in improved inventory management.

The real-time data is fed or updated continuously to the dynamic optimization engines that have the core of supply chain management. Therefore, mobile apps not only suggest optimal routes but also it provides some real-time insights to vehicles and driver performance to the shipper. Furthermore, it aids in measuring the productivity and efficiency of each network involved in the complete supply chain. With mobile technology, logistics companies can create an entirely new standard for vehicle communications, by adding new levels of ease and sophistication. This offers an environment for companies to offer transportation services in India that is going beyond the four walls of the warehouse to deliver.

Mobile technology has changed the dynamics of the logistics and transport sector. Read below to understand how friendly and intuitive mobile apps have helped this sector to evolve. You can also check **top trends rule supply chain management in 2020** if you want to deeply understand the role of mobile technology in the supply chain industry –

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## Helping in managing valuable human resources!

Workforce plays a crucial role in a company with little to no room for negligence and mismanagement, especially at some crucial touch points. For this, organizations emphasize on right training, communication, and modifying organizational structure as and when needed. Mobile technology allows companies to effectively integrate different human resources in numerous departments to deliver secured information that runs throughout the organization. However, the cost goes a little high to take care of these resources, but it also reduces worker fatigue and hence improving their overall productivity in working hours.

## Shipment tracking systems!

Earlier, customers used to get an estimated delivery date on booking their shipment and then were left in the dark with no updated information, unless they decided to make a phone call for further inquiry. Today, mobile technology allows the shipper to provide real-time location regarding the shipment to customers and keep them updated about the progress. Customers can also access shipping and tracking features 24/7. Not only this improves the user experience, but also saves time and money for the company as well.

## Eliminating data redundancy!

When there were no mobile apps for **logistics and supply chain**, the data redundancy rate was higher as manual entries created a hard time for heads of the respective departments. The data discrepancies due to human error made the whole supply chain system devoid of reliability to an extent that only back-office systems were to be relied on. With mobile app development and its implementation in the logistics sector, the data entered reflects immediately. This reduces the chances of human errors and boosts the entire process with utmost data reliability.

## Quick and flexible delivery process!

Using mobile solutions, companies involved in supply chain management and **transportation service** can change delivery schedules as well as routes on the go which means amazing flexibility to the organization. Improving the control of their supply

chain operations increases customer retention and provides opportunities for new levels of an alliance between logistics providers and customers. With mobile app solutions, logistics companies can improve their supply chains with real-time data which enables drivers to inform any delay. Companies can improve their dispatch operations, record keeping, inventory management, tracking goods, inspections and more with real-time data. As a result, they can enhance their supply chain operations.

## Time-saving and reduce costs!

Logistics mobile apps allow you to optimize routes for each driver reducing fuel expenses. These apps can simplify major functions to improve driver efficiency. Weather update and traffic congestion alerts on the driver's phone can help him to take the best route to reach the destination on-time. This way it helps the organization to operate more efficiently at the same time reducing operational costs.

## Easy and timely dispatch of work orders!

Companies implementing mobile technology in their business can speed up processes and work orders. Using inventory software, they can optimize dispatches and routes. They can also manage rides, minimize miles driven and increase revenue. Logistics is not only about moving and delivery of the goods, but it is also about effective warehouses management. The software allows you to store all the inventories received at the warehouse and dispatched to the final destination. These apps will make it easier to store goods and locate the inventory easily because all the information will be in a database.

The transportation and logistics industry spend money hugely on auto parts, vehicle insurance, fuel, maintenance, and more. Investing in advanced mobile technology is the key to improve the operation, workflow and productivity of the transportation company and garner other amazing benefits. To empower your business in the transportation industry and take it to next level, implementing mobile technology will be the suitable choice.

**Source: TruckGuru**

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# LOGISTICS OPTIMIZATION FOR COST REDUCTION

C K KUMARAVEL, CPM – USA,  
LIFE MEMBER IIMM CHENNAI

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**L**ogistics is an important part of supply chain management and is defined as forward and reverse flows of materials and services from manufacturers to customers or consumers. Logistics cost measured as percentage of GDP needs to be ideally below 10 percent from current level of 13 or 14 percent and these increased costs are adversely impacting all industries and companies.

Several activities as mentioned below need to be performed and optimized to tap the full benefits of logistics and supply chain management and achieve cost savings.

Supply & Materials Planning  
Inventory & Materials Planning & Control  
Materials Handling & Packaging  
Information Technology & Automation  
Transporter Selection  
Freight Cost Control  
Delivery Tracking and Reliability  
Safety & Environmental Concerns  
Receiving & Warehousing  
Heavy Equipment Logistics & Rigging  
Outbound Logistics

**Supply & Materials Planning:** This needs to be done so that there is complete and total clarity on requirement volumes and dates when they are required at project site or factory. Contractual requirements and specifications need to be clear and complete in all respects.

**Inventory & Materials Planning & Control:** Inventory Turnover ratio is an important aspect in many industries and realistic targets need to be fixed and achieved without compromising customer service and product availability. Demand forecasting efficiency and consistency will help to set realistic inventory targets without compromising business objectives.

**Materials Handling & Packaging:** This process needs to ensure zero handling and transport damages/deterioration/theft and other associated problems and clear packaging specifications and standard operating procedures for handling and packaging contribute towards this objective.

**Information Technology & Automation:** Software applications are employed in all areas of supply chain management from forecasting and planning phase to investment recovery and disposals phase. Centralized Information gives us the big picture of the organization and helps to focus better on bottlenecks and problem areas. Process automation helps to achieve better productivities & efficiencies and reduced errors, wastages & delays.

**Transporter Selection:** A qualified list of transporters and carriers for different modes of transport with contractually agreed freight rates and discounts helps

to minimize and optimize transport costs, deliveries and responsiveness efficiencies.

**Freight Cost Control:** Selection of proper mode of transport based on value to weight ratio and despatch quantity plus avoiding or minimizing premium and urgent freight situations through advanced and timely planning and forecasting techniques contribute towards optimization of costs.

**Delivery Tracking & Reliability:** This is a must-have feature for transporters to confirm exact current status of shipment, delivery date forecast, delay avoidance and delivery reliability. Proper route selection apart from transport mode selection for each consignment help to achieve this objective.

**Safety & Environmental Concerns:** Safe handling of hazardous materials and chemicals is required to ensure environmental safety and avoid incidents like oil spills, contaminations and other similar problems. Standard operating procedures for safe handling of materials and following environmental regulations with total compliance guarantee elimination of adverse impacts on climate and environment. Environmental management system certifications are widely used now by companies.

**Receiving & Warehousing:** Good warehouse management procedures help to improve inventory accuracies, material retrieval and issue times, floor space optimization, layout efficiencies, receiving and inspection times, labour cost controls, equipment costs, investment recoveries and related metrics.

**Heavy Equipment Logistics & Rigging:** This is a specialized subject and involves movement of heavy equipment used in energy, infrastructure and other industries without damage through long distances. The weights and lifting characteristics of the equipment are studied fully and rigging plans are suitably drawn up and implemented. Road weight capacities and obstructions are evaluated well in advance and incorporated into the plans to facilitate smooth and problem-free heavy equipment movements.

**Outbound Logistics:** This is an important part of logistics which helps to improve customer service, achieve timely product deliveries, perform reverse logistics and control associated costs. In this era of global procurement and sourcing and consequent longer transport times and costs, getting this right is a compulsory goal and activity for companies.

Since logistics can positively or adversely impact several important business metrics like customer service and profitability, getting the various logistics processes right and efficient helps to improve financial and operational performances of companies, irrespective of their locations and industrial sectors.

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# MSMES IN LOGISTICS HIT HARDEST BY LOCKDOWN; HERE'S WHAT GOVT CAN DO TO REVIVE AILING SMALL BUSINESSES

JOHN HK TANG  
CO-FOUNDER AND DIRECTOR OF LALAMOVE

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**L**ogistics for MSMEs: According to the All India Motor Transport Congress, the daily movement of trucks has decreased to less than 10 per cent of normal levels.

**Logistics for MSMEs:** As the world reels under the impact of the global COVID-19 pandemic, the situation remains gloomy, forcing countries across the globe to go under a complete lockdown. The countrywide lockdown in India, though a great move to curb the drastic effects of the novel coronavirus, is crippling industries across various sectors and the economy as a whole. As the cascading effects of the pandemic continue to affect the global economy, upending trade and commerce with countries sealing borders to prevent the spread of the flu-like virus, the Indian logistics companies are finding it difficult to keep the business lines operational. According to the All India Motor Transport, the daily movement of trucks has decreased to less than 10 per cent of normal levels. Road transport accounts for about 60 per cent of freight traffic in India, according to the Ministry of Road Transport and Highways.

**The Impact on Supply Chain:** Naturally, with many countries on lockdown, the global supply chain has virtually come to a standstill. As a result, shipments lie pending as factories and warehouses are shut in a prompt response to the global health emergency. It remains unclear as to when the situation returns to normalcy. Before India implemented a mandatory lockdown to curb the far-reaching consequences of COVID-19, disturbances across the supply-chain management were already visible in some parts of the country. Gated societies in several cities banning access to delivery agents and work from home policies initiated early by many companies started impacting the overall delivery percentage since early March.

Though government authorities are helping in solving the impasse by engaging with stakeholders involved in the delivery of essential services, e-commerce players in B2B and procurement domains have been left stumbled. Indian Chamber of Commerce (ICC) has estimated losses to the logistics sector at about Rs 50, 000 crore.

**Tough Time for MSMEs :** The trade is down, production is halted, the supply chain has been disrupted and markets are bearish. MSME segment has perhaps been the hardest hit due to the prolonged lockdown. As the economic activities come to a halt, MSMEs are grappling with problems like cash flow, low liquidity and lack of workforce. In a move to curb the economic impact of the virus, the RBI has announced a moratorium on term loans, put off interest payment on working capital facilities and eased working capital financing. Additionally, many public sector banks and Small Industries Development Bank of India (SIDBI) have also introduced emergency relief measures.

While these measures have given hope to the MSME sector, there are a few more initiatives that the government can take to provide aid to the ailing business sector such as delay MSME loan repayment or extended tenure, an exemption in GST, subsidised warehouse or inventory management facilities, measures to mitigate the impact on MSME labour workforce, enhance access to credit and defer utility and social security payments.

**Challenges :** Major FMCG companies struggle to transport their goods due to shortage of trucks. Though the government has permitted the movement and delivery of essentials goods, accessibility remains a challenge since the logistics is not moving at a fast pace because of many restrictions in place. There is a shortage of drivers since almost all of them have moved back to their hometowns. Unavailability of sufficient labour at loading and unloading points is also hampering the logistics operations in the country. Additionally, there is a huge number of daily wage earners who are grappling hard to survive the situation.

## What is Foreseen?

The crisis situation calls for unprecedented coordination among industry, civic authorities and the public. It is essential that regulatory authorities recognise the logistics industry as essential services to keep critical supply chains running smoothly. It is the time when companies shall assess their supply chain risks and proactively develop mitigation plans such as exploring alternate channels of transportation or combination of it – small trucks, three-wheelers, two-wheelers etc. for last-mile essential goods delivery. Regional logistics companies should build capabilities to change with the change in demand at a short interval of time.

Though times are tough for businesses, it is a temporary phase. Once business operations resume, mass hiring of delivery personnel will become a need of the hour as pending orders along with the new ones will further stress the logistic network after the pandemic. The logistics network must prepare in advance for the sudden upsurge in consumer demand once manufacturing units spurt back into action. A stronger network will be an absolute requisite to deal with the scenario efficiently. Undoubtedly, the virus outbreak and the unfortunate turn of events will act as a wake-up call for companies across various sectors to implement business continuity plans to better survive such unplanned situations in the future.

**Views expressed are the author's own.**

**Source:** [www.financialexpress.com](http://www.financialexpress.com)

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## NATCOM 20-21 / SPECTRUM 2021 REPORT

**T**wo-day mega event Spectrum 2021 of IIMM Chennai branch was held on 18<sup>th</sup> & 19<sup>th</sup> February 2021 in virtual mode. This was combined with All India IIMM NATCOM -20-21 in which all the branches of IIMM participated



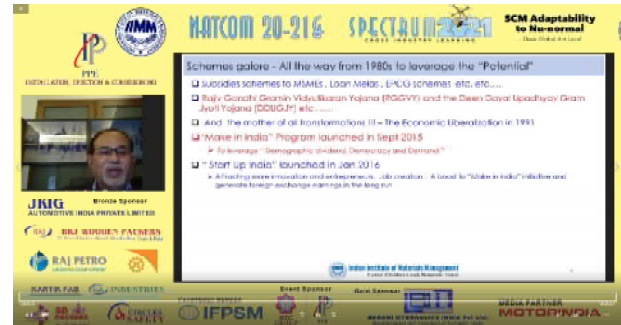
The event was conducted in virtual mode due to COVID - 19 restrictions for the first time in the history of conducting this annual event in last decade. This 13<sup>th</sup> edition of event had the major theme of **“SCM adaptability to Nu-normal – Think Global act Local”** as focus.

The event was inaugurated on 18<sup>th</sup> February 14.00 hrs, utilising services of M/s. Shri visual services to ensure effective reach, across 500 plus participants, across India. There was also participation from all branches of IIMM, sponsors for the event, academic institutions, students etc. The event was inaugurated by Mr. Malay ChandhanMazumdar, National President. In his address, he highlighted, that Chennai branch which hosts a number of manufacturing industries, has converted the COVID-19 pandemic situations as an opportunity to link with the stake holders in virtual mode. This has become a blessing in disguise for India as it has emerged as a key manufacturing location for vaccines. He had stated that the NATCO 20-21 is jointly along with the **CRIMM Certificate distribution**, as part event. He exhorted all the participants to become active part of IIMM community for the benefit of all. The welcome address was provided by Mr. J Ravishankar, Chairman IIMM Chennai who also introduced the event Chairman - Spectrum 2021 Mr. B Ramesh, while thanking the national president for his support and participation.

Mr. Ramesh, Chairman - Spectrum 2021, who is also Vice Chairman of IIMM Chennai, provided a brief overview of 13<sup>th</sup> edition of Spectrum 2021, the annual flagship event of IIMM Chennai, combined with IIMM national event – NATCOM 20-21. He highlighted that after multiple deliberations by the executive committee and senior members and the need to overcome the pandemic situation, the theme of “SCM adaptability to Nu-normal – Think Global act Local” was conceived. A

total of 8 sessions (including inauguration) is scheduled over two days with four sessions on each day. He also stressed that the event has specific focus on MSME which will help in the growth of Indian economy. A total of 500 people participated in the event. They were warmly welcomed and requested to provide their interactions in the chat box of ZOOM. He summed up the event mix with thanking of sponsors and press. He also introduced Mr. N S Sivaraman, the Master of Ceremony for the event. Mr.Sivaraman, has more than 38 years of industrial experience in L&T group of companies and was lastly the director L&T shipbuilding at kattupalli port, near Chennai.

While introducing the key note speaker, MOC mentioned that Mr. Gopal Subramanyam, is also independent director with 4 decades of industrial experience and is also in the governing council of NSDC – Aerospace sector. He has further headed L&T Komatsu as CEO earlier in his career. The Key Note address focussing on **“India’s potential to Emerge as Factory for the world”** was rendered him, who is currently Chairman, SKF India Ltd.



Mr. Gopal Subramanyam, the key note speaker emphasized that India has the potential emerge as the factory of the world. This he stressed, is not just a statement or wish but a very happening situation currently. In his presentation highlighting the following five key areas, he narrated the journey towards this goal.

- Agenda
- Perceived / actual potential
- Situation analysis
- Success Stores
- Summing-up and action plan

He quoted extensively from the authoritative reports made in the year 2019 by PricewaterhouseCoopers, an internationally reputed management consultancy house and FICCI India representing Indian industry. He also added that he has direct access to industrial information over his 4 decades of working and an interaction with number of reputed bodies like, CII, EXIM bank, EEPC and also Deloitte consulting.

In his detailed presentation, he stressed on the April 2021 | 37

potential and strength of India due to the predominance of youth population with median age of 29 years among 1.3 billion total population. In terms of production of key raw material, coal, iron, cement etc., India is within the first 3 positions in the world and currently and in second position in two wheelers manufacturing. Government of India in its Make in India Mission" (Atmanirbhar Bharat) has initiated 25 programs under Skill India Mission. Though, the social development is the first obligation of government, in order to promote MSMEs, a number of subsidies are provided to them along with loan melas, EPCG (Export Promotion Capital Goods Scheme), RGGVY (Rajiv Gandhi Grameen Vidyutikaran Yojana).

The steps starting from economic liberalization in 1991, Skill India Mission in 2015, Start-up India in 2016 and Atmanirbhar Bharat Abhiyan in 2020, have ensured that growth prospects for India are bright. This is also confirmed by India's share in global growth at 15 %. He also stressed that our current focus is on intermediate goods in which more than 60% of global trade takes place. He further added that Indian imports are mostly due to non-availability of intermediaries and vital raw materials. He quoted the example of solar energy devices which has 80% dependence on imports.

To ensure reaching the goals, he advised that the performance of MSMEs is one of the possible areas. Currently MSMEs contribute to 63.4 billion to global trade, in which share of India is only 6.11%. The manufacturing GDP in India accounts for a sectoral contribution of 24.6 %. Service contributes between 35% to 40%. The services sector, however employs 120 million people in India with, 20% of them only being engaged in rural areas. Therefore, the importance of bringing in the contribution to growth from all sectors was stressed by him.

However, he compared the situation with Germany. There "**Mittelstand**" commonly refers to small and medium-sized enterprises in German-speaking countries, especially in Germany, Austria and Switzerland with annual revenues up to 50 million Euro and a maximum of 500 employees. They are the backbone of German economy, providing 52 % value addition. Notably, their apprentice scheme, reduces unemployment. They are able to bring out a lot of new and niche products. For example, many companies there, have full-fledged ERP, and have shifted to industry 4.0 way back. Their current focus is only on upgrading digital talents.

In India, though we are exporting motorcycle, bicycle and auto components, to an extent, we need to concentrate on final products. He cited the example of performance of China in exports of cars at \$7.7 billion, compared to India's at \$ 2 billion. However, China has more of their own designed products, unlike India, where the exports are made on overseas designs such as Hyundai etc. That means while China is catering to high-end markets, India is still meeting the low-end of the markets. Therefore, we need to question our dependence on our Governments schemes, which are more for meeting the social obligations. Indian companies need more international recognition on both design and quality. Though, a number of Indian

companies have won Deming award for quality such as Sundaram Clayton Ltd in 1998, he also stressed on the need to get award for our final products. He closed his speech and stressing on the Government making 2013 Companies Act, CSR (Corporate social responsibility) as mandatory.

The MOC introduced the speaker for the first Technical session "**The future of Manufacturing – Digital & Intelligent Factory**" Mr. Prasad, Founder Beebox IITM Research Park. The Session was chaired by Mr. N Swayambhu, immediate past chairman and NC Member of IIMM Chennai. He began with a definition of industry 4.0 and highlighted how in the fourth age of industrialization, the robotic arms replace the people in working in a factory. In the fourth stage the physical systems have more of SMART machines having intelligence. The mass production is not only flexible, but resources friendly. IOT – internet of things plays a big role along with sensors. The office work goes into a paperless scenario. The data entered by the computers across the company is shared with a single click with use of ERP. The work also is rendered by a team and not by individuals, in silos. He listed the following nine components of Industry 4.0 and elaborated on them.

1. Cloud computing
2. IOT
3. Additive manufacturing
4. Autonomous Robots
5. Simulation
6. Cyber security
7. System integration
8. Augmented reality
9. Big Data analysis

He further shared their experience in working on cloud computing and IOT along with artificial intelligence, AR/VR. He highlighted the need for the SMEs who can use AR to reduce the downtime. For example, he explained how the digital eye can help more than human eye in after sale and service area, as part of POKE YOKE. Increasing asset utilisation was quoted as a direct benefit in using the predictive analytics. He closed the session by showing the example of remote surgery using this technology.

The second Technical Session "**Elastic logistics**" was rendered by Mr Puneet Abrol, Maersk line, Operations Head (Asia Pacific). He has been in the logistics industry for over 12 years primarily in sales, operations and general management. He is a graduate in Manufacturing and Automation engineering from Delhi University, and did his PGDM from IIM Kozhikode. Mr. D Ramesh, Monthly Meeting Chairman of IIMM Chennai, functioned as session chairman.

In his presentation, he dwelt at length the MAERKS operation in India and South Asian countries and their leveraging elastic logistics. This company with more than 100 years of experience has been working on integrated End to End logistics" for last 3 years. With presence in 130 countries, the need of digitalisation is paramount for them.

He demonstrated the emergence of block chain in the logistics industry and particularly after the COVID-19

situation, the availability of the raw materials has become a key of issue across the world. Due to this, organisations are unable to upscale their capacity. The principles of lean do not work and low inventory may lead to materials shortage. It is also hard to get space in vessel or in warehousing. The logistics has suddenly received more focus, due to these developments.

The Elastic Logistics mean – agile and flexible way of increasing or reducing the logistics that support production. It is required to increase the business by utilising the demand. It can also help to protect against in drop in demand as well as in meeting of contingencies

This works on the principle of data analytics using technology and automation. For the purpose of accurate forecasting, cloud-based transport management systems are used. For busy / lean periods, predictive algorithms are used. Many of them work on IOT and block chain. The advance plan for supply chain ensures meeting shortages. The robotic use in automated warehouse ensures both productivity and machine learning.

Currently, the benefits of investments in elastic logistics outweigh the cost of investments, the following three examples were illustrated in detail

1. Outsourcing of Supply chain – on demand warehouse
2. 3D printing
3. Unorthodox products

He quoted the practices of Maersk “Neo Nav” in connecting entire supply chain as a single platform. This is based on machine learning filters at data points. This technology concept gives great outcomes in business productivity. Another product quoted is “Tradelens” using electronic bill of lading. In this method, there is no need of physical documents. The electronic data is stored in the form of block chain and, this saves couriers charges, time etc. and also reduces of forgery. He further stressed that use of real time data is primary challenge in shipping to ensure that there are no delays or errors

Another example quoted use of flexible hub, not based on technology. This utilises the various services in a flexible nature and provides on – demand warehousing. He summed up, by adding that COVID-19 situation is forcing the logistics to become agile and ensure regional sourcing support and multi-supplier dependency support.

Technical Session-3 on “**Reimaging cold supply chain for pharma and fruits and vegetables**” was rendered by Mr. SurendraDeodhar, VP-Reliance Life Sciences and Vice president (West) IIMM. The session was chaired by Mr. K Nagappan, Health Care SCM consultant and NC member of IIMM Chennai.

He began his presentation with the need to provide the right temperature for different products like fruits and vegetables to avoid spoilage. In the case of medicines, not maintaining the temperature may deactivate the medicines. The biologicals if not maintained in a cold chain, their quality will be compromised. The broad temperature ranges were

highlighted - 7 to 10 degrees for cucumber, 7 to 20 degrees for tomato's, .5 to 3 degrees for flowers like Roses and Orchid. The challenge of industry lies in creating the specific supply chain for this product. For a number of medical products, a range between 2 to 8 degree is needed and for most tablets WHO guidelines provided 15-to-20-degree range. Again, each country has its own standard. They are multiple people / agencies which handle the products and it may even go up to 30. There is no standardisation and temperature must be specified in every case. There is a compliance need at each and every stage of life journey of the products from generation to consumption. He also highlighted, the attitudinal issues of people towards regulation in India which can have a direct impact on effectiveness. The practices of industry such as cold chain equipment like reefer containers and vans and special types of containers and thermocol boxes were shown before closing the session

It was followed by **NATCOM 2020-21 Event Launch led by** Mr. Malay Mazumdar, National President, IIMM. He is a BE (Mechanical) from Sardar Patel University and qualified with GDMM from IIMM.

The event started with awarding life time achievement award for following three persons.

**Dr.M K Bhardwaj(Late) - former Co-Chairman Board studies, Editor MMR and Past National President,**

Late Dr. M K Bharadwaj had 30 + years of association in IIMM, with the Ph.d degree in management. He had held various positions in branch and national levels till last day of his life. He was decorated Chief of the Army Staff commendation medal for bringing reforms in the inventory control of the Indian army. He was awarded by IFPSM, the prestigious Garner Themoin and Hans Ovelgonne Award. In recognition of his selfless and unparalleled contribution to the institute as Life Member, he is awarded life time achievement award 2020-2021 posthumously.

**Mr. V Hariharan - First National President, with following citation**

He is a fellow of institution engineers and has professorial track record with Telco, IBM, and TVS. He is an advisor to UPSC, and nominated member of IRDA. In recognition of his contribution to the institute's professional and educational activities as it first national president, he is awarded Life time achievement for the year 2020-2021

**Mr. S Krishnaswamy - National president 1986-87 with the following citation**

He is BE, MBA from Madras university, with experience in Ashok Leyland, Enfield India, Audco India, Telco and Simsons. He had won National Outstanding Entrepreneurship award 1994. He had been an active Lion for 40 years plus and represented PUM of the Netherlands and SES of Germany. He is now awarded Life time achievement for the year 2020-2021 in recognition of his contribution to the institute to professionals and education activities for about 3 decades

The first day's events closed with **CRIMM Certificate**



**distribution by** Prof. Dr. Goutam Sengupta currently Vice Chancellor of Techno India University and Mr. Asok Dasgupta on behalf of CRIMM in virtual mode

The following research scholars were awarded certificates jointly by Techno India University, West Bengal & Indian Institute of Materials Management

1. Mr. Yatish Basavraj Ganganwar - Supply Chain Cluster Development in MESCO"
2. Mr. Suman Das - Analysis and optimization of storing cost in N.F. Railway Stores Department"
3. Mr. Rajesh Rai - A study on Solid Waste Material Management at Mysuru Municipality and suggest improvements in Material Handling Systems

The day's session ended with closing note by Mr. NS Sivaraman, MOC, thanking all participants for interactions and requesting them stay-tuned for the next session on 19<sup>th</sup> February at 14.00 hrs

#### **DAY-2 Opening 19-2-2021**

Mr. N S Sivaraman – MOC welcomed the participants for day -2 of the program and introduced **Mr. H K Sharma, Sr. Vice President, IIMM**. Mr. Sharma, welcomed the gathering and gave an overview of IIMM activities at pan India level and praised IIMM Chennai branch about the initiatives taken on the various fronts and their achievements. Mr. Sharma talked about various initiatives by Government of India to help MSME initially towards Atmanirbhar Bharat, supply management in government during pandemic and various initiative by Ministry of Finance, DPIIT, GeM, etc.

**Technical Session 4 titled "The online shopper Experience -Safety, speed and convenience was facilitated by Mr K B Nagaraju, Chief Customer Experience Officer, Big Basket.**

The speaker highlighted the following practices adapted by Big Basket during the Covid period

1. Contact-less delivery
2. Bulk order cancellations
3. Returns stoppage

He highlighted few key changes made in their operations. The warehouse design was modified to store the essential items, like mask, sanitiser in the front side. Customers were encouraged to place the consolidated orders. In March 2020, hundreds of delivery personnel left the company and immediate recruitment was resorted to. BigBasket was permitted to operate as a part of essential service. About 10000 people were recruited in two months and delivery was tied-up with Uber, Zoomcar and Rapido. Customer service executives were permitted to work from home to take customer orders. All the products were disinfected. Online essential shopping came as new norm. It was convenient and easier to service with more frequent deliveries. More hygiene products like masks, sanitizer became fast moving items. Online payment was encouraged to avoid Cash on Delivery (COD) contact. The earlier, practice of COD accounting for 30% business was completely closed. The UPI transaction carried less charges and many customers were installing on

protocol security at delivery point. The safety of people became a big concern.

Online training was extensively used. Taking returns was completely stopped. The medical and test samples were collected at doorstep. Token system was used to reduce customer anxiety. Extensive use of QR code was made. Introduction of chat box helped in online business.

**Technical Session 5 on "Digital Transformation: Accelerating the Change in Fin-tech" was rendered by Mr. R Sarathy, Senior Director, Product Management, PayPal.**

For Paypal, during Covid the business was very good. People preferred digital payments over physical mode of payments. The demand for shorter delivery time shot up. Working from home became more prevalent, it is expected that more flexible and working from home will continue. Contact less payment will get accelerated. QR code will become more popular.

He summed by advising that every company, in normal must have digital presence. Even the street vendor is using QR code as they get prior knowledge on payment and e-commerce will be used for most of the essential goods. More and more customers will avoid public transport. More two-wheeler and electric scooters will get introduced. Communication within SCM function will be more digital. A number of activities may be carried out from home, and door delivery needs will increase.

**Technical session 6 on "How MSMEs will Act as a Growth Engine for the Economy" was facilitated in a discussion mode by Dr. L S Ganesh, IIT - Madras and Commander S. Navaneetha Krishnan (Retd) L&T**

The session chairman Mr. V Ramachandran, IIMM distinguished faculty and former member board of study of Sri Ramachandra Medical College Chennai, in hospital administration.

Prof L S Ganesh proposed the question to his partner to briefly present the situation of SMEs in Indian economy. He further added that the government is moving towards, circular economy with zero waste and MSMEs will be the key drivers. He sought the views of Mr. Krishnan on the definition of MSME by Government. It was stated that the Government has classified MSME both on investments and turnover basis. However, Government has not considered the size of employment in its definition. In India, MSMEs being the backbone, it is necessary to understand how they add to the GDP and employment.

The example of how, the clustering strategy of the government has helped in the growth of MSMEs particularly in the areas of Tiruppur, Chennai, Coimbatore, Jalandhar, Surat, and Hyderabad. The effect of the cluster is limited to a radius of 100 KM. These clusters are mostly labour intensive and use low technology. Internal growth takes place only when the cash flow is wide and deep. The success of Hyderabad pharma cluster is quoted as an example. Even though, 159 clusters operate in UP alone, followed by Tamil Nadu at 103, there are wide variations in value

addition. Unless high quality products made in the cluster, high value addition is not possible. Besides value addition, in India, quality issue of MSME has become a cultural issue.

Here, institutions like IITs, NITs have major role to play in providing technology inputs. Mr. Krishnan shared his experience in comparing conventional MSMEs using low technologies with innovative MSMEs using high technologies. Only Innovative start-ups are able to achieve high growth and there is a need for supporting them by government. India today has youth with energy, knowledge and motivation. But a healthy ecosystem is needed to support the innovation. Once this is done, the internal economy will flourish. The chairman summed up the session by adding that modernisation requires both risk taking and investments and also willingness to reinvest in business.

**Technical Session 7 – Panel discussion on “Digitalisation – I am the future of work – impact on jobs and workspace” chaired by Mr. S Subramanian-** He is an independent IT strategy & transformation consultant and a faculty in software engineering at BITS.

**Mr D VenkatasamiBabu, VP, HR Wheels India Limited,**

Presently working as Vice - President Human Resources Management at M/s Wheels India Ltd., he manages HR / ER across their operation in India. Maintains healthy employee relations, by handling employee grievances thus creating an amicable, transparent and positive environment.

He briefly explained how they had to resort to work from home. This industry being people-centred faced a number of challenges. Since the products are physical, the closing of the plant in March 23 had forced a mobilization and meeting of compliance needs.

The key challenge lay in mobilizing the 25% or 50% of the staff approved by the Govt. People were connected through internet or Zoom calls. Compliance to all SOPs of Govt emerged as a major issue. Developed a home-grown IT platform to enable work from home. Decisions could be taken over a phone. Performance measurement in remote locations became one of the key challenges. Technical issues like voice quality and picture clarity over Zoom meetings affected productivity. With all these, we had developed a remote working culture. Post the shutdown we may not fully go back to work from home and 80% work needs to be done in the factory.

**Ms.Rathandeeep, Founder-CEO of Consulting and Beyond (C &B),**

She helps in businesses turnaround of loss-making organizations and prepares feasibility and project proposals for entrepreneurs. She is a notable public speaker and has completed Valuers' examination recognized under IBC and conducted by Ministry of Corporate Affairs (MCA). She has successfully cleared examination to become eligible for Woman Independent Director as per MCA regulations. She was **Associate Partner & Corporate finance division Head,** PKC Management Consulting, Chennai in 2008 – 2020,

She narrated the impact on the jobs in future due to this development. They had found a way out. Either through digital or vendor mode, SMEs had to work through. As they started learning, each and every dept stood by the organization. There were panic feelings of lay off initially. Post Covid hybrid model started working. In the first two months working hours at home became longer. Skills also emerged as a challenge. Technology has enabled them to do it themselves. Training schedules were modified. In future how Hybrid will work needs to be seen. Some front-line work force cannot be avoided. Omni channel distribution could also emerge.

**Mr. Jagadish Babu Chief of HR, ThinksynQ**

HR Business Partnering. Jagadish has delivered on business imperatives and people agenda to build a future fit organization, including areas of organization design, talent acquisition & management, capability building and building strong performance culture.

In the beginning Mr. Subbu the chairman introduced the topic and remarked how covid has created in nine months a result which could not have been done in last twenty years. He particularly quoted the performance of non-medical field businesses that had done exceedingly well in the pandemic unlike medical field. In specific, the tremendous growth in IT services is quoted as example.

The first panellist, Mr. Jagadish babu, highlighted how work from home has affected IT services. He focused on the key results on how IT industry found it easy to implement work from home leveraging technology. It has led to fast growth and ensured. He quoted the example of how 250 plus agents quickly switched over to working with mobile technologies. Govt also helped in making a licence free and no deposit environment. Earlier knowledge workers were available only in metros. But with work from home, a resource can be located anywhere in India. Work near home and work from home moved into a hybrid model. Even with scarce work space higher output became feasible. They were also able to provide a 24/7 service to clients. Attitudinal issues had come down with more trust. Hiring from anywhere is now possible and information security has become a key issue.

**NATCOM Flag Handing Ceremony**

With two-day event of Spectrum 2021 and NATCOM 20-21, coming to a close, a formal handover of NATCOM – IIMM flag to next branch was executed virtually. The flag was handed over from Chennai branch chairman **Mr. J Ravishankar** to the **Chairman of Vadodara Branch Mr. K B Walvekar.**

**Vote of thanks was rendered by Mr. B Ramesh, Spectrum 2021 event and vice chairman of IIMM Chennai,** thanking all the participants, Sponsors, Members and personnel from all branches, media, speakers and service provider.

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## TOP SUPPLY CHAIN AND LOGISTICS TECHNOLOGY TRENDS IN 2021

**SAAHIL GOEL**  
CEO AND CO-FOUNDER, SHIPROCKET

***The role of technology in the logistics and supply chain industry has evolved drastically over the years and is pivotal to its growth***

Opinions expressed by *Entrepreneur* contributors are their own.

Wherein 2021 is being looked at as a beacon of optimism and hope, it's safe to say that 2020 detonated several unprecedented changes within businesses across verticals. One such industry that was at the forefront of disruption was the logistics and supply chain sector. With augmenting apprehension towards offline shopping, customers started embracing the convenience and the safety that came with the prospect of online shopping.

The Indian logistics and supply chain sector rose to the occasion by leveraging cutting-edge technology and incorporating innovative strategies to respond and adapt to the rapidly shifting consumer behavioral trends in the industry. Between 2020 and 2024, the logistics sector is projected to grow at a CAGR of 10.7 per cent and the retail players are further boosting this growth by strengthening their infrastructure and re-evaluating business models. On that note, from automated warehousing to speedy last-mile delivery and virtual assistants, here are some of the top supply chain and logistics technology trends to watch out for in 2021.

**Personalized customer experience :** The customers of today expect a shopping experience that pampers them from end-to-end. And for a merchant, it only adds to the pressure when a fluid customer experience becomes crucial for the success of their business. Today, customers prefer to spend on products and services that are tailor-made to fit them and their personality like a glove. By leveraging cutting-edge technology, companies can gather insightful data to understand customer preferences. This way, they can personalize products and services to cater to their needs.

AI-enabled programs can not only collect, process data and ensure personalization but also help businesses design a user-oriented experience. It is expected that this year will see companies working towards offering customers a more customer-centric experience.

**Warehousing technology :** Warehouse management is an aspect of business that often doesn't get its due credit. For players in the supply chain and logistics industry, warehouse management forms an integral part of the business that simply cannot be overlooked. To ensure seamless warehouse management, logistics and supply chain companies have begun to automate inventory storage. Automated warehouses with top-

notch technology for streamlined order picking methods, have gained rapid traction as they make for an overall smooth shipping experience. New-age technologies such as AI and ML even enable wearable technology for the warehouse staff to allow hands-free working and increased safety.

**Virtual assistance :** The future of perfect customer experiences is conversational. The application of technology in every sector is consistently growing. One such application is helping businesses stay in touch with customers and helping them resolve queries for an enhanced experience: chatbots and virtual assistants. While chatbots aren't entirely a new concept, the pandemic has given way to a major surge in their usage and other virtual assistants in the logistics and supply chain industry that is expected to continue in the foreseeable future. Conversational AI chatbots and virtual assistants help resolve customer queries in a humanized manner, without delays, in addition to automating and streamlining orders and other activities, thereby ensuring efficiency in terms of cost, time, and manpower.

**Last-mile deliveries and real-time updates :** At a time when the world is driven by online shopping, businesses in the supply chain and logistics industry have woken up to the fact that the last-mile is perhaps the most important touch-point between a brand and its end customer. To that end, logistics and supply chain brands are embracing tech-powered tools that enhance route mapping, scale deliveries, boost productivity, and shrink the turnaround time to create a smart way for building efficient and robust operations in 2021.

In addition to reaching the last-mile customers, companies are leveraging advanced technological tools to provide customers with real-time updates and even non-delivery reasons on their orders. Real-time tracking of orders will inevitably offer a sense of assurance and in turn boost customer satisfaction and retention. This year, we can expect enhanced order tracking services and last-mile deliveries with companies constantly going the extra mile to offer customers a seamless shipping experience. The role of technology in the logistics and supply chain industry has evolved drastically over the years and is pivotal to its growth. As the world gradually recovers from the profound impact of the global crisis, India's logistics and supply chain sector is on the cusp of a tech-led revolution and soon, we may be witnessing more trends apart from the above-mentioned as the year progresses.

Source: [www.entrepreneur.com](http://www.entrepreneur.com)

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## WHAT ARE THE MOST SIGNIFICANT ADVANTAGES OF ONLINE TRUCK BOOKING?

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**S**ending your goods or shifting home or office from one place to another has taken a different turn in recent few years. Now, there is no need to physically go to the transporter's office and stand in a queue to wait for your turn to book your consignment. Thanks to online truck booking that has made transportation of materials a safe, quick and hassle-free affair!

The latest advances in technology and easy access to the internet have made it possible for everyone to get the advantage of booking trucks online. Now the truck booking process has become very simple and easy. You can quickly book a truck depending on the load, preference and budget. You just need to search for a truck booking company or transport companies near your area by searching on the internet. When customers used to book trucks traditionally, they were not able to choose the transporter of their choice and sometimes they had to compromise on quality and high-cost because there were only limited trucks available at a time.

As the facility of online booking of trucks and transport companies became a reality, revolutionary changes have been observed in shipper's behavior. Now, you can book the truck as per your needs in a few simple steps through "truckguru.co.in". Online booking of the vehicle has provided the people with the facility to access not only trucks but vans, cabs and other transport vehicles too. This has made the business simpler for the moving companies. Truck bookings using apps and web portals are easy to use and are increasingly being used in the transportation and logistics industry owing to its several benefits that were missing in the conventional way of booking a truck.

### Benefits of online truck booking for customers-

**Affordable prices :** Booking a truck using a mobile app or web portal can be highly beneficial for an individual as he can get reasonable rates from the transporters. With this feature, customers can access the service of different transporters in their area and can choose depending on their interest. As the market is full of transporters, and each of them wants to attract more and more customers. They do so by offering fair prices. Furthermore, customers can also avail many discounts that are provided through mobile apps or websites.

**Easy to use & time saving :** These days, with online

truck booking, hiring a truck has become very simple. Truck booking websites and mobile apps are made user-friendly. Customers just need to tap on the app and book the vehicle of their choice easily in just a few seconds.

Nothing is complex when booking a truck online. Anyone can book a truck by sitting anywhere, anytime through the app or websites by entering the load, type of vehicle, pick-up location and the end location. Furthermore, shipping materials through an online truck booking platform is time-saving too. You just have to book the vehicle and mention the pickup location, the truck driver will be aware of the location with the help of the GPS feature of the app and doesn't have to waste time roaming here and there unnecessarily. Also, the customers don't have to go to transporters office by taking out their valuable time which now they can save easily by booking from their home or office.

**No middleman charges :** The users who are looking for a book a truck can now hire trucks of their preferences without contacting any agent or broker in between. You will be directly dealing with the transport company. Customers can directly login to the truck booking mobile app, select the truck, check the price and if everything suits, they can book them by paying the booking amount. If you want to negotiate, you can directly talk to the concerned person in the transport company. As no middleman is involved, communication between you and the transport company will be transparent and smooth.

**Easy access to transportation records :** One of the major benefits of using a truck booking app or website is that one can track their transportation history or records such as booking date, departure date, delivery date and other important details on their computer. So, there is no need to maintain a file to store these records. It also helps to save paper. The customer can check their account detail with just a single click, no matter how old and recent records they want to see. They just have to enter the date and can see all details on their screen.

**Live-tracking of material :** When you book the truck online, you will get the advantage of tracking your consignment. You can check the live location of their trucks anytime. This way you will be able to have an idea about the estimated time they will take for the delivery. This feature is very helpful for customers as it

brings transparency to them which was not possible during traditional truck booking days.

### Benefits of online truck booking for transport companies

**Improved fleet management :** By deploying online truck booking technology in their business, companies can manage their fleet more efficiently. They can keep a track of all the trucks in different locations on a single app with the help of technology. This has eliminated the need for calling the truck driver to ask for their location and route. With the help of GPS, the truck owners can easily track the real-time movement of the trucks. Additionally, GPS suggests the quickest route to the driver and helps the driver to reach the destination quickly. This also saves time, fuel and makes each trip time and money- efficient.

**Improved transparency :** Many times, for transport companies, it becomes difficult to track or supervise the driver. With online technology, truck drivers can be tracked with GPS features on their phones. Digitization of payments also improves price visibility and guarantee on-time payments for truckloads online. Digital payment modes will also lead to standardization of fares and allow hassle-free payment systems in the transportation and logistics sector.

**Accelerate business growth :** As more and more transport businesses are offering their truck booking and other services online, the need for trucks has increased. Truck aggregators help the truck owners to connect to customers who need trucks and also can help customers to find and book trucks online based on their truck requirements. With this facility, truck owners may find customers on their way back and this improves their back-hauls.

**Improve transparency in the industry :** There is a lack of transparency in the trucking sector. Though truck aggregators are trying to bridging this gap, they are regulating the prices to protect the interests of customers too. Technology has improved the transparency that helps to build trust and credibility for both the fleet owners, as well as truck aggregators leading to improved growth of the business.

Technology and the internet are easily accessible to everyone today. With the help of **online truck booking**, customers can have access to the best truck rental companies. It is expected that this sector is going to witness a surge in sales soon. So, customers can completely rely on online truck rentals for all of your shipping requirements. There are many benefits of online truck bookings for customers as well as for businesses. Thus, an online truck hiring facility is best.

Source: **TruckGuru**

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## Indian Institute of Materials Management

### MISSION

- To promote professional excellence in Materials Management towards National Prosperity through sustainable development.

### OBJECTIVE

- To secure a wider recognition of and promote the importance of efficient materials management in commercial and industrial undertakings.
- To safe guard and elevate the professional status of individuals engaged in materials management faculty.
- To constantly impart advanced professional knowledge and thus improve the skill of the person engaged in the materials management function.
- Propagate and promote among the members strict adherence to IIMM code and ethics.

### CODE OF ETHICS

- To consider first the total interest of one's organisation in all transactions without impairing the dignity and responsibility of one's office :
- To buy without prejudice, seeking to obtain the maximum ultimate value for each rupee of expenditure.
- To subscribe and work for honesty and truth in buying and selling; to denounce all forms and manifestations of commercial bribery and to eschew anti-social practices.
- To accord a prompt and courteous reception so far as conditions will permit, to all who call up on legitimate business mission.
- To respect one's obligations and those of one's organisation consistent with good business practices.





## HOW DIGITISATION CAN REVOLUTIONISE SHIPPING & LOGISTICS INDUSTRY POST COVID-19

**SANJAY BHATIA**  
**CO-FOUNDER, FREIGHTWALLA**

**D**igitisation will prove to be a game-changer for the industry creating new paradigms in visualisation and capitalisation of data thereby helping the industry to take informed decisions while building a more optimised infrastructure.

The shortage of containers is a global issue today and has impacted India gravely.

Honourable Prime Minister Shri. Narendra Modi at the second edition of the 'Maritime India Summit 2021' held early this month spoke about more than 574 port projects identified at a cost of 82 billion besides an array of initiatives in the pursuit of building India into the leading Blue Economy of the world. While the announcements reiterated the huge potential of the maritime sector, it also signalled the need to build a strategic roadmap to accelerate investments, drive digitisation while addressing the enduring issues the industry has been plagued with. This has become all the more germane today as the sector is competing with the large well-established players of the industry across affluent countries.

Recording a CAGR of 10.5%, the country's logistics industry is projected to be worth \$215 billion by the end of 2021-22. Advancements in digital technologies, changing consumer preferences due to eCommerce, government reforms, and shift in service sourcing strategies are expected to lead the transformation of the Indian logistics ecosystem. However, embracing digitisation has been one of the most pressing needs of the industry which was further accelerated during the Covid-19 pandemic.

With the manufacturing and logistics activities suspended through the lockdown, supply chains were seriously disrupted which in turn resulted in soaring freight costs, demand-supply imbalance and shipment delays. Even as the industry continues to battle an uneven global economic recovery, critical shortage of containers is the latest in the list causing a global transport crisis while rendering a steep rise in freight rates for containerized transportation channels across the globe.

The pandemic has brought to the fore the significance

of the Shipping and Logistics (S&L) industry, rendering it as an essential sector rather than just a support service. Now with the 4th Industrial revolution already here, digitisation, Artificial Intelligence (AI), Blockchain, Internet of Things (IoT) and automation are not just buzz words in the S&L industry but have become inevitable for sustainability and growth. Primarily driven by manual processes the industry has been exposed to errors resulting in high-risk situations and causing losses worth millions. With huge involvement of multiple stakeholders, manual interventions and paper-based transactions weighing heavily on the growth prospects of an inherently unorganised sector, transition to digitisation needs to be the core focus of the industry.

Digitisation is what will usher in a strategic transformation in the S&L industry. Re-thinking processes, digitising shared operations and implementing collaborative technologies will minimise manual errors, maximise efficiency and reduce trading costs. It will enable the industry to leverage data led insights, to take informed decisions thereby improving every segment in the shipment value cycle. Besides improving the resilience of supply chains, it will help businesses to reinvent models based on data-driven revenue streams and shifts in trade flows.

Investments in AI, Machine Learning, and Blockchain technologies can facilitate complete transformation. Whereas implementing smart single-window clearance will enable smooth processing of shipments or approvals. Besides boosting productivity across the sector, the initiatives will help us prepare to tackle any untoward incidents thereby increasing resilience to future shocks, like the current pandemic.

Digitisation is also likely to change the global geographies of trade as comparative advantages of nations will shift. Smart ports and shipping, will help countries tap e-commerce capabilities and transport facilitation benefits that boost trade.

This in turn will fuel cross border movement of goods and services and narrow the digital divide. Reduced labour costs and improved trade efficiencies will have

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a bearing on the demand of port and shipping services, thereby helping the industry to drive further economic growth.

Yet again digitisation and technological advancements is also what will help ensure a level playing field for traders from developing economies. It is therefore critical that developing countries work towards minimising the digital divide to remain competitive whilst leveraging the advantages of digitisation to build resilience.

At Freightwalla, we have been on a constant pursuit of revolutionizing the country's traditional USD 160 billion worth logistics industry. We have witnessed a considerable shift in the mind-set of exporters and importers — evolving as smart shippers and consignees.

Even through the lockdown with exporters/importers operating remotely, our full-stack digital platform helped businesses to plan, book, and manage their international freight shipments seamlessly online. Additionally, real-time tracking helped customers remain abreast with overseas cargo movements helping them to take appropriate actions in a timely manner

We recently integrated Maersk Spot rates on our digital platform which allows users to instantly search, compare, and book container space online and simplify the overall booking process with Maersk. We are one of the few freight forwarders in India to enable this process through our digital portal.

The integration is a part of our larger initiative of using

technology to bring more transparency, visibility & reliability to EXIM operations for businesses, while providing end-to-end supply chain services.

The shortage of containers is a global issue today and has impacted India gravely. We have witnessed a substantial reduction in large cargo vessels calling at ports that have resulted in massive piling of containers at the port. There are also many containers detained and lying idle with various authorities.

Digitising the supply chain management will aid in bringing down the detention and waiting charges besides optimising costs for the industry. Digitisation can effectively address the chronic issues of overbooking and no-show while helping carriers to price dynamically based on micro-factors, such as supply and demand on an individual vessel.

Digitisation will prove to be a game-changer for the industry creating new paradigms in visualisation and capitalisation of data thereby helping the industry to take informed decisions while building a more optimized infrastructure.

This in turn will go a long way in building India into a global hub for international trade besides actively contributing to the GDP target of a 5 trillion dollar economy.

(Views expressed are personal and do not reflect the official position or policy of the Financial Express Online.)

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## COMMODITY INDEX

Commodities	Days's Index	Prev. Index	Week Ago	Month Ago
Index	3266.5	3277.5	3293.1	3303.3
Bullion	7461.8	7529.5	7690.3	7968.9
Cement	2463.7	2463.7	2463.7	2430.5
Chemicals	1548.8	1548.8	1548.8	1485.7
Edible Oil	2943.2	2993.2	2988.7	2792.4
Foodgrains	2440.1	2440.6	2450.0	2472.1
Fuel	3282.6	3290.9	3297.2	3290.9
Indl Metals	1919.6	1919.6	1919.6	1919.6
Other Agricom	2177.9	2177.9	2188.3	2169.7
Plastics	2699.0	2699.0	2561.2	2229.6

Source: ETIG Database dated 25th March 2021

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# PUBLIC PROCUREMENT: GOVT'S DEFENCE PURCHASES FROM SMALL BUSINESSES IMPROVE MARGINALLY IN FY21

SANDEEP SONI

**E**ase of Doing Business for MSMEs: Importantly, the growth in overall procurement from small businesses in defence was in contrast to the procurement made via the public procurement portal Government e-Marketplace (GeM).

The government had last year in July said that MSMEs will be prime-tier vendors in the procurement of defence equipment by the government from the industry for Rs 31,130 crore approved by Defence Acquisition Council (DAC) on July 2, 2020.

**Ease of Doing Business for MSMEs:** The procurement of defence-related goods and services by the government from micro and small enterprises (MSEs) has been able to only marginally improve in FY21 from the previous financial year that saw a decline of 23 per cent from FY19, government data showed. Defence department and central public sector enterprises had procured goods worth Rs 12,112 crore in FY19 from MSEs in defence.

The procurement, however, declined to Rs 9,090 crore in FY20 and was able to recover by only 2.2 per cent to Rs 9,293 crore as of March 11 in the current financial year. According to a statement by the Ministry of Defence in September 2020, around 11,000 MSMEs were engaged as vendors in supplying defence-related goods to Ordnance Factory Board and defence PSUs. The government had launched an initiative called Innovations for Defence Excellence (iDEX) in 2018 towards achieving self-reliance in defence by engaging MSMEs, startups, academia and others.

iDEX Chairman and Secretary, Defence Production Raj Kumar wasn't immediately available for comments for this story. The same will be updated here as and when shared.

The data for annual defence procurement from MSEs was shared by the Minister of State for

Defence Shripad Naik in Lok Sabha on Wednesday. Importantly, the growth in overall procurement from small businesses in defence was in contrast to the procurement made via the public procurement portal Government e-Marketplace (GeM).

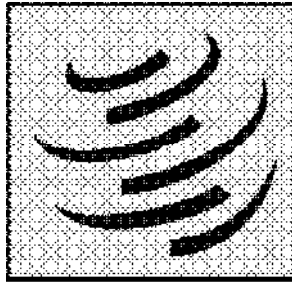
According to the data tweeted by Defence Secretary Ajay Kumar, the digital procurement by the government from defence MSEs grew 72 per cent by end of December FY21 from around the year-ago period. From goods procured worth Rs 1,406 crore as of November 30, 2019, the order value grew to Rs 2,425 crore as of December 2020. Moreover, the biggest jump in defence procurement was witnessed during the FY18-FY19 period with order value witnessing a massive increase of 210 per cent from Rs 555 crore worth goods purchased on the GeM platform to Rs 1,725 crore during the said period.

The government had last year in July said that MSMEs will be prime-tier vendors in the procurement of defence equipment by the government from the industry for Rs 31,130 crore approved by Defence Acquisition Council (DAC) on July 2, 2020. DAC in its meeting headed by Defence Minister Rajnath Singh had also approved proposals worth around Rs 38,900 crore for "capital acquisition of various platforms and equipment required by the Indian Armed Forces."

In order to boost procurement from MSMEs and startups, the orders where the estimated cost is Rs 100 crores or below per year based on delivery schedule at the time of seeking Acceptance of Necessity (AoN) or Rs 150 crores, whichever is higher, may be considered for issue of Request for Proposal (RFP) without any stipulation of Financial parameters, according to the Defence Ministry

Source : Financial Express

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## WTO UPDATE

### DG CALLS ON COVID-19 VACCINE MANUFACTURERS TO INCREASE PRODUCTION IN DEVELOPING COUNTRIES

REMARKS BY DDG YI

**D**irector-General Ngozi Okonjo-Iweala on 9 March called on COVID-19 vaccine manufacturers to do more to ramp up production in developing countries to combat the vaccine supply shortage that is excluding many lower-income nations from access. In remarks to an event hosted by the UK think tank Chatham House, she said cooperation on trade, and action at the WTO, would help accelerate vaccine scale-up.

The scarcity of COVID-19 vaccine supplies had led to a situation in which around 75 countries are able to move ahead with vaccination while 115 countries wait as people die, DG Okonjo-Iweala told the Global C19 Vaccine Supply Chain and Manufacturing Summit.

Not only was this morally “unconscionable,” she said, it would prolong the pandemic and cause economic harm to all countries. Instead of restricting exports and bidding up prices, she argued, “it is in all of our self-interest to cooperate in dealing with this problem of the global commons.”

The Director-General saw cause for hope in the first vaccine deliveries to developing countries by the COVAX facility, the global mechanism for procuring and equitably distributing COVID-19 vaccines. Nevertheless, production and delivery volumes remained too low.

“We have to scale up and scale out COVID-19 vaccine production, particularly in emerging markets and developing countries,” she said. Given the years required to build new manufacturing facilities from scratch, increasing production in the short-term means “making the most of existing manufacturing capacity — finding existing sites and turning them around.” Recent experience

suggests that repurposing facilities and vetting them for safety and quality can happen in six or seven months, less than half as long as previously thought.

By bringing more production online around the world, she said, vaccine manufacturers would send a signal that they are taking action, and “that people and governments in low- and middle-income countries can expect to get access to affordable vaccines within a reasonable timeframe.”

DG Okonjo-Iweala observed that companies in India and elsewhere were already manufacturing COVID-19 vaccines under licence but said that more such arrangements are necessary.

Discussions during the conference had highlighted three constraints to ramping up production, the Director-General noted: scarcity of raw materials, shortages of qualified and experienced personnel, and supply chain problems linked to export restrictions and prohibitions as well as excessive bureaucracy. The WTO’s mandate on trade facilitation, quantitative trade restrictions, and trade policy monitoring were relevant to the latter challenges in particular.

Because vaccine production relies on sourcing components and ingredients from multiple countries, she said, trade restrictions would slow down production, and make it more expensive.

Nevertheless, DG Okonjo-Iweala noted, WTO rules do allow for export restrictions or prohibitions to be “temporarily applied to prevent or relieve critical shortages” of essential products. That said, such restrictions must be notified to all members. Restrictions should be transparent, proportionate to the problem at hand, and members should provide timelines for when they will be phased out,

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she said.

She reported that WTO monitoring indicates that 59 members and 7 observers still had some pandemic-related export restrictions or licensing requirements in place at the end of February, primarily for personal protective equipment. It was welcome that these figures were lower than the 91 countries that had brought in such measures over the past year. However, “not all pandemic-related export restrictions have been notified,” she said. “Not all of them appear to be temporary. Not all of them are proportionate.”

“We must strengthen our monitoring and reporting function,” DG Okonjo-Iweala said, explaining that her objective would be to encourage members to drop or reduce export restrictions, or set timelines for phaseout, to help minimize problems in the vaccine supply chain.

With regard to trade-related bureaucracy, she invited manufacturers to tell the WTO about the problems they are encountering in real time, “so we can put them before our membership and find ways they can be minimized and if possible solved.” She said a little-appreciated fact about trade policy during the pandemic is that members’ trade-facilitating measures, such as electronic customs procedures and simplified paperwork requirements, have far outnumbered trade-restricting policies, and covered a higher value of merchandise.

On both export restrictions and trade facilitation, DG Okonjo-Iweala noted, prospects for action at the WTO would improve as businesses are seen to step up efforts on vaccine production.

The Director-General referred to the ongoing debate at the WTO on a proposal to waive standard WTO intellectual property rules for COVID-related vaccines, therapeutics, and diagnostics.

“Many of the proposal’s supporters are developing and least developed countries, deeply marked by the memory of unaffordable HIV/AIDS drugs,” she told conference participants. “Many, many people died who should not have. More recently, they remember being left at the back of the queue for H1N1 vaccines as richer countries bought up available supplies, which in the end were not used.”

Critics of the proposed waiver, she noted, say it could threaten investment and innovation, and other members have asked for more evidence that intellectual property protections are an inhibiting factor in vaccine scale-up.

While these “vitally important discussions are intensifying here in Geneva,” she said, “the fact is that each additional day the vaccine shortage continues, people will pay with their lives.” She argued that it was possible to “walk and chew gum at the same time,” continuing the search for solutions in the TRIPS debate, while simultaneously taking action to increase production, “especially in emerging markets and developing countries where such possibilities exist.”

She expressed hope that it would be possible for manufacturers from developed and developing countries to come together with civil society groups, organizations such as the World Health Organization, Gavi, and the Coalition for Epidemic Preparedness (which together run the COVAX facility), and business associations including the International Chamber of Commerce to find ways to increase vaccine production.

“We must make sure that in the end we deliver so that the millions of people who are waiting for us with bated breath know that we are working on concrete solutions,” she said.

The 8-9 March “Global C19 Vaccine Supply Chain and Manufacturing Summit” was convened by Chatham House and sponsored by COVAX (the COVID-19 vaccine initiative led by the World Health Organization, the Coalition for Epidemic Preparedness Innovations and Gavi, the Vaccine Alliance), together with the Developing Countries Vaccine Manufacturers Network (DCVMN), the Biotechnology Innovation Organization (BIO), and the International Federation of Pharmaceutical Manufacturers and Associations (IFPMA). The meeting was held under the Chatham House rule, so the above report on the Director-General’s speech does not reflect views attributed to other participants.

Source: WTO Website

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# WORK-LIFE BALANCE AND DIGITALIZATION

MADHURI GOVILKAR

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**W**hat is your everyday life like, while going to work? Do you think you take enough time out for yourself? I'm sure most of you stay busy attending phone calls from work on weekends when you should be able to spend some quality time at home! In order to have a perfectly healthy work environment, it is essential for every individual to maintain a perfect balance between their personal life and their work. Imagine, leading a stress-free life where every aspect of your well-being is not at stake and you're getting to spend quality time with your friends and family once you're back from work. Wouldn't it be a perfect life?

In today's always-on digital world, the workday often blurs and blends itself into our personal lives. Finding the right balance isn't just nice to have, but is crucial for good health. A perfect work-life balance isn't just about finding a great job and having a successful career, but also about integrating wellness into one's daily routine. Even a great job can be dangerous if not managed properly. Technology has been proclaimed as the solution to solve all of our work issues.

Brilliant performances in business and the workplace require proper planning and utilization of one's strengths along with a healthy lifestyle that does not entirely revolve around the workplace. Every individual must have a clear goal, alongside a balanced skill-set that will enable them to play to their strengths. One needs to focus on what they are good at to be an efficient team leader. These may include any activity inside or even outside the workplace, like perhaps, playing golf, or skydiving! It is essential to be self-aware if one wants to be impactful and strong while leading an organization, and this requires peace-of-mind and a proper work-life balance. Every leader must understand and acknowledge their area of expertise, along with their blind spots both at home and at work. To be more successful, a visionary needs to work on their vulnerable aspects and further develop themselves through maintaining a healthy work-life balance.

Confidence in oneself allows an individual to embrace the stress and hardship required for growth. Sometimes, our desire to succeed in our professional lives may lead us to ignore our emotional well-being. An individual needs to equally prioritize the demands of both aspects of their lives in order to thrive in both spheres.

Good balance impacts an individual's well-being and helps lower stress. Employers must look to shift their work structure towards a more 'work-life balanced' friendly model, which can not only be realistic, and practical but also ideal and is driven by a technological underpinning. The old adage 'health is wealth,' holds even more relevance in today's business world. Each individual must prioritize their physical, mental, and emotional health while balancing their careers. Failure to do so can lead to diminished effort in one's career. Each person must be allowed enough time from their professional lives to recuperate from weekly stress and long hours of work. Employers must encourage their employees to have a separation between their work life and home, where they can completely switch off from work and come back with renewed energy and enthusiasm.

A healthy balance between work and family time will also ensure increased productivity while improving organizational reverence and loyalty. Ample Rejuvenation can also serve to motivate an individual towards delivering more outstanding

results at work. While working is vital, it also is kept in mind that one should spend a sufficient amount of time with their loved ones. One must keep a different amount of time chalked out and blocked for essential activities and work-oriented tasks. Their focus must be effectively divided into their personal and professional lives because a proper equilibrium between every aspect of one's life is equally important.

A perfect balance between work and personal life is important for the business to thrive because if either of the two is in shambles, it directly affects the other one. While talking about the procurement process and why it requires a digital transformation, we can say that it is required not only for agility in the procurement process as a whole but also to make work-life easier for employees and leaders.

There are several organizations that rely on paper-based processes and manuals instead of digital solutions. This is typically a result of inefficiencies in the procurement management processes that leads to unnecessary hassle. Paper-based or manual transactions lead to a massive amount of paperwork, resulting in unaddressed errors and spend leakage which can be tedious for employees in these organizations. The evolution and transformation towards digitization and automation in all things procurement has led to long-term business success. Over the past ten years, the impact of digital technologies on markets, customers, business models, and industries has been massive. The technological revolution has also massively impacted the internal structure of organizations where employees can work faster and far more efficiently and complete their work more flexibly, thus keeping the work environment both internally and externally, thriving. Thus, to essentially have excellent command over goods and services, adopting technological changes is the best possible solution, mainly because the competition between several organizations and businesses is on the rise and calls for innovation and progress into the future.

Procurement automation reduces processing time and cost and improves compliance, and enables a better overall supply chain management of the procurement process. An efficient procurement process reflects positively on the entire organization. People must move beyond traditional processes and optimize the whole process to produce significant value in business because this is directly related to having a perfect work-life balance.

A smooth and hassle-free work environment enables peace of mind, both at home and at work. Technology is capable of creating wonders. It is quite challenging to juggle between executing and planning projects alongside multiple vendors and negotiating the best deals. A procurement professional has to manage everything. The best way of doing it is by adopting technological innovations and processes efficiently. In fact, each and every person must adopt technological solutions to guide several aspects of their lives because it would make things far more agile, efficient, and easier.

Thus, to conclude, it is said that a digital procurement process not only reduces costs but also brings about a more efficient way of doing specific repeatable tasks, which helps in taking an unnecessary load off an individual, thus enabling them to worry less and thrive more.

Source: [sourcingandsupplychain.com](http://sourcingandsupplychain.com)

# DEMAND PLANNING IN NEW NORMAL 2021

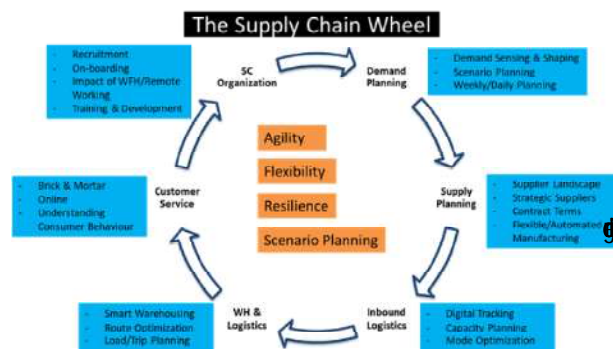
SUNIL BHARDWAJ

The demand planning function has always had a very critical role to play within an extended and global supply chain. All the sub-steps and operations within the demand management side of every organization have been evolving constantly over the last decade or so.

This evolution has been accelerated owing to the emergence and development of relevant tools, techniques, and technologies that facilitate end-to-end visibility, transparency, data management, and effective planning.

Moreover, Covid-19 has yet again brought the planning and forecasting function (the nerve center of every supply chain) to the spotlight and has emphasized the need to re-strategize our approach to this science as well as art.

## Notable Trends & Developments



1 – The Supply Chain Wheel

I would like to focus on certain key trends and developments that have surfaced over the last 6-7 months. With reference to the figure above, which I call the “Supply Chain Wheel” – it is necessary to adopt a “systems approach” that views the value chain in its entirety. At the core lie four essential drivers or guiding principles that would impact both upstream and downstream activities and processes. **They are – Agility, Flexibility, Resilience, and Scenario Planning.**

## Key elements of the Wheel

**Supply Chain Organization Structure** – the methods and approaches with regard to talent management are likely to undergo visible changes with regard to hiring, induction, training, and work locations.

**Demand Planning**– Traditional methods may not be effective anymore. There is a need to shift towards more frequent planning, end-to-end planning, exception-based planning, and scenario-based planning coupled with system-wide alerts and event management-based solutions. Scenario-based planning must encompass

“What-If” planning and “Simulation” systems. Any demand planning and forecasting tool or software must enable the users and decision-makers to utilize “Demand Sensing” and “Demand Shaping” components.

**Supply Planning** – Supplier Relationship Management, Strategic Sourcing, Supplier Landscape Mapping, and investments in Smart & Flexible Manufacturing systems could potentially garner the attention of supply chain leaders moving forward.

**Inbound Logistics** – This step in the wheel would lay more emphasis on tracking and tracing of shipments, warehouse capacity planning, and transportation modes optimization.

**Warehousing & Logistics** – Firms would need to invest in smart and connected warehousing to enable process efficiencies, higher productivity, and throughputs. Warehouse and Transportation Management Systems (WMS & TMS) would need to be integrated with existing ERP systems to facilitate end-to-end visibility and planning.

**Customer Service** – This relates to order management, outbound logistics & distribution, and last-mile transportation activities. Here is where omnichannel distribution, customer and consumer analytics, and insights would play a critical role in the demand planning cycle. Customer Relationship Management (CRM) tools and related processes that enhance our understanding of consumer behaviour would go a long way in making the demand management processes and systems more agile, responsive, and connected.

## Role Of E-Commerce | Online Platforms

Front End	Back End
<ul style="list-style-type: none"> <li>➤ Variety &amp; Choices</li> <li>➤ Pricing</li> <li>➤ Convenience</li> <li>➤ Delivery Options</li> <li>➤ Service &amp; Returns</li> </ul>	<ul style="list-style-type: none"> <li>➤ Data Analytics</li> <li>➤ Consumer Behaviour</li> <li>➤ Well-Designed Supply Chain</li> <li>➤ Physical Infrastructure</li> </ul>



Figure 2 – Role of E-Commerce/ Online Platforms

## The Role of Online Channels / E-Commerce

In the context of the pandemic, there has been a fairly clear and discernible shift in demand to the online space for certain categories of products such as – food, staples, medicines, personal hygiene, cleaning, and home-office. The future of the demand planning

function will be influenced to a large extent by the e-commerce companies that offer unparalleled customer service and convenience.

In my opinion, well-established e-commerce companies embody the principles of end-to-end supply chain excellence with regard to their people, process, and technology initiatives and practices. As shown in figure 2, e-commerce firms have well-designed back-end infrastructure and process with analytics at their core.

These companies are driven by three main objectives and success factors – connectivity, visibility, and responsiveness. These factors resonate well with the demand planning organizations of the future.

### Emerging Challenges & Opportunities

However, one must be mindful of the impending challenges and constraints as well. A switch to demand sensing, demand shaping, and scenario-based planning tools would necessitate making the correct choices.

A few points that companies and their demand management teams must consider:

- Every sector/industry has unique characteristics
- Demand & Supply strategies and priorities would differ
- Process maturity levels may vary
- A “One Size Fits All” approach shall not work
- A firm’s position on the technology/digital adoption curve could be different
- Its ability to invest in a suitable demand planning and forecasting tool/technology and to prioritize investments may differ
- There needs to be agreement, alignment, and consensus on specific Business problems/pain points
- People and Process related areas need to be factored in
- Culture and Change Management should be accorded top priority
- A thorough re-visit and audit of a company’s existing systems and data architecture needs to be carried out
- There is a need to adopt an “Outside-In” as well as an “Inside-Out” philosophy and thought process

Way Forward

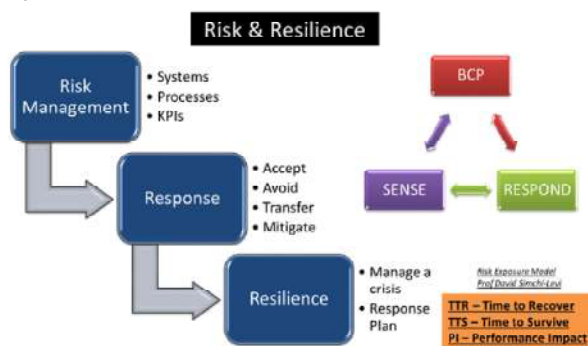


Figure 3 – Risk & Resilience

Any crystal ball gazing into the future paradigms or trends would be incomplete without providing a snapshot of the “Risk Management” strategies that

should be adopted. The demand drivers and all the related people, processes, and systems design and execution would be governed by a firm’s risk and resiliency ecosystem, as envisaged in figure 3.

In this context, it is absolutely essential to have a well-defined Business Continuity Plan (BCP) in place along with a sense and response strategy. The Enterprise Risk Management (ERM) system should comprise clearly mapped out risk events, response strategies, and monitoring and control metrics. The three key metrics propounded by renowned supply chain expert Prof. David Simch-Levi include – Time to Recover (TTR), Time to Survive (TTS), and Performance Impact (PI).

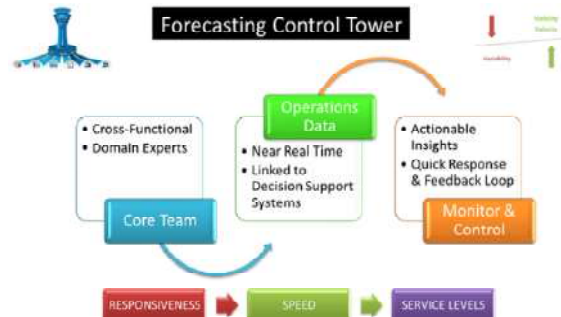


Figure 4 – Forecasting Control Tower

Finally, I wish to conclude this piece with a generic framework that could be used to set up the “Forecasting Control Tower”. This concept is akin to a supply chain and logistics control tower.

In my opinion, this control tower can complement the Sales and Operations Planning (S&OP) and the Integrated Business Planning (IBP) meetings so that the pressing issues are prioritized and discussed. Here, the implicit assumption, or rather the reality is that S&OP and IBP meetings would take place more frequently going forward.

### The three key building blocks are:

**Core Team** – staffed with cross-functional experts drawn from key business domains/functions/departments such as Sales, Marketing, Product Development, Human Resources, Production, Supply Chain, Logistics, Finance & Systems.

**Operations Data** – comprises relevant data to enable demand planning and fine-tuning; near real-time data is fed back into the system (Decision Support System or ERP) to enable decision making and to initiate subsequent process steps.

**Monitor & Control** – Data is analyzed and it triggers a quick response and feedback loop based on actionable insights.

The broader end objectives are – superior ‘Responsiveness’, higher ‘Speed’, and enhanced customer ‘Service Levels’. A successful implementation would be geared towards reducing “Variability” and increasing system-wide “Velocity” and “Visibility”.

Source: [sourcingandsupplychain.com](http://sourcingandsupplychain.com)

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## BRANCH NEWS

### MUMBAI BRANCH

IIMM Mumbai Branch Organises first Virtual In House Training for HPCL Visakh Refinery On General Financial Rules (GFR) and Procurement through GeM Portal on 30<sup>th</sup> January 2021

IIMM Mumbai branch received an enquiry from HPCL Visakh Refinery Chief General Manager – Materials whether IIMM Mumbai Branch could conduct an In House Training Program for their Materials Department. Subsequently, HPCL Visakh Refinery also wanted an additional 2 hours session on Procurement through GeM Portal.

IIMM Mumbai Branch contacted GeM Business Facilitator for Andhra Pradesh State, Mr Jayavadevel Raja and obtained his concurrence to take the session on Procurement through GeM portal.

On getting a formal Purchase Order confirmation from HPCL Visakh Refinery, the event was conducted on Webinar mode on Saturday 30<sup>th</sup> January 2021 from 10 a.m to 5 p.m. The First Session from 10a.m to 2.30 p.m was taken by Mr Alok Ranjan Sarkar, Advisor IIMM, who covered the following aspects:

- GFR Rules and its latest Amendments
- Latest Government Manuals/ Circulars on Procurement of Goods As Published by Ministry of Finance, Department of Expenditure.
- Case Studies on Procurement

The Second Session from 2.30 p.m to 5 p.m on latest Developments on Procurement through GeM Portal viz GeM 4.0 was taken by GeM Business Facilitator, Andhra Pradesh State, Mr Jayadevel Raja.

IIMM Mumbai Branch co-Ordinated with HPCL Visakh Refinery and collected a list of queries related to Procurement through GeM Portal. These were sent to GeM Business facilitator, Andhra Pradesh State, Mr Raja

before the event date, so that meaningful interaction benefitting HPCL Visakh Refinery could be done.

The event was highly interactive and all queries/ clarifications raised by participants were answered to their satisfaction. Total 22nos participants from Materials Department and Project Materials section, HPCL Visakh Refinery, attended the Webinar event

At the concluding session, the Chief General Manager – Materials, Ms G.Rama, HPCL Visakh Refinery complimented IIMM Mumbai Branch for arranging this One Day In house training program and also giving HPCL Visakh Refinery contact details of GeM Business facilitator, Mr Raja whom they could contact, in future, for their day to day issues. Ms Rama also wanted IIMM Mumbai Branch to send details of Courses being offered by IIMM and also Membership forms, so that Officers of HPCL Visakh Refinery could become IIMM Members.

IIMM Mumbai Branch sent participation certificates by Courier to all the 22 Nos participants. The Event was co-ordinated by Mr Alok Ranjan Sarkar, Advisor, IIMM Mumbai Branch with assistance provided by Mr R. B. Menon Dy Director, IIMM Mumbai Branch Office and Mr Kedar Naik of Dhisoft (IIMM Mumbai Branches Web Knowledge Partner)



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## PUNE BRANCH

An online Webinar Lecture on **“Use Theory of Constraints (TOC) to Deliver Faster”** was held on Tuesday, 23<sup>th</sup> February 2021 from 7.30pm to 8.30 pm, as part of monthly knowledge sharing lecture for branch members.

Mr. Manu Raj, the Guest Speaker, **is the Founding Director at Bottomline Matter, a consulting firm that specializes in improving Profit, Free Cash Flow & ROCE of companies by an order of magnitude in a short span of time through application of Theory of Constraints (TOC).**

Branch Chairman, Mr. Terrence Fernandes welcomed all the members for participating in the session virtually after a gap of 2 months. National Councilor, Mr. Amit Borkar welcomed & introduced the Guest Speaker to all the participating members.

The Speaker started off the session by mentioning that the technique of Theory of Constraints (TOC) is not only used by large corporate's, but it has also been used by many owner driven, small & medium companies in India to improve their organizations overall performance. He further elaborated how TOC can help in achieving more output without increasing any resources such as Machinery & Manpower.

He quoted a few methods for doing so, either by Increasing Dispatches, Delivering Faster by significantly quoting a lower lead Time & creating a competitive edge resulting in increase of orders bookings. He also emphasized that organizations dealing in distribution business can do so by Increasing Inventory Turns by either doing more sales with the same level of inventory or do the same level of sales with a lesser inventory.

Mr. Manu Raj shared a story of a 40 year old component manufacturing company who were of the opinion that inspite of utilizing 90% of their capacities they were facing severe delivery pressures from their customers.

He mentioned that post using the concept of TOC they were able to achieve the following results:

- Gross Contribution Increased by 100% without adding workers or machines in 3 years.
- Sales margin increased by 20% to 27% in 3 years.
- Production output inventory decreased from 2 months to less than 2 days
- Total Inventories came down to 20 days from 3.5 months
- Were able to achieve 95% + results in terms of service levels of their key customers.

He also shared examples of few more organization that were able to achieve outstanding results with the help of the concept of Theory of Constraints.

Mr. Manu Raj concluded the session by sharing a video and explaining the TOC is a way of thinking.

TOC is not about removing the constraints; it's all about improving the FLOW in the entire system resulting in increase in the output of an organization.

Mr. Amit Borkar, National Councilor presented a digital copy of Memento online to the speaker Mr. Manu Raj as a token of gratitude, followed by vote of thanks by Hon. Secretary Mr. Prasad Rao. The program was attended by 42 members.

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## Notice for the Fifty Ninth Annual General Meeting

Notice is hereby given for the Fifty Ninth Annual General Meeting of the Indian Institute of Materials Management, Navi Mumbai. Due to the Covid-19 the meeting will be organized virtually on 11<sup>th</sup> April 2021 at time 4.00 p.m. onwards to transact the following business:

- To confirm the minutes of the Fifty Eighth Annual General Meeting held on 29<sup>th</sup> November 2019 at Hotel Vivanta, Kolkata.
- To receive, consider and adopt the Income and Expenditure Account for the year ended 31<sup>st</sup> March 2020, Balance Sheet as on 31<sup>st</sup> March 2020 and Auditor's Report thereon.
- To appoint auditors for the ensuing year and fix their remuneration.
- To consider any other matter with the permission of the Chair, if a written notice for which is received at least seven days before the meeting.

**Note :** If any member has any question, it should be given in writing to National President through e-mail id: malay\_mazumdar@yahoo.co.in / jsprao@gmail.com at least 7 (seven) days before the AGM, so that the questions could be answered appropriately in the AGM.

Place : CBD Belapur, Navi Mumbai  
Date : 19<sup>th</sup> March, 2021

By Order of the National Council

**J S Prakash Rao**  
National Secretary & Treasurer

Please Note to Join Zoom AGM  
Meeting ID: 951 9199 1405  
Passcode: 596004  
or visit  
Link : <https://bit.ly/3tveg5S>



**IFPSM**  
INTERNATIONAL FEDERATION OF PURCHASING & SUPPLY MANAGEMENT

Charter Member : International Federation of Purchasing and Supply Management, Helsinki- Finland.





## EXECUTIVE HEALTH BE HEALTHY, AVOID OBESITY

**Abha Agrawal**

Wellness Consultant, LAVISH NUTRITION  
(Weight Management) M.Sc. (Plant Pathology), B.Ed., NET qualified  
Ahmedabad. abharajiv99@gmail.com



**B**eing healthy is priciest act in human life. It's difficult to enjoy life without good health. India is currently witnessing rising numbers of people in the middle-class who are obese. Obesity is considered the core of many diseases. Increased weight carries significant health risks for some cancers, diabetes, heart diseases and strokes.

### India, the third most obese country in the world

A study published in the noted medical journal Lancet says India is just behind US and China in this global hazard list of top 10 countries with highest number of obese people. A country where 270 million people live below the 'poverty line', obesity seems to be a distant issue. But India is under siege: junk food, alcohol, adulteration in food material and sedentary lifestyle are leading us to silent self-destruction, making one in every five Indian men and women either obese or overweight.

Dr. Pradeep Chowbey, director of the Institute of Minimal Access and Bariatric Surgery at Max Healthcare Institute, said, "If we see the graph of obesity, from 1999 onwards Indians started gaining weight due to urbanisation. There has been gradual economic improvement in our status. The entrance of modern technology and Internet has turned people lazy and stagnant."

With lifestyle disorders forcing more and more people to reel under excess body weight, even relatively younger people are developing joint disorders and knee pain. Excessive weight is associated with a series of health problems, including blood pressure, diabetes, and cardiovascular ailments and risk of developing osteoarthritis. Excess weight makes a person more susceptible to osteoarthritis," said Dr. Rajeev K. Sharma, orthopedic specialist and joint replacement surgeon at Indraprastha Apollo Hospital. Obesity has also emerged as a major public health challenge obesity is greater in urban areas, and women are more affected than men.

### Childhood Obesity:

Obesity among children and adolescents is also rising rapidly. "Dietary guidelines for prevention of obesity and diabetes, and physical activity guidelines for Asian Indians are now available. Healthy nutrition, physical

activity and stress management need to be implemented," said Dr. Anoop Misra, chairman of the National Diabetes, Obesity and Cholesterol Foundation.



**Body Shape:** Do we know how much fat we're carrying, compared to how much muscle? A football player can be considered overweight on the scale, but if the extra weight being carried is muscle, he is not really fat.

There are two body shapes to consider: The shape you can change and the shape you can't change. Only a personalized program can help make sure you get enough protein to control cravings and build or maintain lean muscle.

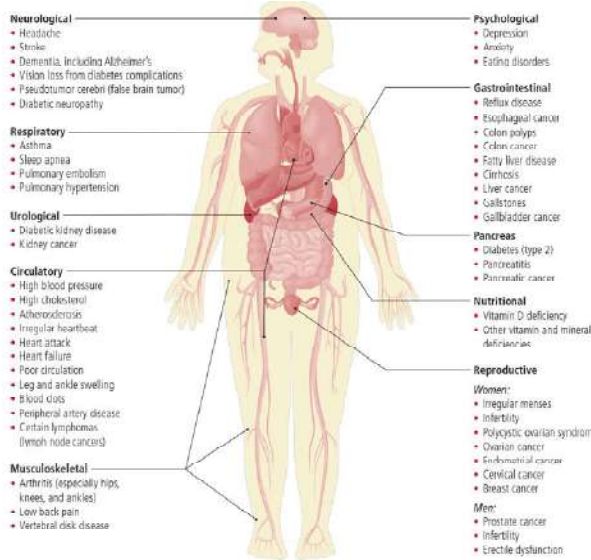
**Weight and Our health :** Person, carrying many extra kgs, face a higher-than-average risk of a whopping 50 different health problems. These health conditions include the nation's leading causes of death—heart disease, stroke, diabetes, and certain cancers—as well as less common ailments such as gout and gallstones. Perhaps even more compelling is the strong link between excess weight and depression, because this common mood disorder can have a profound, negative impact on our daily life.

A Harvard study that combined data from more than 50,000 men (participants in the Health Professionals Follow-up Study) and more than 120,000 women (from the Nurses' Health Study) revealed some sobering statistics about weight and health. The volunteers provided their height and weight, as well as details on their diets, health habits, and medical histories. Researchers tracked the volunteers over more than 10 years. They noted the occurrence of illnesses and compared those developments with each subject's body mass index (BMI)—an estimate of an individual's relative body fat calculated from his or her height and weight).

Obesity increased the risk of diabetes 20 times and substantially boosted the risk of developing high blood pressure, heart disease, stroke, and gallstones. Among people who were overweight or obese, there was a direct relationship between BMI and risk: the higher the BMI, the higher the likelihood of disease.

( <http://www.helpguide.org/harvard/how-excess-weight-affects-your-health.htm>)

## Excess Weight Causes Many Health Problems:

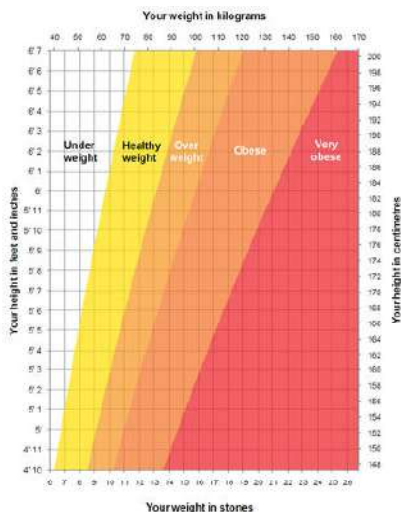


## Reality of calorie burning and calorie intake



Activity	Equivalent to
Walking for 1 hour	1 small samosa
Swimming for 1/2 hour	1 piece fruit cake/ 1 plate pakora
Cycling for 1 hour	1 jam tart
Aerobics for 1 hour	1 masala dosa

## Do you know your ideal weight?



## Body Mass Index (BMI)

The BMI is a tried and tested technique to record obesity. It's calculated by dividing your weight in kg by square of your height in metres. So a person who's 176 cm and weighs 85 kg will have a BMI of 27 roughly which is considered overweight by WHO standards.

The BMI has been used by the WHO to calculate obesity statistics and is the go-to inexpensive tool to decide whether someone's underweight, healthy, overweight or obese.

**Body Fat Percentage :** The other method is to calculate body fat percentage which is a more accurate method to see how healthy a person is. High body fat percentage indicates obesity (which makes you prone to cancer, diabetes, heart disease and a host of other ailments) while a low body fat percentage isn't good either because the body needs vital fats to function.

Men and women both require a different body fat percentage. Also, the ideal body fat percentage changes with age.

**Maintain Good Nutrition AND STAY Away from Obesity** Proper, balanced nutrition provides the nutrients we need every day to fuel our daily activities, promote and maintain a lifetime of good health and make our best shape a reality. Committing to these simple nutrition guidelines can put good health within reach. Start everyday with balanced nutrition and essential nutrients for a healthy, active lifestyle.

**HEALTHY Breakfast:** Start everyday right! Breakfast is important because it kick-starts our metabolism and provides energy throughout the day. **Small Frequent Meals:** Reduced meal portions, eat frequently throughout the day. It helps to prevent unhealthy snack cravings.

**Nutritious Snacks:** Fruits, vegetables and small servings of Protein – such as nuts, yogurt or low-fat cheese during mid-morning and mid-afternoon – help you avoid overeating at lunch or dinner time.

**Regular Hydration:** Ensure a regular intake of fluids to stay properly hydrated.

**Essential Nutrients:** Our body needs nutrients to function properly or our health will suffer. Getting the right amount of nutrients is called Balanced Nutrition. The nutrients known to be essential for human beings are proteins, carbohydrates, fats and oils, minerals, vitamins and water.

**Vitamins & Minerals:** These are an important part of a balanced diet needed to support your body's healthy functioning and metabolism.



## Meal Replacements :Way to Weight Management

When it comes to dieting, most people approach the process by controlling portions and counting calories. But oftentimes, despite even the best efforts, the scale refuses to budge. Inaccuracies in counting calories and estimating portion sizes are two of the biggest obstacles to successful weight loss.

The beauty of meal replacements is that portion control is taken care of, and they're designed to provide great nutrition within a defined number of calories. On top of that, they are simple and convenient for today's busy lifestyles.

Portion control is one of the primary strategies in controlling calorie intake. Many people don't take the time to weigh and measure foods - or if they do, they usually stop after a while, thinking they can estimate portions fairly well. Portion sizes may then begin to creep up, and weight loss starts to slow down. More often than not, portion sizes will then gradually increase and the rate of weight loss slows.

And there are the practical issues - some may not realize that everything counts, including any fats used in cooking or at the table, or foods that are eaten while tasting or while driving in the car. A few small omissions over the course of a day or week can derail anyone's progress.

A number of clinical studies have shown that using meal replacements as part of a weight loss plan can be more effective than counting calories with an all-food plan. In a recent study at the University of Ulm in Germany, subjects drinking two shakes a day (European Formula) lost more weight than people in the study who simply counted calories.



Meal replacements shakes can also be customized. By choosing to mix with milk or soy milk, adding a favorite fruit, or tossing in some extra protein powder, a personalized meal can be had in minutes. **Convenient, delicious, healthy, portion controlled meals – what more could a dieter ask for?**

#### What Makes Us Overeat?



Most of us would like to think that we're in-charge of how much we eat. We trust our bodies to tell us when we're full, and that after we're done, we have a good sense of how much we've eaten.

If only it were true. "Research tells us that subtle cues in our environment can pressure us to dish up more than we need and eat more than we should," said Luigi

Gratton, M.D., vice president of medical affairs at US. "Larger plates – even larger serving utensils – can prompt over-consumption." In a self-serve ice cream experiment<sup>1</sup>, people given large bowls and scoops doled out 57 percent more ice cream than those given smaller dishes and serving utensils.

Studies show that the more variety on your plate, the more you'll eat – all that stimulation keeps your taste buds in high gear. An array of low-cal fruits and veggies is fine, but when faced with a buffet or a dinner served family-style, limit yourself to just a couple of items on your plate at one time.

Shake it up - Try a protein shake for breakfast or lunch. Made from a set amount of milk, protein powder and fruit, it's a natural when it comes to portion control. It adds calories – and enjoy from a tall glass.

#### Eating Right at Night

Eating a balanced diet means that you're taking in a variety of healthy foods at reasonable intervals throughout the day - it doesn't mean that you "balance" healthy foods eaten during the day with junk foods like pizza and ice cream at night.

Others are simply eating as an emotional escape from stress or to beat boredom. We tend to mindlessly reach for junk food during sedentary activities such as watching television or using the computer – and we then associate these high calorie foods with relaxation and keep the habit going.

#### Meal Planning and Suitable Snacks

Putting in the right fuel – and at the regular intervals during the day – is one of the best defenses against nighttime nibbling. Breakfast and lunch meals should provide plenty of protein to keep your mind sharp and hunger at bay as well as some healthy carbs like fruits, veggies and whole grains to maintain blood sugar. A protein shake with fruit is a great way to start the day. A protein shake also makes a quick and satisfying lunch, especially when you're too busy to stop and prepare a meal.

#### Lose weight, feel better

Losing excess weight can make you feel better both physically and emotionally and can help you live a longer and healthier life. Especially encouraging is, Even a modest weight loss of 5% to 10% of your starting weight can lead to significant health benefits. Some examples:

People with high blood pressure who lost a modest 10 pounds over six months reduced their systolic blood pressure by 2.8 mm Hg and their diastolic blood pressure by 2.5 mm Hg. These reductions in blood pressure were equivalent to the reductions brought about by treatment with some blood pressure medications. In a study of people who were at risk for type 2 diabetes, those who lost just 7% of their weight and exercised about 30 minutes a day, can cut their risk of diabetes by nearly 60%. (Adapted with permission from Lose Weight and Keep It Off, a special health report published by Harvard Health Publications.)

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