



The below article is written by

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(Dr Saba is a self-made Businesswoman with an extensive business background in international, multi-cultural environments and broad experience with highly engineered systems, which require a deep understanding of critical business drivers in multiple markets. Following her accomplishments in the corporate world, the Founder & Former Chairman Saba Group is now focusing on her philanthropic activities and issues close to her heart under the aegis of the Anannke Foundation).

TRENDS THAT WILL DOMINATE MANUFACTURING IN FY 2022-2023

The Indian manufacturing market is poised to grow as a global manufacturing hub and by 2030, it can add more than US\$ 500 billion annually to the global economy.

For the year 2022, a lot rides upon the impending vaccination drives that can make or break the manufacturing deal. Having said that, technological intervention goes without saying where in order to reinstate its disrupted supply chain operations, production activities, etc (during the pandemic) which will cease to be a luxury and turn into a necessity.

Having said that, the new FY 2022-2023 is no stranger to new innovations, the year will be witness to new trends that will dominate the year.

Here are some of the trends in to keep an eye out for the manufacturing sector of '22-'23.

1. Connected Construction to Improve Roads, Bridges, Flyovers, etc.

As the name suggests, the methodology follows a process (a digital one in this case) where the chronological approach helps improve accuracy, reliability, and results.

Connected construction, in addition to conventional construction processes, is a collection of asset tracking, synchronised times, augmented and virtual reality, predictive maintenance, and real-time data analytics. When all of these elements are blended to centralise and democratise decision making and support management to improve the process efficiency, reduce turnaround times and enhance the safety measures, with technology making a grand entrance into the adage construction industry, a connected process can be adopted to track and optimise the journey of timely repair, maintenance, and accountability.

2. Increased Scope of Agri-Tech and Robotics

IoT is already playing a huge role in cutting the manual intensity in agricultural labour by responding to requirements with the help of AI. For instance, the soil salinity, the upcoming temperature fluctuations, automated watering of the crops and tracking of the livestock is possible with technology. Interestingly, it is also helpful for its predictive analysis that can help farmers take precautionary measures to secure a high yield.

Smart farming is incomplete without the intervention of robotics. Albeit an uncommon and expensive affair, policymakers are looking at robotics to streamline processing, reduce grunt work, save time and improve productivity. Farmers will be given their due training in managing these machineries so that they are able to manoeuvre their way through the fields and other operations.



3. 3D Printing Technology

Moving on from the traditional, there is a new way to create food and that is the 3D printing technology. Holding true to all sectors, 3D printing is playing a magnanimous role in improving the market efficiency and versatility.

For instance, using bio-printing methods, 3D printers catalyse personalised diet and alternative protein-based meals, and create precise and reproducible nutrition which can work wonders to counter food scarcity.

It is also playing an essential role in the medical industry by crafting patient specific surgical models, prosthetics, bio-engineering, tissue culture, and so much more!

3D printing will be an inescapable part of almost every industry and sector.

4. Wireless Connectivity in Factories and Plant Units

Going wireless empowers plant workers and project managers to include mobility in their day to day tasks where they can communicate with their team members in real-time.

In addition to improving communication, wireless technology also reduces the intervention of manual grunt work and gives space to higher precision & execution.

Wireless technology also supports more intrinsic technologies like AI and ML to be incorporated into the day-to-day process and improve the overall process. Unlike wired technology, wireless technology is boundless and dynamic.

6. E-Pharmacies and Cloud Computing Technologies

E-pharmacies are cloud pharmacies available 24/7 for customers to order and get their medicine delivered without leaving their homes.

Supported by cloud computing technology, these digital pharmacies are tied up with brick and mortar pharmacies and sometimes, directly with pharmaceutical companies which support digital orders and billing for consumers.

These e-pharmacies, like regular pharmacies, require prescriptions from certified medical experts, ensuring the right practices and legalities required for the medication. It has taken flight in metro cities and among the geriatric community.

7. Smart Wearable's for Geographical Hazards

Smart wearable's have already made a dent in the market but continue to innovate, bringing digital reality to the fore. Smart wearable's are not only a part of the wellness playground but are making space in the biomedical community, as well as in hazardous areas to observe hazard situations by integrating data from exposed populations with Geographic Information Systems. A smart wearable can serve as a potential tool to dissipate information about the location and health condition of a potential victim.

These wearable's can help to identify trapped

victims and critical rescue areas using the data dissipated by smart wearable's of potential victims and exposed elements. The developed method is capable of capturing the victims and rescuing the operations by identifying the critical rescue area in the shortest possible time by tracking the victims' heart rate and movement.

8. Digitally Extended Realities

Digital reality, virtual reality and mixed reality makes up the spectrum of digital extended realities that are closing distances and making services like healthcare,



entertainment etc more accessible. One of the most famous examples is the Metaverse created by Facebook that is creating an entirely new world that mimics reality and has potential akin to the physical surroundings. From buying land to holding weddings & concerts, Metaverse is slowly closing the gap between virtual and reality, and is the prime example of the current day Digitally Extended Realities.

8. Inception of 5G

The latest global wireless standard, 5G has a greater capacity, network bandwidth, connectivity etc. The strength of this new network will be leveraged to connect virtually everyone and everything together including devices, machines, and objects. Interestingly, 5G is being considered the enabler of a trillion dollar global economy, enabling more business, job opportunities and higher ROI.

09. Blockchain

With the subtle acceptance of the digital

currency in the latest financial budget (albeit the high taxation), India is ready to explore cryptocurrency as its new forte. Which leads to blockchain which enables a higher scope for security. Interestingly, this transparency is further encouraging different blockchain applications like NFTs (another latest addition to the digital world), searing medical records, and levelling up the security of voting activities during elections to name a few.



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