



NATIONAL APEX CHAMBER

# PHD CHAMBER JOURNAL OF IDEAS AND INNOVATIONS



*"Facilitating innovative minds to express their ideas for the growth and development of **Aatma Nirbhar Bharat**"*

*July, 2020*

**PHD CHAMBER OF COMMERCE AND INDUSTRY**

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## EDITORIAL MESSAGE



**Dr D K Aggarwal**  
President

India is land of boundless opportunities endowed with huge demographic dividend. The dynamic and vibrant economic reforms undertaken by the Government are instrumental in achieving conducive environment for trade, industry and economy. The vision of Hon'ble Prime Minister to be vocal for local and make India self-reliant is crucial at this juncture to attain USD 5 trillion economy by 2025. Going ahead, with a strong focus on promoting indigenisation of industry, the importance of new ideas, culture of fostering innovation and developing skills increases manifold. At this backdrop, PHD Chamber Journal of Ideas and Innovations is initiated to provide a platform to innovative minds to express their ideas for the growth and development of Aatma Nirbhar Bharat. I am sanguine that the Journal will contribute significantly through new ideas and innovative insights from various segments of economy.



**Shri Sanjay Aggarwal**  
Sr. Vice President

Entrepreneurship and innovation have been supported by several flagship initiatives of the Government for nurturing research and development and generate employment opportunities for the growing young workforce. A robust ecosystem to promote innovation and translate innovative ideas into larger economic and social benefits amid the dynamic global environment is critical at this juncture. Hence, harnessing and facilitating innovative minds through a platform of PHD Chamber Journal of Ideas and Innovations will play a crucial role to promote innovative minds to come up with thought provoking ideas for the growth and development of Aatma Nirbhar Bharat. I wish the Journal will accomplish its objective with a great success.



**Shri Pradeep Multani**  
Vice President

New ideas and innovations lead to higher productivity and boost economic growth of an economy. In the present dynamic environment, our country needs new entrepreneurs who can innovate, lead, inspire and reach out beyond the limits to create systems that hold immense potential for holistic development. Further, the ability of an economy and its businesses to generate and imbibe innovative changes has now become a key component of its prosperity and growth. With this backdrop, PHD Chamber Journal of Ideas and Innovations provide right platform to encourage young minds to contribution to growth of the country. I am confident that the Journal will come up with flourishing ideas for achieving Aatma Nirbhar Bharat.



**Shri Saurabh Sanyal**  
Secetary General

Building AtmaNirbhar Bharat with a mission to stimulate growth across the sectors of economy is highly encouraging. Attracting investments, infrastructure development and encouraging innovation are of paramount importance at this juncture. Therefore, PHD Chamber Journal of Ideas and Innovations has been initiated with the objective to encourage thoughtful ideas and innovations to contribute to the growth story of our country. I would like to acknowledge and compliment the large number of submissions received in response to the call for research notes/innovative ideas/ articles for the Journal.



**Dr S P Sharma**  
Chief Economist  
PHD Chamber of  
Commerce and Industry

This platform was exclusively built with a notion to promote youth thoughts on policy making. It's a stage for the young population to express their ideas on progressive India. A nation can boost their welfare with insightful planning and an enthusiastic youth. India's youth wish for an economic and social difference. Citizens and consumers are feeling informed and empowered to demand as well as drive change. To quote the Prime Minister Shri Narendra Modi, a youth is one who works towards his future goals, unmindful of the past. In developing and promising countries like India, the youth of the Nation can contribute to its growth. They can use their education to battle problems that outbreak the country. This platform will not only help the young & the bright Indians to present their thoughts but also help policymakers understand the mindset of the progressive India.



**Dr Niti Bhasin**  
Associate Professor  
Department of Commerce  
Delhi School of Economics  
University of Delhi

I extend my heartiest congratulations to PHDCCI and Dr. S.P. Sharma for starting the PHD Chamber Journal of Ideas & Innovation which would provide a fertile ground for people from different domains to share their perspectives on issues of importance to the Indian economy. In these testing times when the world is faced with an unprecedented crisis in the form of Covid pandemic, the need for innovative ideas and new ways of doing things has never been more imperative. At the present moment, India is striving to draw opportunities out of the challenges that have emerged and moving towards a vision of self-reliant India. I am sure that this journal would contribute towards this worthy goal by bringing together useful ideas, perspectives and insights that could facilitate policy making. Wishing success to the entire team!



**Dr Seema Joshi**  
Associate Professor  
of Economics, Department  
of Commerce, Kirori Mal  
College University of Delhi

It is indeed commendable that amidst the challenges of COVID-19 pandemic a unique initiative of the PHD Chamber of Commerce and industry has come to the fore in the form of The Journal of Ideas and Innovation. As has been very rightly pointed out by the UN Secretary-General, "The world cannot afford a lost generation of youth, their lives set back by Covid-19 and their voices stifled by a lack of participation". By providing a creative and democratic platform for academicians, researchers and other stakeholders in the society, PHD Chamber has been giving them an opportunity to voice their ideas and opinions, 'enabling them to unlock their innovative spirit' and 'empowering innovation wherever it sparks'.



**Ms Laxmi Devi**  
Assistant Professor  
Gargi College, University  
of Delhi

It is indeed a pleasure to be the part of the editorial team of the journal "PHD Chamber Journal of Ideas and Innovations" dedicated to facilitate innovative and creative minds to put up their views and creative ideas to encourage "AatmaNirbhar Bharat" mission and contribute to the journey of making the country a self-reliant nation. The recent global breakdown, supply chain and logistic issues have raised crucial concerns about existing trade and industrial structures and elevated the uttermost need of self-resilience for survival & stability. Innovative ideas containing a problem solving approach are indispensable to survive the existing situation and the "PHD Chamber Journal of Ideas and Innovations" provides an apt platform for creative minds to put forward their thought and ideas to support the mission. I hope the journal contributes to the existing knowledge and proves to be helpful for policy makers and various other stakeholders.



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**Mr Ajay Shankar**

*Former Secretary*

*Department for Promotion of Industry and Internal Trade (DPIIT)*

*Ministry of Commerce and Industry*

*Government of India*

## 1. Ideas for a Self Reliant India

The vision of Swadeshi was integral to our freedom movement. After independence, self reliance was a primary goal of our development strategy till 1990. By then we were making most industrial goods such as power plants, telecom equipment, cars, refrigerators, etc. Then came the economic reforms of liberalization and globalization in 1991; gradual opening up to international trade and investment, reduction of the role of the state and greater freedom for market forces.

India and China had roughly the same per capita income in 1991 and were technologically at par. Today their per capita income is five times ours, they have become the factory of the world and are challenging the technological leadership of America and Europe. The Chinese drew upon the experience of Korea and of Japan earlier in catching up with the West and used the leverage of the size of their market to craft policies that worked.

Maintaining an artificially depreciated exchange rate was a policy used by all these economies to give an added competitive advantage to domestic value addition and success in both domestic and export markets. In the process they all created huge foreign exchange reserves by buying dollars to keep the currency depreciated. As they succeeded in increasing their share in global markets, they faced pressure and had to let the currency appreciate to pacify the US.

In India the real exchange rate appreciated by 19% between 2008 and 2017. This was the equivalent of the lowering of import duties by 19% which meant that for many items the import duty effectively became negative. No wonder the last decade has been a lost decade for industry with such feeble growth rates. The RBI needs to have the policy objective of not letting the real exchange rate appreciate. This is a necessary pre requisite for success in manufacturing, greater value addition and job creation. The prevailing myth that a strong currency means a strong economy needs to be dispelled.

When the economy was closed till the eighties, the tax rates were much too high. Cross subsidy became widespread as an implicit tax on better off consumers. In the reforms of the nineties tax rates were reduced. But cross subsidies were not touched. As import duties were being brought down, reducing the costs of production to increase competitiveness became critical. This needs to be given utmost priority. To do so there has to be general acceptance that the Indian consumer would have to pay more in the short run. Government also needs to relook at tax revenues through



the lens of reducing the costs for business. Business also needs to prioritize growth with higher profits over lower taxes on profits and personal incomes.

Transport costs for business in India are far higher than they should be. Diesel should be in GST and that too in the middle slab. This is not even under consideration. But for reducing costs this is an immediate necessity. The loss in revenue could be made up by raising import duties on consumer goods. These are being made in India and higher import duties would make comparable domestic products more price competitive. Similarly, the Railways use cross subsidy from goods movement to subsidize passenger traffic. There is no good justification for subsidizing intercity passenger movement. There is, however, a case for subsidizing intra city movement in metros and suburban train services to lower costs for those who have to commute for work daily. There is also merit in the argument that like the US we should have gone in for toll free interstate highways. Then, we cross subsidize electricity for domestic consumption by charging industry rates well above the cost. This needs to go as is the intention in the proposed amendments to the Electricity Act.

Prices of land have risen disproportionately in the last few decades. There has been a market failure and we have an asset price bubble. The state needs to invest aggressively, including in public private partnership, to develop industrial estates with quality infrastructure and connectivity and provide land and work places at reasonable rates. There is the precedent of what the Delhi Development Authority and state industrial agencies did in earlier times providing land on a no profit no loss basis.

Real interest rates in India have been much higher than those of our competitors. Though the RBI has at last been lowering rates, retail borrowers in the market are yet to get credit at real interest rates that match those of our competitors. This needs to happen at the earliest. The difference that interest rates make was dramatically highlighted when our private power project developers chose Chinese suppliers as they provided loans at attractive rates even though private sector Indian manufacturers were matching the prices of the Chinese.

All the East Asian countries invested heavily in skill development to produce world class workers. There is no reason why India which can produce world class soldiers cannot produce world class workers. While large firms in India have been doing so, the challenge is with the smaller enterprises. Considerable experience and learning has occurred with the National Skill Mission. The ambition should be to scale up and achieve quantifiable benchmarks of productivity and quality in major industrial sectors. Workers have to be seen as valuable human capital which needs to grow.

The Japanese, Koreans and the Chinese have all supported national firms to grow and become global players. They have done it in a variety of ways. Some of these may not be feasible today and other instruments may need to be crafted. These can be evolved and implemented in a fair and transparent manner. Getting better in quality and cost along with technological modernization are the key to survival and growth. The ambition should be for firms to start innovating and many reaching the cutting edge globally. Supporting Indian enterprises to reach global stature is of the essence of self reliance and the vision of an Atma Nirbhar Bharat.

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Warm regards,

**Dr. S P Sharma**

Chief Economist, PHD Chamber

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## 2. Progressing Continual Economic Growth with Covid-19: An Unceasing Outlook

The outbreak of pandemic COVID-19 has engendered a global health crisis along with an enormous human toll, leading to the deepest global recession since the Second World War. Economic shutdowns in advanced economies, developing economies and other parts of the globe have disrupted billions of lives and are jeopardizing decades of developmental progress.

Developing Nation, India, has emerged as a global player across the globe, with population more than 1.2 billion. It has managed to provide a stable situation, in the battle against Covid-19 due to proactive, extensive and bold measures undertaken by the Government to mitigate the daunting impact of COVID-19 on trade, industry and economy.

Moving forward, the Government's special economic package of twenty lakh crore, which is 10% of GDP for supporting the economical aspect of this fight against Covid-19 is highly laudable. It has resulted in a huge alleviation in economic growth and achieving the desired target of USD 5 trillion for the near term. The fiscal and monetary measures will act as an injection in pumping the economic growth of the country by creating employment opportunities, inducing welfare across the country, promoting ease for business ventures and supporting the economic growth through a rise in investment opportunities for the country.

Moreover, this pandemic is likely to exert lasting damage to fundamental determinants of long-term growth prospects, further eroding living standards for years to come. The immediate policy priorities should focus on alleviating the ongoing health, human costs and attenuate the near-term economic losses, while addressing challenges such as informality and weak social safety nets that have heightened the impact on vulnerable populations. Therefore, the Hon'ble Prime Minister Shri Narendra Modi's vision of Self-Reliant India offers a message to India to come out from this adversity and to be self-reliant, independent and become a net exporter to the world.

As the world is in grip of Covid-19, epidemiologists agonize about interventions like social distancing to flatten the curve of contagion among people. The economic upheaval is potentially more severe than that during the global financial crisis where social distancing and sanitation protocol is the only vaccine as of now.

In India, as the numbers have crossed six lakh, maintaining social distancing and sanitation protocols are necessary to reduce the death tolls of the citizens in the country. It is the time to focus on the Prime Minister's vision of "Atma Nirbhar Bharat" by being vocal for your local and making it global. The Motto of 'Being Vocal' is to promote local business and eventually, become global. Let us all pledge to be the pillar of strength for building a self-reliant India based on the five pillars of economy, infrastructure, technology-driven system, vibrant demography and demand change.

A five prong strategy should be opted to curb the spread of pandemic Covid-19 and to maintain social distancing and sanitation protocols in the new era of necessities:

- Firstly, flexible work hours or rational shifts should be encouraged which will restrict contraction of employees in a certain location.
- Secondly, the 'work from home' pattern should also be encouraged in the offices by holding virtual meetings and conferences, thereby limiting the spread to individuals and combat the spread of Covid-19.
- Thirdly, meal timings should be staggered to minimize the number of people dining at a particular time, keeping people atleast 6 feet apart.



- Fourth, innovation of accessories for social distancing such as hats with a wide brim (approximately 2m) inculcating a rough circumference or diameter around each individual or goodly tables at restaurants should be invigorated.
- Lastly, usage of bubble or hazmat suits should be encouraged amongst daily commuters to ameliorate the effect of pandemic corona virus.

***I wish good health for all the citizens of India and an early eradication of covid-19 from the country.***



**Mr Partha Pratim Majumder**

*In course of a long challenging career over 40 years running between corporate world and academia, Partha Pratim Majumder has travelled places with his robust deliveries , backed by strategic planning and innovations. With port folios like Group President , V.P (Business Dev.) in IT Firm and Dy. Registrar of 1st B-school of India, he became Domain Expert in “Inclusive Projects & Social Sector” in PPP mode , by connecting to several industry majors of corporate world (RAYMOND LTD., BERGER PAINTS (I) LTD., TATA GROUP , SIMPLEX INFRASTRUCTURE LTD.) and Govt. Agencies for funding , certification and support in the mutual benefits of Indian industry as well as the poor youth of less privileged sections of the society.*

*Known as “Training Evangelist and Harbinger of Innovations of eastern India”, he held position of Co-Chairman of the said Sub Committee of The Bengal Chamber (BCC & I) and CII (ER) apart from becoming Strategist in ICC. Some of his towering achievements are (a) Adoption of ITI by industry (b) Chamber becoming Sector Skill Council of NSDC in 2013 (c) International collaboration with UK High Commission for global standard of tech. education etc.*

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### 3. Mid Day Meal : A Road Connect To Bread & Butter

#### Essence of “Mid Day Meal (MDM)” scheme:

Ever since this high cost scheme in place in India, it has had an innovative , strategic and catalytic role-play in India’s long drawn battle to win over illiteracy and poverty , for spurring the paradigm shift in its demographic character.

In the initial stage of its roll out, MDM scheme had been primarily thought to be bold imperative for bringing in poor children to the school premises for learning by dint of removal of classroom hunger. That purpose, expectation and effect are so evident in the increase of participants and still so assertive even in the days of nationwide outbreak of COVID – 19 and lockdown etc.

**Current status** - After the recent outbreak of COVID – 19 vis-à-vis lockdown across India, most of the schools are closed for months , with students at home. While the class room teaching is done by the use of microphone or loudspeaker in the locality (in the absence of net connectivity) , as a scheme, mid day meals are supplied at least in the form of dry food grains and vegetable etc. to the registered students.

**Mammoth Sized Project : Large Coffor** - In all fitness of the things , such projects always remain as subject under the evaluation scanner in order to draw significant insight to realize the trend.

- A total of 9.46 Crs. of children is said to the beneficiary in FY 2017-18 from 11.34L schools.
- An outlay of Rs. 90155 Crs. had been allocated in the last Five Year Plan
- The entire project is run by Dept. of School Education & Literacy under Ministry of HR, Govt. of India.



**Benefits as accruals - In the policy intervention level, MDM does not call for one single benefit only like “Adding the nutritional value to the child’s meal” but many more :**

- Greater participation from disadvantaged society (Dalit, Tribals and girls)
- Reduction of class conflict and class room hunger for higher enrollment and retention
- Fostering of gender and social bias at the childhood for change of mindset
- Boosting of female attendance to scale up attachment towards self reliance
- Promotion of health and hygiene at the nascent level
- Collective urge to realize the value of education, linkage to livelihood and family welfare

**Background :**

**First judicial mandate** - Based on the observations and ruling of the Supreme Court of India on 28 November 2001 as “Right of The Child (6 yrs. to 14 yrs)”, the scenario had changed ever since towards acceptance of the said right and way forward in the form of its implementation – by dint of the supply chain of “ *wholesome freshly-cooked lunch served to children on daily basis*” in government and government-aided schools.

Gradually, this has become a way of life in India – touching upon millions of innocent lives and their parents in the trajectory of survival, sustainability and growth.

**Historical evidence in 1925 – Mid Day Meal concept had come into being via a** miniscule introduction in the form of a handholding, *earmarked for the disadvantaged children* in Madras Municipal Corporation.

By the mid 1980s, 3 States viz. Gujarat, Kerala and Tamil Nadu and the UT of Pondicherry had rolled out a cooked Mid Day Meal Program with their own resources for children at the primary stage. By 1990-91, 12 more states had lined up. Now, this scheme is ubiquitous.

**Challenges & concerns :**

**Operational Issues** - While keeping the main objective of the Mid-Day Meal Scheme in view, there is a pipeline of challenges and concerns too, unwrapped as under :

- Proxy enrolment for meals
- Low infrastructure & high corruption
- Poor management & lack of supervision
- Persisting caste conflict at the rural level
- Attendance to school for meal only
- Absence of social audit and SOP (Standard Operational Practice)

**Strong Evaluation Mechanism** - Such giant project does inherit series of evaluation activity with an array of in built periodical surveys, data collection and data dissemination till the end of the research, analysis and findings etc. The methodology needs to be robust, clean and integrated on the behavioral pattern of such sample data of at least 1 lac beneficiaries.



### An Innovative Roadmap To Connect To Livelihood Options :

**Strategic linkage with livelihood options : an innovative thought** - Considering the truth of human life cycle (infancy, childhood, youth and old age) *vis-a-vis* India's humongous load of persisting unemployment issues (before and after COVID-19) , time is ripe now to seek **"Bread and Butter"** for the beneficiaries as "Residue Theorem" from this mammoth society centric scheme like **Mid Day Meal (MDM) scheme** (both – in size and budgeted provision) beyond the basic noble outcomes like

- (a) Nutritional value
- (b) Literacy
- (c) No gender bias
- (d) No caste conflict etc.

Now, the question is how ?

**Missions** - In the light of PM's ambitious missions like **"Make In India"** , **"Skill India"**, mandated for transforming India towards world's "Industrial Destination and "Skill Capital" etc., the prerequisite is industry and sector wise ready **"Skilled Human Capital"** , which is categorized into two broad heads

- (i) White collared HR – *Min. Eligibility* – Graduates
- (ii) Blue collared HR - *Min. Eligibility* – Class VIII + to join ITI for Job Roles like (*Welder, Fitter, Painter-Workman, Tailor, Plumber, Electrician and many more*)

**Catch 'em young and watch 'em grow** – Under the fully functioning Ministry of Skill Development & Entrepreneurship (formed in 2014) with a target of transforming 40 Crores of "Trained & Certified Skilled Resources" by 2025, the opportunities are in the galore as under :

- ✓ **DGT** - Running 15697 ITI in India (Class VIII passed onwards) for 126 Trades
- ✓ **NSDC**- Running 38 SSCs/ 462 Training Partners/11000 Trg. Centres/2100 Job Roles

They can be connected to the job market at least in terms of Wage Employment , protected by Minimum Wages Act. Cluster wise "Self employment" is another option , looked after by Ministry of MSME, NIESBUD etc. All would lead to a sustainable income for one's family and crossing the hurdle of poverty.

Mobilization is a in built challenge often faced by the Training Providers and the authorities , causing disruption of the programs planned. Here the challenge may be appropriately addressed by the following linkage route :

- Acquisition of database of huge number of beneficiaries of MDM (digitally linked)
- Analysis of total background of beneficiaries for multiple options
- Counseling to Entry Profile and Exit Profile towards SHC(Skilled Human Capital) in terms of various support schemes like NAPS,NETAPH and NEEM etc.
- Training & Certification to match the "Job Role" or "Trade" of the industry for absorption

Such linkages will transform a needy child into an earning member for his or her family as well as a responsible citizen – in order to complete a journey called – " From a non entity to an identity".

This way, we may seek to add a strategic road from **Mid Day Meal for the millions** to reach **Bread and Butter for the millions** with a goal to ensure the national load of unemployment get reduced to minimal at the macro level.





**Dr. Akhilesh Chandra**

*Dr. Akhilesh Chandra is a Professor of Accounting & Accounting Information Systems, and KPMG Research Fellow in the University of Akron. He has served as the Special Issues Editor of the Journal of Information Systems, and is on the Editorial board of Open Journal of Accounting. He serves on the Board of Financial Executives International (FEI) NEO Chapter and International Journal of Applied Decision Sciences. In his leadership role as the Director of The Institute for Global Business, he built a vibrant Advisory Board of Senior Executives from Fortune 100 area organizations, developed outreach programs such as the Executive Business Forums Lecture Series, China Week Keynote Speaker Series, International Tax Conference, and the Global Business Scholars program. He has helped develop and grow global partnerships with Yonsei University in Korea, Henan University in China, and The University of Delhi in India among others. In his leadership role as the Associate Director of the Center for Research & Training in Information Security & Assurance, he has organized eight symposia and workshops. Dr. Chandra is the recipient of the competitive research grant from the National Science Foundation (NSF) for a three-year period to examine life-cycle costs of earthquakes in a joint collaborative effort with Professors from Civil Engineering. His research interests include risk, control, and assurance of accounting systems and corporate governance. He is widely published in several journals. Some of the journals in which his work is published include GeoRisk, Communications of the ACM, Journal of Information Systems, Transportation Journal, Advances in Accounting, International Journal of Accounting Information Systems, Managerial Auditing, and Decision Support Systems Journal. He holds several professional certifications from India and the US. Contact Details: [ac10@uakron.edu](mailto:ac10@uakron.edu)*

## 4. Déjà vu: Revisiting the basics to manage (a pandemic)

### 1. Introduction

Each change offers an opportunity to strive toward and excel our potential – at the individual level, organization level, country level, geographical level or global level. COVID pandemic as unfortunate as it is, is also a change. It seems different. It's scale, breadth and almost simultaneous impact on global humanity seem to make it different. Yet similar features are characteristic of other changes witnessed in recent memory. Examples include 2008's financial meltdown and financial scandals of early 2000s which had different type of mortality compared to COVID caused mortality.

However, at the conceptual level, COVID pandemic is just another change. For guidance, therefore, it is befitting to open a leaf from the basics and learn from fundamentals. An organization should not wait for a trigger to initiate change management. Instead, an organization should constantly engage in a process of change management which is a process to proactively and continually scan and assess emerging horizon vis-à-vis status quo and make appropriate adjustments.



## **2. Objective**

Minimizing the effects of pandemic is an exercise in change management. In this contest, I develop a risk-based framework for a proactive management of change, including a pandemic. My framework focuses on internal processes across its components. Any change is not a discrete event. As a continuous process, my framework is useful at pre-change, during-change and post-change phases.

## **3. The framework**

The pillar of my framework is the top management's active commitment and support in all stages of a change. The framework has seven interrelated components and include the following:

1. People centerpiece
  - Empowerment
  - Trust
2. Financial management - Expediency, prudence
3. Measure & manage
  - Internal controls, safety, security
  - Internal audit
4. Management & governance
  - Top management support, leadership
  - Communication
  - Monitoring
  - Due process
5. Leverage technology
6. Process efficiencies
  - Internal process efficiencies
  - Friction & bottlenecks
  - Supply chain external efficiencies
7. Compliance
  - privacy

Together, the seven components of my framework provide a holistic strategy to manage a change, including the current pandemic. The risk-based nature of framework uses likelihood and exposure as the guiding criteria to scan, assess and proactively react to manage change (see Figure 1).

The risk-based assessment is a systematic process and includes following steps:

1. Develop an inventory of organization resources
2. Develop a metric to assess the value of each resource
3. Rank-order resources based on their valuation
4. Develop a value-weighted matrix against criteria deemed significant for the organization
5. Identify threats to each resource
6. Identify vulnerabilities to each threat
7. Identify specific exposures from each vulnerability
8. Quantify risk for each resource vis-à-vis its threats and vulnerabilities using a risk factor. Several techniques, including Delphi Technique exist to assist in the process.
9. Identify and assess the strength and effectiveness of each controls for every vulnerability for a resource

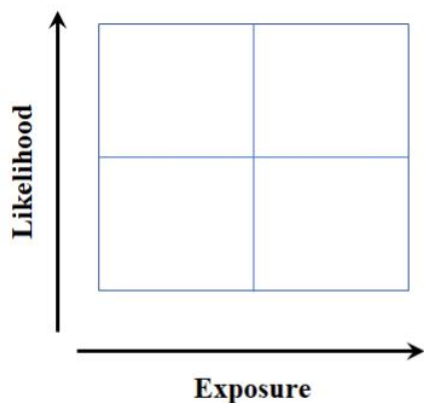


- Consider the preference for preventive controls versus detective and corrective controls.
- Absence of formal controls should invoke appropriate compensating controls.
- 10. Conduct a composite feasibility analysis to assess the management of each risk
- 11. Identify competing solutions to mitigate each risk
- 12. Implement solutions while managing risk of implementation
- 13. Assess changes in business processes and models during the intervening process
- 14. Revisit step 1 and repeat subsequent steps

The repetitive processes involved in the risk assessment lend this exercise to useful automation to achieve efficiencies and effectiveness. The process broadly follows a structure life-cycle approach. In practice, several competing alternatives exist. Many recent alternatives use AI based capabilities to provide precision when variables are qualitative, fuzzy and future-based. Application of rigorous statistical and AI models seek to minimize ambiguity and maximize objectivity.

A primary goal in this exercise is to introduce contingency plans which include business impact analysis, incident response, disaster recovery and business continuity. The four contingency plans are sequential and interdependent. Yet, the four plans are operationalized in parallel and simultaneously in practice. The efficacy of the process is gauged by continually managing the four-phased contingency plans with a focus on disaster recovery plans.

The inward-centric emphasis in each component of our framework defines its conceptual and operational appeal.



#### 8. Significance

The significance of the internal-centric framework is to insulate an organization from external shocks including natural, economic or manmade. The framework is a process and not a product. Consequently, the organization becomes resilient, agile, adaptive and lean.

My framework is a contrarian perspective to the leading contemporary approach that is outward looking. In the wake of widespread supply chain disruptions, demand shrinkages and income loss, a reliance on external and government support, while necessary, should not become the primary source of lifeline. Well nurtured and streamlined internal processes lead to optimized change management and minimized negative effects.



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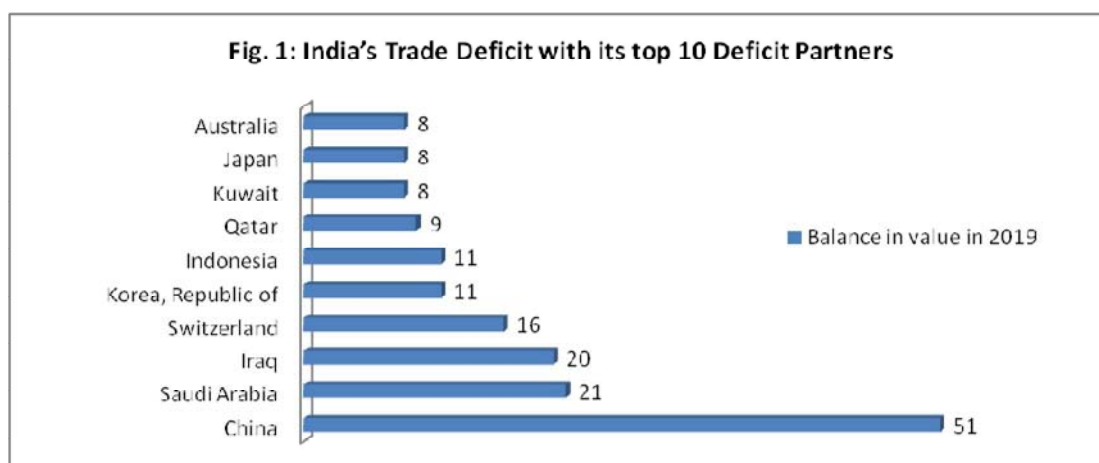
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## 5. India's Export Potential in its Trade-Deficit Market

### Overview

Exports are a basic segment of a nation's Gross Domestic Product. Accordingly, boosting exports is integral to accomplishing higher development and monetary possibilities. This accepts more noteworthy pertinence when the worldwide condition has gotten progressively dubious, given quickly changing worldwide exchange elements and an expanding shift towards protectionist arrangements. In the midst of rising worldwide vulnerabilities, Indian product trades as of late enrolled a decay of around 7.8%, as they tumbled from US\$85.7 billion during first quarter of 2019-20 to US\$79 billion in fourth quarter of 2019-20. In this way, improving exports, with a focused on technique that distinguishes and advances the correct items has gotten a basic for India.



Source: Author's Calculation<sup>1</sup>

During the year 2019-20, India's gross trade-deficit with its shortage exchanging accomplices was around USD 236 billion and its gross trade surplus with its excess exchanging accomplices was around USD 79 billion, leaving a general trade deficit of USD 157 billion around the same time. India has a most elevated exchange deficiency with China of USD 51 billion of every 2019-20 after by Saudi Arabia, Iran, and Switzerland, etc. The portion of India's top 10 exchange shortage accomplices in India's gross trade shortfall was around 69 percent during the year 2019-20 (Fig. 1). Consequently, improving exports, with a focused on procedure that recognizes and advances the correct items has become very essential for India.

### Trade Barriers

<sup>1</sup> ITC Trade Map

Table 1: Non-tariff Measures Applied by India's top 10 Deficit Partners<sup>2</sup>

Non-tariff Measures	China	Saudi Arabia	Switzerland	Korea, Republic of	Indonesia	Qatar	Kuwait	Japan	Australia
Other measures	57	4	1	1	13		2	4	1
Pre-shipment inspection	69	23	19	24	54	1	2	28	3
Price control measures	49	24	19	71	19	4	5	43	69
Export-related measures	684	56	46	152	128	13	18	125	355
Quantity control measures	284	54	37	90	82	30	37	56	85
Sanitary and Phytosanitary	588	72	72	178	229	46	33	140	264
Technical Barriers to Trade	3954	123	184	675	426	128	24	629	834
Average MFN Applied Duty	9.8	5.4	6.6	13.7	8.1	4.8	4.6	4.4	2.5

Source: Author's calculation based on UNCTAD<sup>3</sup>, WTO Databases<sup>4</sup>

With the extension of globalization and facilitated commerce the nations, exceptionally developed nations, have begun embracing non-tax measures as an exchange boundary rather than conventional tariff measures. The normal MFN applied obligation by India's top 10 deficit accomplices was around 6.7 percent (Table.1). Except South-Korea the average MFN duty applied by the accomplices was under 10 percent which is essentially less in contrast with India which is applying average MFN obligation around 17.1 percent<sup>5</sup> on the entirety of its items for the year 2018. Interestingly, the NTMs notified by these exchanging accomplices to the WTO are around 11,540 which are commanded by SPS and TBT measures. South-Korea is the main exchanging accomplice where India is confronting most elevated import tariffs alongside a huge number of non-tariff measures, given that India has a respective exchange concurrence with the nation. The circumstance is extreme in light of the fact that different nations are additionally abusing India's facilitated commerce understandings, for example, the nations with which India doesn't have FTAs are sending out items through nations with which India has FTA to exploit. For example, copper items handled by China being sent out to India by means of the ASEAN nations<sup>6</sup>. Baddish Jindal, leader of the Federation of Punjab Small Industries Associations, said China has been setting its intermediaries in Bangladesh and Sri Lanka. He said the Asian superpower has been providing its bicycles in India through these SAFTA nations, evading the traditions charges it would have needed to add to the thing's expense<sup>7</sup>. There are many such incidences where the Asian giant is exploiting Indian market via such trade deals, leading to spike in India's trade deficit. So, it has become very essential for India to resolve these issues and open up the new opportunities to eliminate this exchange deficiency.

<sup>2</sup>For Iraq, information is not available at WTO and UNCTAD databases.

<sup>3</sup>UNCTAD TRAINS

<sup>4</sup>WTO Tariff Database

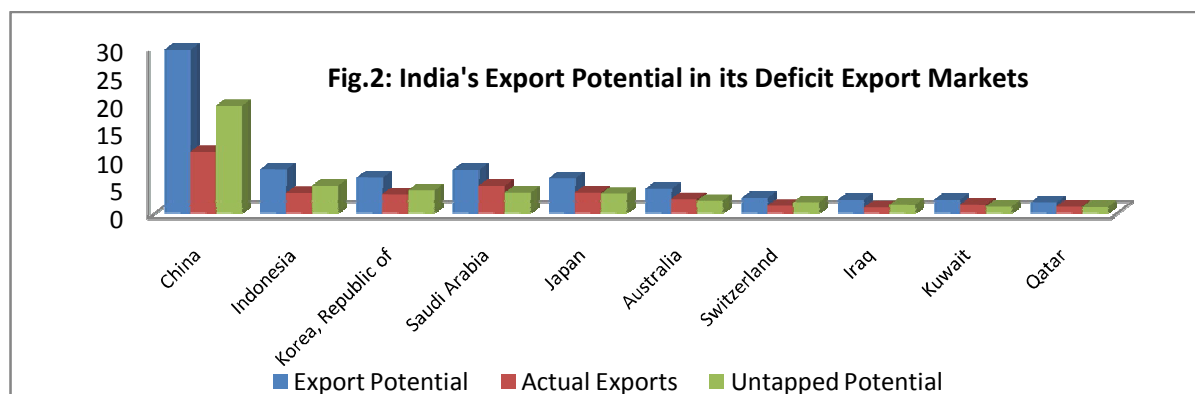
<sup>5</sup>Palit, Amitendu. Financial Express (2019).<https://www.financialexpress.com/opinion/explained-why-india-is-indeed-a-tariff-king/1656675/>

<sup>6</sup>Suneja, Kritika. The Economic Times (2018).<https://economictimes.indiatimes.com/news/economy/foreign-trade/lack-of-fta-reciprocity-non-tariff-barriers-have-hit-indias-refined-copper-exports-study/articleshow/66345532.cms?from=mdr>

<sup>7</sup>Agarwal, Nikhil. Live Mint (2020).<https://www.livemint.com/>

## Exports Potential

The exports potential value is anticipated by an econometric model dependent on the qualities of the exporter, target market, and the strength of association between them<sup>8</sup>. As far as exports potential is concerned, the International Trade Center (ITC) gauges India's untapped exports potential for its deficit trade accomplices is around USD 43.4 billion. China shows the biggest total distinction among potential and actual exports in value terms, leaving space to understand extra exports worth USD 19.3 billion followed by Indonesia and South-Korea<sup>9</sup>.



Source: Author's Calculation<sup>10</sup>

The items with most noteworthy exports potential from India to China are Copper cathodes, Diamonds, worked, and Motor vehicles for the transport of persons where Motor vehicles for the transport of persons shows the largest absolute difference between potential and actual exports in value terms, leaving room to realize additional exports worth \$1.1 billion<sup>11</sup>. The products with greatest export potential from India to South-Korea are Aluminum, not alloyed, unwrought, Motor vehicles for the transport of persons, and Medicaments consisting of mixed or unmixed products, for retail sale<sup>12</sup>. In the same manner, the items with the most noteworthy export potential from India to Indonesia are Semi-finished products of iron and steel, Groundnuts, excel broiled or cooked, and Cotton, not checked/brushed. Semi-finished products of iron and steel show the biggest supreme contrast among potential and real exports in value terms, leaving space to understand extra exports worth \$248.2 million<sup>13</sup>. This indicates that India still has a lot of untapped export potential within its trading partners.

On the off chance that if we adopt a set of policy measures to effectively address the issues of non-duty measures, the issue of a preoccupation of exchange by India's non-FTA accomplices through India's FTAs and to detail strategies to open up the undiscovered open doors in India's FTA markets, India would have the option to lessen the size of exchange shortage with these accomplices or perhaps capable to convert it into exchange surplus in coming future.

<sup>8</sup>ITC Export Potential Map

<sup>9</sup>ibid

<sup>10</sup> ibid

<sup>11</sup> ibid

<sup>12</sup> ibid





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## **6. Evolving Paradigms and Future trends in Luxury tourism**

The opposite of luxury is not because in the house of poor you can smell a good 'pout a feu'.  
(Gabrielle 'Coco' Chanel, 1966)

Since medieval period, tourism has been a very emerging field for the travelers to explore new climes. It gave a wide dimension for the tourist to have an essence of the place by residing and exchanging idea with its locale. As tourism flourished, people got more engaged towards travelling and urging an essence of luxury in it which was an emerging product for the tourist, where a product was emerging into the market with new focus and demand. Luxury has always been an important part in the tourism and hospitality sector as it provides the essential of luxury to the travelers. With the emerging of tourism and hospitality, luxury has always been considered in forms of price which is not what the travelers are looking in today's era. "Luxury" is the term coined as the expensive services that the high class in the community afford to, but in current time span luxury is said to be the uniqueness of the services that each market segment can afford but are not comprised with the price view. In golden era, the urge of luxury was mainly focused towards fine dining meals, exotic vacations and not on quality services or commodities which sometimes is a havoc for the sector. But in the current days, the word luxury is more cited for good quality service in comparison to the expensive needs of the high class. Now-a-days, the industry professionals are focused towards creating innovative ideas to give a new luxury segmentation to the travel and hospitality sector by introducing a new strategy; affordable luxury instead of high-quality luxury for its consumers. The tourism market in current scenario is more focused towards segmenting of bargain-basement in respect to highly expensive market to which few can avail. Countries like India, Bangladesh are urging focal point for the tourist which have made a higher rate increase for the destination towards tourist siting though giving the luxury factor an advantage to grow in those areas and provide unique services to help the tourism to grow providing the essentials that are promoted by the countries tourism department through e-travel website to showcase the richness of the terrain. Due to the growing global market, the increase in demand among the travelers towards luxury have merged to various innovative services which are sited to be a growth factor for the luxury tourism by providing grandeur services like residing in rejuvenation camps, experiencing of local cuisine, sighting of heritage culture, etc. which are more focused in today's market scenario



and the increase in affordable luxury is rising in respect to highly expensive luxury where every segment of the consumer are accessible and result in high growth ratio of tourists in the tourism and hospitality market who help in sapping and giving a new essence to tourism and hospitality. In the new era, the tourists are focused towards exploring culture, food, leisure and history. Hence, they exclude the urge for quality experience and focus to the main criteria for there travel where their only interest.

Keywords: luxury tourism, market segment, affordable luxury.

#### **Learning Outcome:**

The study is to increase the luxury tourism market through innovative ideas and implementation of affordable instead of expensive luxury which though has created demand for both the tourist segment and may result in giving a new face to the tourism and hospitality industry by providing an easy and convenient experience to the tourists.



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## 7. A Study on Influence of Odisha as Culinary Tourism Destination

Thousands of years ago, people used to travel to explore various cultures and their cuisine which help the travelers / tourist to explore the local which help them to know about the diversity of the location. However, in today's modern world, people tend to have different variations of the food preparation through which they are unable to know the authenticity of the preparation. This further lead to low popularity of the particular preparation as it has been modified which has changed the flavor of the food / cuisine, thus finishes the knowledge of the particular regional cuisine. **(Okech, 2014).**

India, a nation of indigenous culture and with a multi-lingual taste bud has a culinary history of 8000 years old in creating its stake in the world. Known to have a diversified, ancient and versatile cuisine, India has a very strong history to its use of spices in its preparation method. Spices mostly used are coriander, saffron, javitri, pathar ka phool and other spices. Over time, food in India has gradually made its culinary field very much diversified through various methods of slow cooking and the major impact of Indian food is the technique of utilization of the spices during the preparation process.

Odisha, a state in the eastern part of India situated in the coastal region is 9<sup>th</sup> largest state by area and 11<sup>th</sup> largest by population. The common language Odia is spoken. If we talk about cuisine, it has extensive culinary tradition spanning from centuries. Being a small eastern state, Odisha has its own specialty "Cheenapoda" which was Originated in Nayagarh. The place 'Pahala' is known as the sweet part of Odisha which is very much famous for its sweets. The street food and breakfast in Odiya has its own burst of flavor's according to its locals. Locals say that Odiya food is not so diversified but if you visit Odisha and try the delicacies you will find the bud fell. Along with the regional cultural heritage and art & craft, Odisha has a variety in its cooking methods that you will mostly find in the Lord Jagannath Temple in Puri where the temple cooks prepare a "Chhappanbhog" by putting the mud vessels one-on-top in horizontal way. Most amazing thing is that the food cooks from top to bottom which is interesting.

The main purpose of this article is to state the progress of culinary tourism in the east-coastalregion, i.e., odiya cuisine. India, a land of indigenoustaste bud where food is always considered as mysteryand is versatile. Within a span of 8000-year-old, India has been an enigma to the world with its diverse cuisine along with a ballooning variety of culinary styles. The use of various spices accompanyingwith cooking style of food has always been the culinary secret of the nation which is unadmired. Odisha always has its essence extantin a cheese cake. i.e., chenna-podameans roasted cheese in odiya language, is a desert made from home-made cottage cheese and jaggerywhich has always been in every odiya'sheart. The cuisine has always been a mystery between its locals and has a number of variationsin every household. Now-a-days, Tourism has been a keen factorfor the



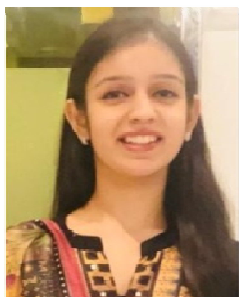
country's growth with providing a widespread path for the outbound tourist to explore most of the varied region and study its culinary history. Through an overview into the culinary growth within certain regions, the government has been taking measures to increase the tourism through various programs and camps for the growth of eastern-coastal region which in some sort has lost its existence within the territory and among the tourist. As to help in the awareness towards the progress of Odia cuisine the paper is prepared to make a significance of its essence in the tourism boundaries. The paper concludes that the present scenario of the culinary progress of Odia cuisine is very low which needs to be explored and excavated.

Key words: Culinary tourism, Odia cuisine, Chenna-poda.

#### **Learning Outcome:**

The study is to create awareness for Odia cuisine to attract both inbound and outbound tourist through innovative ideas and implementing attractive tourism activities by organizing cultural programs for both the tourist segment which may result in giving the state a new face towards culinary tourism industry by providing an easy and convenient way for the food enthusiasts.





**Ms Herman Kaur**

*"Education is not preparation for life, but life itself"*

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## 8. Thrive During Pandemic Dipped Recession

Presently, entire World is facing a Pandemic, with predicted loss of 1tn dollar to World Economy and all this is very tragic for all the developing countries. Economically, it lead down of shut down of businesses and demand destruction. In Current Scenario of Pandemic, businesses not only have to deal with Lockdowns, Social Distancing, as new normal but also the seeping recession in World Economy. SMEs are facing big time challenge to survive and thrive during these hard times. Also, the new focus is on being self-reliant and thus to help revive Indian economy. For this, PM Modi Introduced 5 I's i.e. Intent, Inclusion, Investment, Infrastructure and Innovation.

Let's discuss measures or strategies that may help businesses to survive various challenges of Pandemic and Recession hit economy and become self-reliant in various ways.

- **Go Online:** If your business is still a brick and mortar style, it is high time to launch an online store for your business. Since it has become cumbersome for people to visit a store for goods or services because of lockdown and social distancing norms, it is desirable for customer to receive Good or service at door stop. If your business is not of such nature, at least try and maintain online platform for bookings, appointments, queries to lessen the time and queue for customer visit and manage your work as per the pre knowledge about your client or customer visit.
- **Be Around your Customer:** Even if you are unable to run business because of lack of raw material, finance or shortage of labour or because of any other reason, it is desirable to communicate the actual state of affair to your customer in order to maintain transparency and trust.

Make sure to be around them through virtual means (Social media, email, text messages, and webinars), in order to remind them that you are together during adversity and do bother about them. It is important to notify customers that you will cater to needs and requirements once in operation to avoid any kind of panic or frustration amongst customers.

- **Use Social Media and Influencer Marketing:** During Lockdowns, something that has observed the steep rise is the use of social media. People spend hours and hours scrolling over different



social Medias. So why not use them for the promotion of your business. Try to consistently upgrade your business profiles over social media.

- **Educate your Self and upgrade your Business:** During such times, when one has lot of free time, it is important to use it productively and educate yourself about your business. This will help increase value proposition and will lead to better strategies and ways to make your business survive.
- **Inform about your hygiene norms:** Since , hygiene factors, sterilization, zero contact delivery of product and service has been of huge importance, it becomes our duty to let our customers know, how stringently a business is following all such norms. This will create a sense of trust. We must adopt e payment methods for convenient delivering of goods and services.
- **Self-Reliant:** As a whole, government should start mapping area wise product specialisation. Based on that analysis should be made on its value proposition, Customer segment, channels of distribution, Cost and Revenue generation and select the most feasible options. This will help make a region, district, state and Country self-reliant and help economy to grow and flourish.
- **Converting challenges to opportunities:** We are looking forward for Self-reliant and not self-isolation. Businesses must utilise their knowledge, specialisation and expertise in their area of work for the betterment of society at large. Indian market itself is not small. It has huge prospects. We just need to explore new options and try to lower our dependence on imports and at the same time create competitive edge in the world market.=

## Conclusion

Necessity is the mother of Innovation. Unlike economic recession, this Pandemic recession has altogether different challenges and hence different and unique set of solutions to it. We need to explore are capabilities in becoming self-reliant in such a way that we not only survive this adverse situation but also thrive through it.



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*A dedicated professional with over 35 years of experience in school education field, Ms. Seema Malik has developed policies and practices that promote a school culture that encourage continuous improvements for teachers and students. She started her career as a senior teacher of Geography in Delhi, and became a school principal in DPS after fifteen years. She has been heading leading schools of India for the last two decades. She is MA in Geography from Delhi School of Economics (DU), B.Ed. from CIE (Delhi University), M.Sc. in Human Resource Management from University of London (UK) and M Phil in Educational Leadership and School Improvement from Cambridge University (UK). Some of her major responsibilities have been coordinating and supporting development of innovative instructional programs and reviewing schools heads' performance periodically and giving feedback. She has worked over the years, infusing motivation among all stakeholders in schools through continuous professional development.*

*Having won a National Award from Centre of Science and Environment, Delhi, she has been promoting the cause of sustainability in schools. At Cambridge University, she was awarded for ideas on building sustainability in the infrastructure by Department of Mathematics, under the Green bridge program. She was instrumental in regenerating and reviving a dead pond with school students' initiative at Ludhiana for which she got a Green School Award by CSE. School under her watch have developed non-conventional sources of energy due to which schools electricity bills have got lowered. More than five thousand trees planted by her students, today there are green belts thriving around her school. She writes blogs regularly on environmental issues faced by the world. At Salwan Schools, she has been working relentlessly on building plastic free eco systems and motivating all stockholders to lead an environmentally responsible life*

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## 9. MOOCS - THE 21<sup>st</sup> CENTURY EDUCATIONAL REVOLUTION

Business and Industry share a growing concern that skills available among the work force can not meet the fast changing demands of the economy, creating a major barrier to growth and development. A rapidly changing labour market, affected by technological evolution, globalisation, demographic change and other trends brings greater urgency to skill and knowledge development. Education in India has come a long way since the beginning of IT era. It is said that technology mutates faster than the microbes. These mutations result in various opportunities beneficial to all walks of life, including e-learning. Further, the increasing costs of higher education, growing number of flexible learners and prevalence of technology in all fields of work, have brought to light the rising concern faced by graduate students and potential employers. According to a YouGov survey for instance, 52% of graduate employers said "none" or "few" recruits with a university degree were work ready (YouGov, 2013).

Development and advancement in communication technology have begun a revolution in academic advancement in the form of MOOCS (Massive Open Online Courses). Faced with the dilemma of



'mismatch of skills', MOOCS will act as complementary mechanism through which these skill gaps can be bridged. With increasing literacy rates and wider availability of educational opportunities, more people can avail options for growth in their skilling. Distance education and open universities have further given a stimulus to young people to achieve their ambition, like never before. Geographical, societal and economic limits can no longer hold the people up from reaching their potential. With no hefty fee required and ease of taking up the courses at your own convenience, MOOCS are helping people, young students and adult workforce alike, in gaining expertise in their field of interest from the best universities and institutions of the world. Equipped with knowledge gained and skills acquired, MOOCS are giving rise to promotions by gaining expertise, besides giving self-contentment to the people. All that is required is an internet connection, a PC/mobile phone/tablet and zeal to learn.

There are two types of MOOCS. cMOOCS (connectivist) are based on the connectives theory of education where connectivism, openness and participation are the major principles. Learners share their views and resources with each other and send them to instructors. The latter sorts the material to organise them into sharable e-mail with embedded links. This builds a connective ecosystem of the learning resources and learners. Some earlier MOOCS belong to this category. xMOOCS (extended) revolve around college teaching model with video recorded lectures along with quizzes and other evaluation assignments with verifiable certificates and statement of accomplishment. This is more of a behaviourist approach to education. The courses are typically paced around a weekly structure where learners can access relevant sources in their own time. There are many synchronous learning opportunities (e.g. live seminars) besides asynchronous learning events. Most of these courses are for adult learning and professional development. Assessments are auto-graded for the learners to see their progress. There are discussion forums which have subject specific discussions, wherein learners can share a lot of knowledge with their peers. These courses do not need any books since all the readings are available online.

Learners are able to participate in group discussions, gaining confidence to make their presence felt in their field. Instructors come from hallowed institutions of the world, armed with the best research findings, making learning practical and interesting. After USA, India is dominating the global growth in enrolment with more than a million users each on edX, Coursera and Udacity. Within our own country, there are many initiatives taken by the Ministry of HRD, such as Study Webs of Active Learning for Young Aspiring Minds (SWAYAM), National Digital Repository of IGNOU, Sakshat and Shishya by CBSE, Vidya Vahini, National Program on Technology Enhanced Learning (NPTEL), mookIT (MOOC initiative by IIT, Kanpur), etc. Already, NPTEL is the largest single repository of technical courses in the world in the streaming video format. mookIT is especially designed to solve the problem of low bandwidth of internet in large parts of India. IITBombayX is yet another non-profit MOOC platform developed by IIT Bombay. It offers the basic version of the blended learning with the help of edX organisation. An excellent initiative of SWAYAM is that learners across the country can get the credit for MOOC transferred to their parent institution. That encourages the learners to complete the course and get their certificate.

The massiveness and openness of these courses will transform learning like never before. Willing learners are growing by leaps and bounds in their skills, aptitudes and attitudes by taking MOOCS. They bring together like-minded learners from across the world, breaking the boundaries of nationalities, geographies and economies, making the world of learning more egalitarian. Clearly, the trend is that high quality education which should always have been accessible to everyone regardless of the affordability, has finally become possible through MOOCS. They can provide the Indian students an edge required to compete in the global market. Young students as well as adult



work force can leverage on their learning to stay relevant and competitive in the fast paced dynamic world of work. No wonder then, MOOCS have been labelled as the 21<sup>st</sup> century educational revolution, attracting the attention of educators as well as employers (Bulfin, Pangrazio and Selwyn, 2014). The Organisation for Economic Co-operation and Development suggested that in order to align the divide between national policy objectives and the development of necessary skills which may meet the evolving demands of the labour market, MOOC may be employed as the means through which the skills gap may be reduced (OECD, 2013). Kraz (2014) and Redford et al. (2015) suggest that organisations have either used, have strongly considered using, or in the future could see their companies using MOOCS for employees professional development.





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## 10. SOCIAL MEDIA DATA ANALYSIS: IMMINENT RESEARCH AREA

Social media; bestow rich volume of real data. The usage of social media is escalating staggeringly. People prefer social network to share their thoughts, opinions or beliefs; time and again. Be it any event or topic; people share their views on social media and Twitter is one out of them. To know the real sentiments of people, the data can be analyzed for getting the subjective information. Twitter developer provides API's for downloading the tweets by creating an authenticated application on it. The data we will retrieve is extremely nifty as people share their real sentiments on social media. So, it is highly crucial to analyze the tremendous amount of content rich data. Natural Language Processing (NLP) is a field of Artificial Intelligence (AI); it is related with the interconnection between human language and computer language, in respect to train computers to preprocess and analyze huge size of natural language data. Natural Language Processing is basically related to text processing. Using Natural Language Processing, the text format is mutated into machine format. The analysis is being performed on the huge amount of data to determine its positivity or negativity using NLP. Various numbers of techniques are available to judge the user's subjectivity regarding data. Sentiment Analysis is a property of Natural Language Processing in which the people's moods are identified whether a person is feeling positive or negative or neutral. Interactive Voice Response (IVR), Google Translator, Word Processors which grammatically correct the text, Alexa Personal Assistant is some applications of NLP. It is beneficial for the manufacturer and Research & Development department as well to enhance the standard of their products if they are well aware of the customer opinions or reviews regarding their similar previous products. There are numerous applications of data analysis; some of them are discussed here:

- Nowadays, people prefer online shopping. Before buying a product online, they look for other people reviews who already bought this product and after comparing the reviews of number of customers, we get an idea about its quality. In addition, it is more easy and advantageous if we mine the result graphically.
- Automatic data analysis in addition to Machine Learning with human intelligence succor in vast size of data effectively.
- It is very rousing when we plan to watch a movie and when we get the customer reviews about the same; it is very entertaining to plan for the movie. Internet Movie Database (IMDb) provides the reviews about the movie and television shows.



- Elections or choosing a leader for our nation is always a hot topic. We have applications for getting voting advice which help voters in making which political party is comparatively more supportable based on previous and current facts.
- Opinion Mining (OM) is beneficiary for government too, as government refines their policies on the basis of public opinions.
- Security is of prime concern in the advent of online shopping, e-banking, online dating etc. This system is recommendable for security systems as it helps in detection of spam or fake users.
- In today's world, the education procedure is more inclined towards e-learning. So, it is useful to know the student's opinion to improve the services and applications of e-learning system.
- Identification of people's opinion regarding government policies for population growth helps government to reform them again as the government always wants to work for the blessing of people.
- In the aid of customers, recommendations are given to them out of the accessible trend after mining the type of products they visited or reviewed.
- Data Mining helps businesses or organizations in enhancing the Customer Relationship Management and in increasing the popularity of a preferred brand according to different regions.



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## 11. Crowdfunding - An Innovative Source of Financing for Startups in India

India has third highest number of startups worldwide in the field of technology followed by U.S and U.K. which secured top two positions. In our country, three to four startups are emerging every day. The major problem of young entrepreneurs in India is to get seed capital in initial days of venture. They generally do not have enough collateral and cash flows in order to get finance through traditional methods. Crowdfunding is emerging as a brand new solution for entrepreneurs and nonprofit organizations to get easy finance based on the model of 'all or nothing and 'keep what you get'. Crowdfunding concept has already become popular in developed countries. It has the power to gain momentum in developing countries like India which is having second largest population in the world. It is emerging as a FinTech solution and largest growing financial industry in this digital and modern era where internet has taken place of all the traditional channels in every field. It can bring a financial and social change in economic development of country. Moreover it can boost the agenda of financial inclusion in India by helping those who does not have money by taking from those who have and need to invest in best possible manner as an investment or to bring a social change in society.

### What is crowdfunding and how does it work?

Crowdfunding is an internet enabled innovative way to raise big amount of funds from large number of people in form of donations or investments through small individual contributions. This is usually carried upon by crowdfunding platforms which present the innovative ideas of entrepreneurs or any particular need of individuals or nonprofit organizations. These platforms charge some commissions in order to place their project over their websites in order to provide them financial assistance from people all over the globe with in time bound manner. Kickstarter is one of the most successful and popular platform on the internet which works worldwide and has raised over \$1 billion for creators till now.

### Categories or Models of Crowdfunding

Generally people invest in any project to receive a rate of return or to provide some financial assistance to needy people without any return in consideration. There are four categories of crowdfunding which is adopted by the entrepreneurs as the structure of the campaign.

#### A) Donation based crowdfunding

In this model of crowdfunding, donations are being invited for campaigns to support social, environmental, charitable, individual and sometimes political causes. Campaigns are generally run by individuals who are in grave need of donation or by nonprofit organizations to work upon their social projects.

#### B) Reward based crowdfunding

Entrepreneurs get finance through this medium at a low cost as compared to traditional methods. This channel of financing even offers marketing research and can predict future possible demand for the project. It can be used as marketing promotion campaign in order to aware potential customers about new improvements or new innovations in products or services which are to be offered.

#### C) Debt crowdfunding

It is also called peer to peer (P2P) lending, peer to business (P2B) lending and business to business (B2B) lending. It allows investors to lend the finance to cater the needs of individuals and business entities for their upcoming or existing projects in order to get interest for their contributions. In India it is governed by the rules and regulations of Reserve Bank of India.

#### D) Equity crowdfunding

This category allows people to invest in projects in order to earn shares of unlisted entities. The rules and regulations regarding equity crowdfunding are different in every country. In India, equity crowdfunding is illegal. No one can raise capital through equity crowdfunding as equity market comes under the preview of Securities Exchange Board of India. SEBI has proposed guidelines for equity crowdfunding but the rules and regulations are not finalized yet.

In nut shell, following are the major features of equity, reward and loan based crowdfunding to get a clear summary of the models.

**Table 1. Characteristics of Models of Crowdfunding**

Crowdfunding model	Reward	Equity	Loan
Form of support	Pre-Purchase	Investment	Loan
Form of Returns	Reward and intangible benefits	Dividend and capital gains	Interest
Importance of social networks	Very high	High	Low
Liquidity	Good	Good	Bad
Suitable for B2B or B2C	B2C	Both	Both
Marketing value	High	Moderate	Low
Control over creative project	Good	Bad	Good
Funder motivation	Desire for reward	Desire for profits	Desire for interest

#### Overview of active crowdfunding platforms in India

There are more than ten crowdfunding platforms in India for raising funds for new innovations, ideas and insights. It also helps to raise finance for needy people, aspirants, artisans, film makers and social workers. Some of them work free of cost or charge commission up to 12% of funds raised for the projects.



**Table 2. List of crowdfunding platforms in India**

<b>Serial No.</b>	<b>Crowdfunding Platform</b>	<b>Projects</b>	<b>Business Model</b>
1.	Milaap	Personal, social and medical causes	Donation based
2.	Ketto	Creative projects	Reward based
3.	Impact Guru	Startups, social enterprises and non-profit organisations	Reward and donation based
4.	Wishberry	Creative projects	Reward based
5.	Fuel a dream	Social causes, creative art and charities	Reward based
6.	Bit Giving	Entrepreneurial, social & creative projects	Donation and reward based
7.	Dream Wallets	Social causes, creative projects and charities	Reward based
8.	Catapoolt	Sports, politics, social enterprises and startups	Donation and reward based
9.	The Hot Start	Creative projects	Reward based
10.	Start 51	Social causes, creative projects and charities	Donation and reward based
11.	Rang De	Micro or low-cost loans	Peer to Peer lending

Though crowdfunding platform is not so popular in India but it has a potential to reach as a best financial solution to young startups that are facing difficulty in raising seed capital for their business ideas. Reward based crowdfunding model is most suitable for young entrepreneurs in Indian context to take a leap in their business ventures.





**CA Manisha Rakhecha**

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## 12. AtamaNirbhar Bharat

### CA in the pandemic world

We live in a world suffering from pandemic which has led to lots of changes- some good and some bad in our lives. Every sector has been affected and every life has been changed. The same applies to CA , their lives and work and also culture all have changed.

We can see lots of messages on LinkedIn and other sites where CAs , semi qualified as well as accountants have been posting about losing jobs and asking help in finding a new one. Really sad to see the way things have come out and really sad to see such attrition.

But let me tell you this pandemic has bought people to come out of their shell as no employer or no company will be willing to keep a person who is not ready to update and who is not functioning. Firms are trying to support their staff in the best possible way but they also want them to support them also. They want them to update, communicate, innovate and be an asset to the firm. None of the firms want to leave staff or not cater to any commitments but you know circumstances from the client as well as from the staff behaviour in this times leads to such things. All should see it from both sides of the coin.

Now comes how can we crack an offer or an interview. As we know that we face difficulty in our communication skills so it becomes more difficult for us. In spite of the knowledge some are not able to get good jobs, some do not get it due to stubbornness, some do not want to change, some do not communicate with the employers, some always crib about the company and its policies, some always compare themselves with others, some want argument on anything and everything, some do not adhere to the promises made. These are some of the examples which affect the worthiness of an employee.

People after clearing any exam thinks he can rule the world and get any job or do any work. Within 3 months reality strikes or after joining a company with good package the work is not according to the requirement, one gets back to reality.



In the coming world, those who have in-depth knowledge and have worked hard during their training period will be able to succeed in future after becoming CA and the ones who have always given excuses and always given unnecessary arguments will lack behind and will be facing reality very soon.

There are certain people who are part of office politics. They enjoy being in it and discussing the same in whatsapp groups. They will not want to work by themselves nor will let others work by always being negative. While very few in fact one or two out of the whole batch will overcome the gossips and succeed and get ranks and will prosper the company's name.

When we were children our parents and teachers used to scold us and make us learn so many things. After becoming CA or during articleship if the mentor says anything to them, the new generation will always crib and feel bad about it. They will never be positive about it. But 1-2 exceptions who take it positively and start from the scratch are the best of the lot and become successful in life and career.

Hence, my advice to my fellow CAs as well as aspirants is that they should always stay positive, always should try to be true to the organisation to which they are connected with. If any differences occur, they should clear it asap with the partners. All firms want long term assets and want to treat all as family. It is saying that "Never Give up...stay Focused stay positive stay strong".

These are my personal views and may differ for others. It has nothing to do with a particular person or client. Please do not take it otherwise.



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### 13. Innovations for creating a sustainable Universal Health model for 1.3 billion Indians

#### Introduction

The sustainability of any Universal Health system relies on timely access to primary health care which includes out-patient visits to doctors, diagnostic tests, and medications. Since independence, Indian policy makers have believed that public primary care facilities will cater to that need. However, even after 73 years, public out-patient services are utilized by only 30% of the patients in both rural and urban settings. The vulnerable population delay seeking healthcare, cannot afford the testing and spend out-of-pocket for their medications. This leads to increased complications with subsequent admission for in-patient treatments. In-patient services are far more expensive and benefit only a few whereas; out-patient services achieve meaningful positive health outcomes and prevent hospitalizations, thereby creating a sustainable Universal Health System.

Successful health systems of the UK, Canada, Australia, and Europe rely on primary health care delivery exclusively by private general physicians who are then publicly funded. An innovative model of a “no choice” public funded health system is proposed to be organized into Local Area Health Networks (LAHN) based on residential pin codes and legislative assembly seats.

There are 158,417 Sub Centers (SC), 25,743 Primary Health Centers (PHC), and 5,624 Community Health Centers (CHC) in India. Of the 11.55 lakh registered allopathic doctors in India, only 10% (1.17 lakh) work in the government sector. Services are also provided by about 8 lakh AYUSH doctors and almost all of them are in the private sector. About 31,641 doctors are available in the CHCs and PHCs. However, the private sector provides 70% of the health services in both urban and rural India.

The Ayushman Bharat Pradhan Mantri Jan Arogya Yojna (AB-PMJAY) scheme benefits about 35.71 crore Indians (27.5% of the population) for in-patient treatment only. Approximately 11.5 crore Indians (8.8%) have a non-government sponsored insurance cover. About 63.7% of Indians (82 crore) still do not have any form of insurance and pay out of pocket.

## Innovation for Universal Health Cover in India

This model proposes for publicly funded out-patient and in-patient services to be delivered by private generalists and hospitals, organized into defined referral pathways based on residential pin codes, tertiary hospitals, and legislative assembly seats.

**Healthcare recipients** can be categorized as Public or Private Patients at the time of service delivery. Private patients are those who would pay for their services by using their private health insurance or out-of-pocket.

Private Patients	Public Patients (Universal Health Cover Beneficiaries)	
<b>Affordable</b>	Vulnerable	Extremely Vulnerable
<b>Can afford their own healthcare through insurance or out-of-pocket</b>	Can afford some but not all costs& not covered by any government schemes	Cannot afford any costs&Government schemes cover only in-patient treatment
<b>20% of population</b>	30-40% of population	40-50% of population
<b>Pay a Medicare surcharge if they do not have insurance</b>	Co-payment of 20% of the bill for any services availed with a yearly cap (safety net)	No co-pay Free medications only from government dispensaries
<b>Want the choice of their own doctor / hospital / room type / time of services</b>	No choice of doctor / hospital – only within their LAHN Time of interventions based on clinical criteria and not choice	

### Structure of the Universal Health Model

Ministry of Health & Family Welfare	State Health Ministry	Wide Area Health Network (WAHN)	Local Area Health Network (LAHN)	System Health Network (SHN)
India	State	Assembly Seat (4,121)	Pin code (19,097)	Super-specialty Hospital
<b>Council of Health Ministers (COHM) on the lines of the GST Council</b>	Ministers Secretaries Managers	Governing Board (MLA, Community & professional representatives)	Public & private clinics Private diagnostic centers Public & private hospitals (secondary services only)	Public & private specialist doctors and facilities for each super-specialty
<b>Ministers Secretaries</b>		Professional manager		
<b>Autonomous Bodies: Medicare India</b>	Autonomous Bodies: State Accreditation Boards	4-5 LAHN per assembly seat	General physicians as gatekeepers	Adjacent LAHN linked to a SAHN for each super-specialty
<b>Independent Health Pricing Authority</b>	Appointment of:Boards of WAHNS			
<b>National Healthcare Standards Commission</b>	Boards of Government Hospitals			

<b>Setting national health service standards</b>	Customization of National standards	Monitoring compliance with standards	Strictly use treatment guidelines	Strictly use treatment guidelines
<b>Creating Diagnosis Related Groups and their respective weights</b>	Accreditation of service providers		Use computer software for all orders & referrals	
<b>Direct payment to out-patient service providers</b>	Reimbursement to public & private hospitals for Public patients	Detection and prevention of misuse of services	Referrals by computer software that matches clinical need with capability, while ensuring equal distribution	Referrals by computer software that matches clinical need with capability, while ensuring equal distribution
<b>Health budget for states</b>	Public hospitals: Activity Based Funding for clinical activities as measured by DRG units			
<b>Monitoring of utilization of out-patient services with reward and penalties</b>	Monitoring & taking action against Boards	Complaints & grievance redressal		

### Projected Cost of the Universal Health Model

The data from the 75<sup>th</sup> Round of NSS Report can be applied for arriving at an estimate of the cost of such a Universal Healthcare Model.

The Total estimated cost for Universal Health care by private providers – Rs. 40,265 crores

- Out-patient Doctors fees – Rs. 7,200 crores
- Out-patient Diagnostic tests fees – Rs. 4,169 crores
- Private hospitals – Rs. 28,896 crores

### Conclusion

In conclusion, Universal Health Cover is possible and sustainable in India with innovations in:

- Inclusion of Out-patient services by private practitioners as a strategy for sustainability as well as for achieving public health care targets
- Service delivery organized into Local Area Health Networks based on residential pin codes
- Clinical and Corporate Governance of the Local Area Health Networks through Wide Area Health Networks based on Legislative Assemblies
- Creation of a Council of Health Ministers on the lines of the GST Council, Medicare India, and an Independent Health Pricing Authority
- Changing healthcare reimbursements to a Prospective Payment System based on the DRG system
- Computer software to drive the equitable distribution of referrals to specialists and hospitals





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## 14. Corporate Governance in the times of COVID 19

Corporate boards are vested with the responsibility to oversee the business and affairs of the company. As a general matter, boards are engaged in policymaking, strategy formulation, monitoring and supervising executive activities, and accountability. It is the corporate board's responsibility and accountability to ensure that a good system of corporate monitoring and control termed as "corporate governance" is in place. The present turbulent external environment due to COVID-19 is something new which brings to light various under mentioned governance risks and challenges, some of them are unique.

### Accounting and Reporting Risks

Accounting risk is the risk of incomplete and inaccurate financial statements of an organization. In COVID 19 times, balance sheets are under enormous pressure, and the possibility of green washing increases tremendously. Companies face significant revenue losses, unexpected costs relating to dedicating resources to ensuring the safety and welfare of their staff, retaining clients etc.

### Asset Risks

Asset risk refers to the risk of misappropriation of assets, defaults, or delayed payments by account receivables, that is, financial non-performance of assets. In particular, investors are keen to see how good are the account receivables and what financial resources - particularly cash resources - are available to a business and what is the value of those resources, to pay salaries or buy raw materials. The company should not bear a shortage of funds that compromise the present short term liquidity position and in future long term operations.

### Failure Risks

In these testing times, the demand and supply situation is quite uncertain. On the demand side, consumers/customers are away from the markets and only in case of extreme necessity they buy. Companies in apparel, cosmetics, toys, auto, and travel industries face serious demand cuts and



some even huge piling inventories. The net realisable value of those inventories is also difficult to estimate. At the same time, businesses face threats on the supply side due to the non-availability of raw material and/or labour.

#### **Liability Risks**

Businesses might face difficulties in meeting their contractual obligations, which could be due to liquidity crunch or high cost of new financing.

#### **Regulatory and Compliance Risks**

Corporate governance is also about compliance and regulatory checks. Companies have various compliance requirements as per Companies Act, SEBI Act and others. In the past three months, ministries and government have provided various relaxations - relating to holding of shareholders meetings, board meetingsetc- wherein delays or non-compliances would not be considered as a violation of corporate governance norms.

#### **Strategic Risks**

Strategic risks refer to the risks that arise due to inadequate strategic management processes adopted by corporate management which leads to poor business decisions, inadequate resource allocation, and inappropriate responses to changes in the business environment. In such a scenario, an adequate contingency plan needs to be in place.

#### **Operational Risks**

Operational risk refers to the risk a business faces in the course of conducting its daily business activities and procedures. For example, the non-availability of raw materials and other supplies as well as labour would stop production. Executive management - executive board especially - needs to proactively act and exercise due diligence and care so that such extreme scenarios are avoided.

#### **Information and Innovation Risks**

Nandan Nilekanirightly pointed out that "If you are a leader, you can put yourself in a cocoon - a good news cocoon". As a result, corporate leaders overlook early warning signals from the external environment. A 2017 Harvard Business Review article endorsed that a leader when doesn't signal a clear line of inquiry, people were more likely to reveal something he didn't even know he was looking for.

#### **Reputational Risks**

A company's management is in the hands of the board of directors. In case stakeholders doubt their ability to manage the affairs of the company in the best interests of stakeholder value creation and anticipate risks in testing times then that could erode the corporate value and reputation.

#### **Cyber Risks**

The risks attached to data protection and security along with cyber-attacks become more paramount while employees accessdata from the remote locations and serve a large number of clients. A good example is the stockbroking firms who managed all stock market activities even in complete lockdown and at the same time served a large number of clients. These risks increase particularly, when an outside vendor is providing software or technological support and has access to your systems, networks, or sensitive information. Addressing cyber risks and putting appropriate controls and checks at all levels of management is a task.



### **Looking ahead**

Board members/directors need to manage these risks rather proactively, as a matter of good corporate governance. The challenge is to strengthen the businesses to be more resilient, sustainable, and responsible ones, while withstanding their corporate vision, mission, values, and the way they operate. Corporate boards must ensure that

- reporting provides forward-looking information specific to the company and an unbiased clear assessment of the viability of the company as a going concern, together with the methods used in that assessment.
- company is managing expenditures and liquidity requirements and in no case, there is a risk of bankruptcy.
- A scenario analysis would be helpful for boards to make a realistic assessment of what scenarios could lead to corporate failure and formulate strategies and take appropriate steps to mitigate the same.
- the impact due to COVID 19 on the business possible sources of new finance is minimised.
- all regulatory and compliance requirements are timely met.
- a strategic contingency plan capable of planning vis a vis potential threats exists and warrant its workable efficacy.
- appropriate cyber security and threat strategies are at place.

Boards need to do more and prepare themselves for a future keeping in line with the preaching of conscious capitalism. Millennial- young innovative executives - should be encouraged to come forward and bring in new ideas and innovations, hold open discussions with other stakeholders, and build a culture of trust and confidence.



**Mr Nomaan Abdul Majeed**

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## 15. New age of Digital Disruptions

\*Corona Virus has disrupted businesses across the world. Global firms need to adapt paradigm shift in business verticals @Industrial revolution 4.0\*

### NEW age of Digital Disruptions

Corona Virus has disrupted businesses across the world. It will never be the same business as usual for coming generation next. Digital transformations are the biggest challenge & opportunity within or without for global firms doing business across various verticals.

E-commerce and online shopping platforms are going to rule the roost. An outcome many didn't realise is the paradigm shift, which makes a whole new era of consumerism in a recession economy.

Digital disruptions are going to create a consumer specific value chain with value for money as the top priority. Early adaptor firms are way ahead in the race, others have just realised to start bicycling.

For the laggards and the brick & mortars, it's a long journey to trek where the cost of technology adaptation and business migration has to be adjusted as the most relevant budgetary spend. Indeed, a tricky situation with falling revenue sales and very little tech budget buffer to address the vacuum.

Edutech, Fintechs, Online Meeting Apps are showing the way forward. The post Corona era is going to drive CHANGE with unforeseen repercussions, if the digital disruptions aren't addressed per se.

Who is going to rock in Industrial revolution era 4.0? By far TECHNOPRENEURS are the optimistic cure in a recession economy. As the US faces highest unemployment figures, the world is witnessing bankruptcy and firm closures, which are going to limit opportunities in the job market.



Technopreneurs from SoHo's will be driving the age of digital disruptions where the new business canvas needs to address triple baseline model of business.

- A. Traditional Trade
- B. Modern Trade
- C. Digital Trade

In doing so, determining target customers with Sales Mix and revenue contributions is going to be a humongous challenge.

Nevertheless, Digital Disruptions are going to show the path -goal approach strategies for CEOs who will have to take a call sooner than later. Technopreneurs are going to be the new CTO's & CEO's in the era of digital disruption.





**Ms Jyoti Damaraju**

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## 16. Research Prospects In Biotechnology For Covid-19

The research in biotechnology has suffered immense loss during COVID 19 outbreak. According to the FDA standards, a drug or medical device should require efficacy and safety and must perform at least just as well as existing alternatives or better and this blocks disruptive innovations. But since the Covid-19 came into the picture, biotech companies are racing to find a cure. The profit motives and regulatory barriers are falling by the wayside due to the pressure of a global pandemic. High levels of risk are being accepted by regulators. For example, the Covid-19 vaccine by Moderna is being tested in human volunteers even before its trial in animals, against the usual order. Under ordinary circumstances, the safety and efficacy of a new drug or medical device need to be assured. But the corona virus pandemic is forcing researchers and investigators to try things and do what they would never do in ordinary circumstances.

The impact of Covid-19 has brought changes in how research is done. The researchers will learn something important during this unfavourable period. They could know if regulators were right and disruptive innovation is wrong or if medical science has advanced far enough to develop treatments and vaccines for new diseases in very less time than normal.

COVID-19 has currently spread to 181 countries and most national authorities have failed to keep its rapid spread contained. To date, the world wide statistics of its reported cases show more than 80% of infected had a mild case of disease, whereas around 14% of infected experienced a severe one, suffering from breathlessness and pneumonia. About 5% are categorized as critical disease patients their symptoms include septic shock, respiratory failure, and the failure of more than one organ. The overall statistics since 5th April, 2020 shows that there are 1197405 confirmed, 64606 deaths, and 243572 recovered cases, overall. Almost all areas of our daily lives have been almost halted, and science has been no exception.

Yet, these changes have benefited some other research activities, particularly in critical areas of biotechnology research. This new and unusual environment could serve as a tremendous opportunity for highly motivated researchers. These unusual circumstances have importantly opened new avenues for biotechnologists to pursue new ideas for discovery such as developing vaccines and monoclonal antibodies, and screening antiviral compounds, such as secondary metabolites and peptides, thereby actively participating in finding solutions to ongoing real-time global human and economic crises. As a result, various leading global biotechnological laboratories



have taken action and started manufacturing a detection kit using the lab on Chip technology, which combines two molecular applications: polymerase chain reaction (PCR) and microarray. These two applications have high specificity and sensitivity to distinguish the COVID-19 strain from the SARS or MERS strains. A 5G remote diagnosis technique is being used to detect infected zones with corona virus outbreak and in faster detection of infected cases. There are three distinct phases for Covid 19 infection and are observed in people who tested positive for this deadly disease.

In Phase I, virus replicates inside the body and likely to cause mild symptoms that may be confused with common cold or flu. In Phase II, host's immune system becomes strongly affected by infection and leads to primarily respiratory symptoms such as persistence cough, shortness of breath and low oxygen levels. Problems with blood clotting are also noted predominant in second phase. In Phase III, immune system becomes hyperactive which causes injury to heart, kidneys and other organs. This phase is called hyper-inflammatory phase where a cytokine storm occurs in which the body attacks its own tissues.

**Convalescent plasma treatment**-In the current situation, antibody-containing plasma from a recovered patient is given by transfusion to a patient who is suffering from COVID-19 infection. The donor antibodies help the patient fight the illness, possibly shortening the length or reducing the severity of the disease. In order to donate blood plasma, the person have to have tested positive for COVID 19, recovered and have no symptoms for 14 days. Blood types of donor and patient must also have to be compatible.

**Antiviral Treatment**- Currently there is no specific antiviral treatment for COVID-19 because viruses reproduce very rapidly. They have plenty of opportunity to mutate (change their genetic information) with each new generation and potentially develop resistance to whatever drugs or vaccines being developed.

However, some antibiotics which are tested effective for other treating other viral diseases such as Ibuprofen, hydroxychloroquine, azithromycin, remdesivir and high doses of Vitamin C (along with thiamine and corticosteroids) being prescribed to the patients suffering with early phase of COVID 19 infection as a preventive measure. Some other inflammation fighting drugs like tocilizumab and sarilumab are being used to help reduce system wide inflammation in Phase I and II. According to the researchers, an anticlotting heparin is important during any stage of the disease to prevent blood clots in blood vessels and capillaries but it is cautioned that there are no drugs proven to treat COVID 19.

As spread of the COVID 19 continues, communities are being asked to reducing close contact between people by social distancing and by self quarantine when the symptoms of the disease shows up in a person. It is important to follow the social distancing norms in a community order to reducing the spread of COVID 19 whether that community is one of the high risk groups or not.



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## **17. Footprints of corona virus pandemic on environment and climate change and improvement in quality of human being**

### **Introduction**

Coronavirus being a pandemic has several unfolds across globe that cause threatens to lives of human being that has opened new avenues in improving the environment especially the air, water quality and carbon emissions, waste, energy and climate change. This article addresses the positive impact of coronavirus pandemic on environment and climate change with case studies of environmental changes in India.

### **Carbon emission due to coronavirus:**

Coronavirus has opened lockdown opportunities that declined the travel of vehicles and greenhouse effect has plunged. Due to lockdown there is decline of air travel which has also effect on the greenhouse gas emissions such as nitrogen and carbon monoxide. The lockdown has created ways of working at home cutting carbon emissions severely thereby leading to create positive impact of environment.

### **Air Quality**

The devastating covid-19 pandemic has significant impact on air quality due to decline in emission of nitrogen dioxide.

### **Case study**

In Delhi's metropolitan area, there is dramatic drop in pollution levels especially the nitrogen dioxide levels from March 25 (the day lockdown started) to May 2 have averaged 90  $\mu\text{mol}/\text{m}^2$  compared to 162  $\mu\text{mol}/\text{m}^2$  from March 1 to March 24. Infact in 2019, the reported NO<sub>2</sub> levels from March 25 to May 2 were also far above this year's levels, which is averaging 158

### **Water Quality**

The lockdown in India has significant impact on the water quality in the nation. The induced and forced lockdown has reported reduction in industrial wastes so leading to improve the quality of the water especially in Ganges and Yamuna. The increase in dissolved oxygen (DO) and reduction in nitrate concentration has improved the quality of water Ganges.



### ***Case study***

The Delhi Pollution Control Committee has submitted a report to Yamuna Monitor Committee that has stated that the quality of Yamuna has drastically improved due to reduction in industrial effluents and human activities.

### **Energy**

### ***Case study***

Indian nation has observed a significant and historic development in the energy consumption which has suffered a 26 percent fall in less than ten days since March 18. Data released today by Power State Operation Corporation (POSOCO), a state-run enterprise under the aegis of the Ministry of Power, reported the Indian Nation's overall energy consumption. It has stated that there is drop from 3,586-Gigawatt Hour (GWh) to 2,652 GWh within several days. At the same the percentage fall in daily energy consumption itself has enormously grown from 15 % to 26 % during short period of time.

Hence, we can say due to the positive impact on air quality, carbon emissions, water quality, decrease in pollution and energy consumption has significant positive impact on climate change. The corona virus pandemic has improved the climatic conditions due to lockdown also. This has led to increase the quality of life of human being and other living beings as well.



**Dr Parul Malik**

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## 18. Influencing Decisions of students for Pursuing B.Tech& Impact on Eco System

### Background:

A study jointly done by Ernst and Young and Associated Chambers of Commerce and Industry (Assocham) shows that based on the number of students graduating in maths and science India outperforms US, Europe and Japan. On these parameter India ranks 17th while US ranks 48, Japan ranks 33 and China 38. Germany heads the list followed by Singapore and France. "The number of science and engineering graduates is an important consideration. There are 690,000 students of science and maths graduating every year - much higher than China, Japan, the US and Europe. The positive trend of number of students apparently indicates level of interest in S&T subjects and career thereof.

(<http://www.oneindia.com/2009/11/05/india-has-more-maths-science-graduates-thanus.html>)

In India, parents decide what their children study in college. While more young people are telling their parents that they want to study economics rather than medicine, because parents pay for college, and because they know better, they continue to call the shots. As a rule, a Bachelor of Technology (B-Tech) degree is prized by most Indian parents, especially for sons. After that, a switch to an MBA degree is seen as a sure step to success, which is almost always measured in terms of pay packages.

### Objectives of the study:

To analyse the reasons for joining B.Tech course among the final year students of B.Tech course in UP & Delhi-NCR

### Research Methodology:

During the COVID 19 outbreak, small questionnaire through google form was sent to 3503 students. We received 780 valid responses.

### Findings:

Lot of students opted B.Tech course largely due to influence (67% in Eastern UP, 31% in Western UP, 24% in Central UP and 13% in Delhi-NCR). Influencing forces primarily include parents, teachers and peers. It also varies with geographical areas. In UP, students are influenced by the parents as



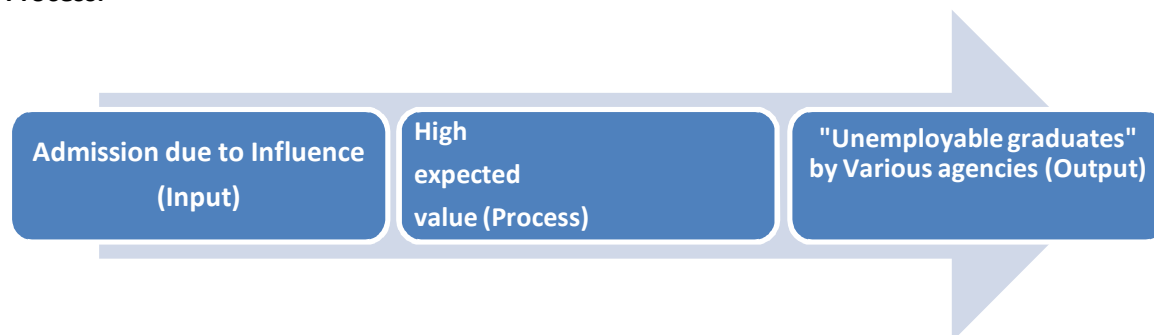
compared to Delhi-NCR where students were more influenced by the peers. This is evident from the data as 81% respondents opted for B.Tech due to influence by the parents in Western UP, 75% in Central UP, 38% in Eastern UP and in 27% Delhi-NCR. Teachers also contribute as a deciding force as 32% respondents were pursuing B.Tech on the advice of teachers in Eastern UP, 10% Central UP, 7% Delhi-NCR and 4 Western UP. 67% students decided to pursue B.Tech because of their peer influence in Delhi-NCR as compared to 30% in Eastern UP, 15% & Central UP and 14% in Western UP. 36% students chose B.Tech as a career option due to their passion in Delhi-NCR as compared to 20% in Western UP, 13% in Central UP and 11% in Eastern UP. Many students in Delhi-NCR (31%) felt that entry in B.Tech was easy due to which they opted for this course followed by a few in Western UP (5%) & Central & Eastern UP (2%). 4. Many respondents felt that B.Tech course led to a better career growth (13% in DelhiNCR, 27% in Western UP, 47% in Central UP and 15% in Eastern UP).

### Private Vs Government Colleges/Universities

25% respondents from government colleges expressed that they took admission in B.Tech due to their passion as compared to 12% respondents in private colleges pursued the course due to their passion. 10% respondents from private colleges said that they had no other choice but to do a B.Tech. 12% students of private colleges felt that the entry to B.Tech course was easy as compared to 4% students of government colleges who differ on this opinion. 10% students from private colleges thought that they had no other choice better choice than B.Tech as a professional course in S&T after studying science as compared to 7% of such opinion from the students of government colleges.

Largely, students did not take decision independently to opt B.Tech. Either parents or teachers or peer had a vital role in the decision making of opting B.Tech.

### Process:



Under policy research, various agencies; government, national & international have been focussing on "Process" (quality of teaching, methodology, teaching aids, faculty publication etc) and "Output" (Employability, progression). The innovative extensive action research may be based on "Input" (influencing decisions of candidates to make them "safe"). This innovative research may be an eye opener for all stake holders to provide better technical, competent, passionate towards science.



**CA. Ajit Sharma**

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## 19. Assessment or Reassessment of Income Under Section 147 of Income Tax Act. 1961

As per Section 147 of the Income Tax Act 1961, The Income Assessing Officer can be assess, reassess the income of the assessee where they have reason to believe that any income chargeable to tax for any assessment year (4, 6 and 16 years, depends on case by case, from the end of relevant assessment year) has escaped assessment. This section is very powerful tool of the Income Tax Department. Moreover The Assessing Officer may tax other income also which has escaped assessment and comes to his notice subsequently during the course of such proceeding under section 147.

But the Income Assessing Officer cannot start proceeding mechanically for assess, reassess of the income of the assessee under this section. The Assessing Officer must have fulfil these conditions before start proceeding under this section 147 as followed –

- 1- The Income Assessing Officer has reason to believe that any income chargeable to tax has escaped assessment for any assessment year after making necessary inquiries.
- 2- The Income Assessing Officer must obtain the approval from the competent authority u/s 151 on such reason to believe. Such competent authority should grant the approval after applying his mind to initiate proceeding u/s 147 via issuing notice u/s 148.
- 3- To issuing notice u/s 148, the Income Assessing Officer must followed the time limit to issuing such notice as per section 149(1).

The proceeding of assessment / reassessment is started with after issued the notice u/s 148. When assessee received such notice they should file Return of Income in compliance of notice u/s 148.



When Income Assessing Officer has received the Return of Income, they issued notice u/s 142(1) and 143(2) and start hearing of the assessee, they asked from the assessee to file documents and evidences supporting to his income declared as per return filed regarding compliance to the notice u/s 148. After providing the appropriate opportunities being heard to the assessee, the Income Assessing Officer passed the Assessment / Reassessment order under section 147 within the time limit as per section 153.

If Assessee did not file the return in compliance to the notice u/s 148, in this case Income Assessing Officer passed the best judgment Assessment / Reassessment order within the time limit as per section 153.

### **Remedies against the order passed u/s 147**

Against the order of proceeding under section 147, assessee can file the appeal before CIT(A) then Income Tax Appellate Tribunal then High Court then Supreme Court or assessee can file the appeal before Commissioner of Income Tax. Assessee can raise the following ground of appeal before Appellate Authorities –

#### **1- Reason to Believe**

For Assessing or Reassessing the income of the assessee the Income Assessing Officer must have reason to believe that income chargeable to tax has escaped assessment and such reason should be communicate to the assessee. The existence of tangible material is the essential to safeguard against an arbitrary exercise of this power. The following may be include in the reason recorded –

- A- Any evidences in the possession of the income Assessing Officer that assessee has understated the income
- B- Any evidences in the possession of the income Assessing Officer that assessee has claimed excessive loss / deduction / allowance / relief / etc.
- C- Mistake which was apparent from record and no other proceeding is possible

There are various benches of Tribunal, High Courts and Supreme decisions in which they clarified that if reason recorded found as borrowed satisfaction, Mechanically, change in opinion, without tangible material etc. it will effected the whole proceedings as null and void.

#### **2- Service of Notices**

Before making the assessment / reassessment under section 147 , the Income Assessing Officer shall serve notice on the assessee under section 148 . Notice issued should be in the name of assessee , at correct address ( as per IT records ) within in time limit prescribed under section 149(1) and it should be issued from the jurisdiction. Before issuing notice u/s 148, the Income Assessing Officer must have received approval from the competent authority in which such competent authority grant approval after applying his mind.

One other notice under section 143(2) is also required to issue within time limit for complete the Assessment / Reassessment proceedings under section 147.



There are various benches of Tribunal, High Courts and Supreme decision in which they clarified that if default found in servicing of notice under section 148 and 143(2) it will effected the whole proceedings as null and void.

### **3- Opportunity being heard**

Opportunity of the being heard is one of the principal of natural Justice. After analysis of the documents, evidences and submissions of the Assessee the assessing office may reach at the conclusion of the proceedings. The Income Assessing Officer is duty bound to given one opportunity to the assessee for being heard before making addition of income. For this the Assessing Officer may issue the show cause notice to the assessee subjected that “Why this income should not be included in your Income”.

Here are also the various benches of Tribunal, High Courts and Supreme decision in which they decided that if Assessing office not given a opportunity being heard to the assessee before taking any adverse action / addition of income it will resulted the proceeding not as per the law.

### **4- Writ Petition before High Court against the initiation of proceeding under section 147**

Assessee can also file appeal before High Court through writ petition against the initiating proceedings of assessment / reassessment under section 147. Once the assessee file the return of income before Assessing Officer in response to the notice of section 148 they should ask before Assessing Officer to produce the reason to believe. Assessee should be file his objection before Assessing Officer against the such reason to believe and if Assessing Officer reject such objection of assessee then Assessee can challenge the Assessment / Reassessment under section 147 through the filling of writ petition before jurisdiction High Court. If High Court satisfied on the grounds of assessee they may be pass the order on validity of proceeding under section 147.



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*She was a Joint Coordinator, for developing the content of 'TOURISM' paper. She acted as a Paper Coordinator for 'Accounting for Managerial Decisions' in MOOCs, an E-Portal for distance learning. She has presented 10 papers in various National level seminars/ Conferences and has published 16 Articles in leading National/International Journals. She has authored 10 books for MBA & B. Com [H] Program.*

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## 20. Higher Experience equips Managers to endure & brave Organizational Challenges

### Introduction

Success of every type of Business depends greatly on Risk takers, who mostly fall in the young and the dynamic category of Managers. However, for ensuring proper functioning of a successful enterprise, employers need established and experienced Managers, who can maintain a balance between need for risk taking and playing safe. As a result of their experience, these Managers master the art of navigating office politics, handling bureaucratic processes, bringing about team building and acquiring management expertise & understanding varied work cultures. Over a period of time, the Managers become experts and develop better Communication styles, build more credibility, improve their personality and become more emotionally intelligent. This article explores various stated dimensions of more experienced managers as compared to less experienced managers. Decision making is studied as a consequent variable, which is affected by personal variables such as communication styles, credibility, personality, emotional intelligence and by intermediate variable namely work culture of the organization. A study of managers both from Government sector, PSUs & Private Organizations has been undertaken. The aim of this research is to find out how and in what manner, the more experienced managers differ from the less experienced managers in organizations.



### Objectives of the Study

- To make a comparison between more experienced & less experienced managers
- To assess the relationship of Communication and Credibility with each dimension of Decision-making.
- To assess the relationship of Emotional Intelligences (EQ) and Personality with each dimension of Decision-making.
- To assess the relationship of various dimensions of work-culture with dimensions of Decision-making.

### METHODOLOGY

75 respondents, from each category of more & less experienced managers, from Government, PSUs & Private Sectors, were studied, by using interview & Questionnaire method. The Managers with more than 15 years experience are considered as higher experience Managers

### Tools Used & Statistical Treatment of the Data

- t-tests
- Mean
- Standard Deviation

### RESULTS & INTERPRETATION

#### Comparison between More Experienced and Less Experienced Managers with respect to Communication Styles

Communication Styles	More Experienced Managers		Less Experienced Managers		t-Value
	Mean	SD	Mean	SD	
(i) Careful Transmitter	23.25	6.08	21.66	4.59	<b>1.822</b>
(ii) Open & Two way	20.23	4.41	19.66	3.79	0.843
(iii) Careful Listener	11.10	2.30	10.76	2.63	0.803
(iv) Informal	18.78	4.07	17.47	4.19	<b>1.887</b>
(v) Frank	20.71	5.31	21.14	4.60	0.515
(vi) Brief & Concise	17.57	3.48	17.95	3.06	0.700

#### On comparison, it was observed that

- More experienced Managers were better careful transmitters, careful Listeners, open & adopted two way and informal Communication.
- The less experienced Managers were more Frank, Brief and concise Communicators.
- The Managers during initial years of their job are more frank, brief and concise.
- On other dimensions, no significant difference was observed.

### Comparison between More Experienced and Less Experienced Managers with respect to Credibility

Credibility	More Experienced Managers		Less Experienced Managers		t-Value
	Mean	SD	Mean	SD	
(i) Trustworthy	42.44	7.99	38.58	7.13	<b>3.811**</b>
(ii) Informative	52.57	10.25	46.22	10.46	<b>3.661**</b>
(iii) Dynamism	35.80	5.36	34.64	6.54	1.135

\*\* p< .01

- The more experienced Managers appeared more Trustworthy & Informative.
- On the dimension of Dynamism, the two were almost the same being
- Higher experience Managers were more trustworthy & more informative.
- At all levels of experience, the dynamism does not vary too much.

### Comparison between More Experienced and Less Experienced Managers with respect to Personality

Personality	More Experienced Managers		Less Experienced Managers		t-Value
	Mean	SD	Mean	SD	
(i) Critical Parent	28.20	4.80	27.59	9.83	0.439
(ii) Nurturing Parent	30.35	5.09	27.73	5.76	<b>2.849**</b>
(iii) Adult	29.55	5.21	28.66	4.53	1.106
(iv) Free Child	34.56	5.34	32.41	4.56	<b>2.639**</b>
(v) Adaptive Child	47.40	6.86	49.58	6.88	1.898

\*\* p< .01

- The more experienced Managers were better Critical Parent, Nurturing Parent, Adult & Free Child
- Older Managers adopted Parent ego/Nurturing parent whereas, younger ones were more Free Child & Adaptive Child.

### Comparison between More Experienced and Less Experienced Managers with respect to Emotional Intelligence

	More Experienced Managers		Less Experienced Managers		t-Value
	Mean	SD	Mean	SD	
Emotional Intelligence	175.76	65.13	149.58	53.54	<b>2.683**</b>

\*\* p< .01

- Managers with higher experience have a higher Emotional Intelligence as compared to younger Managers

### Comparison between More Experienced and Less Experienced Managers with respect to Work Culture

Work	Culture	More Experienced		Less Experienced		t-Value
		Mean	SD	Mean	SD	
(i) Power	Existing	41.66	8.38	42.19	6.68	0.427
	Preferred	34.32	7.47	33.90	7.07	0.348
(ii) Role	Existing	38.33	5.36	37.86	5.98	0.484
	Preferred	37.82	5.88	38.95	5.85	1.149
(iii) Achievement	Existing	36.08	5.67	36.27	5.51	0.209
	Preferred	41.81	7.03	39.78	5.54	<b>1.971*</b>
(iv) Support	Existing	35.44	6.99	34.00	4.73	1.504
	Preferred	38.47	6.85	38.14	6.05	0.316

\*  $p < .05$

- The Achievement drive in case of more experienced Managers is greater as compared less experienced Managers
- On all other dimensions, there was no significant difference.

### Conclusions for H.R. Intervention

- It is recommended to retain people with more experience as these managers were found to be more trustworthy, informative & dynamic.
- Senior level managers would be better choice for taking critical decisions, due to higher Emotional Intelligence.
- HR could divide task force in different levels and genders and then handle them based on the EQ level and personality outcomes.
- For capable Managers, Golden Handcuff scheme could be introduced.
- For Risk Decisions & dynamic work, younger Managers are more suitable

### Limitations of the Study

- The total sample size was too small
- The study was confined to Delhi based companies
- More Organizations could be selected.
- The distribution between Government PSU(s), Private sectors and Educational Institutions was not equal.
- The Questionnaires might not have tapped all diversion of the chosen variables
- The study did not consider the educational and cultural background of the managers.



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## 21. The Path to a Self-Reliant India

### Abstract

As India fights Covid-19 pandemic, the nation recognises the need for being self-reliant. Today, India is one of the fastest growing nations in the world. A condition like pandemic brings out the problem of being highly dependent on other countries. Dealing with the fight against corona virus and the economic fallout that will follow is more difficult because of this dependence. Atmanirbar Bharat scheme implemented by the government is of the view that it is important that a country becomes self-reliant.

The paper has followed descriptive approach. It describes the Atmanirbar Bharat scheme and its several aspects. The paper analyses the path towards achieving the goal of being self-reliant. It also deals with innovative ideas for making India self-reliant.

Key words: India, Self-reliant, Innovation, Growth.

### introduction

Achieving sustainable and inclusive growth is important for all countries. However, it is also important that continuous innovation happens in the economy. When innovation happens within an economy it will be better equipped to fight and cope up with the ever-changing world and unforeseen crisis. A country like India which has the second largest population in the world has the brains to produce 'n' number of ideas that can reform and change the economy. Without depending on other countries, Abdul Kalam's and Aryabhata's India can produce ideas that can transform the economy in several ways.

The initiative "Aatmanirbar Bharat" tries to bring out more dependence on local ideas. Moving towards this self-reliance is a slow process. Such an effort will transform our educational system, health care, governance, policy formulation, trade relations etc. Only if such a transformation happens will India be able to continue to achieve high growth and development.

### Policies of The Past

Before the colonisation phase in India, there was abundance of resources. When Britishers came to India, their main aim was to loot the country and exploit these resources. This colonial exploitation turned India into a mere exporter of raw materials. Post-independence, the government aimed at achieving high growth. The policy makers adopted a protectionist policy. This led to policies where



the rupee was inconvertible, high tariffs and import licensing were implemented, requirement of licences to invest in the country etc. (Kulkarni, 2020).

In 1991, the foreign reserves of the country almost ran out. This BOP crisis led to a change in the policy regime. The focus was shifted to liberalisation, globalisation and privatisation. India opened its economy to the world (Paramjeet Kaur, 2007). Opening up the economy has helped India to transform from being a colony to one of the fastest growing country in the world (Kulkarni, 2020).

Government has implemented schemes that help India be more self-reliant in the past too. On 25 September 2014, government launched 'Make in India' initiative. The scheme focuses on encouraging businesses around the world to manufacture in India. Transforming India into a production hub is being made a reality through this scheme. (Kumari & Bagh, 2020). Another scheme is The Start-up India campaign which was started on 15th august, 2015. The aim of this campaign is to encourage entrepreneurship. Several tax exemptions, credit guarantee, funding support etc. are given to start ups. Such financial support helps these low capital firms to succeed (B. Vijayalakshmi & M. Jayalakshmi, 2020).

#### **Atmanirbar India**

The corona virus pandemic that emerged in 2020 and the economic recession that is likely to follow has brought several changes in approach towards economic policy making. Honourable Prime Minister Shri Narendra Modi announced a package of Rs 20 lakh crore for the Self-Reliant India Movement on 12<sup>th</sup> May 2020. The amount is equivalent to 10% of India's GDP. The five pillars of Atmanirbhar Bharat are Economy, Infrastructure, System, Vibrant Demography and Demand. "Vocal for Local" is the tagline of the scheme. The initiative follows the idea "swaraj in ideas" given by Kalidas Chandra Bhattacharya. However, it is not protectionist in nature. (Aatma Nirbhar Bharat Abhiyaan, 2020).

The current reforms focus on MGNREGS, Public Health, Technology Driven Education, Ease of Doing Business, State level reforms and Public Sector Enterprise Policy. Reforms try to expand the employment base through MGNREGS for the migrant workers. More privatisation is aimed in the Public sector. The government has increased borrowing limits of States from 3% to 5% for the year 2020-21 (Aatma Nirbhar Bharat Abhiyaan, 2020).

The pandemic has made India realise the importance of spending in health sector. Currently, the government spending in health sector is only 1.5% of the total GDP. The health care facilities available currently makes it difficult for India to deal with an outbreak like this (S. Mahendra Dev & Rajeswari Sengupta, 2020). Thus, the package focuses on improving the health care facilities available in the country. Investing in grass root health institutions is seen as the need of the hour. Increased research will also be encouraged as per the scheme (Aatma Nirbhar Bharat Abhiyaan, 2020).

The scheme will strengthen the domestic industries. It will act as a method of reviving and boosting the craftsmanship and indigenous industries of the economy. As a result of increased incentivisation more entrepreneurs are bound to emerge. Increased competitiveness of domestic firms will help India become a more important part in the global supply chain. Thus, the initiative can help India widen the role it plays in the global economy.

Some criticise the scheme. They consider that the package announced is too low for the changes that the scheme aims to achieve in the next few years. Some criticise that the scheme is just a





different version of Make in India. In spite of these limitations the scheme can achieve the goal of self-reliant India, if implemented and executed in a systematic and planned manner.

### **The Path to Self-Reliant India**

For India to be Atmanirbhar Bharat, there are several things other than these reforms that can be implemented. Some of these are listed as follows.

- Empowering people is the key to self-reliance. The less affluent section of the economy should be given focus. The GDP growth should reach people. If it reaches the lowest strata of society in the form of income, then it will help in the upliftment of the society.
- The schemes like 'Start-up India' and 'Make in India' should continue. But more focus should be given to encourage the women to move to entrepreneurship. This will not only empower them but also will help utilise their talents which otherwise would be wasted inside the four walls of house.
- Lack of proper infrastructure facilities, constant power failures, glitch in communication systems etc. make it difficult for businesses to operate in the country. Improvement of all these will be beneficial for businesses and start-ups.
- Ensuring that job creation happens more than job destruction is important, especially after the pandemic due to which unemployment rate has spiked. For this growth achieved should be inclusive in nature.
- The post-pandemic world can open up opportunities where the global production shifts to India. Such opportunities must be effectively utilised. Through policy formulation taking advantage of these opportunities can be encouraged and supported.
- The Indian economy is highly dependent on agriculture and related activities. This makes development of this sector important for self-reliant future India. However, the uncertainty associated with weather forecasts, crop prices, crop failures, demand etc. makes it difficult for farmers to expand and grow their farming. Capital investment in the sector should be encouraged. Making agriculture capital intensive, improvement of weather forecast system, bringing in new technology and cropping methods etc. can reduce crop failures. Such modern systems will help the agriculture sector grow to the level of developed countries.
- The capability of domestic firms to compete globally should be improved. To make it more competitive, firms has to provide quality goods and services at reasonable price. For the reduction in price and improved quality, research and development are necessary. Another method could be taking advantage of economies of scale. For this the business should be expanded. Financial and technical support to do this can be provided.

### **Conclusion**

Being self-reliant is the utmost need of the hour for India. Dealing with economic recessions, health crisis like Covid-19, wars, trade wars, climatic changes etc. requires a self-reliant approach. This is a goal that India has to achieve. Atmanirbar Bharat scheme is a step towards this goal. The scheme comes with its own strengths and weaknesses. Overcoming the weaknesses and improvement of the strengths will help India become self-reliant. Proper planning and implementation of the scheme is also necessary. However, care should be taken so that India stays in the global market of trade and capital.



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## 22. Strengthening 'Aatma Nirbhar Bharat' through Rural Shopkeepers and Deals Dukaann

### Background

Rural India consists of 850+ million people from different backgrounds, profiles, cultures, and regions. It has over 200+ million households and a large chunk of it is aspiring middle-class which is conscious of developments taking place around him.

Rural India has always attracted companies because of its size but only a handful could penetrate given several variables like culture, language, traditions, geography, society, infrastructure, supporting agencies (ecosystem), etc. One of the biggest hurdles being faced by companies in penetrating rural areas is the absence of a tool that connects them directly with their target customers or group. Most of the companies advertise heavily on television, newspapers, and radio while entering rural areas. These tools of mass-communication don't provide specific outreach to the target audience. Also, mass-communication tools are generally expensive without any measurable output.

In recent times, due to affordable 4G internet data and smartphones, many companies opted for digital marketing to penetrate rural markets. Digital marketing while being cheaper than the available alternative still couldn't fetch the required results due to less digital literacy in rural areas.

On the other hand, shopkeepers in rural areas wanting to serve the growing demand of their customers but unable to do so as most of them don't have enough capital for investment. Many shopkeepers in rural parts are shutting down their businesses and migrating to cities in the hope of better livelihood opportunities.

As explained above, the problem exists at both the ends of spectrum whereas the companies are unable to connect with their target groups in rural areas while shopkeepers in rural areas are not being able to earn more due to investment and other constraints.

### Deals Dukaann

To solve above an innovative startup named Deals Dukaann has recently initiated its operations. Deals Dukaann is building a network of rural shopkeepers of various sorts (grocery, stationery, snacks, café, salon, etc.) over an android app. The business model has 3 major stakeholders:



1. Client – Companies which partners with Deals Dukaann for promoting their products/services among their target group and generate details of interested prospects
2. Shopkeepers – They work as a bridge between Client and Target Group. They market the client's product/service/deal among their customers and network. They are also incentivized for collecting details of prospects as per the client's requirement
3. Prospect – They are the Target Group of Client and interested in exploring more about new offer/deal/product/service

### **How Does it work**

Client partners with Deals Dukaann and provide the details of its product/service to be promoted in rural along with details of the target group including age, income, gender, profession, etc. The same details get uploaded on Deals Dukaann app and become visible to all the shopkeepers. A shopkeeper after carefully reviewing details of the target group of a client, start promoting the product/service among the relevant section of their customers. The shopkeeper also collects details of interested persons and submits on the app for which he gets incentivized by Deals Dukaann. Further, Deals Dukaann's team verifies the collected information and forwards it to the client who is charged only for the details of prospects.

This entire process simplifies Rural Marketing for a company that is being able to promote the product free of cost and charged only for the details of a prospect. On the other side, shopkeepers increase his earnings and provide his existing customers with more products/services without any capital investment.

### **Impact**

Deals Dukaann ensures increased income for a rural shopkeeper by 5 to 30% and without any additional investment. This also strengthens "Aatma Nirbhar Bharat" by providing Indian companies with the most affordable way to enter the rural market and increase revenues. Deals Dukaann is also supporting 'Vocal for Local' through its innovative and thoughtful business model.



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## 23. INNOVATION: - WEALTH GENERATED FROM DE-OILED RICE BRAN

In general, 100 tons of rice bran yields around 17-20 tons of rice bran oil.

The leftover cake after de-oiling the bran, is known as DORB and used as animal feed, fetching very little money.

There is about 17-20% of rice bran oil which is being extracted from rice bran but leftover cake after de-oiling is only used as animal feed fetching very little benefit to the farmers.

SSP, at its Innovation Centre, developed a process by which valuable products like rice bran protein, silicic acid and alcohol can be produced from the de-oiled rice bran (DORB).

- a) **Rice bran protein** is the best quality protein available for easy digestion and can be consumed by people of all ages from a baby to the old octogenarian.
- b) **Silicic acid** is used for plant growth as well as for pharmaceutical purposes and has a good market potential
- c) **Ethyl alcohol** can be used as Bio-Ethanol, a renewable source of energy.
- d) **Fiber** can be used as a cattle feed.

As per calculation at present

- i) For a 100 TPD DORB handling plant, payback period is within 1.5 to 2 years.
- ii) The project produces about 25 KL of ethyl alcohol every day, or 80 lakhs litres per annum of bio-ethanol which will contribute significantly to the ethanol blending requirement of 10 % in our country. The project will save precious foreign exchanges and boost our economy and ecology.
- iii) This project will generate employment for about 1000 – 1200 person in the chain and will add a good extra income for paddy farmers.

## USES OF SILICIC ACID AND/OR ORTHOSILICIC ACID

Silicic Acid and/or Orthosilicic Acid has many uses but it mainly in plant growth, in pharmaceutical and beauty product.

- i. **Plant Uses:** It's accelerate plant by promoting larger root system, larger leaf surface with higher chlorophyll. It is bio stimulant, a fertilizer as well as plant protector and finally increases the yield of various crops.
- ii. **Pharmaceutical Uses:**
  - a. Silicic Acid inhibits inflammatory process as it's excellently suited to absorb water and results in drainage of inflammatory secretions.
  - b. Silicic Acid is of utmost important to structure of the connecting tissues and increases the moisture of the tissues. It help to reduce osteoporosis and ensures a regulated transport of nutrient from the blood vessels to the cells.
  - c. Its helps in treatment of skin disease like repair of wounds, skin inflammation, insect bites, itching and acne.
- iii. **Beauty Treatment:** Strong healthy connective tissues are the prerequisite for taut skin, strong hair and firm fingernails. Silicic Acid strengthens the connective tissue, regulates the moisture reserve and supports formation of collagen. It is the foundation for beautiful skin, hair and nails.

Silicon has been used against wrinkled and dry old age skin as silicon plays an important role in the context of the connective tissue as if silicon is missing there, the skin becomes weak, unstable and lose elasticity.

## PROJECT OUTPUT & RETURN OF INVESTMENT

Product	10 TPD	50 TPD	100 TPD
Protein (71% purity)	1 TPD	5 TPD	10 TPD
Silicic Acid	0.4 TPD	2 TPD	4 TPD
Alcohol	2.5-3 KLPD	12.5-15 KLPD	25-30 KLPD
Fiber + Protein + Salt	4.6 TPD	23 TPD	46 TPD
<b>ROI</b>	<b>1127 Days</b>	<b>485 Days</b>	<b>360 Days</b>

Ecologically sustainable and economically viable projects with very good ROI.





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## 24. Prospects and role of collaborative robots (cobots) in Indian SMEs and post covid era

### Introduction

India as a Nation has people with diversified expert skill sets, availability of varied and huge natural resources, and ample opportunities, depending on the geographical region, socio-economic profile and strong business environment where SMEs contribute enormously for the growth of the Indian Nation. Micro, Small and Medium Enterprises (MSME) sector has emerged as a highly vibrant and dynamic sector of the Indian economy over the past five decades. India as a country has huge market potential for Industry 4.0 especially the collaborative robots (called as cobots) and can contribute enormously for the Nation's economy. India has seen proven record of implementation of cobots in SMEs through various regional and National level initiatives by MSME and Government of India. India now ranks 63 out of 190 nations in Ease of doing business. India is on the threshold of major reforms and is poised to become the third-largest economy of the world by 2030. MSMEs play a Pivotal role in the economic and social development of the country generating the highest employment growth as well as accounting for a major share of industrial production and exports.

The Indian economy is likely to emerge as one of the leading economies in the world, with an envisioned GDP of USD five trillion economy by 2024. Our vision is to ensure that at least a contribution worth USD two trillion come from MSME sector. To accomplish this, M/o MSME has taken many steps during the year for technology advancement, skill development and job creation for empowerment of MSMEs.

### Cobots in Smart manufacturing

The challenges in the conventional manufacturing systems are precession, accuracy, connectivity of equipment, security of data. The inventory management and real time monitoring of equipment and maintenance are also of major concerns. The advent of fourth industrial revolution has provided tremendous opportunities for cobots for manufacturing system. The manufacturing system has changed from conventional system to smart manufacturing system with the birth of essential technologies of industry 4.0 such as Internet of Things (IoT), Artificial learning, Virtual Reality and Augmented reality, drones, machine learning and edge computing. The cobots play a pivotal role by transforming the existing manufacturing system to smart manufacturing systems. The present article gives a blue print of the cobots technology and success stories of implementation of cobots in SME through case studies.



Cobots differ from traditional industrial robots as far as the safety is concerned. The other factors are short return of investments, shared workspace and payloads. They help reduces the downtime so the machine efficiency is improved and shared the workspace with human workforce. Cobots are safe to use and affordable and can be easily integrated with onboard computers and IoT devices. Cobots are able to perform difficult task by means of flexible approach. Cobots are easy to move around having 360 degrees of freedom and easily deployable in existing system without changing the layout of the shop floor. Cobots finds application is packaging and palletizing, painting, coating, dipping, finishing, machine tending, material handling, visual tasks and assembly. Cobots are the boost engine for Make in India initiative. Cobots are going to reboost, rebuild, reinvent the existing manufacturing systems because of its flexible technology.

**Case study I: New Engineering Works, Jamshedpur, Jharkhand** being a SME established in 1996 are pioneers in manufacturing of hydraulic, pneumatic, engine and brake components for commercial vehicles especially for automotive players such as Tata Motors, Ashok Leyland and Brakes India. The increase in demand for hydraulic and other components has made them to shift to cobots in the shop floor and by installing 6 cobots in the production line the company has witnessed increase in their production by 40% and increase the workload 24X7.

**Case study II: Craft and Teknik Industries, Pune** manufacturers of automotive components deployed cobots for automatic testing and CNC machine tending found 15-20% increase in production and also aiming for 30% increase in production.

**Case III: SME Textile Machinery Pvt., Ahmedabad** being in the textile machine business manufacturing more than 6 decades since 1958. In order to adapt to latest technologies and challenges the competitive market SME has implemented cobots and witnessed 300% increase in production of machineries.

### **Covid-19 and Cobotstechnology**

The advents of cobots are certainly going to transform the challenges of covid-19 to enormous opportunities in the manufacturing systems. The pandemic has drawn road map for transformation of existing systems to rebuild new system through social distancing which paved the way for the implementation of cobots. The future lies of e-smart factories with the deployment of technological tools of industry 4.0 especially the cobots. The cobots are going to increase the job opportunities through reskilling and upskilling of manpower through various training programs organized by several Government of India organization like National Productivity Council, Ministry of Commerce & Industry, Quality Council of India and industry associations like PHD Chamber of Commerce & Industry, Confederation of Indian Industries, ASSOCHAM.



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## 25. Technological trends: During and aftermath COVID-19 pandemic

### Introduction

We are facing a global health crisis. The coronavirus disease (COVID-19), which has been characterized as a pandemic by the World Health Organization (WHO), is attacking the world at their core. Almost every country across the globe tended to lock-down to “flatten the curve” of the infection. These lock-downs resulted in millions of citizens to stay in their homes, ceasing almost every social and economic activity.

However, some countries lifted lock-downs to gradually restart their economies, the pandemic has promoted remote-working along with the focus on evaluating the end-to-end value chain of each sector. During these sensitive situations, various technology trends are crucially helping societies and economies functional and these technology trends may have a long-lasting impact beyond COVID-19 pandemic. Some brilliant technology trends are helping us to build a resilient society renovating the way we seek medical services, the way we do business, the way we work, the way we trade, the way we manufacture, the way we learn and the way we entertain ourselves.

### Remote Healthcare

Remote healthcare is an effective way to slow down the spread of COVID-19 while providing essential primary care. Wearable IoT devices can track vital signs while Chatbots can prescribe initial diagnoses based on the symptoms identified by patients. However, it is crucial to ensure that Remote healthcare will be covered by health insurance in the countries that have high medical cost. Remote healthcare requires a good internet connection as well as a certain level of tech knowledge to operate. Generally, doctors can only provide medical care to patients who live in a similar jurisdiction due to medical services being one of the most heavily regulated businesses. At the time the regulations were written they may not have been envisioned a future where Remote healthcare would be available.

### Remote Work and learning

Many companies tend to ask their employees to work from home. Remote work would have been possible because of many technologies, for example, VoIP (Voice-over-Internet Protocols), VPNs



(Virtual Private Networks), Video-conferencing, Cloud-based technologies, Work collaboration tools and even Facial recognition technologies that make it possible for a person to appear before a virtual background to preserve the privacy of the home. For restricting the spread of viruses, remote work became time-saver and flexible. However, remote work also makes challenges for employers and employees, for example, privacy, timely tech support and information security could be big factors, as seen by recent actions filed against Zoom. Remote work could also affect labour law issues, such as those associated with facilitating a risk-free work environment as well as income tax issues. Employees may experience lack of work-life balance. During the third week of April due to COVID-19 pandemic, 191 countries declared the closure of schools and universities. This impacted 1.57 billion students. Several institutions started to use remote learning to continue the flow of education system during the pandemic. Remote learning and remote work include similar technologies. Remote learning additionally includes technologies like Virtual Reality (VR), Augmented Reality (AR), 3D-printing and artificial-intelligence-enabled robot teachers. Although, unavailability of good internet access in some places is still a concern that remote learning method may be facing. Remote learning might economically pressurise parents as well as single working mothers, who may face less productivity at work due to staying at home to watch their children alongside.

#### **E-Shopping, E-payments & Delivery Robots**

In 2002, SARS outbreak boosted business-to-business and business-to-consumer online marketplace platforms; COVID-19 took its necessity to the peak around the world. Several restaurants and other companies in the US and China are using contactless delivery robots to drop-off and pick-up goods. Chinese e-commerce companies are also increasing the development of delivery robots. However, before delivery robots become popular, all these companies must establish clear protocols for ensuring good sanitary conditions of the delivering goods related process.

E-payments are either performed using smart-cards or e-wallets, helping avoiding physical contact with a person. Due to COVID-19 outbreak, E-payments have suddenly become recommended monetary transaction method for avoiding the spread of COVID-19. Although some factors create limitations of e-payments for example, internet availability, devices and a network for converting cash into a digitalized format, as well as there, are expected to be more than 1.7 billion people with no bank account in many countries, according to the world bank.

#### **Supply chain evolution**

The global supply chain has severely affected due to COVID-19 outbreak. Some firms are completely shut down due to the spread of the virus and lock-down in many countries. Some countries stopped the exports of certain goods, for the sake of sufficient food and personal protection equipment. Relying on paper-based work, lack of visibility, diversity and flexibility have made supply chain weaker to face this pandemic. Major technologies of the Industry 4.0 for example, Artificial Intelligence, Big Data, Internet-of-Things, cloud computing and blockchain are creating evolution in supply chain management system through increasing data accuracy and data sharing encouragement. In 2017, the World Economic Forum established the Centre for the Fourth Industrial Revolution Network to make sure that the new technologies will help humanity in the future.

COVID-19 has shown the necessity of digital readiness, which allows societies and economies to continue as usual during pandemics. According to the BBC, approximately 200 million people will be losing their jobs due to COVID-19. Pandemics and digitalization have changed availability of jobs for humans. Not just an attention but also a human-centred and timely solution would mitigate the effect on the bigger workforce and issues across all countries and industries around the world.



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## 26. AatmaNirbhar Bharat - Growth and Development Opportunities

“You don't have to worry about burning bridges, if you're building your own.”

-Kerry E. Wagner

2020 has witnessed a turning point in world's economy with the discovery of eerie virus named “CORONA VIRUS” from world's largest manufacturing hub – China.

On March 24, 2020, GoI announced nationwide lockdown that led to shutting of manufacturing units, service sector, and other industries. Nearly after 2.5 months, the country's growth engine is about to re-start with unlock 1.0 and GoI came up with a fiscal stimulus consolidated package of Rs. 20 lac crore in order to make India “AATMA NIRBHAR BHARAT”.

Now, the question is ‘What additional measures should be taken to support the package and lead India towards self-reliance?’

The pandemic has brutally affected the economy being evident from Q4 GDP data and April 20 IIP data, the economy has contracted and expected to contract further in the coming quarters. We need to think from 360o perspective for GDP growth retrieval and boost the four components of GDP: personal consumption, business investment, government expenditure and net exports.





### **Boosting Consumer Confidence and supply chain: Demand and supply shocks**

Due to the lockdown, economy is facing severe demand and supply shocks. To turn 'Aatmanirbharbharat' into an opportunity, generation of employment is of utmost importance. Government should take initiatives to improve the skillset of the working force/ currently unemployed through enablement of digital platforms. States like Bihar, UP, West Bengal and Karnataka are witnessing large number of labourers returning home leading to lost spending power among this section of the society. Recently, Ultratech Cement got Environment Ministry's permission for a Rs 2500 crore project in Andhra Pradesh, which will involve setting up of an integrated cement plant. Such projects should be encouraged which generate employment for workers and boost consumer confidence and ultimately, demand.

To tackle supply side shocks in the economy, self-reliant supply logistics platforms can be formed if tech-abundant Indian aggregators come together to ensure faster and wider reach. Now a days, logistics use tracking system for locating their deliveries. Such practices should be encouraged. During nationwide lockdown, supply chains have been badly affected. But, both of us believe that these are short term hurdles because supply of goods and major services like aviation, hospitality and transport of goods have been halted temporarily to curb coronavirus spread. As the economy resumes its regular operations, supply chain will again come back to normal functioning.

### **Government expenditure: MSMEs**

The AatmaNirbhar Bharat Abhiyan can be inferred as the advanced version of 'Make in India' for MSMEs. The Government has created a fund with a corpus of Rs.50000 crores for MSMEs to aid their expansion and growth. MSMEs and startups in India have faced heavy competition from the foreign companies. Therefore, government steps like collateral free loans, equity infusion for MSMEs, revising the MSME definition will help them to survive COVID and ultimately make these enterprises more capable and competent.

### **Digitalisation: Technology Driven India**

Due to persistency of Covid-19 and lockdown, the need to facilitate Digitalisation must be identified and the economy must adapt to move towards technology driven world. Implementation of health and education technologies can be recognised as opportunities. Recently, India has started using digital health technologies like the AarogyaSetu app and platforms like the National eHealth Authority (NeHA) framework. The transition towards the virtual workspace will increase demand for digital synchronisation, video meetings facilitation and even enabling e-classrooms for schools and colleges.

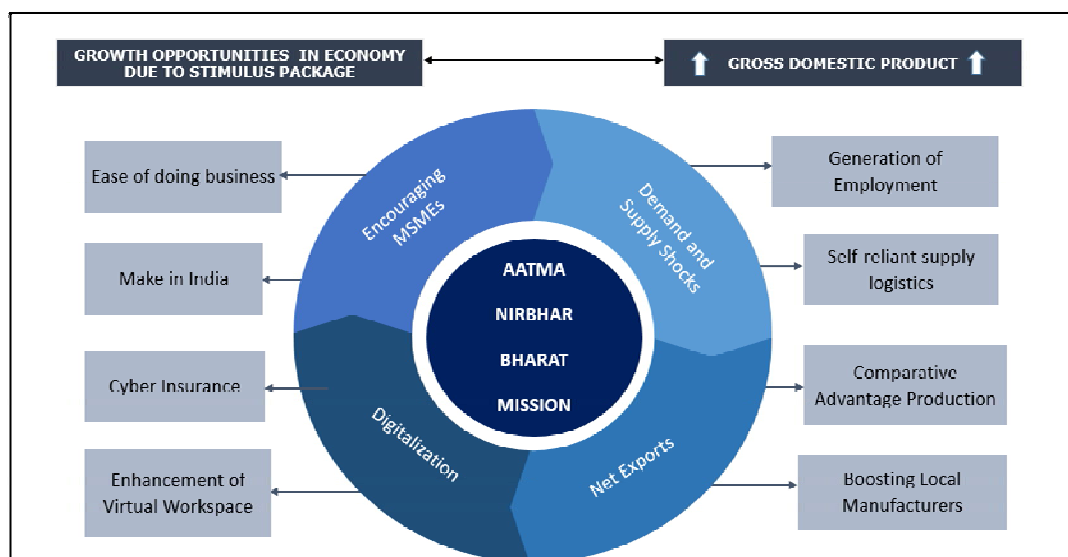
Taking into consideration the insurance domain, amidst lockdown, the claim servicing will become digital involving minimal physical presence. The need to collaborate to setup digital interface with minimal frauds can be seen as opportunities for techies. With digitalisation, the issues associated with data security and cybercrimes need to be addressed. Data sensitive organisations like Investment Banks will require data safety measures, which will create awareness about Cyber Insurance.

### AatmaNirbhar: Focus on local

Being Aatmanirbhar does not imply cutting off trade relations with global economies rather it signifies that now it is the time when India can identify its potential sectors for manufacturing so that exports rise and imports are reduced to improve the current account balance of India.

Covid-19 pandemic led to collapse in world trade. This taught us that it's time for India to be self-sufficient in production for better future growth. This can be achieved by:

- Identifying the sectors and goods in which India has comparative advantage in production. India is a labour abundant country and if we efficiently utilize labour, then labour intensive production will help in both growth and employment generation.
- Addressing major challenges like high logistics cost (double of international average), low R&D expenditure (nearly only 0.7%), skill mapping as well as quality and cost of power for the manufacturing industry.
- Providing incentives to local producers for better growth prospects in domestic and international markets. For example - The Indian government has given ₹50,000 crores, to incentivize local electronic manufacturers to Make in India.
- US-China trade war has also created an opportunity for India as major world economies are eyeing India for shifting their manufacturing units. This will help India in attracting huge foreign investment, skills and technology. These days, boycotting Chinese products is also in limelight. But, according to facts and figures, China's exports to India account for only 2% of its total exports, so even if Indians boycott all the goods imported from China, it will not make a big impact on China but if we start producing this 2% in India itself, Indian imports will fall to a great extent.



Outwitting demand and supply shocks, government expenditure in various areas, encouraging local manufacturing and attracting global manufacturers to India will altogether help us to enhance the four components of GDP. Post adoption of these measures, it is expected that India's growth trajectory will show recovery signs by the next fiscal year.



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## **27. "AatmaNirbhar Bharat": A Road Map Towards Super Power**

### **Introduction**

**"AatmaNirbhar"**Self-Sufficient, which means satisfy own needs without the help of others. As we,all aware of the campaign is initiated by the Union Government of India. To make our country self-sufficient is a step towards self-reliance, non-dependent on other nations. As we all aware of the current scenario where the world's economy is adversely affected by the pandemic. No nation in the globe has any clue, how to deal with these situations which arrive on certain. India has all the required qualifications to emerge as a next superpower.

Therefore, the question is arising is Indian economy ready to take another shock which arouses from this pandemic? Because the backbone (MSME) of the Indian economy is adversely affected many firms are permanently shutdown, and those are operating they are struggling to find the customer again. The liquidity in the market is not flowing as earlier. Buyers are restricting themselves to buy limited products due to the uncertainty.

So what **"AatmaNirbhar Bharat"** can do for the economy? Is it going to lead the next superpower? As we are aware that India Imports more than its export, which instigated the **"AatmaNirbhar Bharat"** mission. The government is focusing on Made in India concept, which means the product,is designed and developed within India, the promotion of the local product is also initiated.

Now the government is started focusing on the core pillars of the Indian economy these are the Manufacturing sector, Agriculture sector, Service sector, Healthcare, and Defence& Aviation by providing them fiscal package and considering them in top priorities. The union government of India also amend some labour reforms and need to amend some educational codes.



Let us discuss the sector wise needs; when we talk about any economy, the sector share in their gross domestic product is very important, in Indian gross domestic product the share of the Service sector is more followed by Manufacturing and Agriculture. However, when we categories share in the gross domestic product in employment generation, the order is reversed.

### **Manufacturing Sector**

If we talk about the manufacturing sector, it appears as top growing sectors in India and the concept of “Make in India” helps in placing the Indian manufacturing in global competitions, and recognitions which leads to attracting few leading companies to India for setting-up their manufacturing plants. The market size of gross value added for the financial year 2019 is approximately USD 403.48. Under the “*AatmaNirbhar Bharat*” program government is providing support to the small industries in developing their products, providing training to their managers, provide a comparative edge over foreign companies.

### **Service Sector**

Indian gross domestic product revolves around the service sector, owns the compelling offshore financing. Also contributes to the exports of services and employs in large-scale India’s services industries enclose an ample range of undertakings like an exchange, communication, software services, call centres, hotel and motels, personal services insurance and finance, construction and many others.

### **Agriculture Sector**

Agriculture is the vital origin of subsistence of nearly more than half of Indian populates. Indian food processing industries growing faster and contributing to nearly thirty-two percent in the nation’s food souk. The Agriculture and grocery souk is rank sixth among all competitors in the world; with retail, it contributes seventy percent of the sales. The food market is one of the largest and ranked 5<sup>th</sup> in terms of export, manufacture, and ingestion. Union government is dedicated to making farming “a segment of profit” for the farmers by instigating them to use new technological, advance, and scientific methods to cultivate the crops with less loss and increase the income.

### **Healthcare Sector**

When a healthy mind and bodywork together it yields more. India is working on the path of becoming the world’s best health care services, India is a single country in the world, which is running the world’s largest fundamental healthcare scheme “*Ayushman Bharat*” was launched in 2018 and still running smoothly. The healthcare sector is the most prominent in terms of revenue and employment, healthcare includes health protection, medical tools, hospitals, medical manoeuvres, and medical leisure industry.

### **Labour Laws**

Labour is the pillar of any economy and they deserve better attention and lifestyle, but it seems neglected or underestimated during the policy formation, sometimes some good policies are also structured by considering them. However, these policies are limited to the paper only. As have the world’s youngest labour force, still they are not educated enough about their rights. The government of India also initiated the movement of “Skill India” which helps the individuals to



develop and identify their skills and contribute to the economy for the earning of a livelihood. Now India has a more skilled labour force than before.

### **Educational Reforms**

The development of any nation depends on the people's education, as water nurtures the plant likewise education shape the human mind. Therefore, education is the main thing, which helps in developing the thinking, whether it is constructive or destructive. India has the largest higher education network in the world, but many things still need to develop. For the promotion of elementary education in rural and tribal areas, government provides mid-day meals to the students, which encourages in both ways, first it shapes and fulfils all the nutrients required by a body to develop, and second, it motivates students to come to school daily, which helps in shaping their minds.

### **Defence and Security**

It is the first line to protect the country from the intruders and enemies. Every country has its defence line; India is the second-largest arms imports in the world. Now it seems the first time in Indian history, India reckoned in arms exporter list, as government encouraging sales of arms, which may abruptly upsurge its position in imminent years, and its import of arms and weapons diminish by 32 percent meanwhile 2015 "SIPRI".

### **Discussion**

To become a superpower nation, India has to utilize all the resources more efficiently and effectively, by considering sustainable development, the above image may also call as a wheel of progress, and it rotates or works smoothly till all sectors work smoothly if any of the above stopped working it dimness the growth or progression. Nevertheless, to become the next superpower India has to utilize and focus on all aspects of its economic pillar.

### **Conclusion**

India has all potential to lead and emerge as a next superpower, if we see India is the top in terms of milk production, pluses, and jute, share second place in rice, wheat, and sugarcane production, positioned in fifth place in terms of manufacturing, and provides the largest number of skilled labour in service industries and now emerging as arms and weapon suppliers.

The main reason behind is the successful leadership and political willpower to trust Indian entrepreneur. Now government focus is not limited to the cities development they are shifting their interest to develop remote and village areas. This completely shows the efforts of the government, to connect every dot, which makes the journey to becoming superpower smoother.





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## 28. Efforts of DRDO in nation's fight against COVID-19

Innovation has spurred India's response to COVID-19. A host of new innovations, some emerging from start-ups that have been incubated by universities and Organizations have appeared in recent weeks. There are a number of reasons for the quick response, including the urgency of the protecting mankind and a proactive approach to crowd sourcing ideas from the government.

Defence Research and Development Organisation (DRDO) has been tracking the spread of Coronavirus (COVID-19) since the world media started reporting its devastating impact in China's Wuhan Province. The DRDO took a call in first week of March 2020 to enhance efforts to create counter measures to stop the spread of the disease in India. By then, the number of affected people in India had already crossed 30. It also started focusing on creating mass supply solutions of critical medical requirements, if COVID-19 becomes a crisis. As a result of focused approach, at present DRDO is has developed various products and deployed in 'War against Corona'. Some of the products of DRDO which are deployed or to be deployed are briefly presented are as follows:

### Ventilators

Since COVID-19 affects pulmonary functions, keeping in mind the futuristic requirement, Society for Biomedical Technology (SBMT) programme of DRDO has been modified to cater to the current situation. Defence Bio-Engineering & Electro Medical Laboratory (DEBEL), Bangalore (a DRDO lab) has identified a vendor (M/s Scanray Tech Pvt Ltd, Mysore) to produce critical care ventilator. It has been created by using existing technologies like breath regulators, pressure/flow sensors, etc. Presently, innovation is on to create 'Multi patient ventilator' wherein several patient can be supported by a single ventilator. Around 5,000 ventilators will be produces in the first month and 10,000 subsequently. The DRDO has identified local alternatives to supply of critical components. Each ventilator unit will cost around Rs four lakh.

### Body Suits

Body suit is critical requirement for doctors, medical staff, sanitations workers, etc so that they are not contracted by COVID-19 during their work. Earlier, DRDO had developed this body suit for medical & paramedical staff to manage & evacuate the casualties in the event of radiological emergencies, which right now is converted as a full body suit to stop contamination. The suit is washable and has passed the ASTM International standards. The suit is widely tested by DRDO and other agencies and found suitable for the cause. M/s Frontier Protective Wear Pvt Ltd Kolkata, transfer of technology holder that is already working with Ministry of Textiles, and M/s Medikit Pvt

Ltd Mumbai are producing 10,000 suits per day with some works continuity problems. Each suit costs Rs 7,000.

### **DRUVS and UVC Notesclean**

Hyderabad based Defence Research and Development Organisation (DRDO) premier lab, Research Centre Imarat (RCI), has developed an automated contactless UVC sanitisation cabinet, called Defence Research Ultraviolet Sanitiser (DRUVS). It has been designed to sanitise mobile phones, iPads, laptops, currency notes, cheque leafs, challans, passbooks, paper, envelopes, etc.



**DRUVS Cabinet**



**Automated UVC currency sanitising device NOTESCLEAN**

The RCI has also developed an automated UVC currency sanitising device, called NOTESCLEAN. Bundles of currency notes can be sanitised using DRUVS, however disinfection of each currency notes using it will be a time consuming process. For that purpose, a sanitising technique has been developed, where one has to just place the loose currency notes at the input slot of the device. It picks the notes one by one and makes them pass through a series of UVC lamps for complete disinfection.

### **Ultra Violet (UV) Disinfection Tower**

Defence Research and Development Organisation (DRDO) has developed an Ultra Violet (UV) Disinfection Tower for rapid and chemical free disinfection of high infection prone areas. The equipment named UV blaster is a UV based area sanitiser designed and developed by Laser Science & Technology Centre (LASTEC), the Delhi based premier laboratory of DRDO with the help of M/s New Age Instruments and Materials Private Limited, Gurugram.

The UV based area sanitiser may be used by remote operation through laptop/mobile phone using wifi link. The equipment has six lamps each with 43 watts of UV-C power at 254 nm wavelength for 360 degree illumination. For a room of about 12 x 12 feet dimension, the disinfection time is about 10 minutes and 30 minutes for 400 square feet area by positioning the equipment at different places within the room.

### **Ultra Swachh**

Defence Research and Development Organisation (DRDO) has developed a disinfection unit named Ultra Swachh to disinfect a wide range of materials, including Personal Protective Equipment (PPEs), electronics items, fabrics, etc. Institute of Nuclear Medicine & Allied Sciences (INMAS), the Delhi based laboratory of DRDO has developed this product with industry partner M/s Gel Craft Healthcare Private Ltd, Ghaziabad.



The system uses an advanced oxidative process comprising of multiple barrier disruption approach using Ozonated Space Technology for disinfection.

#### **COVSACK**

Defence Research & Development Laboratory (DRDL), Hyderabad has added another product to the portfolio of Defence Research and Development Organisation (DRDO) to combat Coronavirus (COVID-19) by developing COVID Sample Collection Kiosk (COVSACK).

#### **Automatic Mist Based Sanitiser Dispensing Unit**

Centre for Fire Explosive & Environment Safety (CFEES), Delhi, a DRDO Lab along with HPO 1, using its expertise in mist technology for fire suppression, has developed automatic mist based sanitiser dispensing unit. It is a contactless sanitiser dispenser which sprays alcohol based hand rub sanitiser solution for sanitisation of hands while entering the buildings/office complexes, etc. It is based on water mist aerator technology, which was developed for water conservation.

The unit operates without contact and is activated through an ultrasonic sensor. A single fluid nozzle with low flow rate is used to generate aerated mist to dispense the hand rub sanitiser. This sanitises the hands with minimum wastage. Using atomiser, only 5-6 ml sanitiser is released for 12 seconds in one operation and it gives the full cone spray over both palms so that disinfection operation of hands is complete.

#### **UV Sanitisation Box and Hand-held UV device**

Defence Institute of Physiology & Allied Sciences (DIPAS) and Institute of Nuclear Medicine & Allied Sciences (INMAS), DRDO laboratories in Delhi have designed & developed Ultraviolet C Light based sanitisation box and hand held UV-C (ultraviolet light with wavelength 254 nanometres) device. The UV-C consists of a shorter, more energetic wavelength of light. It is particularly good at destroying genetic material in COVID-19. The radiation warps the structure RNA which prevents the viral particles from making more copies of themselves. The UV-C kills microbes quickly. Sanitisation of the items by employing UV-C light avoids the harmful effects of the chemicals used for the disinfection. This is environment friendly and is a contact free effective sanitisation method.

#### **N99 masks**

Five layer N99 masks with two layers of nano mesh are very advanced. These are one of the critical times to stop spread of Corona. Its production vendors are M/s Venus Industries Mumbai, M/s IMTEC Kolkata. Capacity is 10,000 N99 masks per day. Material for these are is sourced from Ahmedabad Textile Industry's Research Association, which is already having plenty of government orders for N95 masks. The mask costs Rs 70 per piece.

#### **Hand sanitizer**

Hand sanitizer being the basic instrument against spread of COVID-19 that has now been developed in-house at DRDO. By 3<sup>rd</sup> week of March, it was produced in sizable quantities and distributed to major offices and establishment within the capital. Approximately 6500 litres of hand sanitizer has been provided to Indian Armed forces, AFMC, DSC, MOD, Parliament, and various security establishments and high offices to address sanitization issue at first to keep administration work without fear of contamination. DRDO has provided 20,000 three ply masks and 1,000 litres of hand sanitizers Delhi Police at about 40 nakas all around Delhi.



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## 29. No way but onward – Online World Challenges

### Introduction

Newton's first law of motion is often stated as "An object at rest stays at rest and an object in motion stays in motion with the same speed and in the same direction unless acted upon by an unbalanced force". (I. Newton, 1687)

This is also applicable on our way of working. We resist to the change and prefer to perform the same repeated tasks. Most of us believe that what they are doing and the way they are doing is the best possible and correct way of working. But the world is changing very fast and there is a need of an hour to be ready for the changes well in advance.

Human's life is now learning to balance between real world and the virtual world. The widespread expansion of online usage both in personal and official life has created tangible changes in the human life. The rules and regulations of the virtual world are quite different than the real world. There are many unforeseen dangers of the virtual world and it gives very little time to respond.

The human being while living in this real world has automatically got the citizenship of the virtual world. Human being has no other choice but forced to learn the rule and regulation of this wonderful world. Denial to enter into the virtual world is now unavoidable. The only option left in the journey of life is to move forward. There is no go back button available in the game of life. One has to learn from the existing experiences and take this as an opportunity rather than a problem. Many more such will come in future and only answer is to be ready well in advance to be able to face them in the light of experience gathered today.

### Challenges

We as Indians are very intelligent but the main problem is that we rush to market to buy umbrella only when there is a rain. Indian government has been spending lot of amount on the capacity building of the police force to deal with the cybercrime cases but as I mentioned above, the net result is not up to the mark. One of the reason may be that we had a choice to not to enter into the virtual world and continue with our traditional way of working.



## **The Change**

The present COVID-19 has change the situation drastically. We have been forced to explore and adapt to the new way of learning i.e. online learning. People are now exposed to the new world of jargon. It is like picking you up from this earth and placed you on the moon without giving time to think and respond. We have no other option but to accept the new rules of the new game. We have to learn to live in this new world. This may be called blessing in disguise. Information technology industries is leaving no stone unturned to swim along the direction of wind of change and take this as an offer to increase their presence.

## **New learning way**

The academic industry has witnessed major change. Now everyone is talking about webinars, online learning, meeting IDs, video conferencing etc. but how many have already heard these terms before this pandemic? Teachers and students have learnt to adapt to this online word of learning in a record time. Actually they had no other choice. The online learning industry is still in its childhood stage and many of us are still feeling uncomfortable in adjusting with it. But, it is sure as the Indians are great fighter and adaptive in nature hence this teething troubles will soon vanish. The tools like WebEx<sup>1</sup>, ZOOM<sup>2</sup>, Google Meeting<sup>3</sup> etc. got popularized in an overnight. Nobody even in dream ever thought about the so much customer's footfall on their website. That is why it is well said that you should be ready all the time never know when opportunities knock your door.

## **Cyber Crime**

With the many fold increase in the use of online platform the crimes related to online domain have also increased many fold. You will be surprised that cybercriminal have adapted themselves more quickly as compared to the online users. One of the example of their creativity, off course negative creativity, is that when PM care fund was formed and the detail about the PM care fund was circulated widely to donate generously in this difficult situation, the cybercriminals responded quickly and change the barcode advertised along with the PM care account detail to divert the fund in their account instead to going to the actual PM care fund account.

## **Readiness of Policing System**

The task of the police is going difficult day by day. They have to handle the law and order situation at the ground level and also to prevent the cybercrime in the virtual world. But many of them are finding it difficult to adjust with the new world. In past, many of them did not pay needed attending to learn the new technologies and now they have no other option but to deal with the increasing online frauds. The online frauds have increased many fold. Cybercriminals are feeling like suddenly having many fishes in a pond.

This paper tries to study the impact of current situation on various stakeholders like policing, judicial system, banking sector, education system, Indian Government etc. and to find out their preparedness in this current situation and also predict the impact on our future working. It concludes with suggestions on how to face the upcoming challenges by learning from the existing experiences.





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### 30. Approach for success now – Innovation and Strategy

Changing times bring forth changing approaches. Can they be different will depend on the confidence, fervor and aspirations (goals) of the (seeker), in this circumstance-the industry, the company, the owner(boards) and the manager. Yes this is the time for the ambitious goal oriented industry planner and owner to go back to the drawing board in an effort to draw up route maps. But the question arises – maps out of what? Well maps can be drawn only you have a terrain, logistics (type of technology and investment), destinations(markets and customer preferences and customers' predicaments), alternatives (collaborations, new and old) and engines (the professionals, the finances and asset plans) in place. It was Arnold Toynbee the doyen of World History, who had remarked even while penning the mammoth volumes that those who don't read history are going to find themselves repeating it. Here my history is to figure out how did leaders and winners emerge in the past? We have come across innovation. Innovation where is the question. The thoughts in this paper is to research on the needs of the industry in the reviving scenario. Industries' bright spots are invariably tied to the environment. By environment I am now referring to the supply chain and to the ancillaries.

#### The Industry challenges – pride of place to the SMEs

A segment of industry that deserves attention is SME's. As an essential industry environment they have their challenges. They have their limitations of paying attention to innovation, but will find themselves enabled if they are farsighted (OECD SME Ministerial Conference 2018, 2018) with other entities in multiple specific areas in their sphere of business. Governments, large industries, industry bodies can all make a difference if they create structure to share innovative ideas and encourage funding of the same to help individual SMEs and at the same time create structures to help SMEs to manage their business and growth well, with professional and knowledge resource inputs thrown in through common structures and institutions. (OECD SME Ministerial Conference 2018, 2018) Research and deliberations have brought out that innovation and digitalization contribute among other facets to productivity, often help meet social challenges, enable new business models leading to scaling of the business as also bring down the cost of products and services.



### **Innovation the key differentiator**

Research on Managing Innovation companies in select European countries (Birchall, 1996), indicates that innovation is one of the catalysts of enhanced global performance and competitiveness of companies. It is not so much as innovativeness but newness and commercial success towards total performance. Technology management would immensely aid total performance goal, which would be a key success factor. This will lead to positive cultural outlook, enhance internal and external communication, (Prahalad and Hammel, 1990) and result in an effective structure to meet its mission.

Interestingly consultancies companies are quite often seen to be following the acquisition route in adding to and for enhancing their own innovation strengths by acquiring niche-consulting firms. In taking the acquisition route the big ones like McKinsey, Accenture show the way. (Palmer, 2019)

### **The need for Innovation**

In evaluating the 'engines' that was referred at the beginning of this paper it becomes critical to look at the finances and assets. The supply chain of finances is possible to draw by getting aware of the banking environment. For the research I am referring to the research on US banking in the present (Covid 19) scenario as a parallel to the predicaments of 2008 banking and financial crisis. In the US, the banking institutions find themselves with higher Tier 1 capital (CET – 1) ratio (that is a core measure of the bank's financial strength) (ratio of Common equity and reserves to risk weighted capital in accordance with Basel III) compared to how they fared in the 2008 banking crisis years. (Kevin Buehler, 2020) The ratio being around 12 percent now vis-à-vis 7 percent in 2008. The capital depletion and diminution are thus more manageable. For sure credit losses and tightening of credit availability will be noticed over the forthcoming two years. Availability of capital is likely to meet the prevailing needs. Industry segments are equally affected, (Kaplan, 2017), as its longstanding solutions and its financial structure are now not quite applicable. Now this is true of a) the industry, b) the SME's or ancillaries, c) banks and the financial intermediaries and d) the innovation engines – namely the external consultants and the professionals who are either in the industry or are their consultants. This has made it inevitable for the entire system to face disruption of thought and solutions. This is the mother board of innovation.

### **The top management – the key driver for Innovation – the integration imperative**

Whom does the industry / ancillary look to for innovation, either their strategists or more likely their consultants? Now as pointed out here the consultants (management and or engineering consultants) are equally exposed to precisely the same type of disruption of their long-standing solutions, models and their own financial structure, in addition to disruption due to technology changes. In these circumstances being a transformational leader, (Engelen, 2013), one who can stimulate the team of managers to creating and accepting group goals and by inspiring to be role models can be an enabler for innovation. (Eccles, 2013 ( revised May 2014)) . Top managements have a very vital role to play and make innovation happen. In analyzing the new scenario in the face of disruption and beyond, owners and managers of products with ancillary and supply chain tie ups, (R, 1990) will tend to rework their strategic flexibility. The supply chain players will also revisit their individual market and customer strategies. The assemblers or the large players will examine possibility of securing components knowhow at every improvement and to that end will involve themselves in every innovation and attempt a level of vertical integration besides backward integration. (Teece, 1982 (spring)) The economy of scale will throw up the new supplier mix.



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### **31. Aatma Nirbhar Bharat: A Departure From Economic Recession**

The whole world has come to a halt as the cloud of uncertainty has absorbed the whole world in it. Coronavirus pandemic has compelled the economies to implement strict policies and regulations which has 'de-globalized' the world. This pandemic is bringing economic recession because of forced country lockdowns preventing flow of goods and capital, restricting production and businesses. This 'macroeconomic-flu' borne by negative supply and demand has resulted in sensitivities to supply chain, trade and finances. (Barua, 2020). Uncertainty has discouraged foreign direct investment, leading to a financial shock and distorting value chains. (Mattoo, etal, 2020)

The only solution provided to catalyze the recovery of Indian economy from the disastrous pandemic is launching the Aatma Nirbhar Bharat scheme. The pandemic has showcased the global world, the true picture of its dependencies on China manufacturing and how one disruption brought the consequences to trickle down. Coronavirus awakened industry to realise the underlying problems which could be taken as an opportunity for them to prepare better in such unprecedented times. The industries have realised the importance of a transparent supply chain, moving the manufacturing domestically and even reducing dependency of raw materials from countries like China.

Due to the wake of retaliation and urgency of removing the dependency, the overseas companies are shifting their manufacturing processes from China to India. Hence, this is the best opportunity for India to use its pillars of strength to innovate and use for its growth which would make India become a global leader. This would not only catalyze the domestic economy as it would boost employment, foreign investment, GDP and have a multiplier effect sailing the economy into a positive direction.

The low corporate taxes, increasing government policies harmonizing investment, trade policies, FDI growth and the availability of abundant cheap and good quality labor in India (M. Arthur, 2020) has made it a noticeable place of investment which is drawing countries like Japan and USA to move its production in our country (Dutta, 2020). Moreover, even the German shoe company has finalized shifting its plant to Agra which would have a positive impact on the economy. All these opportunities would allow India to have a speedy recovery from the epidemic.



In order to prevent sailing with uncertainty and obstacles, India has an exclusive scheme of making it economically sustainable in the longer run. The Aatma Nirbhar Bharat mission involves several policies like providing collateral free loans for the MSMEs and bringing substantial benefits for the agriculture would boost the economy to a huge extent. This pandemic has given a rise to the sudden realization of the importance of domestic manufacturing in India. Being self-reliant is often confused with practicing anti-free trade policies, however, this is untrue. Being self-reliant has made the economy realize the real potential of growth sectors of India which can be encouraged from now on.

Aatma Nirbhar Bharat has brought India to realize its five biggest strengths that lay the foundation of a stronger economy. The presence of the 'economy', 'infrastructure' – portraying technological development, energetic resource of 'vibrant demography', increasing 'demand' and our 'system' collectively allow our country to have a competitive advantage to make itself a huge successful manufacturing and global business hub. The strategic use of these resources could be optimally utilized in our economy to allow it to shift from 'Made in India' to 'Made by India'. This route of undertaking sustainable business practices and implementing traditional 'swadeshi' policies would allow India to have their own products to be manufactured, produced and delivered all from local areas (Ramachandran, 2020).

'Vocal for Local' has been the highlighting motivation wave which has overtaken the whole Indian economy and lays the path which reiterates the importance of domestic manufacturing in India. As the words suggest, it is the perfect opportunity for India to efficiently allocate its resources as India realizes that being local is just not a need for the economy but also a major responsibility towards the citizens. The stimulus package of ₹20 lakh crore would not only cushion the economy but also drive it higher in a longer run as it comprises of around 10% of the economy's GDP (Ghosh, 2020). Such high proportion of GDP would boost economic growth, exports to other countries positively contributing to the balance of payments of the country, catalysing the employment, providing huge horizon of growth opportunities for the industries and increasing liquidity would multiply in making India emerge as a leader calling 20<sup>th</sup> century as its own era. This fiscal stimulus is considered as a saviour for the Indian economy as the importance of local products come into action.

As the pandemic has alarmed the need for higher research and development, cheaper logistics, less costly raw materials and efficient quality of production, India has the perfect timing, resources and opportunity to make itself Aatma Nirbhar Bharat through local manufacturing and also attracting several overseas manufacturing plants. It is called as India's time to shine as it uses its bold list of five 'I's - Intent, Inclusion, Investment, Infrastructure, Innovation to make it a self-reliant sustainable economy (Saraswat, Priya & Ghosh, 2020). This lays the foundation for the country to compete globally and embarks its success on the pages of the Indian economic history.



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## 32. The Internet of things (IoT): Recent Research Directions

The Internet of things (IoT) is the network of objects/things that contain electronics, software, sensors, and actuators, which allows these things to connect, interact, and exchange data. The users, sensors, and networks generate huge amounts of data from which governments can develop applications and gain knowledge using Artificial Intelligence (AI) techniques. Thus, IoT and AI can enable the development of valuable services for citizens, businesses, and public agencies, in multiple domains, such as transportation, energy, healthcare, education, and public safety. This guest editorial for the special issue on IoT and AI for Smart Government, identifies the challenges involved in implementing and adopting these technologies in the public sector, and proposes a comprehensive research framework, which includes both IoT and AI elements for smart government transformation. Subsequently, the editorial provides a brief introduction of the six papers in this special issue. The agenda comprises four directions i.e., conducting domain-specific studies, going beyond adoption studies to examine implementation and evaluation of these technologies, focusing on specific challenges and thus quick wins, and expanding the existing set of research methods and theoretical foundations used:

- Innovative technologies personalisation plays a pivotal role in nurturing users engagement.
- IoT offers a unique opportunity to help in empowering citizens and improving societies engagement with government.
- This study aims to examine the role of perceived value of IoT in improving citizens engagement with public services.

With the advancement of disruptive new technologies, there has been a considerable focus on personalisation as an important component in nurturing users engagement. In the context of smart cities, Internet of Things (IoT) offer a unique opportunity to help empower citizens and improve societies engagement with their governments at both micro and macro levels. This study aims to examine the role of perceived value of IoT in improving citizens engagement with public services. The study offers valuable insights into the importance of perceived value of IoT-enabled services.

As an integral part of the Internet of Things (IoT), smart and connected sensors are emerging information and communication technologies that collect and transmit real-time data from various urban domains to inform decision-making. While smart sensors and IoT technologies have great potential to transform public service provision, their adoption in the public sector seems to be slow and incremental. We propose a path-dependence explanation for the incremental adoption and test if a local government's sensor adoption behavior is shaped by its existing policy priorities and





managerial practices in related fields. Our results show that local governments' early adoption of smart sensors is likely to stem from their needs in specific policy domains.

The Internet of Things (IoT) has gained significant importance in science and management and holds great value creation potential for public services. A pressing issue in this regard is how governments and public organizations can adapt their traditional structures and processes to the innovative field of the IoT to create public value. Previous research fails to provide a holistic explanation to this research question. Its technological background and predominant consideration in technology-based research areas has led to a one-sided understanding of the IoT concept that neglects its value-adding aspects. To fill in this research gap, this study presents an integrative public IoT framework for smart government, consolidating insights from IoT literature and related fields of research, complementing the so far predominant technology perspective of IoT with important business-related or value-adding aspects. In doing so, it enhances our understanding of public management-specific key dimensions and aspects of the IoT, serving as a holistic guidance for future research as well as practical implementation and application.

**IoT** devices are meant to work in concert for people at home, in industry or in the enterprise. As such, the devices can be categorized into **three main groups**: consumer, enterprise and industrial. Consumer connected devices include smart TVs, smart speakers, toys, wearables and smart appliances.

Consumer connected devices include smart TVs, smart **speakers**, toys, wearables and smart appliances. Smart meters, commercial security systems and smart city technologies -- such as those used to monitor traffic and weather conditions -- are examples of industrial and enterprise IoT devices.

How Internet works in the Internet of things?

The **Internet of Things (IoT)**, also sometimes referred to as the **Internet** of Everything (IoE), consists of all the web-enabled devices that collect, send and act on data they acquire from their surrounding environments using embedded sensors, processors and communication hardware.



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### 33. Is Indian Labour Code ready for Flexible Working Structures?

COVID-19 led India Inc. to undertake rapid changes in its business and employment structures, with many organizations today planning to hire more semi-permanent and temporary contract workers to manage skills availability with the profit maximizing objective of the firm itself.

In the Indian scenario, contract labour has been one of the principal methods used by the employers to gain flexibility but it doesn't promote worker commitment to stay, leading to skill investment and productivity losses. It comes as no surprise that contract labour ratio is high across sectors such as automobile (47%), energy and utilities (54%), cement (52%), telecom (46%), etc. About 3 million contract labourers are currently in the organized sector, which itself is minuscule.

In the redesign of its people strategy, India Inc. should focus on a high-quality strategy rather than a low-cost strategy to find a way forward. Unionization has fallen across the world in recent years due to job outsourcing and workforce dispersion across nations. There are other costs that manifest in the intangible fact of contract labour that firms face an inflexibility in the reverse form – they can now get rid of workers but they can't compel them to stay. This is a concern, which is not of much importance if the worker can easily be substituted one for another, but is of importance if the worker's skills/know-how is important for the job on hand. Finding a solution so that the socio-economic objectives of society are met is a challenge in such a scenario.

Supporting the new ways of employment like flexible hiring, formalizing medium term employment contracts and leveraging the Gig Economy can provide organizations with the skill cushion they're looking for, aligning their People Strategy to the Business and providing a sense of job security the employees are looking for. The challenge comes in the support of the law in attaining this objective in legal ways. India's labour laws need changes to the current structure so that the benefits accrue to both the workers as well as the employers. However, confusing 'no law' as law reform is a trap we have to avoid.

Case in point is the fixed term contract structure of employment that has helped China emerge as the low cost manufacturer of the world. While many countries have clear regulations about such contracts, the matter has not been addressed sufficiently in India. The primary problem is how many terms of such fixed contracts are allowed. China, for instance, allows two terms of 5 years each, after which the worker has to be given a permanent or indefinite contract. In India, the law is silent on this matter and no such recognition is given based on nature of job leading to worker discrimination by contractors.



Another example is the zero-hour contract of flexible hiring in Britain and developing countries such as China, Bangladesh, Brazil and Colombia. These new ways of working being developed in the world today are employment structures that India has yet to catch on and formalize. With proper contribution from the tripartite bodies, these flexible employment structures could emerge as the intermediate level of employment, between permanent and insecure contract systems.

There are multiple benefits to be gained from adopting such improved labour practices focusing on quality and establishing WTO-compliant indicators, rather than the cost of the products and on labour productivity. These also include stable and high-value orders. This will enable greater profitability of the Indian firms and lead to an increase in exports earnings of the Indian manufacturers as well, providing further impetus to the Make In India and other initiatives being pushed by the Central Government.

However, we have to keep in mind the Lewisian transfer of labour from agriculture that is still underway in India. The pressure of a greater supply of labour increases competition among workers, depressing labour conditions and making it easy for firms to employ wage competition to reduce costs. With an overhaul in the upcoming Labour Codes, we hope to get some incremental steps to ensure flexibility and competitiveness, while ensuring that the socio-economic benefits, for which these laws were passed are actually kept in mind.



**Aarushi Mishra**

*I Aarushi Mishra, CA Finalist, presently completing my articleship training in a CA firm and have earned firsthand experience of working on Audit Assignments and Due Diligence of Startups (both early stage and later stage). Present article is my opinion on how we can emancipate the current status of due diligence (DDs) being conducted for startups and companies for a much more meaningful business insight for investors.*

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### 34. DUE DILIGENCE (DD) AS AN ACTIVITY

Being Gen-X and right from the time I could make a sense of what's actually happening around the world, I've been totally consumed by this amazing and insane world of Startups. Young entrepreneurs having a brilliant sense of existing loopholes in the society and trying to materialize on them with an overwhelming success story is something everybody finds interesting. The success of startups has compelled each and every motivated youth to think hard and beyond their wildest imaginations and create something that would make a "BOOM" entry in the market. However, the sad part being that this has been majorly confined to Technology.

Being a Commerce student, I was always greedy about gathering knowledge about the economy, what's uptrend or what's new. But in my opinion, there have been very little creative advancements when it comes to innovative businesses in Commerce & Finance. During my work I realized that we lack in quality when it comes to provide financial consultancy at the ground level. Present article covers the pitfalls in the existing procedure of Financial Due Diligences and what future investors/companies need from firms when it comes to Analysis regarding a particular startup or a company.

#### PART A: DUE DILIGENCE (DD) AS AN ACTIVITY

Financial Due Diligence is a complete comprehensive investigatory exercise to know the business in and out in terms of their key risks and drivers and assess their stability as well as profitability scenario in the industry keeping in view their major competitors in present as well as the future.

It is basically an in-depth study of the business in terms of its Fixed Cost, Variable Costs, Gross Margins, EBITDAs, Cash Flows for the Firm/Equity, Internal Rate of Returns (IRRs), Internal controls followed by the company and how they impact the business. The list shall be long if each and every item is discussed but to put it in a nut-shell, 'While doing a DD, one has to think of himself as the owner of the business and then decide what are the things that could go wrong/give him a boost in the market and then sit and analyze each of those core areas.'

Numbers alone can't tell what's right or what's wrong with the business. There has to be an interpretation behind each number which then validates the current position of the business. In a DD, the interpretations hold much greater importance than the Stats and this is what makes DD a whole lot different from a regular Statutory Audit or an Interim Audit. I would say that DD is a very free-spirited task as there are no guidelines/regulations on how it should be done which is why there is a tremendous scope to add quality in the current standards of DD.

Consider the example of a company which has 10 different products under 4 diverse segments and it is earning nice overall profits. Now what a Statutory Auditor would like to do is check the revenue



coming from various segments, check for actual income and expenses booked to validate the profit calculation and he'll be done. His job is only to trace back the receipts and expenses to their source documents and ensure that all legal compliances have been complied with on time.

However, if we were to conduct a DD of the company, we should start by getting to know all the products of the company across all segments, all procedures followed and be concerned about their individual revenues, expenses & margins by adopting Costing techniques like apportionment and absorption. Extrapolating various expenses to arrive at the real and base image of each product in terms of profitability will tell us what the actual situation is. There is a possibility that a segment is profitable in an overall manner but a product in it is constantly generating negative margins or not generating enough margins compared to the capital investment on it. Now such an observation will not only hold a significant importance to the investors but also to the company in terms of their future expansion plans or current capital investment plans. DD is also the mapping of historical performance with the future plans and seeing how practical and possible they seem to be in the current scenario. This is just one example on how we lack delivering quality while conducting a DD. A DD is knowing **why things are the way they are** and showing the companies a brighter path to increase their profitability.

Almost all Startups have extremely blur internal process flows initially. They do start with a prodigious amount of energy and motivation but are sometimes lost in the process of building things. This is the reason why most start-ups get their DD done before a M&A deal or a fundraise or even some small bridge financing they need. Investor's rely on the DD done and it adds credibility to the ways a business is being handled by the company however I believe the standard bar of the DD needs to rise now. With the trending start-up culture if we develop a trust-worthy DD culture it would be a huge step forward for the Financial Consultancy Industry

#### PART B: THE PRESENT SCENARIO

- At present DD is done much like Audit. It is like a very detailed version of Audit wherein we validate all the values looking at the source documents. There is hardly any cross segment/product analysis of margins and expenses at a variable and fixed level.
- Absolute Values are the comments that are made on the good and bad receivables of the companies without any comment being made on eliminating the source of bad receivables or growing more with the good ones.
- No analysis of the company is made in the manner wherein we compare the historicals with the Future projections to advise the company to profitable avenues in a speculation free manner. This will not only help the investors rely on such kind of analysis, also it would assist the company in focusing on their key areas and grabbing opportunity in profitable segments.
- No present DD Report shows the IRR analysis for ongoing projects.
- Existing sentiment of DD is to check the business. However, the DD should be done with an attitude to develop a complete understanding of the operations of the business step by step and then evaluating all the risky chunks of it. Getting to know the '**How**' of things helps us realize the wrong practices adopted in the past and how have they stopped us from growing all this time.
- Only Accountancy concepts are applied whereas DD should be a blend of analytical finance concepts and basic accountancy concepts.

To summarize, there are many potholes that need to be filled for emancipation of the level of Due Diligence being done currently and it shall prevail forever because change is the only constant thing in the world. People will keep on changing and so will the businesses. Therefore, there will always be a scope for improvement in all the fields. However, we shall always focus at the present and learn from the changes that have been happening to evolve and serve better quality work to the society.





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## 35. Pre- packed insolvency process - an apt option for out of court debt restructuring?

### I. introduction:

Insolvency and Bankruptcy Code, 2016 (hereinafter referred to as IBC) was primarily enacted with an aim to maximise the value of the assets in a time bound manner. With a tenure of four years, the Act has proved to be a successful mechanism for recovery of assets. Despite, the successful implementation of the code, there are certain persisting issues in the working of the Code, including unavoidable delays in insolvency resolution process, less number of National Company Law Tribunal (hereinafter referred to as "NCLT") and members, ineffective hearings and increase in the pressure on NCLTs. Due to the procedural obstacles and the outbreak of covid 19 pandemic presently, it is need of an hour to resort to alternative option for out of court negotiations. "Pre packed plans" being the novel concept is a talk of the town in the present crises.

### II. what is Pre packed insolvency plan?

Pre-packaged plan commonly termed as "pre packs" is an out of court process, wherein the debtor and creditor enter into an agreement and negotiate the terms of the settlement dues between themselves. As per technical terms, in pre packs "a troubled company and its creditors conclude an agreement in advance of statutory administration procedures which allows statutory procedures to be implemented at maximum speed" Pre-packs are still at a nascent stage in India, however it is well accepted proceedings followed globally in countries likewise U.K, U.S.A and Germany. It is an informal process wherein a plan is agreed, accepted and submitted before the court for its approval, hence it can be said that it is a hybrid process involving the two parties along with the court to limited extent.



### **III. Relevance of pre-packs in current scenario during times of covid 19:**

The Ministry of Corporate Affairs (MCA) was already mulling over the introduction of pre packs since 2019. Prior to the discussions of pre packs, RBI had introduced Corporate Debt Restructuring (CDR) and Strategic Debt Restructuring (SDR) with an aim to give impetus to stressed assets, however the said mechanisms failed to prove any solution. The Bankruptcy Law Report Committee (BLRC) had promoted the implementation of hybrid rescue mechanisms like “pre-packed rescues” in India. Further the informal out of court debt restructuring method was recommended in the Report of Insolvency Law Committee for the purpose of safeguarding the MSMEs and rehabilitating the debtors. However, subsequently the out of court resolution process was not brought into effect. Currently, the implementation of pre packs is again in talks due to suspension of section 7, 9 and 10 of IBC for a period of six months. In the current time of pandemic, it is also assumed that pre packs will help in preserving the business value of debtors especially the MSMEs, boost economy, reduce the burden of NCLT and drastically help in restructuring the debts. Post the pandemic, there will be a significant increase in the stressed assets, as there is a temporary bar to initiate any action after 25.03.2020. Hence, there is an urgent need to introduce a compatible method of pre packs in India.

### **IV. Pre-packaged insolvency process v/s. Section 12A of IBC:**

Pre -packs, though is a much hyped and sought after process currently, however there is a contradictory opinion of few legal luminaries with reference to resorting to some provisions of IBC that allows quicker closure of cases instead of pre packs. One such provision is section 12A of IBC, which clearly allows parties to withdraw the corporate insolvency resolution process (CIRP) by consent between both the parties even prior to admission of the CIRP petition. Few of the cases being Essar Steel and Jet Airways, are classic examples wherein parties had resort to withdraw the petition after initiating the insolvency proceedings under IBC proving that there is no need to implement the pre packs when there are already existing provisions adhering the needs of pre packs.

### **V. Implementation of pre packs:**

The success of pre packs can be inferred from the strategic implementation pattern. India shall adopt a compatible framework of the pre packs which suits its legal environment. There are certain pre packs which occur after the default, it particularly ensures maximisation of value of assets. A pre-arranged insolvency process is wherein a mediator or an insolvency professional is appointed who plays a key role. After the considerable approval from the committee of creditors (COC) a resolution plan comprising of negotiable terms between the stressed debtor and creditor is kept before the Tribunal for its approval. Further a pre -arranged sale particularly refers to a sale of all assets of debtor without the interference of the COC and shall be dealt directly by Insolvency Professional. However, a pre-arranged sales can be implemented only in urgent cases. Hence for a country like India it is apt to adopt a hybrid complex procedure wherein an Insolvency Professional would act as a mediator between the stressed company and all the creditors with a limited involvement of Adjudicatory Authority.



## VI. Conclusion:

Pre pack is an upcoming and ideal tool for out of court debt restructuring especially in the current times of pandemic. It is an apt solution for overburdened NCLT proceedings and is typically less time consuming as compared to the litigation. The problem of delay in litigation and reduction in cost can be well tackled if pre pack is implemented properly. Also, the process of pre-packs can lead to less stigmatisation of the stressed company and would leave no change in the management policy as the entire management can continue to perform its day to day business. A pre-packaged mechanism enables fairness, transparency and treatment of conflicts among various stakeholders. The entire IBC model is based on the concept of “*debtor in possession to creditor in control*” however with an advent of pre-packed insolvency process there will be sufficient shift of creditor in possession. The implementation of pre-packs can be exhausting procedure as the IBC will be subject to amendment. However, Pre packs can introduced in current scenario with an aim to bring maximisation of value of assets.



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## 36. Role of Social Media in Promoting Green Tourist Behaviour: A Step Towards Sustainable Tourism

### **Abstract**

*Sustainability is the need of the hour, since resources are scarce which makes them precious and require a rational usage. Green tourist behaviour is a move which is welcomed globally and has several international organisations promoting and backing the revolutionary movement. Social media acts as a source of information and inspiration to existing and potential tourists to start thinking about the planet as the mother earth so as to conserve the wildlife, land, water and other resources in a less selfish and more responsible manner so as to gift the coming generations of the same touristic experiences.*

### **Keywords:**

*Sustainability, tourist, user generated content (UGC), destination, environment.*

### **I. introduction**

*"We are living on this planet as if we had another one to go to."*

– Terry Swearingen

The awakening for sustainability is inexistent or unknown is still a question to ponder over considering how conveniently every person is ready to ignore it. Tourism is often considered as a leisure service and most individuals prefer to indulge in it as a recluse from their busy tiring schedule. But there are several questions that we need to introspect: should pleasure be at the cost of loss to the planet? Should there not be sustainable and green tourism practices? Are there

enough people who care for the sustainability? Do we have enough means to promote eco-tourism? The magic of user generated content takes a holistic approach towards green behavioural practices making it an instrumental step towards eco-tourism.

## II. Objectives

1. To understand the concept of Sustainable Tourism , Green Tourist and Social Media
2. To analyse the role and utility of Social Media for Green Tourist Behaviour
3. To discuss Global initiatives of Social Media usage to promote Sustainable Tourism

## III. Research Methodology

This paper seeks to understand the inter linkages between social media, sustainable tourism and green tourist behaviour in a descriptive study based on thorough review of literature from articles, journals and newspaper articles and adopts a mini case study approach.

## IV. Sustainable Tourism & Social Media

### *Sustainable Tourism*

World tourism organisation has defined sustainable tourism as “tourism that meets the needs of present tourists and host regions while protecting and enhancing opportunities for the future” (WTO, 2000).

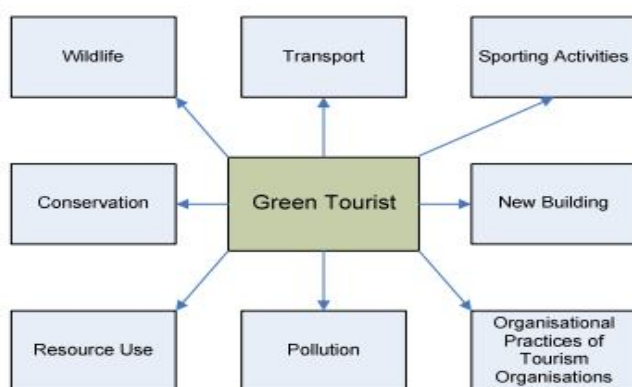
### *Social Media*

Social media can be defined as “a group of Internet-based applications that allow the creation and exchange of User Generated Content” (Kaplan and Haenlein 2010). These include blogs, microblogs, social networking websites, wikis, forums and communities.

### *Green Tourist*

Green tourist is a person who is travelling outside his place of residence for travel or leisure or business but has concern for the environment and its resources.

**Fig 2: Green Tourist's areas of concern**



Source: Swarbrooke and Horner, 2007

## V. Role Of Social Media To Promote Green Tourist Behaviour

Social media is used all throughout the journey of travel by both the traveller, and the travel service providers. These benefits are divided as:



<b>Benefit</b>	<b>Author</b>	<b>Utility</b>
<b>Functional</b>	Chung & Buhalis (2008)	Trip Planning & Decision Making
<b>Hedonic</b>	Chung & Buhalis (2008)	Social Media Interactions
<b>Socio Psychological</b>	Parra-Lopez et al. (2011)	Sense of Belonging and Identity

Social media platforms have a huge potential to influence consumer decisions guiding them towards sustainable choices and behaviours (Ali and Frew, 2014; Benckendorff, 2014)

According to Swarbrooke and Horner's study in 2007 and Miller's study in 2003; Green behaviour can be determined by 3 major factors i.e. information obtained from media and pressure groups, the disposable income and employment. Social media tends to focus on the information aspect.

## VI. Global Initiatives to Promote Sustainable Tourism

Worldwide marketers are adopting programs to promote sustainability in every sector due to the rising concern of the earth's deteriorating conditions, this empowers to move towards sustainable choices and create a sustainability demand. (Miller, Rathouse, Scarles, Holmes, and Tribe 2010). Such as:

- ***TripAdvisor's GreenLeader's Programme***

World's leading travel website started this programme for its users and other stakeholders to understand the degree of environmental commitment globally for the tourism sector with association and cooperation from United Nations Environment Programme, UK Green Building Council, International Tourism Partnership and Carbon Trust. Participating hotels were assigned statuses such as Gold, Silver and Bronze. A green leaf which is the symbol for a green leader hotel is assigned to the hotels which the users look out for.

- ***DirectFlight's "smart score"***

Two flight carriers are compared on various attributes and a smart score is assigned which also takes into account the environment consciousness of the flights. The parameters for smart score are comfort, amenities and environmental impact. To reward the sustainable considerations of the traveller, a higher smart score would result into cheaper flights as it emits lower fuels. This helps both the companies and the customers.

- ***Bookdifferent "carbon footprints"***

Developed by Breda University of Applied Sciences (BUAS) and dutch tourism, as a part of 'Carbon management for tour operators' (CARMATOP) project. This website calculates a carbon consumption in kilograms with carbon footprints score of the hotels. Different colors were assigned for different consumption rates such red, orange, yellow, or green. Green indicates the most sustainable choice. The idea is to promote awareness and concern for the climate change.



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### 37. The Paradox of Thrift': An Obstacle to India's Economic Revival

A series of Government imposed nationwide lockdowns in the wake of Covid19 have brought industrial and economic activity to halt. Confining to homes, not venturing out, ceasing of public transport, cancellation of flights, closures of hotels, restaurants, malls, limits on public gathering (whether for wedding or funeral), strict travel restrictions became new normal during the lockdowns and caused long lasting impact on spending patterns of people. Retail industry has been brought to its knees and fashion and luxury players are facing financial distress. Indian consumers too are becoming minimalists during this pandemic time. By focusing on consumer staples like food, beverages, groceries etc., and by foregoing the purchases of consumer discretionary (i.e. non-essential) products and services like automobiles, apparels, luxury goods out-door entertainment, restaurants, travel, transport services, and so on people have been turning frugal. CRISIL- a rating firm expects the consumer discretionary products and services to be the worst hit by the lockdown and ICRA—another rating agency categorizes retailing and gems and jewellery in the high-risk categories. Besides, latest RBI survey conducted telephonically in 13 major cities in May 2020 also brings out that the consumers have reduced their spending of impulse items during COVID-19 and are becoming wary of buying discretionary items. The survey results hint towards a 'wave of pessimism' over jobs and income and collapse of consumer confidence amid this pandemic. The prospects are dismal even in near future. Recent SBI research also confirms that the 'Indians are spending less and saving more' as there had been significant increase in deposits (Savings, Current and Term) during Lockdown 1 and 4. The decline in discretionary consumer spending signals slowing down of economy, declining consumers' confidence and the shifting their preference towards thrift.

As per conventional economic wisdom, higher savings by reducing consumption and aggregate demand causes unemployment and can be economically deleterious during the time of recession.



Recent Indian experience has been reminding us of the famous 'paradox of thrift' popularized by J.M.Keynes in 1930s, whose first conceptual description was found in Bernard Mandeville's "The Fable of the Bees" (1714). The alleged paradox is that savings which are considered a virtue for an individual may be a vice for the community and nation as a whole. Apparently, this paradox seems to be in full play in India at present, which can prove to be a roadblock in the economic recovery of India.

Savings was extolled as a great and unquestionable private virtue by the Classical economists in the 18<sup>th</sup> Century. They advocated that 'a penny saved is a penny earned' and that every individual must 'save something for the rainy day'. However, in the wake of Great Depression of 1930s, John Maynard Keynes came out with his epoch making work "General Theory of Employment Interest and Money" in 1936 and pointed towards damaging effects of the 'paradox of thrift'. He urged that the over-saving gap should be wiped out by encouraging consumption through state intervention. He believed that 'saving may be a private virtue but a big social vice' because "one man's expenditure is another man's income. Increased savings on the part of some individuals leads to decline in the incomes and expenditures of certain other individuals and less effective demand resulting in loss of income, output and employment. Raising consumption or aggregate demand is a core component of Keynesian doctrine to take the economy out of the mud of depression because employment cannot increase unless investment increases and that too public investment (i.e. expenditure on public works). Since the economy is in the doldrums, public investment can give a much needed push and 'prime the pump of private spending' to encourage economic growth.

In the current fiscal year, India has been facing the fourth and the worst recession (as per CRISIL) since independence caused by supply and demand shocks induced by the global health pandemic-COVID-19. According to CRISIL, "Not only will the first quarter be a washout for the non-agricultural economy, services such as education, and travel and tourism among others could continue to see a big hit in the quarters to come. Jobs and incomes will see extended losses as these sectors are large employers." With greater savings and falling demand, Keynesian demand-side policy prescriptions of increase in public spending and expenditure on social security measures (like Direct Bank Transfer by government of India) for reviving demand seem to be more relevant for taking the Indian economy out of the mud of deep recession.

What is disheartening is that this mega shock has brought in rooted conservatism of mindset once again, which believes in low levels of resource consumption, less wastage and high saving rate and make people averse to spending on anything that does not give tangible value. During COVID, the low income earners like daily wage earners, informal sector workers like cooks, car cleaners, domestic servants, washer men, road side vendors, etc. lost purchasing power and those who have money are a bit disconnected, a bit lost on the purchases of non-essentials (i.e. discretionary) as of now. Industry is in complete distress because of the occurrence of long lasting change in consumer's behavior during nationwide lockdown-as they are reining in their discretionary spending. Emergence of a connoisseur mindset, so essential for growth revival, is unlikely to happen in next two quarters as there are job cuts, pay cuts across companies and an environment of uncertainty and fear. Weakening of consumer sentiments and confidence in economy and a shift towards thrift because of the drying up of demand or 'spending drought' in the economy is having ramifications for recovery of manufacturing and services sectors and also that of overall economy. These sectors are unlikely to recover from slow down without a huge government stimulus.

Indeed, the impact of COVID caused disruptions is wide and deep. Low income earners (daily wage earners without any safety net), women and younger workers i.e. millennial have been hit the



hardest because of the associated loss of income due to lockdown –induced joblessness especially in construction, tourism, hospitality industry and call centers, retail, hotels , restaurants, airlines and personal services like domestic services, barbers and beauty shops, dyers and drycleaners, repair and maintenance services etc. Kick starting the economy requires incentivizing consumers spending which is not possible unless people have more cash in their hands. Therefore, arises the need for government’s stimulus packages with bigger cash transfers/income support in the hands of people as has been done by Canada, Hong Kong, Japan and Thailand. Though a five –part package of the government of India amounting to Rs20.97 lakh crores and accounting for 10% of GDP is ‘fifth largest amongst the G-20 economies’ yet many banks, brokerage and rating agencies view that ‘actual fiscal impact of the additional stimulus will be only about 1 percent’. This is not enough to deal with the economic devastations caused by the pandemic across sectors. This package will definitely boost supply side but for bypassing crisis and for reviving demand, cash transfers will be a must. In addition to cash transfers, promotion of works under Mahatma Gandhi National Rural Employment Guarantee Act"(MANREGA), big push to Infrastructure building projects, ‘Make in India’ initiative, granting higher Minimum Support Prices (MSPs) to farmers, ‘Providing Urban Amenities in Rural Areas’ (ashad been envisioned by late President Abdul Kalam under ‘PURA Project’) for boosting rural demand seem to be the way forward for economic revival of India in a post pandemic world.



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### 38. Let's build our broken education system!

*The numeracy, literacy, language, math, science, social science along with social, physical and emotional development of every child is already being conducted by schools require calibrated resources, better measurement and collection of the assessment results correlated to the curriculums, teaching, learning and academic infrastructure. For an effective pedagogy, these results have to be linked with the child profile, the teacher's progress report to prepare a comprehensive school development plan, teaching plan and child profile.*

*The third National Education Policy is being finalized. This study report provides useful evidence-based recommendations for a sound schooling system to impart literacy, education, and prepare children for employment, professional and higher education, innovation, enterprise and leadership roles. In the present scenario of economic recovery, post COVID pandemic, it provides valuable recommendations to make the education system robust, children educated, skilled, humane and better citizens while generating employment, business and buttressing the net worth of our political economy.*

Indian education system was formalized more than 5000 years ago emanating from the philosophical, socio-economic, psychological and human urge to learn as described in Ishadi Upanishad read with Shatpathadi Brahman and the Taittiriya Aranyaka.

Gurukul and the community education systems flourished all this while with specialized and holistic education described in Arthashastra and Nitishastra of Chanakya and several other Buddhist, Jain literature that was practiced in world famous universities of Nalanda, Takshshila et al. The





indigenous education system was completely overhauled first time in 1835 by the English Education Act of Lord William Bentick based on the Macaulay's "Minutes"<sup>(i)</sup>. The top down operation deeply influenced all the segments of the society, economy across the country.

Conflict between countries diminished in the second half of the 20<sup>th</sup> century compared to the preceding hundred years, but conflict within countries increased markedly in the latter decades. Socioeconomic trends including migration, globalization, and urbanization and increasing inequality seemed to exacerbate conflicts between groups, communities and between genders, within communities. Education in modern India has been characterized by direct support for literacy, job, entitlement, skilling whereas, employability, creativity, innovation, life philosophy was considered esoteric and elitist. The present state of confusion is because of the mismatch between the aspirations generated and quality of education delivered. Systemic and qualitative improvements in education could have caused long-term growth. Education's role in nation building and providing steps to move up the economic ladder<sup>(iii)</sup> needs to be urgently addressed.

India is currently spending only 3.1 percent of its GDP on education against an average requirement of around seven percent for a sustained development. There are several schemes for students, teachers and schools run by the Government of India and the State Government in tandem. Though literacy rates have increased, sub-standard quality of education has resulted in poor employability and confidence of the younger generation.

Recent National Achievement Survey (NAS) by NCERT and Annual Status of Education Report (ASER 2019) pose a gloomy picture of the state of foundational education in India. In the context of basic school education indices<sup>(iii)</sup> schools are facing serious issues of outcome gaps in the present system of assessments and quality of education. The scholastic (academic) and co-scholastic (social, physical, and emotional development) parts of the curriculum (NCF) are to be assessed separately, and the performance mentioned in the school result card of the child. The holistic learning outcomes are to be collated by the schools for children focused teaching plan, curriculum development and school development plan. However, the system of employment and higher education does not take into account the co-scholastic scores. The envisaged comprehensive evaluation of students' co-scholastic development is barely captured by the **Board** results<sup>(iv)</sup>.

Another critical issue is of poor data availability and integrity of **education information system data** (UDISE), opaqueness in implementation of schemes, and apathetic disuse of the innate natural resource of curiosity in the child. The community in the neighborhood of the school has practically no role in the school's education management despite a concept of a catchment area for each government school.

### **Educability Instincts of human being**

Educability of human being and curiosity of the child is presumed universally. NCF 2005 seeks to cater to the innate curiosity of young children. NCF 2005 and NCFTE 2010 both base the teaching, learning on the constructivist approach to knowledge creation and hence, clearly has a focus on both innate curiosities of students and teaching, learning experiences based on identifying this vital resource of curiosity as teacher's primary responsibility.

In course of this study, a curiosity (cognitive psychology) test<sup>(v)</sup> was administered for different levels of schoolchildren. The test was aimed at measuring the curiosity of the child and the ability of the teacher to use the child's instinct to educate the child.



It was found that while there is an underlying curiosity, there appears a considerable gap in teachers' understanding of the use of children's curiosity as an essential element for instruction and assessment. It creates two visible setbacks<sup>(vi)</sup>.

The study identified the vital link between the curriculum, teaching, assessments, academic infrastructure; to the curiosity of the child for a quality school education. One critical gap was the weak link between the curriculums, teaching, assessment, to that of the innate curiosity of the child. The curiosity unto the age of 14 years was found to be underdeveloped for the creative instinct, enterprise and innovation to blossom in the child.

Furthermore, government school education additionally suffered from various constraints<sup>(vii)</sup> in providing essential inputs to the schools, efficient governance structure and in regulating the quality of education.

**The broad outcomes expected<sup>(viii)</sup> after school education are complete literacy, skilling, employability, social-emotional education, creativity with human capital formation**

The study used output indicators such as PTR, TCR, SCR, Scholastic & Co-Scholastic Assessment, the unbroken link between learning-teaching-assessment; with the help of inputs like segregated academic administration, autonomy to schools, academic management to teachers, bottom-up planning process, use of Education Technology<sup>(ix)</sup> for teaching & teachers training, increase in cost per student outlay. Further, if women are considered as the natural source of production of all human capital in gender analysis of education, it is imperative that the female population, that is almost fifty per cent of the total population, be given special importance and respected as the leader of the community education system. This would help to substantially augment the human capital factor of the country leading to social and economic gains to the tune of two percentage of the GDP conservatively. The solutions are to be provided predominantly by the micro and small service providers with almost Rs 50 lakh crore invested in the sector with a potential to employ more than two crore teachers and educate 70 crore student-parents.



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### 39. Unfortunate Plight of 'Migrant' Workers

#### Abstract:

The abject failure and breakdown of legal and political machination to pander to the needs of farmers takes us back to the colonial era where famines swept millions of people in a single go. The parallel drawn here points out an apparent indifference of the government towards the plight of the multitude who are braving havoc wrecked by coronavirus. This semblance brings forth an utter disregard of constitutional values which sought to emancipate people situated at the lowest rung of society. The fallout of political miscalculation in taking preemptive measures to alleviate the misery of laborers has not only vitiated the chances of controlling the spread of this deadly virus but has also highlighted the dehumanizing conditions that has surfaced after the lockdown. A search for stability and belongingness has led to a frenzy of mob who want to reach their homes. This has unearthed some deeply unsettling questions that not only brings governmental policies under the radar but also questions the model of development that was so vehemently argued for during the



elections. Are we actually moving towards a stage of growth where laborers will be constantly and actively invisibilized? Is this not “social murder” that created such adverse conditions which can only and inevitably lead to the death of the person? Are we seeing a tragic state of democracy where the laborers are not only dispossessed but also disenfranchised?

The discourse on rights and entitlements is gasping for breath in light of this huge social breakdown. There is a growing need to phrase demands in the vocabulary given to us by neoliberal economy and perhaps, this need alone brings us to a dead end. A damning state where the laborers are not even considered human enough to be seen as an individual under the paradigm of neoliberal state. It brings us to the point drawn by George Lucaks of a unified theory of reification that permeates all social relations in the era of capitalism. This has nurtured a consciousness that has led to social apathy as well as a lack of political will. The threshold of human dignity has been compromised to such an extent that the worker is not seen as a person but reduced to a number. A growing objectification where the laborers are only seen as tools who facilitate production without any safeguards.

It is in contravention to constitutional philosophy enshrined in the preamble to the Indian Constitution that the workers moving from one state to another state within their own country in search of employment suited to themselves are called as “migrant”. The sudden whimsical policy decision of government to conquer Corona virus pandemic left common worker in crises of food and shelter in metropolitan cities of India. To outrun their state of destitution they want to return to their place of origin. The government of the State where they have worked diligently for many years recognized them as “migrant” workers. However, these very State failed to provide them rights and privileges as mandated by Inter State Migrant Workmen Act, 1979. The dilution of labor laws in the wake of the pandemic reflects the exploitation of workers and the incapacity of the government to provide basic rights and privileges as mandated by the Constitution of India. It portrays the apparent transformation of India as a welfare state to India with a capitalistic form of government. The State of origin of the laborers have refused to take back their own people and have further underlined the need to problematize the notion of ‘migrant’. The onus thus shifts on the state that has employed the laborers who in turn have distanced themselves from the plight of migrants. In this scenario, the government needs to reformulate policies that have the potential to allay the fears of migrant and work towards providing a secure market. Markets have also become highly volatile with upsetting trends seen in the growth of core sectors. This economic slowdown is intricately woven with the loss of purchasing capacity of more than one section of the population and without an impetus by the government, the market would remain to suffer.

Economic experts who have reiterated the need to transfer cash into the hands of the people have failed to caution the government about the means by which this could be achieved. Even the packages announced by the central government have not addressed the specific needs and demands of the migrant laborers. With appalling economic condition and a blanket denial of the present government towards any kind of dissent thwarts the essence of democracy. The role of opposition has been relegated to the background giving rise to an autocratic government whose words of assurance are replete with jargons and hyperboles. Absence of accountability is conspicuous where the government is not even willing to disclose the money donated to them through PM CARES. An interminable series of death and misery has planted fear in the hearts of million who are looking for possible imaginative avenues where they can find some solace. It is this imaginative haven that the government has failed to construct. This void has led to factionalism and communal tensions scrupulously designed to reap electoral favors.



The failure of the Human Rights Commission of India, the signatory of many international treaty to uphold inalienable human rights of individual, proved that its existence is only superficial. Further, the Supreme Court of India acted equally incompetent in checking the misery of workers. Gone were the days when Honorable Justice Krishna Iyer took a *suo motto* cognizance of the letter written by Neelbati Behra to uphold the human right of individual as enshrined in the Constitution of India. The credibility and trust that was built by the Supreme Court in many years is collapsing. The state of workers has tried to reach the Honorable Supreme Court through national television, but it was turned down deaf. This Constitutional Court of India has gone so far as to reject the petition requesting the Hon'ble Court intervention towards the unfortunate plight of migrant workers who, along with their families, including women, small children, elders and differently abled persons, were walking on foot towards their place of habitual residence driven by poverty, amid the pandemic crisis. This petition was made after the horrific incident, which has happened at Gadhejgaon village in Aurangabad, Maharashtra on May 8, 2020 in which at least sixteen workers, who were walking on foot from Maharashtra to Madhya Pradesh, have been killed by a Train. Failing the Constitution of India, our Honorable Judges dismissed the petition stating that it is impractical for the Court to direct any orders to the executive magistrates in respect of stranded workers.

The growing ascendancy of coronavirus cases has rendered migrants highly vulnerable without any respite from poverty or hunger. The sheer magnitude of the problems faced by migrants demands a concerted attention by the government to avail them alternate forms of occupation. The Directive Principles of State Policy as mentioned in Article 38, 43A, 43 reinforces the need to provide for the sustenance of migrant workers. The Directive Principles of State Policy may not be justiciable, but it is mandated by the Indian Constitution to be implicit in the policy decision made by the State. It seeks to provide for social and economic justice to all individuals in a welfare state. It is necessary for the state to keep in consonance with constitutional morality and therefore, it should refrain from making whimsical and fancy policy decisions like sudden lockdown, denying entry into the state, dilution of labor laws in the wake of pandemic, overcriminalization under Epidemic Act and other related laws, unchecked police atrocities during pandemic and the most important of all, discrimination on the grounds of place of residence.





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## 40. Supreme Court Verdict Upholds Cryptocurrencies: A New Era Unfolds

*"Cryptocurrency is freedom. Banking is slavery"*

— Arif Naseem

### 1. Incognito Start

Satoshi Nakamoto, pseudonymous person (s), on 31st October, 2008, presented a whitepaper titled *"Bitcoin: A Peer-to-Peer Electronic Cash System"*. Objective of the said paper was to create a decentralized digital currency that would operate without a central bank through an open-sourced network using cryptography to verify and validate transactions. Under this model, there won't be any intermediaries, and each transaction would be recorded on a public ledger called a blockchain.

Following the housing market crash in January of 2009, 'bitcoin' - a digital currency was created adopting the ideas set out in Nakamotos paper. Bitcoin offers the promise of lesser transaction fees than traditional online payment mechanisms and is operated by a decentralized authority, unlike government-issued currencies.

Since then, various other cryptocurrencies have cropped up, each using blockchain technology to record the transactions. Even the social media conglomerate Facebook announced in June, 2019 that it intended to launch its open form of cryptocurrency, *Libra*. After its launch, one can imagine how Facebook would normalize it.



## 2. Cryptocurrencies in India -- Turbulent Times

In India, after the launch of Bitcoin a number of cryptocurrency exchanges began to operate. Thereafter, cryptocurrency market in India witnessed gathering momentum but these cryptocurrency exchanges were working in a non-regulatory vacuum. It was a time when not only the definition of cryptocurrency was clear but there was also no law that prohibited or regulated their use.

Since 2013, diverse warnings were issued by the Reserve Bank of India (RBI) through its press releases concerning the impending risks of adopting of cryptocurrencies to the financial system of the country. An Inter-ministerial Committee was constituted by the central government and they prepared a draft bill known as Crypto Token and Crypto Asset (Banning, Control and Regulation) Bill, 2018 and the fate of which is presently unheard of.

This uncertain state of affairs prevailed until April, 2018, when the RBI issued a circular, not banning the use of crypto currencies *per se*, but the provision of banking services to any person who dealt with such currencies. This effectively meant, though, that any exchange which facilitated the use of cryptocurrencies stood frustrated. On 28th February, 2019 the above mentioned Inter-ministerial committee through its report recommended certain measures in relation to cryptocurrencies, which proscribed private cryptocurrencies completely.

Owing to the said RBI circular over a dozen of crypto entities operating in India from Coinome to Coinsecure, Koinex to Kali Digital, Zebpay to Belfrics and many others — had to forcefully lock their offices. Even the founders of leading cryptocurrencies exchange Unocoin was arrested before launching India's first Bitcoin ATM.

## 3. Reasoning of Supreme Court

The constitutionality of the RBI circular of April 2018 was challenged by Internet and Mobile Association of India (IMAI) in the Supreme Court. *Inter alia* other grounds, primarily, the Petitioners submitted that crypto currencies are not legal tender but tradeable commodities and therefore that they fell outside the RBI's regulatory ambit; and secondly, they urged that even assuming crypto currencies were amenable to regulation by the RBI, the circular nonetheless disproportionately infringed on the petitioners' rights. While the former ground proved futile, the court acknowledged the latter.

In a 180-page long judgment, authored by Justice V. Ramasubramanian, the Supreme Court found that while the RBI has the power to regulate Virtual Currencies (VCs), the prohibition imposed through the April 2018 circular is disproportionate, and, therefore, *ultra vires* the Constitution. In the court's belief, in the absence of any legislative forbidding, the business of trading in these currencies must be treated as a legitimate trade that is protected by the fundamental right to carry on any occupation, trade or business under Article 19 (1) (g) of the Constitution. It further held that the RBI's circular, in imposing a blanket moratorium on the provision of banking services to these dealers, unreasonably impinged on what is otherwise a valid vocation, by going beyond the limitations permitted under Article 19 (6).

The Apex Court also held that no defect was pointed out in the functioning of the virtual currency exchanges and that virtual currency trading itself was not banned. It also found that the banking system was a lifeline for virtual currency exchanges. In addition, it was also noted by the Supreme



Court that before issuing the circular, the RBI did not explore the availability of alternative and less intrusive measures such as regulating cryptocurrency trading and cryptocurrency exchanges.

In succinct, in order to arrive at a conclusion, the ratio applied for setting aside the circular of RBI was the doctrine of proportionality which states that the measure should be rationally connected to the objective and that it cannot be excessive, more than what is required.

#### **4. The Aftermath**

The entire crypto industry in India was celebrating the ruling on social media. This verdict more than a milestone is a precedent, and a moment in the history to revisit by the crypto players and by many other countries in the world.

Though the judgment has offered momentary relief, there is currently a dearth of definitive regulation on the cryptocurrency market. While big players like Binance, OKEx have made their way to Indian market either through acquisition or partnership, once India's largest player Zebpay which had shut down its services also announced a comeback. Private players are now planning even to acquire a hold of Cooperative banks across India to build a crypto-friendly bank for local demands.

Critically, the wide scale use of cryptocurrency also seems to be questionable, as the "Banning of Cryptocurrency and Regulation of Official Digital Currency Bill 2019" has been proposed with the aim to ban all private cryptocurrencies. Though the Indian Parliament is yet to approve the said Bill, it would be fascinating to imagine the role of digital currencies in the post COVID-19 economy. Whatever, a new era unfolds.



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## 41. Impact of Covid-19 and Lockdown on Childhood and Livelihood in India Life skills among adolescents – A prospect in pandemic

### Abstract

COVID-19 has significantly impacted the World and everyday lives and resulted in a large number of psychological, social and economic consequences. In COVID 19 scenario, Magic Bus India Foundation conducted survey to know the impacts of COVID-19 on pandemic on Childhood and Livelihood in India. Due to the restriction imposed on mobility, a telephonic survey was conducted among 3700 adolescents and their parents, and with 1000 youth across 39 districts in 4 regions, and 21 States in India. Survey was conducted among the registered beneficiaries of Magic Bus programs. PPS (Proportion to Population Size) approach was adopted in selecting survey clusters/districts.

Magic Bus works with some of the world’s poorest children and young people, taking them from a childhood full of challenges to a life with meaningful livelihoods. The approach works towards building life skills with focus on education among younger adolescents aged 12-18 years. The youth-centered Livelihoods Programme connects the aspirations and potential of young people to available market opportunities.

### Voices from beneficiaries – Adolescents, Parents and Youth

The findings showed people’s concerns regarding livelihood. We observed a significant loss in income and earnings. There was 73% loss of income in the month of April over previous month due to the lockdown. 40% of the youth reported loss of job or earning opportunity during lockdown. About a third of the respondents (31%) said that they had food supplies lasting for only for a week.

A high proportion of respondents (70%) reported making adjustment in their food habits due to the lockdown. Respondents reported switching to less nutritious food (56%), and reduced no. of meals (47%), and smaller portion meal (26%). It was evident from the survey that adolescents were very concerned about the livelihood of their family. A high proportion of adolescents reported that decrease in the income of the family (69%) was the main concern. Uncertainty of the situation causes dissonance and insecurity; this produces a feeling of discomfort and leading to toward fear and anxiety. 14.44% of the adolescents reported that their involvement in household chores had increased. Involvement in household chores was more among girls compared to boys.

<sup>14</sup>Foulds, G.A. A theory of cognitive dissonance. *Br. J. Psychiatry* **1963**, 109, 164–165. [[Google Scholar](#)] [[CrossRef](#)]

Survey findings revealed that life skills sessions conducted by the Magic bus improved perceived self-efficacy and resilience helping adolescent to cope up with in the pandemic crisis. Majority of the adolescents (82%) reported learnings from Magic Bus life skill sessions had helped them to deal with the current situation. Adolescents also reported that team work (49%), problem solving (48%), communication (44%), eating healthy (42%) and confidence (33%) helped them deal with pandemic.

Among youth surveyed, a high proportion reported that communication (69%) and self-esteem (49%) components of life skills sessions of Magic Bus livelihood training had helped them to do well in their Job. Almost half of the respondents (45%) mentioned team work, problem solving and decision making helped them to do well in their Job. This finding clearly underscores the difference made by life skills in preparing the adolescents to face the unexpected life events with courage and confidence, and have the resilience and self-efficacy to not only cope with the situation, but also recognize that they are in a position to help others, particularly family members.

### **A new approach through life skills to fight against Pandemic**

Life skills have been defined by the World Health Organization (WHO) as “abilities for adaptive and positive behavior that enable individuals to deal effectively with the demands and challenges of everyday life”. They represent the psycho-social skills that determine valued behavior and include reflective skills such as problem-solving and critical thinking, personal skills such as self-awareness and interpersonal skills. Performing life skills leads to qualities like self-esteem, resilience, sociability and tolerance, to action competencies, to take action and generate change. Therefore, educating these skills is far more important during adolescence because it marks the amount of transition from childhood to adulthood<sup>15</sup>. These skills enable adolescents to better engage with these transitions so that they can optimize their own potential and contribute positively to the society.

Keeping in view the advantages of ‘Life Skills’, therefore imparting knowledge about it becomes all the more important to developing nations like India and other neighboring economies (SAARC nations). Most of the developing economies have a huge chunk of adolescent or young population whom if imparted with correct life skills and moral values has the capacity to shape the future of the economy. “Today every fifth person in India is an adolescent and every third is a young person” according to Census 2011. With such huge presence of young people, the nation can boast itself of developing as an economic superpower given the fact that young people are educated and imparted right skills at the adolescent age. By inculcating and nurturing life skills among individuals during today’s challenging times invokes humanitarian response which goes a long way in the overall development of not only a community but also a nation.

### **Emergent Need**

There is a greater need to revise the strategies to build the life skills among adolescents and youth to face these unforeseen situations. Social distancing should not become social isolation for adolescents. They must be able to connect with family and their support system by building up the socio-emotional and other life skills. There is a need to increase community resilience and ensure a long-term pathway to sustainable development. Undoubtedly there is a need for affordable skill development interventions that can help youth to not only to acquire skills, but also help them in accessing networks that can connect their aspirations with relevant opportunities.

<sup>15</sup> Well-Being Curriculum: Integrating Life Skills and Character Strengths By Chadha, Nidhi | International Journal of Education and Management Studies, December 2017





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## 42. New Zealand A COVID Free Nation – A study of Strategies, that India can Emulate

### Introduction

A whole new crisis has gripped the entire World – Novel Corona Virus. The virus mainly spreads from humans to humans, who come in close contact with each other. As many as 213 countries have registered Positive cases, this becoming one of the largest pandemics to have spread in recent times. Figures pertaining to our own Country are not very heartening at present. As per Ministry of Health and Family Welfare, Government of India, a total of approximately 2.77 lakh cases have been reported (As on 10.06.2020) out of which 1.33 lakh cases are active. The situation is very serious and grim.

### Data & Facts

As country's across the globe, are struggling to "flatten the curve", there are some model nations which have successfully eradicated the virus completely. The most prominent of these is New Zealand. What strategies has New Zealand adopted to fight this pandemic, that India, as a country has failed to see. Arguably, India is 12.23 times in size of New Zealand with a population of almost 200 times of New Zealand. Thus, controlling the spread of the virus in a country like ours with a vast area and huge population is the biggest challenge in itself. However, New Zealand has beautifully implemented an articulated elimination strategy which can, in parts, be successfully replicated in India as well.

New Zealand had the added advantage over other countries, while adopting the under mentioned strategies:

- It is a relatively rich nation with Per Capita Income of approximately 42000 USD in 2019. Thus it has adequate cushion to deal with loss of income during the lockdown period.
- The population of New Zealand is approximately 50 million people only (As much as the population of the City of Surat in India)
- It is a relatively isolated, remote and sparsely populated island

### Strategies adopted

- Following Elimination Strategy, rather than mitigation strategy: While most of the country's across the globe were preparing mitigation methods such as increasing medical facilities and testing centres to simply contain community outbreak of the virus, New Zealand was busy preparing for an elimination strategy altogether since inception.



- Focus on complete eradication: The focus of the country was to completely eradicate the virus, from within its political borders.
- Aim to Flatten the Curve: Most of the country's around the world are even now focussing only on flattening the curve.
- Harsh Lock down measures, enforced at an early stage: New Zealand enforced very strict lock down measures in the last week of March 2020, when total cases reported in the country were merely 205. The policy followed by the Government was "Go Hard Go Early". Strict adherence of these measures was made compulsory and all borders were sealed for international travel
- Clear Communication: Prior to official announcement of lockdown, messages were sent by the Government to all residents, clearly specifying the code of conduct under lockdown and issuing guidelines regarding travel, public gatherings etc. The Prime Minister sent out frequent live and recorded messages to the nation stressing on the importance of lockdown and urging the people to adhere to it. More than 10000 personal calls were made each day to the common people to communicate the nature and seriousness of the pandemic. The personal touch of the Government seems to have worked well and made the people feel like a part of the whole scheme.
- Essential Services Only: Only essential services were allowed to ply which had a very narrow ambit of definition, unlike India, Essential Services included only pharmacies, medical services, daily essentials. Bank and various other Government Enterprises were shut down completely. Private players including restraints, malls, food deliver services, cab services were completely suspended for 4 weeks.
- Following COVID 19 Protocol Rigorously: The restrictions and protocols were followed sincerely by the people. Social Distancing norms were strictly followed and vehicular movement was strictly restricted. Majority of the population was fearful and extremely supportive of all Government measures.
- Better Monitoring: New Zealand followed the WHO strategy of "Test enough to monitor". New Zealand achieved testing rates of 8000 tests per day. Given the size of their population, they achieved one of the highest testing rates across the world. In this scenario, a COVID positive case remaining undetected was a rare scenario.
- Economic Packages: Like most other Countries, various stimulus packages were announce by the New Zealand Government. However, what stood out most was the fact that the Prime Minister along with her entire cabinet announce a pay cut of 20% for themselves. Following their lead, leader of opposition announced a similar pay cut for themselves and their party. This was a big morale booster for the nation.

### **Conclusion & Recommendations**

New Zealand's three pronged strategies namely:

- Extensive testing
- Strict quarantine and
- Restraint on travel

All these have made the country COVID free in approximately 100 days (since first case was reported). Life is back to normal in the country with no restriction on social gatherings, travel within the country etc. Offices and educational institutions have reopened and social distancing is not mandatory, though encouraged.

What most countries, and specially India, need to understand at this time is that the sooner we can get over this crisis, the quicker will be our path to economic and social recovery and reestablishment of normal business. New Zealand now has time to rebuild its economy and promote itself as a safe haven for business and leisure.

## SAHAJANAND TECHNOLOGIES (P) LTD. SURAT



*About Company: Incorporated in 1993, Sahajanand Technologies (P) Ltd. -STPL is engaged in developing cutting edged technological solutions for the diamond industry based Surat city which is also known as Diamond city. STPL is one of the very few global companies that offer total technology solutions for diamond manufacturing, including diamond analysis and planning, processing, cutting, blocking and polishing as well as safe diamond trading. As a trendsetter of the industry, STPL pioneered the laser diamond cutting technology in India. Today, the advanced technologies solutions*

*offered by STPL leverage the promising laser technology and ensure higher productivity at lesser costs. The solutions focus on optimizing automation and eliminating the resource consuming finishing operations. Not only the diamond industries, but STPL is also engaged in Manufacturing solutions (3D Printing Technologies), Industrial Laser and Automation, and even Health Care sector (Ventilators, PPE etc.) with a view to address the solution of this present pandemic. Our Technology is amalgamation of Mechanical, Electronics, Laser & Photonics, Optics & Vision System, Software, & Artificial Intelligence.*

*The company also offers wide range of variants of its product to suite diverse needs and budgets. Sound technological competence and value driven approach has put STPL on the global map of diamond processing industry. At STPL, engineering excellence is merged with core values of quality, safety, integrity and responsibility. To know more please visit [www.stpl.com](http://www.stpl.com)*

### 43. Abstract of Robomatic 2.0

Robomatic 2.0 is developed for automated feeding and cutting operations for rough diamond/gemstones without human intervention. Rough gemstones are unfinished or unprocessed form of gemstones which has to undergo processing to form a finished and valuable gemstone. Usually, rough gemstones are irregular in shape and size and undergo a number of steps such as planning, estimating, measuring physical attributes, sawing, bruting, polishing, and final inspection thereof. Such steps involve a number of machines such as gemstone-planner machine, gemstone cutting machine (Robomatic machines).

Basically this article presents idea of how we have converted the way of technology for diamond industry into automation by introducing Robomatic2.0, thus by avoiding human intervention and increasing the efficiency. Previously we had Robomatic1.0 as well, which was modified and incorporated the demand of an hour by making a new version of it called Robomatic2.0

Primarily, the gemstone-planner machine scans the rough gemstone to measure basic geometry thereof. For example, shape, dimensions (length, width, and height). Thereafter, the gemstone-planning machine estimates the physical attributes of the gemstone based upon the geometry of the gemstone. The physical attributes generated may be transferred further to the gemstone-cutting machine (Robomatic machines) for further cutting process.

Earlier, post sticking, all the gemstones mounted on their respective dies are placed in a tray/pallet and the operator has to pick up the dies and feed it to the gemstone cutting machine one by one from it. At a time, one die (holding the gemstone) is placed in the gemstone cutting machine for its cutting process. Hence, this process needs human dependency. During the unavailability of the operator, machine will remain in idle position resulting in wastage of time which in turn affects production. To solve this issue, we have added automation to the system and made Robomatic2.0 To provide fully automatic gemstone cutting solution to diamond industry, first it is necessary to separate out individual die from bunch of die and feed die one by one to the gemstone cutting system. The mechanism includes a sliding rack, a projection disc which is operated by a motor, a base plate for die location, a sensor below the base plate.

#### Previous scenario:

- In early Robomatic1.0- Single Camera Unit with low depth of field which takes more time to detect the marking, with few instances of wrong detection of marking on diamond stone.
- 35 Die Magazine which cause more human intervention.
- Load & Unload Bin Unit on Inside the Machine, causing human intervention.
- Below is an image for this system.

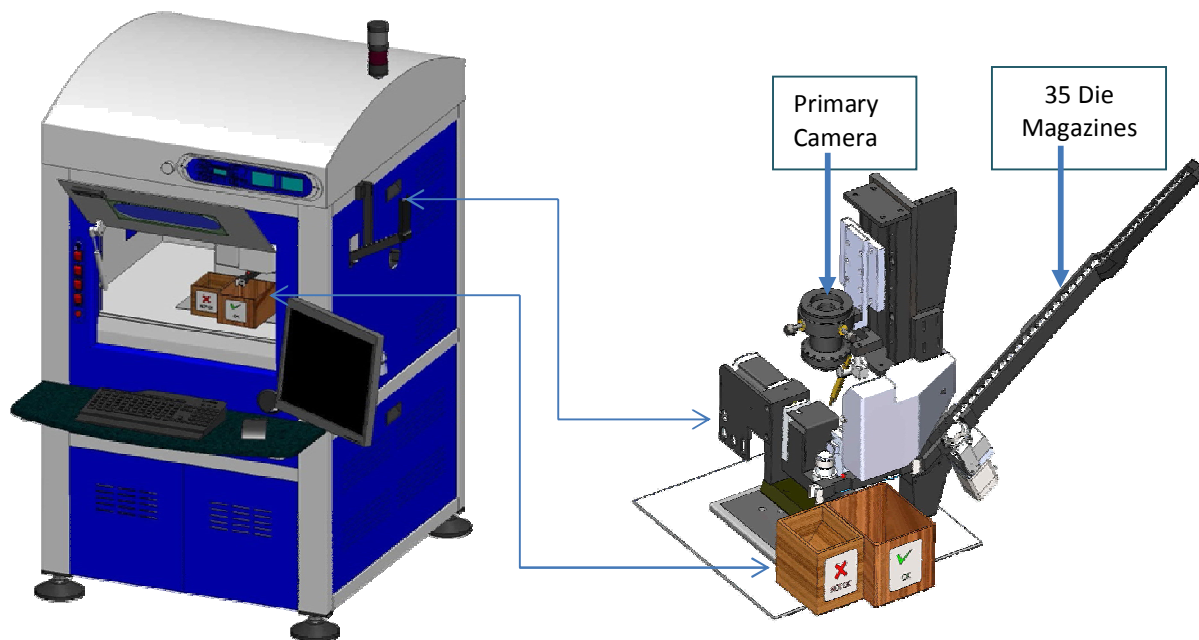


Image 1.Previous scenario

#### Present scenario:

- In Robomatic2.0- Secondary Camera Unit with Large Depth of Field by which time for detection is reduced and lowest instances of wrong detection.
- 600 Die Conveyor by which human Intervention is nullified.
- Load Unload Bin is on External side of Machine by which zero human intervention.



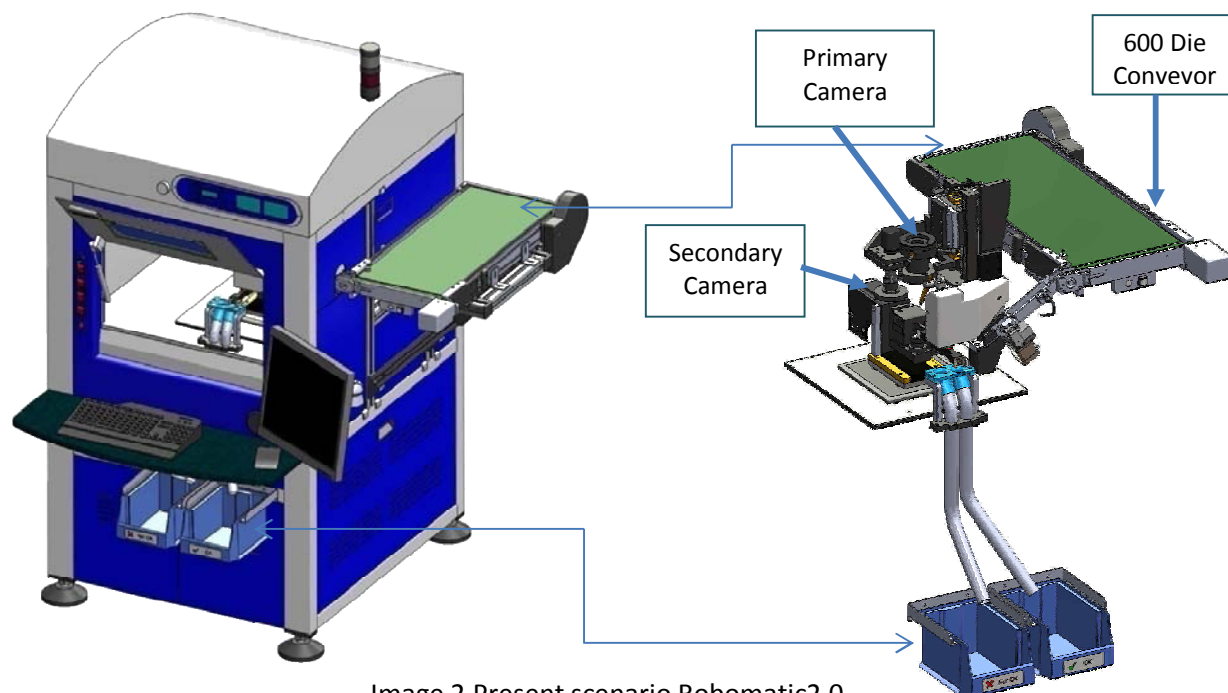
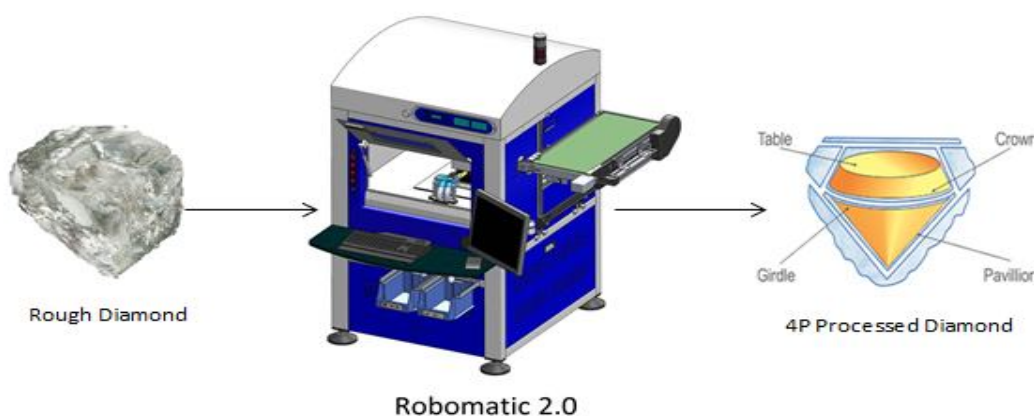


Image 2. Present scenario Robomatic2.0

- Number of dies (on which gemstone/rough diamond is mounted) will be fed to the sliding rack as per the capacity of sliding rack.
- Now, the die will be directed towards the base plate (parking position of the gemstone) one by one so that each gemstone enters into Robomatic2.0 for further processing. This controlling is done by a projection disc having a slot in it. The slot on one side of the surface of projection disc will be such that the die gets inserted in that space easily and with the rotation of the projection disc, the die will be moved towards the base plate. The rotation of the projection disc will be controlled by providing command to it through the software and electronics medium.
- To check whether the dope reaches its proper position or not, there is a sensor placed below the base plate which detects the availability of the dope at that place. Primary and Secondary camera is mounted for accurate positioning. Now other systems will start and gemstone is processed and cutting takes place by laser system and the finished gemstone is collected thereof. Important thing is that the cutting parameters are also set automatically by the system to give best optimum result and valued finished gemstone.





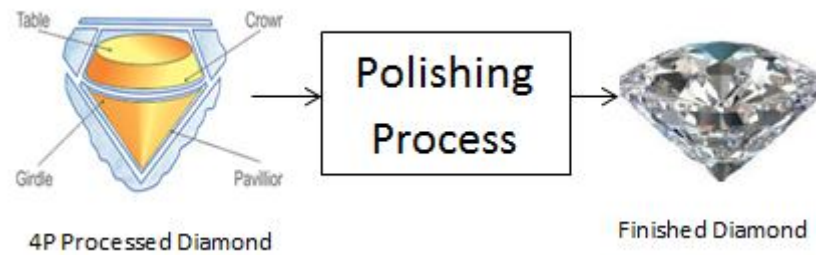


Image 3. Work Flow of making a Finished Diamond through Robomatic 2.0

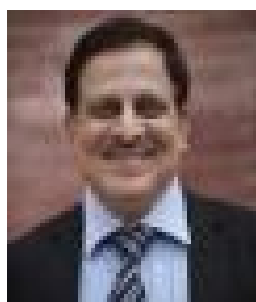
#### Advantages:

- Fully automatic system thus eliminates human intervention & human dependency. Hence errors done by human are automatically removed
- Production rate increased. Productivity increased by almost 42% as compared to old systems.
- Rejection rate reduced thus improved the quality standards. (Quality improved by almost 60% as compared to old system)
- Robomatic 2.0 improved the overall process management.
- Robomatic 2.0 has -Automatic Cutting Data
  - Automatic Centering
  - Automatic Cutting Marking Detection
  - Process Completion Acknowledgement
  - Automatic Process Skip
  - Rough Diamond Pick & Place
- Full Automation



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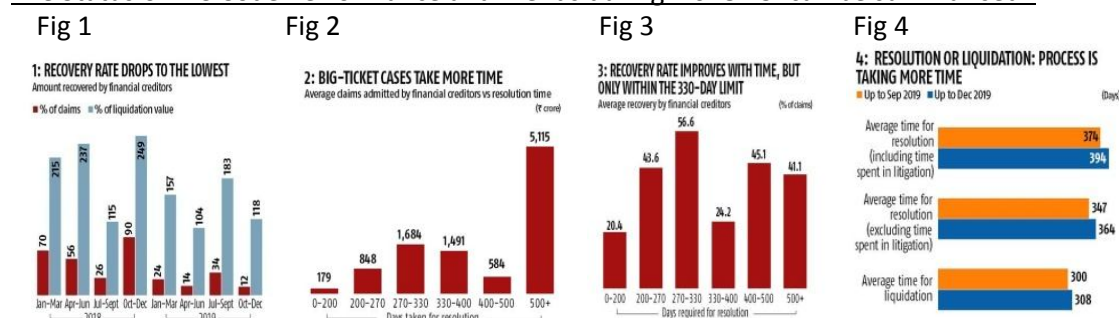
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#### **44. Insolvency Proceedings Amidst Amendments in Insolvency and Bankruptcy Code In Covid -19 Times**

Non-Performing Assets (NPA) adversely affects the financial health and long term sustainability of the bank. The macro and micro economic factors can be contributory to the financial health of the corporate and its probability of default to repay the principal and interest amount to the creditor. Increase in NPA in bank's books reflects the conversion of assets to liabilities, higher the conversion rate lower will be bank's profitability and higher will be provisioning to safeguard from future contingency. The increasing number of NPA cases reported by banks in the past few years, made it imperative for the government to develop a mechanism to ensure a smooth functioning of the banking system in India. This is where, the Insolvency and Bankruptcy Code, 2016 comes into the picture. Prior to IBC, although, a legislative framework was in place but the law was scattered with multi-layered adjudication mechanism. As per Section 3 (12) of the IBC code, default occurs when there is non-payment of debt or when partial or whole installment of the amount of debt is due and payable and not repayable by the debtor. Thus, the Corporate Insolvency Resolution is the process in which the financial creditors analyse the financial health of the debtor's business to check its credibility and ability to repay its debt. If the business is unable to repay its debt and suffers insolvency, the code involves a process for insolvency resolution which needs to be completed within 180 days, extendable to 90 days. If insolvency is not resolved, the financial creditors may liquidate the assets of the business and recover its debt. More than three and half years have

elapsed since the Insolvency and Bankruptcy Code 2016 was legislated when a faster recovery in the timelines was envisaged. COVID-19 froze demand, the corporate working capital cycle has been adversely affected. With IBC implementation there was a gradual shift of balance of power to the creditor from the financial borrower of the Bank. The depreciating the recovery rate of financial claims by the financial creditors has further been deteriorated as seen below with the impact of a pandemic on the Indian economy and the corporate sector. The aftermaths of the slackened economy in Covid-19 forced the Ministry of Finance to adopt significant measures in light of IBC.

The Status of IBC Code Performance and Trends during 2018-19 can be summarised :



Source : Data from www. Business Standard and author's compilation

Keeping into consideration the economic loss to the corporate sector the Government of India has proposed major amendments on 24, March 2020 in the IBC Act 2016. The amendments proposed to give some relief to the corporate sector are as follows:

- Corporate Insolvency Resolution Process, Sec 4 regarding the threshold amount to be considered as default by the financial creditor has been amended. The threshold amount for a default event has been raised from Rs 1 Lakh to Rs 1 Crore.
- Invoke suspension of section 7,9, 10 of IBC Act for the present time. The insolvency initiation for a period of six months has been invoked for the business units. Section 7 of IBC enables the Financial Creditor (FC) to file for insolvency against Corporate Debtor (CD). Section 9 provided for application of insolvency against Operational creditor (OC). Section 10 relates to initiation of insolvency proceedings by a corporate applicant.
- National Company Law Tribunal (NCLT) has initiated a major closure of filing cases in case it is not an urgent matter.
- As per the verdict of Supreme Court, the limitation period for the current proceedings shall be extended beyond 25 March, 2020. As per Article 141, this will be binding on all tribunals / Courts and adjudicating authorities.
- In terms of Section 11,12 of National Company Law Appellate Tribunals (NCLAT) rules, 2016, the NCLAT decided that the period of lockdown announced by the Government of India and authorities (both Centre & State Governments) will be not counted for the purpose of period of Corporate Insolvency Resolution Process. It is decided that till the next date of hearing the interim and interlocutory order shall remain operative.
- As post COVID-19 there are major spurts in lack of cashflow in units, the operational creditor will be faced not to file any application under Section 9 which has been revamped for the time being. As the Operational Creditor (OC) will find it to produce the goods even if financial creditor initiates insolvency case (CIRP) it is unviable to do so due to prevalent circumstances in COVID-19 days. However, in terms of Section 14 Sub Section 2 Amendment Act 2020 the contractual obligation



will continue till a debtor defaults. In the current COVID-19 scenario, even if the debtor defaults, the creditor filing of application to sue will be stalled suo moto.

- Under the new rules, relaxations over the period of 330 days will be admissible for the CIRP to be completed. This will be at the discretion of the tribunals who would weigh their decision in the tough prevailing environment and take appropriate decisions. .

It can be concluded that the series of amendments of IBC have to be relooked again as they will drag genuinely stressed borrowers to bankruptcy courts for reasons that were beyond their control, to begin with. Amendments may make the creditors cheer. On June 5, 2020, IBC amendments have been further relaxed to achieve the AtmaNirbhar Bharat Abhiyan objectives proposed by the Government of India to make the Indian economy become self-reliant and overcome the challenges of COVID-19. The government of India has suspended fresh proceedings against COVID-19 impacted firms and persons for at least 6 months up to a maximum of 1 year. A new Section 10A has been now inserted in the Act post Ordinance passed emphasizing that no application will be filed for CIRP proceedings of a corporate debtor if the default arises with effect from 25 March 2020. Extension beyond six months to one year may be granted from the date. More notifications, compliances are required to enable business houses to generate cash flows and operationalize them as production has been hampered in recent days.



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## 45. Corporate Reputation and Financial Performance: A study of select Indian Companies

### Abstract

**Purpose:** The study aims at examining the relationship between corporate reputation and financial performance.

**Methodology:** The study covered period from FY 2013 to 2018 for a sample of 47 firms enlisted by Fortune India; Top 50 most valuable firms. Corporate reputation was measured by using proxies and examining their effect on measures of financial performance

**Findings:** The findings provide inconclusive evidence of relationship of corporate reputation with financial performance. Sufficient proof was not found to say that firms with high corporate reputation as measured by proxies show high financial performance. However, some linkages were found for age and size of the firm being significantly related to financial performance measures.

**Originality/Value:** This study offers insight into relationship of corporate reputation and financial performance based on proxies for measurement of corporate reputation instead of extensive use of survey rankings by researchers (e.g, Fortune's Most Admired Companies list). Unlike other studies, this study was done on Fortune India's Top 50 highly valued companies based on market capitalization, taken as proxy for corporate reputation.

### Introduction

Managements of corporations have increasingly recognized importance of building strong reputation. Corporate reputation transpires like an intangible asset that makes a firm distinct from competitors. Higher sales revenue, growth in sales, lower cost of capital and establishing brand equity (Zhang and Rezaee, 2009) entail higher profits for 'well reputed' enterprises.



Purpose of this study is to quantitatively measure corporate reputation by using various proxies applied by researchers and delineate relationship of corporate reputation with financial performance.

## Literature Review

Corporate reputation is linked to general appeal of an organization to stakeholders described by perceptual depiction of organization's past, present and future prospects (Fombrun, 1996). Empirical studies show mixed evidence about impact of corporate reputation on financial performance.

Stakeholders are more familiar with old firms so they tend to be more popular with public (Kaur and Singh, 2018). The more time a firm has been in business, greater would be possibility of establishing positive outlook. Visibility in stock market is helpful for companies (Mariconda and Lurati, 2014). Listing extends their visibility. Company size is significant as large companies possess stronger image partly because the public is more familiar with them. Tomak (2014) also found that firm size has significant and positive impact on corporate reputation.

Black *et al.*, (2000) found that market reputation generates value by increasing market value. Securities of companies of good repute draws investors which stimulates demand for shares thus increasing share price and improving market capitalization. Hence, market capitalization is a robust indicator for corporate reputation.

## Methodology

The sample constitutes Top 50 Most Valuable Firms enlisted by Fortune India 500 survey of India's largest corporations based on 365 days market capitalization. Final sample size was reduced to 47 because of unavailability of data. Data encompasses 6 years from FY 2012 to FY 2018. This accounted for changes in firms with announcement of Companies Act, 2013.

Dependent Variables: Measures of Financial Performance:

1. Return on Assets (RoA)= Net Income/Average Total Assets.
2. Return on Equity (RoE)= Net Income/Shareholders' Equity.

Independent Variables: Measures of Corporate Reputation:

1. Firm age= Natural log of number of years since incorporation.
2. Listing Age= Natural log of number of years since listing on BSE.
3. Size of the firm= Natural log of total asset size.

## Results

From the sample, average firm age is 41.21 years. A company's stock listing is as recent as 1 year to 79 years. Size (in terms of total assets) varies from Rs. 526 Cr to Rs. 3,454,752 Cr. The mean RoA and RoE was 14.03% and 18.63% respectively.

Table 1 depicts correlation. Firm Age appears to have significant positive association with Listing Age. A significant negative correlation exists between Firm Size and RoE.

### Table 1: Correlation

Variables	Firm Age	Listing Age	Size of firm	RoA	RoE
Firm Age	1				
Listing Age	0.658**	1			
Size of firm	0.132	0.186	1		
RoA	0.102	0.114	0.016	1	
RoE	0.218	0.089	-0.322*	0.284	1

\*, \*\* Correlation is significant at 0.05 level and 0.01 level respectively.

The regression models studied:

$$\text{RoA/RoE} = \beta_0 + \beta_1 \text{ Firm Age}_i + \beta_2 \text{ Listing Age}_i + \beta_3 \text{ Size}_i + \varepsilon_i$$

Regression analysis showed no values of  $R^2$  and Adjusted  $R^2$  values greater than 20%, i.e. not even 20% of the variation in dependent variables was explained. So, independent variables (Firm age, listing age, firm size) could not explain variation in dependent variables. For FY 2016, 2017 and 2018, a statistically significant negative relationship was detected between firm size and RoE; firm size and RoA in FY 2013. A significant positive relationship was revealed in FY 2013 between firm age and RoA. In totality, no significant relationship was observed with regards to dependent variables.

## Conclusion

The selected measures of corporate reputation could not explain the variation in financial performance variables. Some linkages of financial performance were observed with firm age and size. This could be because people tend to invest in securities that they are familiar with (image) instead of assessing financial implications. Another reason is dynamics of stock markets. There is need for more research into quantitative measurement of corporate reputation and its relationship with financial performance in different contexts across country or industry wide spectrum.



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## 46. Conversion of Pollutants Into Fuel

***'Today we are dumping 70 million tons of global warming pollution into the environment, and tomorrow we will dump more, and there is no effective worldwide response. Until we start sharply reducing global warming pollution, I feel that I have failed.'***

*-Al Gore, The Gore Interview by Bryan Walsh*

### 1. Introduction

Our present dependence on fossil fuels means, as our demand for energy inevitably increases, so do emissions of greenhouse gases, most notably carbon dioxide ( $\text{CO}_2$ ). To avoid the evident consequences on climate change, the concentration of such greenhouse gases in the atmosphere must be reduced. As the cities urbanize and the population grows, future demands now ensure that energy will be one of the definite issues of this century.

These challenges also mean that science has a unique opportunity to apply their understanding to impart green energy solutions. This paper gives a brief overview of an alternative long-term option i.e. the conversion of pollutants into sustainable, synthetic carbon fuels, mainly for transportation purposes.

70% of our earth's surface is covered with water and 99% of this water is in the form of ocean water. The approach of this project is that ocean water is split to form hydrogen fuel. The main strategy involving  $\text{CO}_2$  conversion into fuel is electrolysis.

The  $\text{CO}_2$  recycling plant will combine  $\text{CO}_2$  with  $\text{H}_2$  (split from ocean water) to form hydrocarbon fuel, which is more efficient fuel and can be recycled.

### 2. What is electrolysis?

Electrolysis is the process of breaking down of compound into its constituent ions by the passage of electricity. Here, electrolysis of ocean water gives  $\text{H}_2$  which can be used as a fuel. The ocean water is a composition of oxygen, hydrogen and various salts dissolved in it amongst which  $\text{NaCl}$  is in the major proportion. According to the product of electrolysis, the ion with the least discharge potential gets deposited at the respective electrode. Amongst all the anions present,  $\text{Cl}_2$  having lower discharge potential gets deposited at the anode and  $\text{H}^+$  is obtained at the cathode.



This H<sub>2</sub> is carefully stored in the cylinders. Coming to the next step, here we can see fans installed to capture tons of CO<sub>2</sub> from the atmosphere. We believe that direct air capture seems to be the only potentially feasible way to absorb CO<sub>2</sub> that is already been emitted from small mobile sources such as cars, trucks, etc., which makes up to 60% carbon emissions today.

### 3. Working of the CO<sub>2</sub> recycling plant

The big fans that are installed contains PVC air filters. Air containing CO<sub>2</sub> is passed through it and capturing solution of PENTAETHYLENE HEXAMINE(PEHA) is poured into it. Every single surface of this filter is wetted with CO<sub>2</sub> capturing PEHA solution. Air containing CO<sub>2</sub> is passed over the surface, when CO<sub>2</sub> comes in contact with the solution, it gets converted into the carbonate solution.

The carbonate solution is then collected in a large tray and sent to the sump. Now, CO<sub>2</sub> can easily be extracted from this carbonate solution leaving behind the original PEHA solution.

This captured CO<sub>2</sub> is made to react with H<sub>2</sub> at 155°C and 50 atm pressure in the presence of RUTHENIUM catalyst.

After 55 hours 79% of H<sub>2</sub> gets converted to hydrocarbon fuel. This hydrocarbon fuel can substitute gasoline, jet fuel, petrol or diesel in the transportation industry. When these fuels burn, they would simply release the CO<sub>2</sub> back to the atmosphere. Hence this source of energy is sustainable and renewable.

### 4. Conclusion

Running an automobile consumes a lot of fuel. Moreover, it also pollutes the environment in numerous ways but what if transportation could run on pollutants itself. This system requires 1000 times less land than carbon sucking trees, moreover this system can be installed in barren lands or deserts where cultivation and inhibition is next to impossible.

To bring this innovative approach into real life, technologies will require major advances in research and development, as well as significant socio-political commitments to CO<sub>2</sub> capture and utilization. International collaborative research between developed and developing countries is also critical in such a venture. Our hope is that this present summary helps to catalyze such a worthwhile development.

**Be a part of the solution, not part of the pollution.**



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## **47. Attitude of investors towards bitcoins in India (2017)**

### **Abstract**

The paper studies the investors in India and how they interact with a world changing technology of Bitcoins. The savings and investment habits of Indians are very vibrant. To comprehend the true essence of this paper, a survey has been conducted amongst current and potential investors in order to understand their willingness and attitude towards bitcoin investment. In order to show the correlation between investor's perception of risks and return and willingness to invest Pearson's Product Moment Correlation has been used in addition with Spearman's Rank Correlation. The willingness of investors to invest in relation with the regulated/ legalized bitcoin and the issuing authority has been shown by using Wilcoxon Signed Rank Test. Further a comparative study has been done, between stock exchange and bitcoin exchange, in order to understand if the legalizing and regulating bitcoin exchange would have beneficial outcomes for a country like India. This paper also shows how a regularized bitcoin exchange like the stock exchange, could benefit not only Indian investors but also the government.

Attempts have been made to understand the implications of a regulated bitcoin market and how it would influence investment patterns of different individuals. The paper also sheds light on stock market and bitcoin market's similarities. This is done with the intention to forecast and predict what trend in investment may be seen when the government regularizes bitcoin trade. In this paper the view that a regularized bitcoin exchange will be beneficial for the economy as a whole has been put forward.

[Keywords: Bitcoin, Indian Investors, cryptocurrency, willingness of investors, bitcoin exchange]





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