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On

“Atma Nirbhar Bharat 2020: Build Local to go Global- Issues and Concerns”

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A STUDY ON PERCEPTION OF YOUTH TOWARDS HANDLOOM INDUSTRY AS ENTREPRENEURIAL ACTIVITY LEADING TO SELF- DEPENDENT INDIA

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Abstract:

According to 4th All India Handloom Census 2019-2020, there are over 3.5 million handloom workers; allied workers are about 24% of overall. A majority of handloom workers are female and mostly belong to the age group of 18-35 years. Handloom industry is significant for the economy not only because of low capital investment and a high potential for export and foreign exchange earnings but also due to its linkage with the rural farm economy. This sector is generating jobs not only in rural areas but also in semi-urban and urban India. In India, nearly 15% of cloth production is from the handloom sector; and India constitutes 95% of global production of hand-woven fabric. In the financial year 2019, the US was the major importer of Indian handloom products followed by the UK, Italy and Germany. The demands for Indian handloom products have been growing globally, with considerable demand from the international “slow fashion” market. Assam, West Bengal, Tamil Nadu along with most north-eastern states are the highest handloom contributors in India. It has great potential to gear up the drive of self dependent India but still lacks proper flow of credit, technology backwardness and novelty in designs. Thus, the present paper studies the perception of the youth on handloom industry as preferred entrepreneurial activity and the reasons behind their perception.

Keywords: Handloom industry, entrepreneurship, self- dependent, perception, economy.

INTRODUCTION

The richness and diversity of Indian culture is exhibited by the Indian handloom industry. The handloom industry is popular for the unique designs and finesses and thus, holds the position of second largest employment provider after agriculture to rural India. As per the fourth All India

Handloom Census, 31.45 lakh households are engaged in handloom weaving and allied activities of handloom industry in India. It stands as one of the most convenient economic activity among the rural people. However, as per Report prepared by Thought Arbitrage Research Institute (TARI) for FICCI Ladies Organisation (FLO) based on Third Handloom Census, Government of India on Indian handloom industry about 43.31 lakh persons are engaged in handloom sector where 36.33 rural areas and 6.98 lakh from urban areas with 38.47 lakh adult weavers and allied workers where 77% female and 23% males. Moreover, most of the handloom industries in the country are located in the North-Eastern Region of India. Assam alone accounts for 46.8% of the total number of handloom in the country and consist of 12.41 lakh handloom households and 39% of total handloom workers. The major fabrics produced on handlooms are the “gamcha” and the “mekhela chadar”. Sualkuchi in Assam is the major handloom clusters in India. However, the ratio gap between female and male weavers is higher as compared to other states which constitute top 10 states with high handloom production in India.

OBJECTIVES

To know the perception of the respondents regarding the handloom industry and their preference towards this industry as entrepreneurial activity.

RELEVANCE

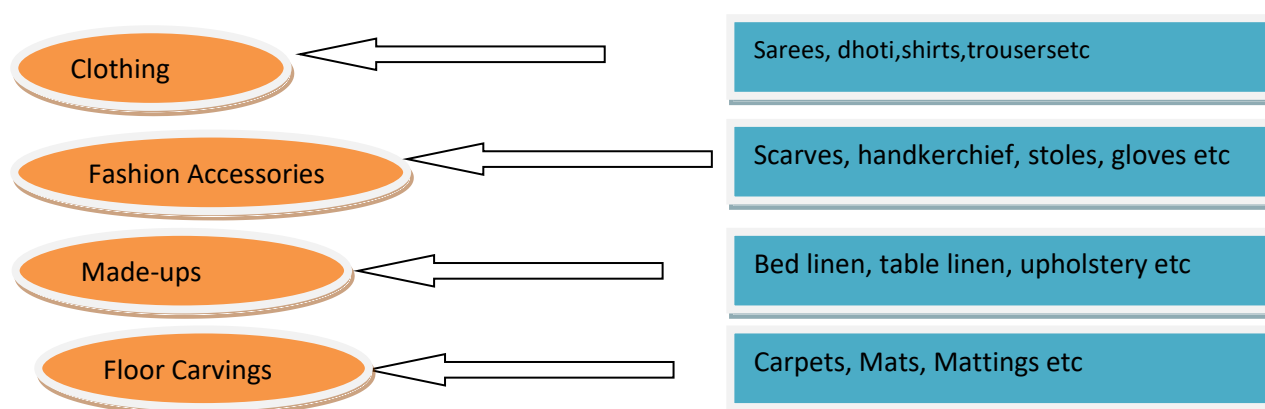
The handloom industry has the leading potential to attract a large number of small entrepreneurs due to its nature low cost and availability of raw materials. It not only fuls the need of an individual but also has a great contribution in export of the country. U.S is the largest importer of handloom products from India and total export of handloom products from India is 353.9\$ million in 2017-18 while import to India is only 10.8\$ million. This sector is critical for growth of the economy and a self-dependent Bharat owing to its huge prospect of export, employment generation and foreign exchange reserve. In spite of being the second largest employment provider, the handloom industry lacks novelty in designs, lack of credit and marketing facilities. This industry is mostly considered to be a rural job and traditional work. Thus the present paper attempts to study the perspective of youth on this industry and how it can contribute to the bridge of self-dependent Bharat.

RESEARCH METHODOLOGY

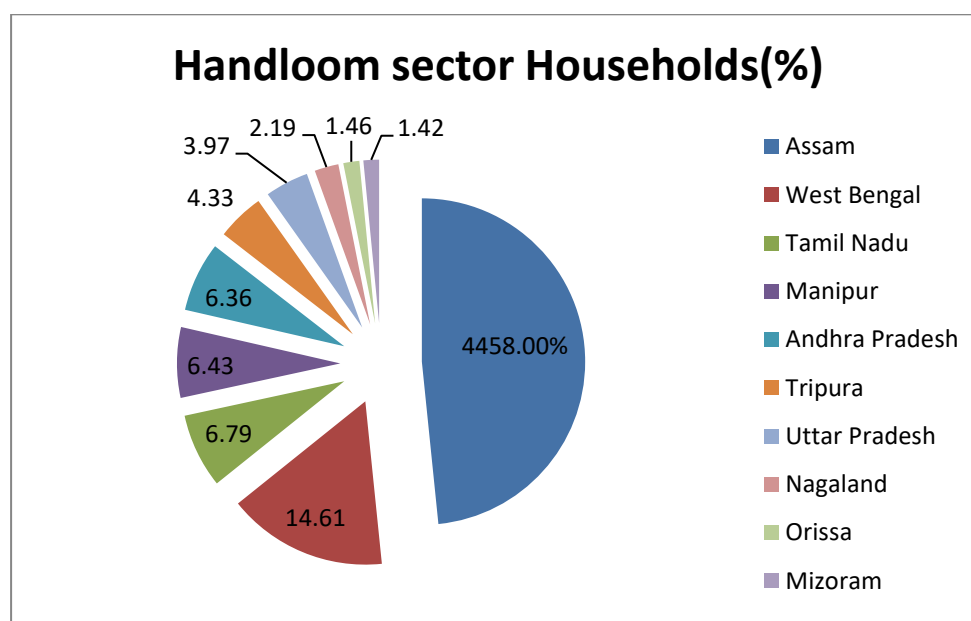
The present study is descriptive in nature. Secondary data have been collected from various books, journals, websites, etc. Primary data have been collected with the help of Google-form circulated among the sample respondents. For conducting study 50 students of Digboi College, Digboi have been selected purposively who were in final semesters of their graduation. Data have been analysed through the help of descriptive statistics and Likert scale have been also used.

A GLIMSE OF HANDLOOM INDUSTRY IN INDIA

Product Classification in Handloom Sector

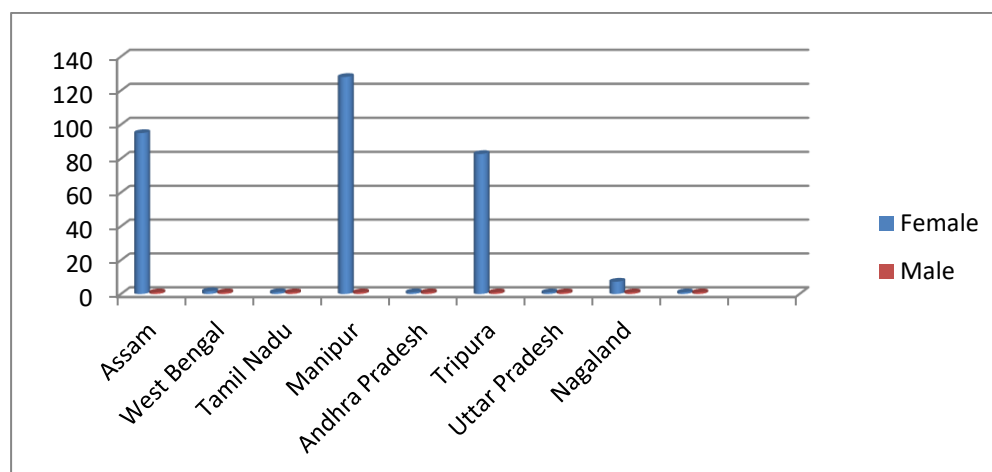


Top 10 states in India with highest handloom sector households



Source: Report prepared by Thought Arbitrage Research Institute (TARI) for FICCI Ladies Organisation (FLO) based on Third Handloom Census, Government of India.

Number of adult (18 years and above) handloom workers by gender



Source: Report prepared by Thought Arbitrage Research Institute (TARI) for FICCI Ladies Organisation (FLO) based on Third Handloom Census, Government of India.

Distribution of adult (18 years and above) handloom workers by gender

Gender	Per cent distribution	
	Rural	Urban
Female	18.2	42.4
Male	81.8	57.6
Total	100	100

Source: Report prepared by Thought Arbitrage Research Institute (TARI) for FICCI Ladies Organisation (FLO) based on Third Handloom Census, Government of India.

LITERATURE REVIEW

- **Vinayan (2011)** carried out a study on Intellectual Property Rights and the handloom sector: challenges in implementation of Geographical Indications Act and concluded that GIs have great importance as a marketing tool for handloom sector in India. In fact dependency of rural population on handloom weaving provides unique opportunity for GI as a tool for poverty alleviation.
- **Patil (2012)** carried out a study on Role of handloom industry in India and concluded that element of art and craft present in Indian handlooms makes it a potential sector for the upper segments of domestic as well as global market. The sector would be able to tide over the problems through financial assistance and implementation of various welfare schemes.

- **Nadh, Rao and Harshavardhan (2013)** carried out a study on need for market assessment, problems and marketing strategy in handloom market and concluded that marketing and export promotion schemes is needed to promote the marketing of handloom in the country. The government should help in initiating new outlets, customer friendly services, middlemen elimination etc in order to make new ways of growth for handloom sector.
- **Kaushik and Jain (2015)** carried out a study on impact of government schemes on handloom weavers at Maheshwar, Madhya Pradesh. The study concluded that the weavers are either not aware of the schemes or inadequate fund allocation or slow process of release of funds by government lower downs their satisfaction towards the schemes. Moreover, in case of health related schemes; regular monitoring of health centres is needed. The study suggests registration of products with brand name and logo in order to increase sales.
- **Goswami, Hazarika and Handique (2017)** carried out a study on determinants of financial risk attitude among the handloom micro-entrepreneurs in North-East India and concluded that growth of female micro entrepreneurs is restricted by insufficient resources and low valued production in handloom sector. An access to vocational training can change individuals' attitude towards risk despite of locational differences. Financial inclusion and follow up can improve their access to credit and utilization of resources.
- **Jain and Gera (2017)** carried out an analytical study of handloom industry of India and concluded that lack of professionalism in overall handling of work is the major problem in handloom units. Financial crisis and lack of proper infrastructure are other major problems. The study suggests that there should be pricing strategy formulated on the basis of market demand and regular quality assessment of yarns is needed.

DISCUSSIONS AND FINDINGS

Detail of Respondents

Area belong to		Interested in entrepreneurial activity		Handloom as a good choice of entrepreneurial activity		Kind of product interested in					
		Yes	No	Yes	No	Clothing	Fashion accessories	Made-ups	Floor carvings		
Urban	Rural	43%	57%	64%	36%	98%	2%	76%	13%	2%	9%

Most of the respondents belong to rural area and are interested in entrepreneurial activities. Majority of respondents regard handloom as a good choice of entrepreneurial activity and are mostly interested in clothing.

Challenges that may be faced

Options	Percentage
Shortage of inputs and problem of working capital	69%
Lack of credit	82%
Marketing issues	78%
Technology backwardness	87%
Lack of novelty in designs	93%
Lack of management skills	64%
Database Crunch	32%
Lack of awareness on government assistance programs	72%
Other issues	0
High price attracts less customer	67%

The major challenges that are faced by handloom sector is lack of novelty in designs, technology backwardness, lack of credit, marketing issues as well as lack of awareness program. Moreover, weavers have no option than charging high prices for products which makes these products less preferable by customers.

Reasons behind handloom industry being regarded as a rural activity

Statements	Percentage
Ignorance from higher authority	82%
No educational criteria required	75%
No brand name or logo	72%
Do not demand a sophisticated infrastructure	24%
Believe that handloom is linked with rural people only	61%

The above table discloses that majority of respondents thinks that ignorance from higher authority, no brand name, low educational criteria are the main reason due to which handloom

sector is regarded as the rural activity. Most of the respondents also think that many people believe that handloom industry is mainly formed for rural people.



Major steps need to be taken to encourage interest towards handloom sector

Options	Percentage
Providing market intelligence	80%
Improve credit delivery	76%
E-commerce platform	92%
Connecting private sector through. CSR	83%
National campaigns on handloom products	76%
Developing comprehensive database	34%
Promoting brand name/logo	64%
Inspecting quality standards	34%

The crucial steps that should be taken to improve the handloom sector are to provide e-commerce platform which will help the weavers in advertising their product to a greater number of customers and reach more areas. Again, providing market intelligence will help the weavers in adopting new methods of production and sell as well as deciding pricing strategy. Moreover connecting handloom sector with private corporate through CSR can also help both the sectors to grow continuously.

Other Findings

The handloom sector shall be chosen as an entrepreneurial activity by urban youth along with the rural youth because it will not only solve the problem of unemployment among urban youth but also helps in retaining the traditional art and craft of the state as well as the country. The urban youth have better educational opportunities and can adopt new methods of production thereby reducing the price of the products. Moreover, handloom sector shall enter into new products like toys, sanitary napkins etc. which will again reduce our dependency on other countries.

Majority of the respondents are partially aware of the various government schemes meant for handloom weavers and allied workers. The reason is that no educational institute organizes such

programs to teach about the handloom sector and its related element and most of the time handloom sector is ignored while discussing about business and entrepreneurship.

The handloom sector is generally viewed to be connected with illiterate people due to whom this sector rarely gets limelight at national level. But, in rural areas it is a great source of earning for many.

Though the government has introduced many schemes in order to assist the handloom sector but the implementation of the schemes is still questionable. A lot need to be done to aware people about the importance of handloom sector, developing skills of weavers by training including computerized design skills as well as promotional measures. Supporting the handloom sector financially, allotting a department as well an official team monitoring them, creating a brand/ logo, advising on advertising methods and regulating flow of credit to the sector will definitely contribute towards the improvement of handloom sector.

The handloom sector can contribute a lot to the path of self dependent and safe nation as it can not only create enterprises and employment but also reduce import to a greater extent. Lack of brand name/ logo as well as high prices make the handloom products less attractive to customers. But, if new ideas comes up focusing on reducing production as well as transportation cost, advertising to a greater scale, improved accessibility to raw materials as well as uninterrupted flow of credit, than this sector can speed up the progress to a self dependent nation.

Males are found to be least interested towards this sector as the handloom works are regarded as women work. There should be awareness programs on this sector in order to discuss the importance of the sector to the economy and the scope of growth. The mentality of handloom being connected to women should be altered by promoting handloom work as “Not a gender based work” and giving examples of male figures who are successful handloom entrepreneurs.

Training and skill development programs should be regularly organized in both urban and rural areas. As urban youth are full of modern ideas and rural youth are full of knowledge on the art and craft of nation, both the areas can combine together to form a better enterprise.

CONCLUSION

The use of fabrics, techniques created to make designer art pieces and expressing ethnicity through them has been an integral part of India's base. Its power is such that Handloom industry constitutes around 14 percent of total preindustrial production and 30 percent of the

total export business. The youth need to be encouraged to enter into this sector by organizing training and workshops in educational institutions. Technical training was not found to bring any satisfactory result despite computers being provided to weavers through workshops or skill development courses. Though the handloom sector has a high potential of employment generation for unorganized workers and supporting a self-dependent India, it still lacks the designation of a preferred career in entrepreneurial activity. In rural areas also most women weavers are engaged in this activity as a part-time endeavour, as they do it along with household chores and family care work. Lack of brand name/ logo as well as high prices make the handloom products less attractive to customers. The belief of handloom industry being connected with illiterate or rural women specially women need some change. E-commerce platforms like e-Dhaga mobile app launched by National Handloom Development Corporation are a great step but along with it measures should be adopted to regulate flow of credit to the sector. Private enterprises can connect through CSR activities which may help in solving the marketing related issues as well as brand name/logo.

REFERENCES

Journals

- Soumya Vinayan- Intellectual Property Rights and the Handloom Sector: Challenges in implementation of Geographical Indications Act

Available at: https://www.researchgate.net/publication/280561722_Intellectual_Property_Rights_and_the_Handloom_Sector_Challenges_in_Implementation_of_Geographical_Indications_Act
- Dr.Usha N. Patil- Role of Handloom Industry in India

Available at: http://www.i3s.net.in/uploads/pdf/Resources/Role_of_Handloom_Industry_in_India.pdf
- Rayapati Raveendra Nadh, Dr.P.Venkata Rao &Dr.B.M.HarshaVardhan-

HANDLOOM MARKET (Need For Market Assessment, Problems & Marketing Strategy)

Available at: <http://academicinforma.com/journals/info/6/63>
- Nikhil Kaushik and Madhu Raj Jain- Impact of Government Schemes on Handloom Weavers at Maheshwar, Madhya Pradesh

Available at: https://www.researchgate.net/profile/Madhur_Jain5/publication/_International_Journal_of_Management_Studies_IMPACT_OF_GOVERNMENT_SCHEMES_ON_HANDLOOM_WEAVERS_AT_MAHESHWAR_MP_Introduction/links/5efc0d1692851c52d60c9cec/International-Journal-of-Management-Studies-IMPACT-OF-GOVERNMENT-SCHEMES-ON-HANDLOOM-WEAVERS-AT-MAHESHWAR-MP-Introduction.pdf

- Kishor Goswami ,Bhabesh Hazarika & Kalpana Handique - Determinants of financial risk attitude among the handloom micro-entrepreneurs in North East India

Available at: https://www.researchgate.net/publication/318993676_Determinants_of_financial_risk_attitude_among_the_handloom_microentrepreneurs_in_North_East_India

- Dr.Dharam Chand Jain & Miss Ritu Gera- AN ANALYTICAL STUDY OF HANDLOOM INDUSTRY OF INDIA

Available at: http://www.ijstm.com/images/short_pdf/1484975178_K1059ijstm.pdf

Websites:

- <http://nopr.niscair.res.in/handle/123456789/13411>
- <https://blog.nextias.com/grand-finale-to-textile-grand-challenge-2019>
- <http://www.newsleakcentre.com/news/aatma-nirbhar-bharat-celebrates-national-handlooms-day-read-to-know-its-significance/>
- <http://www.newsonair.com/News?title=Handloom-sector-made-commendable-efforts-to-preserve-indigenous-crafts-of-country%3A-PM&id=396690>
- <https://www.ndtv.com/india-news/national-handloom-day-prime-minister-narendra-modi-said-choose-handmade-products-for-atmanirbhar-bharat-2275849>
- <http://www.ficciflo.com/wp-content/uploads/2019/03/Indian-Handloom-Industry-Final.pdf>
- <http://www.ficciflo.com/events/flo-supports-artisans-promotes-indian-handlooms-national-handloom-day/>

ROLE OF AN INCUBATION UNIT WITH SPECIAL REFERENCE TO NORTHEAST AGRICULTURE TECHNOLOGY ENTREPRENEURS HUB (NEATeHUB)

11

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Abstract:

The term '*Atma Nirbhar Bharat- Build Local to go Global*' portray creation and innovativeness in itself tracing empowerment to be self-sufficient and financially reliable. Creation and innovativeness when put in the right place to relish commercial benefit can help one become financially self-reliant. The campaign '*Atma Nirbhar Bharat – Build Local to go Global*' further necessitates to make use of locally available inherited resources for commercial offering which in turn would lead to capital formation in the economy. In this conjuncture, the grooming of budding entrepreneurs is utmost essential. Time and again, the weightage to work upon promotion of entrepreneurship education was felt and hence institutional setup called incubation units/incubators are started. Northeast Agriculture Technology Entrepreneurs Hub abbreviated as NEATeHUB is one such incubation unit situated in the state of Assam, India. Entrepreneurship mentoring and training is vital before initiating any business venture. Thus the researcher has felt the pertinent need to study the role and functioning of the concerned incubation unit. Moreover, the paper also highlights the challenges encountered by the concerned incubation unit in offering such services. The database containing the attributes of business ventures nurtured by NEATeHUB till date are also presented to get insightful information.

Keywords: *creation, innovativeness, self-reliant, entrepreneurship education, mentoring, incubation unit*

INTRODUCTION:

Antecedents of India reveals the significance of agriculture in the economy. India as an agrarian economy has gone through structural reforms from time to time. Agriculture as an occupation goes well with the social fabric of Indian societies and thus it has proved to emerge as a global

agricultural powerhouse. The World Bank group has been playing an important role in shaping the developments in Indian agriculture so far realizing its potentiality in areas of rural livelihood development, food security needs, sustainable agricultural practices, research in agricultural technology, agricultural marketing, availability of finances for farmers so on and so forth (*India: Issues and Priorities for Agriculture, 2012*). Assam is a state in the northeastern part of India. The state of Assam is blessed with fertile soil and a climatic condition suitable for agricultural activities (Nath, 2016). Further the objectives of Assam Agribusiness and Rural Transformation Project focus upon post-harvest segments aiming to design unique supply chain management, information communication technologies based information on agriculture, alternative marketing channels, reduce transaction cost and facilitating access to finance for agribusiness entrepreneurs (*Overview of APART*).

Incubation support is an integral part of Startup India campaign. Atal Innovation Mission is a flagship initiative set up by the NITI Aayog to promote innovation and entrepreneurship which includes setting up of Atal Incubation Centers (AICs) both in public and private sector. The mission aim in setting up world class incubators at the university, NGO, SME and corporate industry levels. A grant of INR 10 crore is allocated to each under the mission (*Incubation Support, Atal Innovation Mission*). Northeast Agriculture Technology Entrepreneurs Hub located in Assam, India is one such incubators introduced and financed under Atal Innovation Mission. NEATEHUB is located in Assam Agricultural University campus in Jorhat district of Assam, India. The select incubator firmly has an analogical belief that providing incubation services to any business idea is just like bird sitting on her eggs, caring and nurturing them- to enable them to take birth, learn, grow and fly. The concerned incubator aims to create sustainable entrepreneurial ecosystem to build startups in agriculture and allied sectors. It highlights its focus sectors as horticulture, livestock, fisheries, food processing, soil conditioning, natural fibre, medicinal and aromatic plants, farm machinery among others (*NEATEHUB*).

LITERATURE REVIEW:

Gupta, K. Let al. (2014) in their work 'Study of Incubation Centres & Its Role in Fostering Entrepreneurship in India with Special Reference to Centers Set Up in IIMs/IITs' presented the attributes of the entrepreneurship cells in IITs and IIMs. For some institutes, it is known that there are virtual platforms for discussions, consultation project and workshops for the students. It is observed that in IIT Kanpur these advisory services are provided to interdisciplinary

ideas. Seed money and in campus accommodation are the other features. Recommendations were that as venture capital financing is difficult and thus business incubators must collaborate with the venture capitalists.

Chandiok, S. (2016) in her work entitled 'India the world's fastest growing startup ecosystem: A Study' has described the financial lifecycle of the startups and also the ecosystem of startup. The recent scenario of startups which includes M&As activities are also presented. Some international M&As and their motives are also described. Features of Indian startups in comparison with other countries like China, Israel, Singapore, Japan and US are also studied.

Dutta, S. (2016) conducted a study on 'Importance of incubation centers with reference to Indian Startup scenario' provided a description about the kinds of incubators available. Incubators from some foreign countries are also described. According to the researchers *NASSCOM* and *Ispirit* are the prominent incubators in India.

Radhakrishna, H. et al. (2017) in their study 'An Evaluation of the role of business incubators and accelerators in Indian Start-up-Ecosystem' outlined a major impact of incubators as it strengthens relation between industry academia meet and for government working for regional development. It identified three parameters for judging the performance financial status, mentoring and management. Major challenge faced by incubator is mismatch in expectation as differences observed in business ideas as compared to on field execution experiences.

Trivedi. et al. (2019) carried out a study on 'Best Incubation Practices: An In-depth Framework for Indian Business Incubators' after reviewing some models outlined a new incubation model consisting of pre incubation stage, main incubation process and after incubation stage. A pertinent aspect is it highlights the after incubation stage which would define the effectiveness of incubator in respect of job creation, commercialization of product.

Sharma, S. et al. (2020) in their broad study 'Incubation in India – A Multilevel Analysis' included 284 incubators across the country, four largest incubator support schemes also surveyed 22 incubation Centres funded by the scheme and interviewed incubated entrepreneurs. The database of studied incubators was analyzed from various perspectives like age, tenure, focus areas and geographical locations. A comparative study on incubation support provided by the various central government institutions are presented. On interviewing incubated entrepreneurs, they demanded a better networking to connect to prospective customers and some training on building brands.

RESEARCH GAP:

After reviewing select literatures, it was found that certain broad empirical studies were undertaken by the researchers to give an overview of the scenario of incubators and the entire startup ecosystem in India. Thus, the research gap established is that efforts to study the functioning of a particular business incubator is lacking. Moreover, there is a geographical gap as very few studies are conducted to review the role of business incubators in the state of Assam, India. It was also observed that detail database of kind of business ventures supported by the business incubators was not presented in any of the prior research work.

OBJECTIVES OF THE STUDY:

1. To study the service offering of NEATeHUB
2. To know the details of the business ventures supported by NEATeHUB
3. To identify the generic challenges encountered by them in providing such incubation services

SIGNIFICANCE OF THE STUDY:

The rationale of the study can be traced from the viewpoint that studying the role of an incubation unit suitably fit into the main theme of inculcating 'Atma Nirbhar Bharat'. The people of the nation in order to be self-reliant must aim to become job providers than becoming job seekers. Innovation and creativity must be infused upon the young minds. The study is rooted to know the incubation service offerings in the agricultural sector which is well fabricated to the social norms and practices. The concerned research paper also provides insightful information by delineating the kind of business ideas which are actually supported and nurtured by the incubator among others.

SCOPE OF THE STUDY:

The domain of the study rest upon only on a single incubator. Northeast Agriculture Technology Entrepreneurs Hub is deliberately chosen for the conduct of the study. The research paper focus on to describe the various service offering of the concerned incubator, the details of the business ventures supported by the incubator till date and to identify some generic challenges from the point of view of the incubator or service provider.

RESEARCH METHODOLOGY:

The research design is basically descriptive and analytical in nature. It is descriptive because it aims to describe the role of the NEATeHUB by studying the various service offering as an incubator and also identifies some generic challenges encountered by them as an incubator. On the other hand, the research is analytical from the point of view that details of the records regarding the business ventures nurtured/supported till date which are already maintained by the incubator is collected to suffice the second objective. The Director of NEATeHUB is contacted to collect the primary data. The data is collected through an open ended questionnaire to fulfill all the three objectives of the study.

DISCUSSION:

Service Offerings

Awareness

As the host of providing incubation services, the organization NEATEHUB (AIC-AAU Incubator) takes steps to create awareness on the same. On questioning about the procedure adopted for coming in contact with the interested participant, it conducts sensitization camps, workshops to create awareness about its incubation services. Some of these events are also held in educational institutions, research institutions, scientific community etc. to catch them young. At such events, details of upcoming programs are disseminated by distributing leaflets and IEC materials.

Mentoring, training and business coaching

On questioning about the duration of the mentoring, they opined that for the idea stage/ pre-seed program, they have a two-month mentoring program. For the startup stage/ seed stage program, they have a four-month program. Moreover, the incubatees continue to be hand-held and mentored beyond the stipulated periods mentioned above. The participants can continue to access and subscribe to the services beyond their incubation period.

The program broadly covers the following topics for mentoring or business coaching:

- Basics of entrepreneurship
- Soft skills needed for entrepreneurs

- Understanding the entrepreneur ecosystem
- Pitch deck preparation
- Business plan of the venture
- Marketing management
- Financial management
- Access to mentoring – technical and business

Customization

On questioning whether they provide customized training sessions for different business ideas, they addressed that there are both combined sessions as well as individual sessions. They group them for the combined ones and as regards for customized individual ones, they do it one-on-one. They use several business tools such as Customer Relationship Management (CRM) software, managing social media platforms, online advertising, content creation and design, web hosting among many others for harnessing the potential and enhancing their existing knowledge.

Industry linkages and networking

They get in touch with the relevant stakeholders at their own events as well as at industry meets, business conferences and networking events for building a proper industrial linkage.

Legal and quality assurance services

On questioning about the quality assurance services, they proposed that the incubator is available to facilitate entrepreneurs to bring out the best possible. Towards that, the incubator facilitates access to in-house facilities, equipment that are available in the Assam Agricultural University, laboratories at their institutional and network partners' facilities etc. The incubator strives to provide best in class quality validation and certification services.

Product development, testing and validation

On questioning about the procedure for testing and validation, they opined that once an incubatee is inducted, as per the stage and need of the product/ service for testing or validation,

it is taken up. The incubatees shall submit a timeline and key milestones to be achieved during their incubation period and as per the timelines, some of these components of activities are taken up – either in-house or at other facilities including in-field testing or validation. Thus such testing and validation depends on the entrepreneur and the product itself.

Technology Transfer and IP portfolio management

It includes educating the incubatees on the management of intangible asset of a business such as patent, trademark, copyright, designs, know how, licensee agreements etc. Knowing about the Database Management of such assets is necessary on the path of intellectual asset management. Technology transfer on the other hand is the dissemination of information about the implication and usage of technical know-how in agricultural sector.

Seed fund and access to investment

There is a provision to provide a one-time seed grant to initiate the entrepreneurial business. A seed fund is the grant provided which is non-returnable in nature. This amounts upto INR 10 lakh. Further, bridge fund upto INR 50 lakh is allowed which is returnable in nature. And lastly, Venture Capital fund upto INR 1 crore or above is also managed for the incubatee's new business venture.

Details of the business ventures supported by the NEATeHUB

Name of the venture	Place	Type of business
JeevAnksh Eco Products Pvt. Ltd	Guwahati	Agri marketing of NER Organic Food products like Cereals & grains, Pulses, spices, oil seeds, beverages etc.
Symbiotics Foods Pvt. Limited	Tezpur	Backward Integration of Piggery including artificial insemination
V.S.Solutions	Guwahati	Papain extraction from Papaya
Innotechagropostikam	Jorhat	Vitamin D enhanced Mushroom
BrightcropAgro Products Pvt Ltd	Jorhat	Agri marketing of NER products with traceability mechanism
Ruloi Tea Trading Pvt Ltd	Mangaldoi	Organic tea with handmade cotton bags (dip) for niche market segments
M/S Pahi	Barpeta	Traditional snacks blended with indigenous herbs & medicinal plants
Agspert Technologies	Jorhat	Drone technology precision farming. "Unmanned Aerial System" service for small farming application such as crop auto-scouting, crop-spraying, early disease detection

Name of the venture	Place	Type of business
		etc.
Chamuah Technocrats LLP	Guwahati	Manufacturing of environment friendly agricultural tools and implements that are technologically sound and meets the need of different kinds of farmers. Presently a paddy trans planter which is battery driven is introduced in the market.
Jalkuworl	Jagiroad	One stop solution in fishery sector through bio floc technology, community participation and buy back solutions.
Mahabahu Agro Food Infra	Tinisukia	Production and supply of high quality Pectin for industrial use extracted from peel of local citrus fruits of Assam
AmalMedhi	Nalbari	Production and marketing of superior quality Catfish seed using RAS processes.
PasoliAgro Industry Private Limited	Jorhat	Implementation of various technologies ranging from cold chain, pack house, sorting & grading, production inputs, doorstep delivery, cloud inventory management software, production management software, meteorology management and more.
Progenitor Agri Tech LLP	Jorhat	Single window Farm Consultancy and support system on crop advisory and quality inputs making it affordable to small land holders at farm gate through a network of vendors to achieving 3Ps - productivity, profitability and permanency (sustainability).
New Born Enterprise	Nalbari	Nutri-rich RTS beverages from indigenous minor fruits
Arian Mushroom Farm	Nalbari	Biscuits and other confectionaries value added with mushroom is locally prepared and scaled using SHG model at ground level.
Jay Vermi Compost	Nalbari	High quality vermi compost and vermi washed bio pesticides at low cost by using indigenously derived plant based botanicals to prepare the product.
Aranyak	Silchar	Self-sustainable "Pride Habitat" with its centre in Silchar (Cachar, Assam) offering skilling, farm appreciation and agro eco-tourism. It has facilities for organic farm demo, short home stays and other facilities for skill building
NipenChetia	Demow	Indigenous pig feed formulation in a nucleus pig breeding farm
Nitin Ronghang	Sonapur	Shifting Poultry Farming to overcome the deficiencies of Intensive, California Cage Poultry farming.
B & B Florist	Jorhat	B2B commercial floriculture. Post harvesting treatment done to enhance the durability.

Generic Challenges encountered from incubator's point of view

The prime challenges are listed below:

- Entrepreneurship is in its infancy in North-eastern region of India. People are generally risk-averse and thus largely job-seekers. Hence, they severely lack soft skills necessary for being an entrepreneur.
- Most start-ups are actually SMEs and lack innovation, scalability and sustainability. Most entrepreneurs are therefore starting up to earn profits and not aiming to solve any problem in the society with their disruptive/ innovative idea, approach, product, services.
- Success stories are very few from NER (to look upto/ aspire)
- Young minds mostly foraying into tech start-ups
- Low levels of awareness
- Policy paralysis in the past
- Mentorship and guidance is far and few
- Need for “catching the incubatees young”

CONCLUDING REMARKS:

Thus the study underlining the different service offerings of the select incubator will be of immense help to all those who has some innovative ideas. Time and again, it has been realized that possibilities for working in the agriculture and its allied sectors is unbounded. This is again traced from the provided database containing variety of projects embraced by the incubator. The buzzword ‘Atma Nirbhar Bharat- Build Local to go Global’ needs holistic approach to achieve heights in true sense. The researcher believes that spreading awareness to the interested masses through an academic communication medium is one such approach. Needed support in post product launch must be equally provided. 14 Ps of marketing must be given due weightage by every incubatees. According to the survey, low level awareness and attracting young incubatees are prominent challenges among others faced by the select incubator. The suggestion put forward to mitigate such challenges would be to introduce entrepreneurship management in the syllabi at the school level, hands on session must be given to students as assignments to frame their own business plans. It is noteworthy to mention that working upon creative ideas and financial literacy are two sides of a coin in order to configure a sustainable business. Therefore,

the relevance of financial education for the benefit of deciding the optimal capital structure for business and also for managing one's personal finances is important to be imparted at an early stage.

SCOPE FOR FURTHER RESEARCH:

Further research can be carried out to study the success stories of incubatees. This would also determine the efficiency of the incubator. Moreover, inception challenges encountered by incubatees can be studied so that ways to mitigate them can be thought upon.

SELECT REFERENCES:

Journals:

Chandiok, S. (2016). India the world's fastest growing startup ecosystem: A Study, Amity
Research Journal of Tourism, Aviation and Hospitality, 1(2), 84-93

Dutta, S., Vishwamithra, N., Rathore, M.S. (2016). Importance of Incubation Centres with
reference to Indian Startup Scenario, *International Journal of Management and
Humanities*, 3(2), 16-19

Nath, S. (2016). Productivity and Constraint: Agricultural Scenario of Assam, India. *Indian
Journal of Applied Research*, 6 (2), 579-580

Radhakrishna, H., Goud, P.N. (2017). An Evaluation on the role of Business Incubators and
Accelerators in Indian Start up Ecosystem, *International Journal of Research in
Economics and Social Sciences*, 7(10), 445-453

Sharma, S., Vohra, N. (2020). Incubation in India – A Multilevel Analysis, *Research and
Publications, IIM*, 2-34

Trivedi, H., Asrani, R. (2019). Best Incubation Practices: An In-depth Framework for Indian
Business Incubators, 21 (8), 176-185

Websites:

1. <https://www.worldbank.org/en/news/feature/2012/05/17/india-agriculture-issues-priorities>

2. <https://dht.assam.gov.in/frontimpotentdata/assam-agribusiness-and-rural-transformation-project-apart>
3. https://www.startupindia.gov.in/content/sih/en/compendium_of_good_practices/incubation-support.html
4. [https://niti.gov.in/aim#:~:text=The%20Atal%20Innovation%20Mission%20\(AIM,India%20in%20the%20years%20ahead.](https://niti.gov.in/aim#:~:text=The%20Atal%20Innovation%20Mission%20(AIM,India%20in%20the%20years%20ahead.)
5. <https://neatehub.org/about-us/>

“OVERCOMING THE PROBLEMS OF WATER CRISIS AND SETTING UP ATMANIRBHAR BHARAT”

22

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Abstract:

In order to survive on this earth the first thing which is needed is “water”, without this precious resource not even a single living being can sustain. Over rising of population and meeting the unsatisfied needs and wants, desired of luxurious life, shifting towards modern technology, increases the demand of water amongst the different sectors, inefficient utilisation of water resources has led to water depletion to a large extent. The problem has become so horrifying that in many states of India groundwater has almost dried up, highly contaminated and poisonous to drink and declared as water scarcity regions. Water scarcity is caused by wasteful use of water for agriculture, reduction in water recharge systems, lack of water management and distribution. The main focus of this research paper is to evaluate the different methods of water conservation. To motivate the people and all the different sectors of India about the essentiality, safety and security of water conservation. Secondary data was collected from various journals and different websites. The study concludes that in order to become Atmanirbhar Bharat in any aspects of life water conservation is the need of the hour. From individual level to national level different awareness programmes, workshops, seminars etc, should be organised in order to conserve water as it helps us to live and grow in life. So, it's very important to become a self-reliant nation on water, without water there can be no life on earth.

Keywords: *atmanirbharbharat, water conservation, water scarcity, self-reliant, water management.*

1. Introduction

Atmanirbhar Bharat (Self-reliant India) is the sense of sight of the Prime Minister of India Narendra Modi for making India a self-reliant nation. India has faced COVID-19 situation, with an increasing number of corona virus cases in all the states of India, the Indian Economy devastated and shattered to a great extent. The unpredictability about

COVID-19 dissemination has made each and every sector worried and unconfident, some economists in their current studies (MRD Report) have said there is a job loss of 40 million people in India, mainly in the unorganized sectors, due to which “Atmanirbhar Bharat Abhiyan” or “Self-Reliant India Mission” came into light with an economic package of Rs.20 lakh crores on May, 12, 2020. This abhiyan is announced with a special aim to give an upliftment and magnify the economic slowdown and provide financial support that had suffered a loss during the lockdown and mainly focuses on not being self-centric but being self-supported so that it can bring joy, coordination and peace of the world. Atmanirbhar Bharat Abhiyan is based on five pillars namely economy, infrastructure, system, demography and demand. In order to make this abhiyan a successful one, land, labour, liquidity and laws all have been specifically considered under this package. The package will be used for cottage industry, home industry, small-scale industry, MSME, labourers, farmers, middle-class people and those Indian industries which are operating to amplifying the economy dedicatedly.

The Earth is a watery place. About 71 percent of the Earth’s surface is water-covered, and the area of the earth reflect blue light, and this is the reason the earth appear to be blue from space, and is often named to as the blue planet and the Pale Blue Dot. The greater part of water on earth’s surface holds 96.5 percent is saline water in the oceans which is too salty for drinking, growing crops The freshwater resources, such as water falling from the sky and moving into streams, rivers, lakes, ponds, and groundwater holds nearly 3 percent. Over 68 percent of the freshwater on Earth is found in icecaps and glaciers. Nearly 30 percent is found in ground water. Only 0.3 percent of our freshwater is found in the surface water of rivers, lakes, ponds, and swamps.

1.1.How much water does India have?

India is a water rich country and is blessed with plentiful around 4 percent of world’s water resources (India-WRIS wiki 2015). The rivers have been the heart and life of India’s growth as well culture. Among them, 12 rivers are categorized as major river which are producing about 253mha of catchment area and 46 as medium river with 24.6mha of catchment area. Several of the river systems with their tributaries are eternal and some of them are seasonal. The Ganga-Brahmaputra-Meghna system is the largest river system in India with 43 percent of the catchment area of the all

major river system in India. The other major river systems are Indus, Sabarmati, Mahi, Narmada, Tapi, Brahmani, Mahanadi, Godavari, Krishna, Pennar and Cauvery. Apart from that, there are several other medium river systems of which Subernarekha (with 1.9 mha catchment area) is the largest (Dhawan 2017, Central Water Commission 2015). Other than rivers and canals, other inland water resources include numerous reservoirs, tanks and ponds, beels, oxbow lakes, derelict water and brackish water, which cover almost 7 mha of area. Apart from this, there are 67,429 wetlands in India, covering about 4.1 million hectares. Out of these, 2,175 wetlands are natural, covering about 1.5 million hectares and 65,254 wetlands are man-made, occupying about 2.6 million hectares.

Water is one of the irreplaceable natural resources; each and every living being needs water to survive. Water and Life are directly connected to each other and no living being on this earth can break apart one from another. Water make headways in a cycle mountain to river, river to ocean, ocean to rain, rain to mountain and so on. But only a very little percentage of freshwater is found on the surface of the earth, so it requires vigilant management to protect these amazing freshwater environments because people and nature (wildlife) both needs freshwater. Healthy freshwater environments supply water for drinking, growing crops, manufacturing, energy and transport and they're home to incredible wildlife. They also help to prevent erosion, dispose of waste and provide natural protection from flooding.

India is gradually becoming a water scarce country as water resources like ponds, lakes and rivers are on a decline. India has been facing worst water crisis like groundwater scarcity, water pollution severely affecting India's health, economy, environment, and food supply. The demand for water among different sectors is increasing day by day due to population growth and economic development. Moreover, there are various water intensive industries which needs huge amount of water namely Sugar, Distilleries, Pulp and Paper, Tanneries, Chemicals, Dyeing and Textiles, Refineries, Food, Dairy and Beverages, Electroplating, etc which in turn creating competition within the sectors. The seriousness of this matter will have a direct impact on water and food security of the country. Due to overutilization of water resources in India, it has now become an ongoing water crisis affecting nearly 600 million people each year. In this research paper, the Researcher have made an attempt to understand the importance of water and as well as to analyse the different

methods of water conservation or to save water for the health of human society and for life support systems and for maintaining ecosystem services. In addition this research paper is to propose an idea on how to encourage people of India and all the different sectors about water conservation in order to ensure self reliant India (Atmanirbhar Bharat) because water is the most element of nature, and is therefore the very basics for all life on Earth and the above objectives cannot be achieved without a water secure world.

Paaniprithvi ka khunhainiseyu hi nabahaye- Unknown

2. Literature Review

Ramappa et.al (2014) conducted a study on “Water conservation in India: An Institutional perspective”. This research paper made an attempt to understand the present status and future demand for water in the country for different sectors and also to know the role of the government and external agencies in protection of water to meet this requirement. The data was mainly gathered from secondary sources namely annual reports, journals, and different websites of various government portals and tabular analysis was used by the Researcher to prepare the tables and graphs. The study revealed that due to overutilization of water resources, water has become very limited in many parts of the country, so relating to this problem government has taken on different programmes in water conservation namely CADWM, NWDA and WDP are the main programmes for land development and water (resources) conservation. The study concludes that the country needs continuous efforts of the government where the government should come up with a new water policy specifying the role and involvement of individuals, community and government for conservation of water.

Westcoat (2014) presented the study on “Searching for Comparative International Water Research: Urban and Rural Water Conservation Research in India and the United States”. The main focus of the Researcher is to search for examples of comparative research between two water sub-sectors in two countries using systematic bibliographic mapping procedures. It mainly concentrates on rural and urban water conservation research in India and United States. In this research paper, the Researcher search identified different conservation emphases in the two countries, like rainwater harvesting in India compared with storm water quality management in the United States. The final section of the paper aims on the prospects and priorities for future international and intersectoral research.

Boojh and Gueidon (2017) worked on “Saving Water for a Sustainable Future”. Water is the most precious resources on this earth, without this resource no living beings can survive and water is necessary for socio-economic development, energy and food production, healthy ecosystems and for human survival itself. This research article mainly focuses on water crisis, importance of water, water conservation and (Sustainable Development Goals) SDGS and how one can save water.

3. Objectives of the study

- i. To analyse the different methods of water conservation.
- ii. To encourage people of India and all the different sectors about water conservation in order to ensure self reliant India (Atmanirbhar Bharat).

4. Research Methodology

The research study is secondary in nature. As the topic is relevant and is the urgent necessity in today's world. The necessary data were collected from the available secondary sources such as journals and the websites of different government portals.

5. Water problems faced by India

- i. In India as a whole, it is estimated that women spent 150 million work days every year fetching and carrying water, equivalent to a national loss of income of Rs.1,000 crore or \$160 million. Indian women especially those who are residing in rural areas spend most of their time i.e. four to five hours every day in collecting water for their basic water needs. On average, a rural woman walks more than 14,000 km a year just to fetch water. She reaches home carrying heavy pots or buckets, and does the other household activities like cooking, washing, cleaning, caring of children, water for cattle, and looking after the livestock. Again in the evening she has to go to fetch water. Mainly this work is done by women, girls, elderly men and women of the house. This is the reason why girls often leave their schools in middle to take the responsibility of collecting water, taking care of their siblings and cattle. This is not only a huge loss to women's income but it is also a loss to the country as a whole.
- ii. Agriculture is one of the important sectors of the Indian economy which nearly contributes 14 percent of the nation's GDP and about 11 percent of its exports. India ranks 2nd worldwide in farm output. India is the largest producer of fresh

fruits and vegetables, milk, major spices, different number of crops namely jute, staples such as millets and castor oil seed. In addition, it is also the second largest producer of wheat and rice. In order to produce 1kg of rice, 3,000-5,000 litres of water is needed, 2,000 litres of water is needed for 1kg of soya, 900 litres of water for 1kg of wheat and 500 litres of water for 1kg of potatoes. Water is the most critical resource of agriculture, but this precious resource is not managed very well in India. Agriculture uses 85 percent of the water resources with low efficiency. It has some 195MH of land under cultivation of which 62 percent is rain-fed and 37 percent, irrigated. But the saddest part is that this valuable natural resource is severely depleting in India. For the past few decades there has been a significant increase in demand of water among all the sectors leading India facing the worst water crisis in its history. It is roughly calculated that by 2050 the per capita availability of water at national level will drop by 40-50% and water scarcity can lead to loss of up to 6 percent of GDP by 2030. The freshwater available in the country i.e. about 78 percent approximately is only consumed by the agricultural sector. There are mainly two water intensive crops namely sugarcane and rice which are mostly cultivated in water distress regions of the country. In many states of the country electricity is being provided to farmers at a subsidized rate or free of cost due to which groundwater is increasingly pumped out extensively for irrigation purpose leading to groundwater depletion. It is estimated that Indian farmers use two to four times more water to produce a unit of main food crop than in China or Brazil.

- iii. a. Ganga is India's largest river basin: it covers 26 percent of the country's landmass and supports 43 percent of its population.
- b. Ganga is the second most polluting river in the world. Everyday 2.9 billion litres of waste water from sewage, industrial and domestic sources are directly dumped into the river Ganga without treatment posing a serious public health crisis to over 500 million in the Ganga River Basin. The Himalayas, from which the river originates, one of the most endangered ecosystems.
- c. Each year around 1.2 billion pounds of plastic are dumped into River Ganga. As per the Central Pollution Control Board (CPCB) has said that majority of

the GangaRiver water is unfit for drinking and bathing. High level of coliform bacteria has been found in the river.

- d. Tons of religious waste, such as flower offerings, ashes of dead bodies, idols, and other non-biodegradable trash, such as plastics, are thrown into the river Ganga, choking and blocking drainage systems.
- e. Over 80 percent of the river water is extracted for irrigation, several hydro-power schemes leave long stretches of the river dry and significantly compound pollution levels.
- f. Water intensive farming and run-off from inorganic farms, including dangerous chemicals like DDT and HDH further aggravate the threats facing the Ganga River.



- iv. Sugar, Distilleries, Pulp and Paper, Tanneries, Chemicals, Dyeing and Textiles, Refineries, Food, Dairy and Beverages, Electroplating, etc. are identified as water intensive industries. These water polluting industries discharge their effluent including dirt and gravel, masonry and concrete, scrap metal, oil, solvents, chemicals, scrap lumber, even vegetable matter from restaurants, different types of chemicals including metals or radioactive material may pollute the air, the soil, or nearby water sources, eventually ending up in the oceans, seas, rivers, and lakes. As a result water becomes polluted giving severe health

hazards threat to every living being. Farmers specially rely on water for agricultural purposes but if the water is polluted, so whatever the crops are grown will also be polluted affecting the overall health of the society, creating disturbances in the entire ecosystem. Sea creature's healths are affected and are becoming endangered by this polluted water. The most horrifying situation in India is that about 1.4 lakh tonnes of waste are generated daily, forming of dry waste, wet waste and plastic waste. India produces 74.6 lakh tones of hazardous waste annually, and approximately 10-15 percent of industrial waste in India is hazardous. The industries which produce harmful hazardous wastes are petrochemicals, pharmaceuticals, chemicals, fertilizers and general engineering produces hazardous wastes in considerable quantities.



- v. Economists pointed that water shortage is extensively hitting India's industrial sector. Majority of the industries are purchasing water supplied by the tankers at an expensive price. 70 per cent of India's energy comes from thermal power plants. 59 per cent from coal-based plants. In terms of water consumption, power plants consume 1700 to 700 m³ per MW per year water and it has become a serious concern and compelled many of the power plant industries to shut down their operations.

6. Reasons for water crisis in India

- i. The crisis of India's water is often accredited to lack of government planning, increased corporate privatization, industrial and human wastes and government corruption.
- ii. Water losses are caused due to lack of proper maintenance of existing infrastructures.
- iii. Lack of rain water catchment programs, most of the water is displaced or dried up instead of used.

- iv. There are issues of leakage losses, water pricing and metering of water.
- v. Extensive construction of roads, bridges, buildings that use concrete and marbles do not let rainwater to get absorbed in the soil leading to groundwater depletion.

7. Steps to be taken into consideration to become self-reliance in water

- i. India is blessed and fortunate because it receives substantial rainfall from its monsoons. If the monsoon fails, there will be lockout in agricultural industry remarked Wolff. The main problem India is facing severe water crisis not because there is shortage of water, but for its poor management, i.e. utilization, acquisition, and conservation. The country is well equipped with 183 million hectares of cultivable land, 115.6 million farming families, 400 million of annual precipitation, and a favourable agro-climate for cultivating a variety of crops. About two-thirds of the country's population work in agricultural sector and feed over 1,000 million people every day. Yet, larger part of the farmers lives in those parts of the states where water is limited, irregular, or fixed. So different types of water conservation methods are available which can be adopted by the Indian farmers for agricultural development and resource conservation:
 - a. **Rain water harvesting:** One of the most effective methods of rain water harvesting is the farm pond. A farm pond is a dug out pond constructed in or near the farm. Rain water is collected in the pond and stored for future purposes such as irrigating crops, recharging groundwater, aquaculture and drinking water for farm animals.



- b. Different water harvesting structures can be created for water conservation for sustainable development of ground water



Farm Pond



Dugout Pond



Percolation Tank



Staggered Trenches



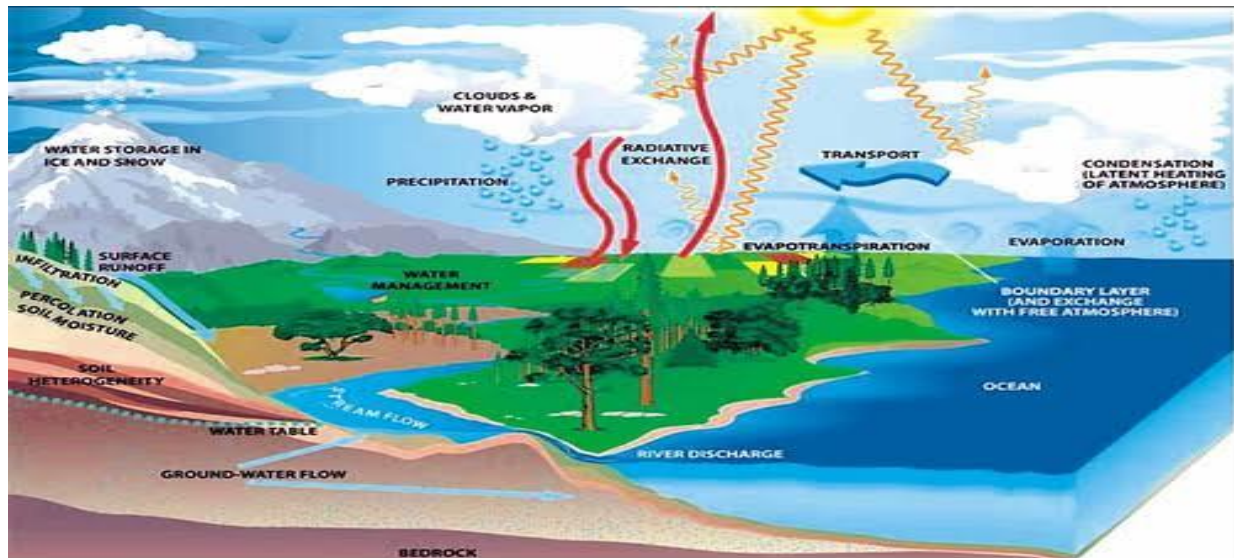
WAT Trenches



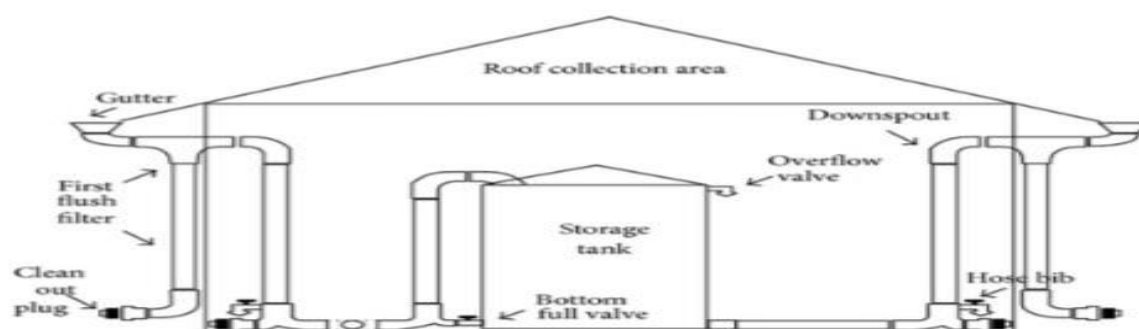
CCT Trenches

These different rain water harvesting structures was taken up by the Telangana government for water conservation, for the improvement and enhancement of soil moisture and ground water recharge. Telangana government's main mission was to increase the productivity in the fields of agriculture, horticulture, animal husbandry and fisheries sectors, protecting the environment and ensuring ecological balance in the villages. The government was successful in his mission and made the villages self-reliant in water. Therefore, if the other states of India seek help from other successful states in terms of different rain water harvesting strategies then whole rural India can become self sufficient in terms of water.

- c. **Watershed Development-** It's a process of implementing land use practices to protect and improve the quality of water and other natural resources within a watershed by managing the use of land and water resources in a comprehensive manner.



- d. **Urban rain water harvesting-** Every single raindrop holds importance at this water crisis stage which is faced by all around the globe. Rainwater harvesting could be the most sustainable solution to be included in the urban water management system. It could reduce the water scarcity problem, prevent flooding, help in controlling the influence on climatic changes, recharging the groundwater and finally reducing the runoff and water logging during the season of heavy rainfall. In urban areas rain water can be collected from the roof, paved and unpaved areas of a house, a block of flats, a colony, a park, a playground, parking areas, schools, office complexes lakes and tanks. Reserved rain water from rooftops can be utilised for various purposes. The water which flows from different rooftops of a lane can be accumulated through a piped network and stored for sometime. This water can be then channeled to deep wells to recharge groundwater directly, to ponds to refill groundwater slowly, and to reservoirs to dilute recovered water for nonpotable use.



- e. **Zero Liquid Discharge(ZLD)**-Many water intensive industries like Sugar, Distilleries, Pulp and Paper, Tanneries, Chemicals, Dyeing and Textiles, Refineries, Food, Dairy and Beverages, Electroplating, etc , these water polluting industries discharge their effluent having high organic contents measured in-terms of bio-chemical oxygen demand (BOD) and other toxic constituents like metals, organic and in-organic compounds are pumped out into the oceans, lakes,or rivers. These pollutants enter a food chain and accumulate until they reach toxic levels, eventually killing birds, fish and mammals. However, Central Pollution Control Board (CPCB) and State Pollution Control Board (SPCBs)/ (Pollution Control Committees (PCCSs) are demanding the industries to reduce and control their water consumption level and to take necessary steps to not-to discharge effluents. Zero Liquid Discharge is recycling all industrial waste water which ensures that there will be no discharge of industrial waste water into the environment. In simple words, ZLD refers to a treatment process in which the plant discharges no liquid effluent into surface waters, in effect completely eliminating the environmental pollution associated with treatment. This means that waste water will be treated and used again in the process which will enable the industries to eliminate a liquid waste water discharge, generate solids for landfill disposal or reuse, and to recycle a high-quality water that be beneficially reused. If the industries of India implement the ZLD installation in their respective industries, it will result in the stoppage of discharge of waste water thus promoting the sustainability of the industry and the environment at large.



- f. Promote of waste water reuse & recycling through modern techniques.
- g. People from different states of India can share their innovative and creative ideas for water conservation and help each other and make India a water scarce free nation.
- h. Crops should be grown in regions according to the availability of water. For eg: The region which has a semi-arid climate but it grows rice, which leads to groundwater depletion and is highly unsustainable.
- i. Members of the water community should inform and provide guidance from time to time on decision-making and to regulatory authorities on how to use and manage the resources sustainability, in order to share its benefits industry wise.
- j. Water Conservation programmes can be organised at the local level by municipalities or regional governments.

8. Steps taken by the Indian states to conserve water

- i. Various corrective measures has been undertaken by the Punjab government to solve the issues and problems of water logging in the districts of Muktsar and Fazilka in South Punjab. The work includes cleaning and strengthening of drains, sub-surface drainage system, laying of lift schemes, removal of various obstructions on drains by constructing bridges, field paths and other cross-drainage works.
- ii. The people of Rajasthan have created small ponds in the farms which have brought happiness and a lot of changes in the lives of the people.
- iii. In Vellore, Tamil Nadu, 20,000 women join hands together to save the dying river i.e. Naganadhi river. In a span of four years 3,500 recharge wells and several boulder checks have been constructed to raise the ground water table.

9. Steps taken by the Central Government for Water Conservation

- i. Department of Water Resource, RD&GR has instituted National Water Awards to incentivize good practices in water conservation and groundwater recharge.
- ii. Under the guidance of Information, Education&Communication (IEC) Scheme of DoWR, RD&GR are conducting mass awareness programmes,(Training, Seminars, Workshops, Exhibitions, Trade Fares and Painting Competitions, etc) from time to time each year to promote rain water harvesting and artificial groundwater recharge.
- iii. Creation of a new Ministry of Jal Shakti for dealing with all matters relating to water resources at one place in an integrated manner.
- iv. Government of India has accredited Atal Bhujal Yojana (Atal Jal), a Rs.6,000 crore Central Sector Scheme, for sustainable management of groundwater resources with community participation in water stressed blocks of Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan, and Uttar Pradesh.
- v. The Ministry of Tribal Affairs is planning to implement ‘1000 springs’ in the states of Jharkhand, Chattisgarh and Madhya Pradesh in order to reimpose dried up streams to make better and self-sufficient water accessible to the tribal population.

10. Conclusions

Water is considered a never-ending free source that can be acquired naturally. It serves as a lifeline to all living beings living on this globe. But if human beings don't respect this priceless resource then the time is not very far when it will not shower her blessings on the living beings of this planet. According to the Composite Water Management Index (CWM) report released by the Niti Aayog in 2018, 21 major cities (Delhi, Bengaluru, Chennai, Hyderabad and others) are racing to reach zero groundwater levels by 2020, affecting for 100 million people. Due to overutilisation of water resources it has become scarce in many states of India. Moreover, the urban people need to realise that the water which is flowing in their taps comes from the villages. If water efficiency does not improve, the country could suffer water scarcity in the next 1 to 2 decades. In this regard, government has undertaken various projects in water resources conservation and management. Therefore, people of India should understand that water scarcity problem cannot be single handedly controlled by the government, it is also the responsibility of every citizen to come together and resolve the water crisis issues by

saving every drop of water. So, in order to become Atmanirbhar Bharat in any sector whether it is an agricultural sector or industrial sector first thing which is required is water. If water is not there none of the sectors can flourish and has a vast impact either directly or indirectly. For example: Hospital sector can't spend their entire day without a single drop of water, doctors, nurses, wardboys etc can't treat their patients without washing their hands. Firefighters arrive at the scene of fire but can't do anything without water or imagine oneself spending the whole day without water it's just like a nightmare while it's an unimaginable scenario for most of us. Over the last five decades, the frequency of impacts caused by severe flooding and drought has immensely increased damaging the freshwater ecosystems. There is a requirement for correct water use model that could support water planners in growing both responsive and strategic water conservation programs to meet both short and long-term water security outcomes. Water is used for various industrial purposes like manufacturing and processing of many products. To conclude, water scarcity has become a major problem and it's increasing day by day, for becoming an Atmanirbhar Bharat need of the realisation is that the people of India come and pledge together for water saving so that the future generations do not need to see water in just a bottle form.

References:

1. Ramappa,KB.et.al (2014), "Water conservation in India: An Institutional perspective",Eco.Env& cons.Vol.20,No.1,pp-303-311.
2. Westcoat,J.L.Jr (2014), "Searching for Comparative International Water Research: Urban and Rural Water Conservation Research in India and the United States", "International water research: Urban and rural water conservation research in India and the United States, Water Alternatives, Vol.7,No.1,pp-199-219.
3. Boojh, R& Gueidon,S (2017), " Saving water for a sustainable future", Water Digest", WATER@UNESCO,pp-23-32.
4. https://en.wikipedia.org/wiki/Atmanirbhar_Bharat
5. <https://odishabytes.com/success-of-atma-nirbhar-bharat-abhiyaan-to-be-measured-by-farmers-living-standard/>
6. <https://m.economictimes.com/news/politics-and-nation/how-india-is-trying-to- conserve-precious-natural-resources/amp.article/show/59814994.cms>
7. <https://mediaindia.eu/society/saving-our-ponds-and-lakes/>
8. <https://www.downtoearth.org.in/blog/water/amp/government-must-prioritise-on-conserving-water-64737>

9. <https://www.wwf.org.uk/what-we-do/protecting-our-rivers-lakes-and-freshwater>
10. <http://wgbis.ces.iisc.ernet.in/energy/water/paper/cons.res.mgmt/index.htm>
11. <https://india.mogabay.com/2019/06/fine-those-dumping-waste-into-water-bodies-says-pollution-watchdog/>
12. <https://www.ozy.com/around-the-world/can-these-indian-water-warrior-show-the-world-how-to-revive-dying-lakes/274011/>
13. <https://www.thehindu.com/news/cities/Madurai/tamil-nadu-can-become-self-reliant-in-water-resources/article22540190.ece/amp/>
14. <https://www.google.com/url?q=https://saudigazette.com.sa/ampArticle/596679>
15. <https://www.livemint.com/v/s/www.livemint.com/companies/people/-explore-natural-resources-for-greater-self-reliance/amp-11576803997163.html?>
16. <https://www.orfonline.org/research/the-blue-economy-charting-a-new-development-path-in-the-seychelles/>
17. <https://www.deccanherald.com/amp/opinion/panorama/the-demand-for-environmental-professionals-is-rising-875455.html>
18. <https://www.rainforest-alliance.org/articles/what-is-sustainable-forestry>
19. <https://greencleanguide.com/22-easy-ways-to-save-the-earth-and-environment/>
20. <https://www.unicef.org/india/what-we-do/clean-drinking-water>
21. <https://www.indiatoday.in/amp/education-today/gk-current-affairs/story/water-crisis-india-pm-modi-mann-ki-baat-conserve-water-ways-1559811-2019-07-01>
22. <https://www.sciencedirect.com/topics/engineering/zero-liquid-discharge>
23. <http://oneindiaonepeople.com/indias-water-women/>
24. <https://www.manifestias.com/2019/08/27/jal-jeevan-mission/>

VALUE CHAIN FRAMEWORK TO DESIGN SOLUTION FOR INCREASING EFFICIENCY IN THE POST-COVID-19 SCENARIO: A STUDY ON MSME FIRMS

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Abstract:

This report provides a snapshot of the major problems that is being faced in the manufacturing and processing industry due to the outbreak of COVID-19. The report describes the major constraints and challenges faced by MSME companies due to the present scenario. It helps us to understand major problems faced by the Food processing industry and suggesting a solution. The research focuses on the company that has faced a lot of issues and problems that are due to the new norms and policies during the pandemic situation. There is a shortage of procurement of raw materials and disturbance in the transportation facilities due to new laws. There is a lack of cheap labours across the country, due to the evacuation from the workplace and travelling back to their home. This report stresses on the study of the business model of Food processing industry and helps to find the relation by using tools such as value chain analysis, fishbone diagram and other quantitative and qualitative tools and find a solution model for the problems. The business model suggested can be implemented by other sectors if they face the same problems as faced by the above company.

Keywords: *Business to consumer, COVID-19, Business model, value chain analysis, fishbone diagram, Procurement, logistics, labour.*

INTRODUCTION

India is one of the fastest growing economies in the world compared to other countries (Huang and Khana, 2003). In a country with a population of over 1.136 billion, economic growth is a key factor in the country's development. To maintain the growth rate, India needs greater infrastructure and staff. In December 2019 there was an outbreak of the COVID-19 virus in the world and that is leading to a slowdown in global economic growth. This also started its impact on the Indian economy slightly. The epidemic caused a sharp decline in the economy and finances which had a profound impact on the industries of MSME (Hindustan times-2020). When it introduced the 2020-21 Finance Bill, the Coalition Government on 01.02.2020 had averaged India's average GDP growth rate (i.e., real growth + inflation) by 10 percent, however, the same now seems far from realistic and uncertain. Declining demand, closure of production activities, declining crude oil prices, restrictions on foreign trade, lower prices of goods such as energy, metals and fertilizers, restrictions in the aviation and tourism industries, among other things, will inevitably exert pressure on inflation. economic. It is believed that India's excessive closure could bring the country's growth rate down to 2.5 percent from the previously estimated 4.5 percent. However, according to a statement issued by the Chief India Economist of Goldman Sachs dated 09.04.2020, India's economic growth is estimated at a low of only 1.6%. (Mondaq, India). This paper examines production and distribution strategies before and after shipping COVID-19 with respect to business to consumer (B2C).

When the restrictions are lifted, the market is expected to be very depressed and extremely profitable. Working capacity will be a barrier, with MSMEs showing that 30 to 70 percent of their pre-COVID-19 employees are likely to return to their cities due to uncertainty and lack of funds at the time of closure. It will be a challenge to persuade employees to return or hire new employees, and employee benefits are expected to have a negative impact on productivity and quality, adding to the financial burden. Business-to-consumer (B2C) is among the most popular and is best known for its sales models. The word business to consumer (B2C) refers to the process of selling products and services directly between the business and consumers who are end users of its products or services. For example, Samsung, Vivo, Oppo mobiles are following the B2C model because they are making cell phones and selling them to consumers who are the end users of the product.

NEED AND IMPORTANCE OF THE STUDY

In the present scenario, there are a lot of problems that are being faced by all the industries due to the outbreak of COVID-19 across the globe. There are issues in estimating demand and supply, lack of freight availability and labour. Companies were not ready for such a scenario, as

the situation is completely uncertain. New methods and models were to be found which can be applied and might be useful in the present uncertain scenario. The success of the model may lead to acceptance by other companies. The findings of the study will help the companies and the society which are facing issue in the current scenario. This study specifically refers to the manufacturing and processing industry which is business to consumer (B2C) and for MSME

OBJECTIVES

The main objectives of the study are:

1. To comprehend the pre and post COVID-19 impact on Food processing Industry in general and MAA DURGA in specific.
2. To analyse the value chain activities for MAA DURGA
3. To identify the problems faced due to COVID-19 by the MAA Durga using Fishbone Model.
4. To design solutions for the issues faced by MAA DURGA due to COVID-19.
5. To identify consumer buying behaviour for MAA DURGA and products by using statistical tools.
6. To determine the change in consumer buying behaviour due to COVID-19 for MAA DURGA products by using statistical tools.

LITERATURE REVIEW

In December 2019 there was an outbreak of COVID-19 virus in the world and that leads to a halt in the growth segment of the economy of the world. This also started its impact on the Indian economy slowly. As we know that India's GDP rate had decreased from 5.5% to 1.5%. In this report we are mainly talking about Food Processing Industry and their supply chain management. This industry have their own important role in India.

In this paper we talk about the impact of COVID -19 on the company and how the work has been disturbed.

COMPANY PROFILE

Maa Durga Pvt.Ltd is an MSME company which is located in Tinsukia, Assam which produces Papad, Besan, and packaging of soybean. The raw materials for production include Dal and

Masala which are outsourced. The packaging is also outsourced. The company has a Zero waste, as all the products are recycled. Human involvement is used only for temperature and quantity quality checks in the final stage. The company outsources all the logistics to a third party for the supply of finished goods and procurement of raw material. (All this data is collected from the Promoter of the company)

IMPACT ON THE COMPANY

After the outbreak of COVID-19, the sales have gone up, but there was an issue regarding the procurement of raw material due to no Railway freight available Maa Durga company faced a lot of problems because the company used to outsource the raw materials for production and the packaging is also outsourced because of these their production is stopped for some days there is no much human involvement in production because it is automated.

RESEARCH METHODOLOGY

Method

The study was descriptive and analytical, so a Survey method was used. A well-structured questionnaire was prepared and was administered to the respondents through google forms to collect the primary data. The questionnaire was divided into two parts. Part one is respondent's profile and Part two was the main survey. The sample to which the questionnaire was administered was based on random sampling techniques.

DATA COLLECTION

SAMPLE SIZE:

The sample size is 151 for B2C and the target population who basically are around the age group of 18-60 and who buy/use the food products.

Data collection is done in two ways. They are:

1. Primary source data is where we get answers for the structured questionnaire which we prepared to ask the customers on their buying behaviour before and after the impact of COVID 19.

2. The secondary sources of data are mostly collected from previous records which we could find on the internet, journals, reports, books or magazines etc. In our research, we have got the secondary data from IBEF, reports, journals and newspapers.

ANALYSIS

Value chain analysis

Source: Primary Data

Primary activities of MAA DURGA INDUSTRY

Inbound logistics: In this company the procurement is done by the help of third-party logistics, all the raw materials brought in from Delhi as per demand for the product whereas for storage of these raw materials they have their warehouse.

Operations: They follow the naïve method for production of goods. The company is installed with a fully automated machine for its production. The packaging of goods are done within the organization. The packets and printing on the packets are outsourced to another company.

Outbound logistics: The Company uses third party logistics to deliver their consignment. The consignments are delivered to the distributors in different districts and then are made available by them to every retail store possible. They have different distributors across seven states. For local supply, they also sale directly to the consumer.

Marketing and sales: Here the advertising of the product is done by word of mouth and hoardings of the firm are displayed in different part of the towns and cities. Distributorship are provided in different districts. Cash discount are provided if purchased in bulk.

Service: There is no after sales service as such but customer feedback is taken to ensure the quality and satisfaction. They provide special discounts on bulk order from the customers. There are not many changes made during the COVID-19 pandemic.

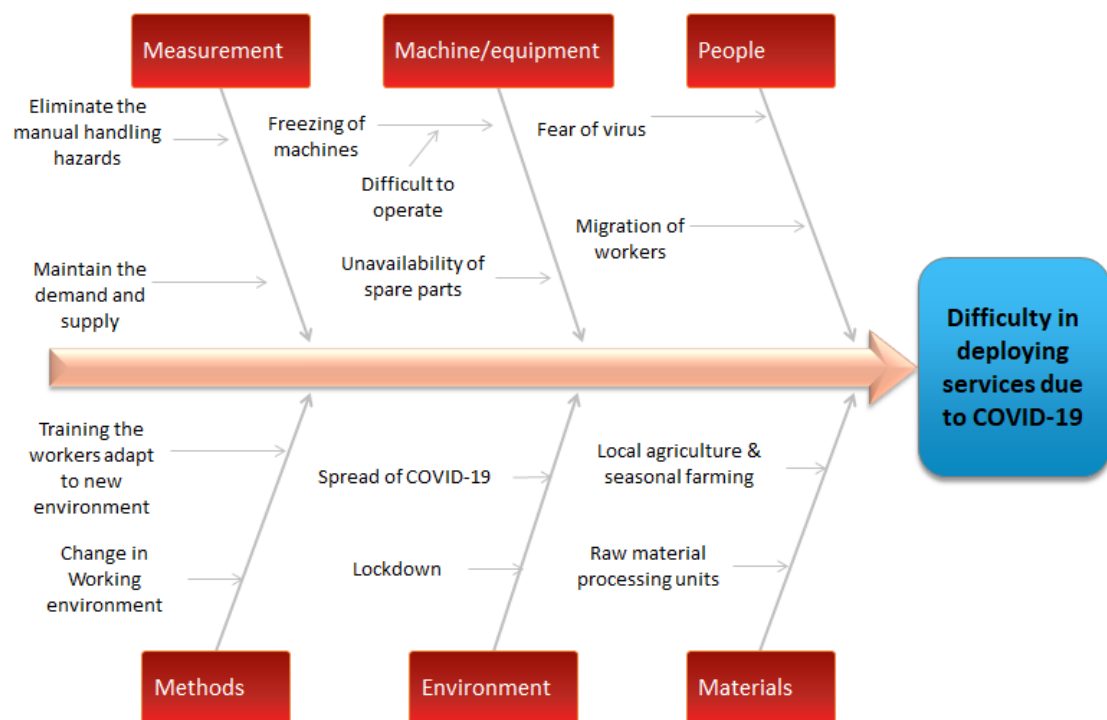
Supporting activities

The infrastructure is built to establish the production unit with heavy machinery and location is chosen according to the convenience and need for the industry. They have their separate warehouses to store their raw materials and finished goods.

The recruitment, training programs are done regularly as per the need of the company by the senior managing

Fishbone diagram for Maa Durga Pvt.Ltd

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Cause and effect for Maa Durga Pvt.Ltd

The production of Maa Durga Pvt.Ltd was stopped at pandemic of COVID-19 due to these following reasons:

MEASUREMENT: Due to the pandemic the production had stopped working and it would be hard on maintaining the demand and supply of the market.

MACHINE/EQUIPMENT: As the company has not used the machines for three months then there would be a problem in operating them and finding some spare parts to the machinery.

PEOPLE: The problem mainly is the workers as they are local workers who cannot go to work in the factory due to stop of the production and due to pandemic which made them workless in this period.

METHODS: Now it is a new normal due to COVID-19 as the working environment would change around the factory and in the area. It would make it difficult for the workers to come to work in the factory as they have to be trained to the new surroundings.

ENVIRONMENT: The government declared a lockdown for many days because of which all the activities of the industries was shut down.

MATERIALS: These are the important part of the production as we have to get raw materials from other places and the transportation has been stopped at the pandemic time, so the production could not move on.

Demographic details from Response

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Variables	Classification	Percentage
AGE	14-25	77%
	26-35	16%
	36-45	5%
	46-55	3%
	Grand Total	100%
GENDER	Female	60%
	Male	40%
	Grand Total	100%
Monthly Household Income	10,000-20,000	9%
	20,000-40,000	24%
	40,000-60000	19%
	Above 60,000	34%
	Less than 10,000	15%
	Grand Total	100%
MARITAL STATUS	Married	12%
	Single	88%
	Grand Total	100%
OCCUPATION	Business	7%
	Employed	28%
	Others	7%
	Student	58%
	Grand Total	100%
FAMILY SIZE	2 to 3	24%
	4 to 5	59%
	6 to 7	7%
	Above7	5%
	Single	5%
	Grand Total	100%
What is the highest level of education you have attained?	Graduation	53%
	Higher secondary / Intermediate	11%
	Postgraduate and above	34%
	Primary /Upper Primary (1-7th class)	1%
	Secondary / Matriculation (8-10thclass)	2%
	Grand Total	100%

Source: Primary Data N=151

T-Test

“An independent-samples t-test was conducted to compare the buying behaviour of Consumer on Papad and during the COVID-19.

Table 2: Group Statistics

	Product Type	N	Mean	Std. Deviation	Std. Error Mean
Frequency Buying	Papad	151	2.81	.978	.080
COVID Buying Change	Papad	151	2.77	.875	.071
Overall Product	Papad	151	7.29	2.607	.212
Overall Price	Papad	151	6.19	1.978	.161
Overall Place	Papad	151	17.88	5.363	.436
Overall Services	Papad	151	8.94	3.333	.271
Overall Promotion	Papad	151	6.60	2.862	.233
Overall COVID Imp	Papad	151	11.69	4.521	.368

There is no significant difference in the scores of Frequencies of buying of Papad ($M=2.81$, $SD=0.978$) conditions $t(300)=0$, $p=1$

There is no significant difference in the scores of COVID -19 buying changes in Papad ($M=2.77$, $SD=0.875$) conditions $t(300)=0$, $p=1$

There is significant difference in the scores of Overall Product attributes of Papad ($M=7.29$, $SD=2.607$) conditions $t(300)=-5.235$, $p=0$.

There is less significant difference in the scores of Prices of Papad ($M=6.19$, $SD=1.978$) conditions $t(300)=0.058$, $p=0.954$.

There is no significant difference in the scores of Place/Store Attributes of Papad ($M=17.88$, $SD=5.363$) conditions $t(300)=0$, $p=1$.

REGRESSION MOEDL PAPPAD

Table 3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.604a	.365	.344	3.663

a. Predictors: (Constant), Overall Promotion, Overall Price, Overall Product, Overall Services, Overall Place

Table 4: ANOVA

	Model	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1120.434	5	224.087	16.698	.000b
	Residual	1945.937	145	13.420		
	Total	3066.371	150			

a. Dependent Variable: Overall COVID Imp

b. Predictors: (Constant), Overall Promotion, Overall Price, Overall Product, Overall Services, Overall Place

Table 5: Coefficients

	Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.731	1.149		3.247	.001
	Overall Product	-.438	.168	-.253	-2.606	.010
	Overall Price	.232	.192	.101	1.208	.229
	Overall Place	.347	.105	.411	3.319	.001
	Overall Services	-.067	.144	-.050	-.467	.641
	Overall Promotion	.624	.150	.395	4.166	.000

a. Dependent Variable: Overall COVID Imp

A Multiple linear regression was calculated to predict Overall COVID-19 impact of consumer buying behaviour on Papads based on their product attributes, price, place, services and promotion. A significant regression equation was found ($F(5,145) = 16.698, p < .000$), with an R^2 of 0.365. Participants predicted Overall COVID-19 impact of consumer buying behaviour on Papads is equal to $3.731 - 0.438(\text{Product attributes}) - 0.067(\text{Services}) + 0.232(\text{Price}) + 0.347(\text{Place}) + 0.624(\text{Promotion})$. Three independent variables are significant (Product, Place, Promotion) i.e. $p < 0.05$. Other two independent variables are not significantly contributed to the model (price and services) because their significance value is greater than p value.

SUGGESTIONS AND CONCLUSION

SUGGESTIONS FOR MAA DURGA PVT.LTD:

Increasing efficiency:

1. Based on findings, it is recommended that workers conditions to be improved, according to the data it is given that 100% of consumers are keener about their precautions and hygiene conditions of the products and its delivery.
2. The data also reveals that 80% of consumers are facing issues with the unavailability of stock at nearby stores, also ensure a wide variety of Maa Durga papad products are available at stores.
3. 82% of consumers are also urging to use only natural ingredients in manufacturing papad. It improves public reach to the products and also reduces the risk of local transmission of disease by providing online services and payment gateways to consumers.
4. It is good to hear that 90% of consumers are neutral on buying the products during COVID. Since product quality and availability of products improves sales and holds a significant position in the market.
5. Hyper local: To get more raw materials from the local than importing from outside companies
6. To overcome problems such as deploying services to consumer's Maa Durga should employee local workers to avoid worker migration during the pandemic and train them to the new normal.
7. Maa Durga should also have parallel dealers in a local geographical location which helps in importing raw materials when needed.

Collaborations:

1. Also given that 95% of consumers are agreed to check out companies advertising safety measures in social media and other advertising platforms.
2. 65% of consumers are agreed to buy products online rather than buying in stores physically, ensuring on-time product delivery with digital payment facility.

Employee:

1. Manpower can be improved by motivating employees on their safety and health issues by proving basic facilities to employees and building employee-boss relationship.

2. To maintain Maa Durga Pvt.Ltd products high quality while following safety norms of sanitization and social distancing and ensure that Maa Durga products do not get impacted, the front-line sales staff and production workers continue to work tirelessly.
3. A high level of safety measures including thermal checking is in place to check the workers and staff before they enter the premises every day. Each staff member is also provided with protective gear like masks, shoe covers, gloves, and aprons to use while working in the factory along with hand sanitizers that are available at all accessible points.
4. Every staff member and the worker should be trained to this new normal that they have to get checked every day and should be wearing masks and gloves, they also should sanitize their hands every once in an hour.
5. Every corner of the facility including the doorknobs, handles, and railings are cleaned every two hours. Even at the point of delivery, the organization has put together strict measures to ensure the safe delivery of Maa Durga Products to the consumers.
6. The raw materials from Delhi through goods trains as there are moving compared to other transportation and when they receive those materials should be sanitized thoroughly.

LIMITATIONS OF THE STUDY

Our limitations on research are business to consumers for Maa Durga Pvt.Ltd. The main study of the research is to the understated impact of COVID and consumer response on the situation and their necessities. Research also expanded towards promotion and productivity of the firm. The data collected from the consumers are represented in the graphical method and suggested based on the data collected.

Sample size: We have collected 151 data samples.

Data collection: Data has been collected via Google forms only.

Self-reported data: As the forms were filled by the consumer were online instead of in store, there is a chance of lack of information that was passed by the respondent

SCOPE FOR FURTHER RESEARCH

1. Recency Effect is missing as data is collected through Google forms. The Recency effect is the tendency to remember the most recently presented information best. That is if data is collected directly in person, consumers response would be more accurate. As they can remember better at the retail store/ shopping centre than at the later point of time
2. The limitation of our study can be used as a scope for further research.

3. As there was no field visit for our research done, which could have given the study a better perspective and outcome.
4. There is a much broader scope for the field study which can help us in understanding the buying behaviour of consumers. The framework provided by us can be utilized for further research to upgrade and improvise the study.
5. The data collection can also be used for further research on consumer behaviour and wants.
6. Our research study is done based on the theoretical framework whereas conceptual framework can also be done.

SELECTIVE GLOBALISATION AND ATMA NIRBHAR BHARAT

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Abstract

Indian Economy has seen many variations in its post-independence era because of the changes in the vision of the government ruling the country, global requirements, changing socio-economic scenario, etc. The year 1991 which is regarded as the year of economic liberalisation saw a tactical shift in India's policy from being a protected economy to a free economy. India has, since 1991, been a sprightly advocate of Globalisation and has opened its economy to almost all the sectors, barring a few. Today, India is gradually getting into the league of becoming a major economy in the world map. The recent announcement of the new Atma Nirbhar Bharat Scheme is a prudent shift based on the idea that the Indian economy is not closing the doors of its economy to the world; rather it intends to become self-reliant, self-sufficient and create a quality product manufacturing hub that can compete globally. China has, over the years, adopted this partial concept of Globalisation successfully, wherein it has evolved as the world's manufacturing hub for a large number of sectors by first becoming self-sufficient and further supplying the surplus to the world. India, through its Atma Nirbhar Bharat scheme, is on the path to implement the same idea which led to the success of China, but with better transparency and a slightly different approach. This paper studies the impact of this new scheme on the concept of Globalisation and whether the Atma Nirbhar Bharat Abhiyan will evolve as a new concept of Selective Globalisation for the world, wherein the focus of every country will be on becoming self-reliant in different sectors and supplying the surplus to the world.

Keywords: *Indian Economy, World Economy, Economic Revival Policy*

GLOBALISATION & THE WORLD ECONOMY: A BRIEF

Globalisation has been fuelling the world economy since the 1990s, but it has sped up enormously in the past half century. Though the concept of globalisation started taking

shape in the 19th century itself, it was the 20th century which saw its implementation in a substantial manner.

Globalisation, as understood in a layman's language, is a mechanism through which goods and services are exchanged in the course of international trade without any restriction or trade barrier. With globalization, the entire world has come to become a consortium, free from all boundaries, for the purpose of trade and commerce. Though the concept of globalisation has been applied to non-economic fields as well for ages, but its application and contribution in the economic field has been vast and considerable.

The 19th century industrial revolution paved the way for the introduction of a concept like globalisation. As population started growing at a tremendous rate, demand too started proliferating. Moreover, the 19th century transport revolution (with the invention of steam ships and railroads) also reduced transportation costs substantially. This significantly led to the growth of international trade. As a step forward, the prominent nations of the world signed the GATT and the WTO agreements to remove trade barriers and further make international trade and commerce truly global. However, it is a matter of surprise that many bilateral and multilateral agreements have arisen between countries, or at regional forums, which have kicked off a new concept, which can be labelled as 'Selective Globalisation'.

SELECTIVE GLOBALISATION: AN INSIGHT

If globalisation means removing all the trade barriers between the nations of the world and starting to operate on an international scale, selective globalisation can be defined as choosing how and with whom to globalise. Simply stated, Selective Globalisation refers to a situation in which a country wants that there should be no restriction on its exports but simultaneously places certain trade barriers on its imports to save its domestic market from being exploited.

Under Selective Globalisation, an economy is selective in its approach towards globalization. It is not willing to remove its trade barriers for every other country of the world. It selectively favors certain nations for its own benefits; the few nations it favors is on political, regional and mutual grounds. This selective globalisation is causing trade disputes and economic barriers, which have actually disrupted the true essence of the concept of globalisation.

China has emerged as a successful economy by adopting this policy of selective globalisation. It imposed restrictions on several foreign and multinational brands in its domestic market, yet created a number of avenues to attract prominent foreign industries and companies to set up

their operations in China and supply to the world. Brexit and the new age regional and multinational groups are further a step in the direction of selective globalisation.

The prime contention today is whether this idea of Selective Globalisation will come to become the successful new world order.

ATMA NIRBHAR BHARAT: THE SCHEME

On May 12, 2020, the Indian Prime Minister, Shri Narendra Modi, announced a special economic package of Rs 20 lakh crore (equivalent to 10% of India's GDP), as a part of the country's long-term revival plan, labelling it as the "Atma Nirbhar Bharat Scheme". The focal point of this scheme is to make the nation self-reliant, with more focus on local manufacturers and service providers. This will strengthen the economy, improve the standard of living of its people and, most importantly, improve the trade deficit and balance of payments situation of the country. Being self-reliant also implies reducing dependence on imports and boosting exports; such a scenario will eventually lead to trade surplus.

The Atma Nirbhar Bharat package lays supreme importance on land, labour, liquidity and laws, so as to achieve self-reliance. The relief measures have been announced in five phases by the present Finance Minister, Nirmala Sitharaman.

Phase 1: The tranche 1 relief measures are targeted towards the MSMEs, NBFCs/HFCs, discoms, contractors, real estate and salaried workers, by focussing on funding as well as loan guarantees. The quantum of this package is Rs.5,94,550 crore

Phase 2: The second package is a relief measure of Rs 3,10,000 crore, majorly for the migrant workers, small farmers, street vendors and the poor.

Phase 3: To strengthen the farm sector, relief measures worth Rs 1,50,000 crore have been provided to agriculture and allied sectors like dairy, animal husbandry, and fisheries.

Phase 4 and 5: Worth Rs 48,100 crore, the last two phases stress on the eight critical sectors of the Indian economy - Coal, Minerals, Defence Production, Airspace management, Social Infrastructure Projects, Power Distribution Companies, Space Sectors, and Atomic Energy.

OBJECTIVE OF THE RESEARCH:

The present research is specific and is limited to the following objectives to have an exhaustive analysis of the following aspects:

1. To emphasise on the concept of Selective Globalisation.

2. To study the challenges in the implementation of the Atma Nirbhar Bharat Scheme in the midst of the present globalization scenario.

RESEARCH METHODOLOGY:

This paper is based on exploratory research technique. All data and information cited in this paper have been collected from secondary sources available on various websites of the Government of India, like Finance Ministry (www.finmin.gov.in), Government of India (www.india.gov.in), Ministry of Home and Urban Affairs (www.mohua.gov.in), Reserve Bank of India (www.rbi.org.in), etc. Furthermore, various news articles, websites of various media houses, journal papers, newspaper reports, annual reports, magazine articles, etc. were also referred to. Based on the information collected from the above stated sources, the research design has been adopted to achieve the objectives of the study.

ATMA NIRBHAR BHARAT SCHEME – THE POSITIVE ASPECT

The Atma Nirbhar Bharat scheme is apparently promising and seems to benefit the Indian economy in myriad ways.

1. The two most populous countries of the world - India and China - have a prodigious advantage over the rest of the world, because of their domestic markets. Talking about India, the size of its domestic market is so huge that any manufacturer who sets up an operation here will receive huge domestic demand which is why he can easily achieve the break even and also gradually earn a hefty return on his investment.
2. The fruits of globalisation were best reaped by China. It built a timely and robust supply chain model with competitively priced products and being the sole raw material supplier to numerous sectors. It emerged as a manufacturing hub for the world. However, the COVID-19 pandemic has disrupted this supply chain and now countries are thinking of shifting their overly reliance on a single nation, as it could endanger their future. The world nations want to move beyond China. Thus, the Atma Nirbhar Bharat scheme is befitting and an opportune step in attracting these manufacturers to India.
3. One of the pre-eminent aspects of this package is its focus on MSMEs and other similar sectors which are job providers to hundreds and thousands of people across the country. Moreover, the stress on agricultural and farm related sectors makes the Atma Nirbhar Bharat project a carefully designed and appropriately targeting scheme.

4. The Atma Nirbhar Bharat scheme proposes to make the country self-reliant, but parallelly it also aims at welcoming foreign investors to set up their units in India. So, the project is trying to attract foreign investment by paving way for easy investment routes and other lucrative facilities to transform India into a manufacturing hub.
5. The self-reliance project can be regarded as a bold step in protecting the domestic industries of the country. When foreign investors will inject money into the Indian economy, it will create a domestic atmosphere of cut throat competition which will in turn enhance the quality as well as reduce the prices of the presently trading goods and services, and will eventually make them globally competitive.
6. The government of India has taken an appreciable step by disallowing global tenders for procurement upto 2 billion rupees. This will be a notably illustrious support to the already implemented 'Make in India' initiative.
7. India is one of the largest defence equipment importers in the world. To modify this grim scenario, the FDI limit is being increased from the current 49 percent to 74 percent in defence manufacturing, which will help to attract foreign investment. India can, then, turn into a defence equipment exporter in the future. Atma-Nirbhar Bharat Abhiyan reforms include converging the defence and civil aviation sectors to position India as a global hub for aircraft maintenance, repair, and overhaul.
8. India has taken a huge leap in the past few years in the 'ease of doing business' index. As per the Indian Ministry of Finance policy reform documents released in May-June 2020, the next phase of reforms lined up are timely registration of property, the resolution of property disputes, and simplifying the tax regime for investors. This sounds propitious.
9. The Pradhan Mantri Garib Kalyan package is proving a relief to the tune of Rs. 1.70 lakh crore for poor laborers and workers. Provisions of free food grains and gas cylinders have also been made for BPL families.

10. India has successfully attracted foreign investment and multinational companies in mobile manufacturing, automobile manufacturing, defence equipment, e-commerce, etc., in addition to information technology which has always been the country's strength.
11. India has performed commendably in space technology; this is one sector in which India has the greatest export potential. With cutting-edge low-cost technology, India is already one of the few front runners in satellite launching.

ATMA NIRBHAR BHARAT SCHEME – DRAWBACKS

Despite the many promising facets proposed by the Atma Nirbhar Bharat project, a few areas of concern continue to hover over it. The following points highlight the drawbacks of this new scheme:

1. Problem of Liquidity: The package of Rs. 20 lakh crore sounds expansive. However, a large portion of this package is in the form of money infusion from RBI to banks and further from banks to countrymen. Strangely, the unorganized sector, which comprises majority of the economy, is still far flung from the bank credit system. Thus, actually penetrating money down to this sector is a challenge. Since the flow of money is not direct but indirect through the banking channel, the liquidity problem in the economy would continue to persist.
2. Contraction of Demand: The COVID-19 pandemic has lowered the demand in the global as well as the domestic market. Many sectors are on the verge of collapsing as people do not have money to spend on anything other than what's a necessity. However, the package, by relying overwhelmingly on credit infusion to boost the economy, has failed to recognise that investment will pick up only when people across the various income segments of the country have money to spend.
3. Challenge for MSME sector: The MSME sector, which is the backbone of the Indian economy, is going through the worst crisis ever. Though the package has infused money to promote production in the MSME sector, yet lack of demand has led to contraction in production. The industries in these sectors are not looking for expansion, in fact aiming at mere survival. Thus, it is doubtful whether the credit infusion plan will actually boost this sector or come to be another failure of the government.

4. Increasing Fiscal Deficit: Fiscal deficit has already been a huge burden on the country over the years. In this unprecedented situation, it is bound to increase. Revenue is at its all-time low, and announcing a package equal to 10% of GDP will further stress the fiscal deficit figure.
5. Disinvestment cannot be the Sole Solution: One mode through which the government seeks to finance this package is via disinvestment in PSUs. Barring a very few, PSUs are debt-ridden and many previous attempts of disinvestment have only resulted in less than target realization of the stakes. Moreover, the global economic scenario is unstable. Thus, it stirs up apprehension whether this exercise will bring about the expected outcome for the government.

CHALLENGES - QUESTIONS WHICH POSE THE REAL THREAT

While everyone is getting lost in the gaga of selective globalisation, introduced by India under the name of Atma Nirbhar Bharat project, we cannot ignore the obvious challenges which will preclude the successful implementation of the scheme. The questions posed below are a reality, and not merely an exaggeration. They arise because the actual circumstances of the world, amidst the COVID-19 scenario, are terribly perturbing.

1. The two economic giants – China and USA - have come to dominate the global market in the recent years, which is evident by their potential military ranking. While USA and China have occupied the lead, India stands at the fifth position and this cannot be overlooked. So, has India got the might in real sense to challenge these global giants?
2. China has spent the past four decades in building a massive industry-friendly infrastructure to attract the foreign investors. It has built the largest expressway network, the largest high-speed railway network, seven of the world's top cargo-ports, three of the top busiest cargo-airports, a high-tech telecommunications system and more than a quarter of the world's total power generation. Will India be able to relocate these factories so easily?
3. May be this time we have adopted a more liberal approach towards foreign capital, if compared with the import substitution practised before. Though companies may face higher duties on importing goods, they are allowed to invest in India and produce them here. However, bulk of these investments would be focused on only catering to domestic

markets. While, at the same time, other countries will increase the tariff on goods exported from India. This in turn will limit our capacity to rapidly industrialise and establish our manufacturing sector at a time when the world is looking for an alternative to China. Aren't we being unnecessarily optimistic about becoming 'Atma Nirbhar'?

4. India has an erratic and expensive power supply, and a very poor logistics and transport system. It stands nowhere when it comes to matching the world's physical infrastructure. Are there any odds of making India a manufacturing hub?
5. India spends only 0.59738 % (roughly 16 billion dollars) of its GDP of 2.72 lakh crore USD on R&D activities every year (as of 2018). Whereas, China reportedly spends 2.1451 % or 292 billion USD of its GDP annually on research. USA, with the world's largest GDP of 20 lakh crore USD, reportedly spends 2.788 % on R&D, amounting to roughly 558 billion dollars. For any country to be self-reliant, a good research and development environment is sine qua non. Will we be able to make it without refining our R&D expenditure?
6. The economic health of a farmer is significant to making an economy self-reliant. Well acquainted with the present scenario of the Indian economy, transforming a farmer to an agripreneur is taxing. India's farmers are bound by the shackles of low productivity, low income, lack of access to institutional credit, indebtedness etc. They are reeling under the burden of a fragmented agricultural marketing ecosystem, climatic uncertainties and vagaries of nature. Are the present schemes sound enough to strengthen these pillars of our country?
7. A report by Fitch Ratings throws light on India's heavy reliance on China – from pharmaceutical ingredients to 60% of electrical components, our manufacturers depend on China for 60% of their electronic components. It is to be noted that over 50% of the active ingredients needed to manufacture antibiotics, vitamins, hormones and steroids are imported from China. Was it wise enough to depend overly on another country for all even our basic supplies? When we rely on our neighbouring country for even the crucial raw materials, is it viable to talk about becoming self-reliant?
8. Over 90 percent of India's workforce operates in the informal sector where there is no certainty about income, job and social security, or healthy working conditions. Moreover, the COVID-19 crisis has only added to their problems. It has left them in the lurch — without food, income and for some, even shelter. Can we aspire to be self-

reliant with an economy whose working class is largely unemployed? Can the reality of Atma Nirbhar Bharat coincide with such a huge informal sector?

9. India's unemployability brings us to criticise the quality of education provided in our country. Will only initiating skill development programmes and mapping employment opportunities to the skill sets of migrant workers resolve the problems of the uneducated unemployed?
10. Will this movement actually impact the Indian economy and businesses as imagined by the country leaders? Does the government have any solid strategy to ensure the success of this project in this COVID-19 time, or is it just another crummy plan to boycott the enemy country (China this time)?

SELECTIVE GLOBALISATION AND ATMA NIRBHAR BHARAT

The COVID-19 pandemic has shaken the world and disrupted the global supply chains which were mainly based in China. But, one significant change that has come forth in this time of human crisis is that the world has started seriously looking beyond China.

Over the years, China has been tactfully able to carry out its prohibitory economic practices in violation of the principles of globalisation. Though a signatory to the GATT and WTO agreement and a permanent member of the UN Security Council, China has, behind the curtains of non-democratic rule, successfully implemented the concept of Selective Globalisation for over four decades. It had already been following the mantra of 'VOCAL FOR LOCAL' (as we have named it now) but without much marketing gimmick. It was clearly a state of selective globalization, under which even the big tech American Giants like Facebook, Google, Twitter, etc. were also not allowed to operate in China.

The Atma Nirbhar Bharat Scheme put forward by the present Indian government is a serious step on the same lines on which China had been walking. One aspect which makes India different from China is that India has a democratic setup of governance. This is the chief reason which makes India a favourite destination of the world. Moreover, similar to China, India also has a huge demand potential because of its enormous population, which makes it viable for the foreign multinationals to invest in the Indian market.

However, oftentimes, the policy paralysis scenario, bureaucratic bottlenecks, infrastructure problems, lack of skilled human resources and similar issues become obstacles in the successful implementation of India's promising schemes. These need to be addressed first. Also, being self-reliant needs a concrete strategy and staunch action, and not merely advertisement. When

we advertise unduly, we are also signalling the world that we plan to cut imports from their country. In the present scenario, silent actions in the right direction are crucial to yield optimal results.

The Atma Nirbhar Bharat Abhiyan is an applaudable step forward, but mere announcement won't serve any purpose. Careful and successful implementation of the same on the ground will make the real difference.

India must embrace the concept of selective globalisation in a sector-specific manner. There are many sectors wherein India couldn't be a world leader due to the lack of resources or other ancillaries associated with it. Similarly, there are many sectors such as Space Technology, Low Cost Defence Equipments, Technical Education, Healthcare Supplies, Information Technology etc. where India has a cutting edge over all others. India must reestablish itself as a world leader in these sectors first and then look into expanding its reach to other sectors where it can possibly create an edge in the near future. Moving slowly, steadily and gradually in the right direction can write this century to the credit of India.

SELECTIVE GLOBALISATION – CHANGING GLOBAL SCENARIO & THE WAY FORWARD

It seems just and equitable for the Indian economy to be thinking about its own self first. India was a signatory to both GATT and WTO agreements and has splendidly maintained the ethos of the two weighty international agreements. India has also been an active and vocal member of many regional and multinational forums over the years.

However, times have changed and so have the global aspirations and the reality. The present decade has witnessed heated trade fights between the prominent nations of the world. China and USA are engaged in a bitter tariff war. Similarly, Brexit has shaken the European Union's economic stride. Presently, every country is selfishly concerned about protecting its own economy and industries in a manner which was never seen in the times bygone. Thus, this scenario is exigent and requires some drastic steps to be taken.

Over the years, China has adopted similar steps to protect its domestic market from exploitation by foreign companies. Yet, it convinced the foreign manufacturers to set up their manufacturing operations in China by providing them with world class infrastructure, skilled human resource, transparent tax system, etc. However, the pandemic not only disrupted the process, but also started raising questions on the credibility of China as the world's manufacturing hub. Even the territorial expansion aspirations of China through soft trade policies aren't a secret any more.

Globalisation seems to be not working for many economies and they are looking to move beyond it. Every country in the world has started thinking of prioritising the interests of its domestic market first, be it a global economic giant like USA or a micro economy like Sri Lanka.

The idea is clear that globalisation is no more the answer, nor the way forward. Every country is looking to support domestic manufacturing and attract foreign investment. Though the scale and manner is different, but the idea is all the same. This is the beginning of the era of Selective Globalisation and in the days to come, it will become a clearly accepted and discussed reality.

CONCLUSION

The Atma Nirbhar Bharat Scheme, 2020 is a timely step in the right direction towards building a self-reliant India. India has both the capability as well as the resources to be a global supply chain in a number of sectors. However, it will have to persistently toil in building a better infrastructure, improving the legal mechanism, polishing the human resource and modifying the financial system to achieve its goals. In order to take advantage of selective globalization, we will have to weigh the prospects of the Atma Nirbhar Bharat Abhiyan with the challenges, to mitigate the risk involved in taking up such a challenging project in hand.

It is surprising to note that even after a quarter of the year has passed since this optimistic package with a hefty amount was announced, things are still sluggish on the ground. Regular review of the implementation aspect of the policy, timely corrections in the policy itself and joint efforts from all the corners can help to yield positive results.

It is a widely accepted fact that India has a huge economic potential, but the debate has always been whether we are capable enough of using this potential to our benefit. It is high time that India responds to this world crisis and emerges as a global economic leader.

REFERENCES:

- Bagchi, I. (2020, May 21). India Times. Retrieved from Times of India: <https://timesofindia.indiatimes.com/india/us-slams-chinas-disturbing-behaviour-at-india-border/articleshow/75857248.cms>
- Bloomberg, Covid-19: US economy shrinks at 4.8% pace, signalling start of recession, April 29, 2020, Hindustan Times. <https://www.hindustantimes.com/business->

news/covid-19-us-economy-shrinks-at-4-8-pace-signalling-start-of-recession/story-hoFLhaTOZrk48xBbAXK8SO.html

- ENGELKE, M. B. (2020). What's the world post Covid-19? Atlantic Council Strategy Papers, 3.
- Ghosh, N. (2020). How a changing global order will emerge in post-Covid world. Kolkata, India: Observe research Foundation.
- Hernández, V. W. (2020, April 28). Coronavirus crisis awakens a sleeping giant: China's youth. The New York Times, pp. 1-3.
- Hub Staff, COVID-19's historic impact, in the US and abroad, 17april, 2020, jhu.edu <https://hub.jhu.edu/2020/04/16/coronavirus-impact-on-european-american-economies/>
- JOHN ALLEN, N. B. (2020, March 20). Foreign Policy. Retrieved from How the World Will Look After the Coronavirus Pandemic: <https://foreignpolicy.com/2020/03/20/world-order-after-coronavirus-pandemic/>
- Laura Oliver, It could take three years for the US economy to recover from COVID-19, March 30, 2020, World Economic Forum. <https://www.weforum.org/agenda/2020/03/economic-impact-covid-19/>
- Madhav, R. (2020, May 2). India will play greater role in new world order post COVID-19. (B. N. Singh, Interviewer)
- McKinsey & Company, Coronavirus' business impact: Evolving perspective, May 27, 2020 <https://www.mckinsey.com/business-functions/risk/our-insights/covid-19-implications-for-business>
- Narayan, S. (2020, April 1). Post-Covid-19 world will be 'very different' for China. (M. Ramesh, Interviewer)
- Nichols, M. (2020). U.N. Security Council meets over coronavirus as it struggles to act. New York: Reuters.
- Pilkington, E. (May, 2020). Black and White of the Pandemic. New York: The Guardian .
- PTI. (2020, May 13). At 10% of GDP, Modi's Atma-nirbhar Bharat Abhiyan ranks among biggest in world. Retrieved from Economic Times: <https://economictimes.indiatimes.com/news/economy/finance/at-10-ofgdp-modis-atma-nirbhar-bharat-abhiyan-ranks-among-biggest-in-world/articleshow/75716267.cms?from=mdr>
- Rosamond Hutt, The economic effects of COVID-19 around the world, May 14, 2020, World Economic Forum. <https://www.weforum.org/agenda/2020/02/coronavirus-economic-effects-global-economy-tradetravel/>

- Sean Fleming, South Korea's Foreign Minister explains how the country contained COVID-19, March 31, 2020, World Economic Forum <https://www.weforum.org/agenda/2020/03/south-korea-covid-19-containment-testing/>
- Singh, A. S. (2020, May 14). India's place in a post-COVID-19 world: Restructuring economic policy, bridging trust deficit will have to go hand-in-hand. First Post., p. para 19.
- Source, G. c. (2020, May 21). Atma Nirbhar Bharat Abhiyan: Challenges. Retrieved from Dhrishti: <https://www.drishtiiias.com/daily-updates/daily-news-editorials/atma-nirbhar-bharat-abhiyan-challenges>
- Syed Mafiz Kamal, How Bangladesh is addressing the Covid19 pandemic May 4, 2020, orofonline.org <https://www.orfonline.org/expert-speak/how-bangladesh-is-addressing-the-covid19-pandemic-65601/>
- Wadhams, N. (2020, May 18). Pandemic shatters world order, sows anger and mistrust. Retrieved from Economic Times: <https://economictimes.indiatimes.com/news/international/worldnews/pandemic-shatters-world-order-sowing-anger-and-mistrust/articleshow/75793805.cms>
- Zeeshan, M. (2020, April 7). Can India Organize Post-COVID-19 Global Action. Retrieved from The Diplomat: <https://thediplomat.com/2020/04/can-india-organize-post-covid-19-global-action>
- Website of Ministry of Finance, Government of India, www.finmin.gov.in
- Website of Government of India, www.india.gov.in
- Website of Ministry of Home and Urban Affairs, www.mohua.gov.in
- Website of Reserve Bank of India, www.rbi.org.in
- Website of United Nation Organisation, www.un.org
- Website of World Trade Organisation, www.wto.org

ENVIRONMENTAL CORRECTIONS FOR AN ATMA NIRBHAR BHARAT – THE WAY TOWARDS ECONOMIC GROWTH

63

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Abstract:

The Key term “Atma Nirbhar Bharat” meaning Self-Reliant India is a special economic package announced by the Prime Minister on 12th May 2020. The package comprises of Rs 20 lakh crore (equivalent to 10% of India’s GDP). It is divided into four tranches, where each tranche has their own focus areas. This paper focuses on the state of Assam and the Environmental correction for an Atma Nirbhar Bharat. The contribution of Atma Nirbhar Bharat Abhiyan to the state of Assam is huge. As stated the package is divided into four tranches, Tranche 3 is majorly focused on Agricultural and allied activities. The Economy of Assam being largely agriculture based with 69% of the population engaged in it clearly states the major benefit for the region. Moreover the MSMEs in Assam is most benefited under Atma Nirbhar Bharat Abhiyan which is put up in detail in the paper. Assam is majorly effected by any environmental degradation not just for its geographic proximity to the delta region but also because of its poor socio-economic conditions. Green economy is the way ahead, not just in terms of creating employment opportunities but also to spur economic growth. Therefore, in order to balance economic growth and environmental degradation, it is necessary to break the cycle of poverty and environmental destruction in the less developed countries. The Environmental Kuznets Curve (EKC) hypothesis shows a trade-off between environment and development. Thus, the Trade-off between Economic Growth and Environment is explained in the paper using Environmental Kuznets Curve (EKC).

Key Words: *Atma Nirbhar Bharat, Environmental Kuznets Curve (EKC), Green economy, Assam economy, Agriculture sector, MSMEs, Environment, Economy, Assam, Economic Growth.*

Introduction:

The economic slowdown and the job losses are believed to be the factors demotivating the Government in investing in climate actions. However, research shows that green economy is the

way ahead, not just in terms of creating employment opportunities but also to spur economic growth. The ill effects of degraded environment is often talked about in unison to people's health and the future generations but in reality the multifaceted effects of a degrading environment translates into enormous costs for the economy as well. Degrading environment nudges an unhealthy population resulting in an inefficient workforce. The above correlation would be difficult to learn as for that one has to unlearn the age old mainstream economic indicators i.e "development" and "growth" of an economy measured by GDP (Gross Domestic Product) as they do not feature ecosystem services. Including ecosystem services in such measures is the need of the hour as ecosystem services creates the base for economic productivity. With the redundant models measuring economic growth showing a biased picture it is of utmost importance to impose enough restrictions on those who contribute to environmental degradation and not be spared simply because they command the GDP. According to ILO reports twenty-four million new jobs will be created globally by 2030 if the right policies to promote a greener economy are put in place. Thus, the link between the environment and economy has always existed and will only strengthen in the future. This paper is divided into four sections. The first section deals with the linkage between economy and the environment. In the second section, the Trade-off between Economic Growth and Environment is explained using Environmental Kuznets Curve. In the third section Assam and the economic costs for depleting environment is discussed in detail while the fourth section focuses upon Atma Nirbhar Bharat and Assam.

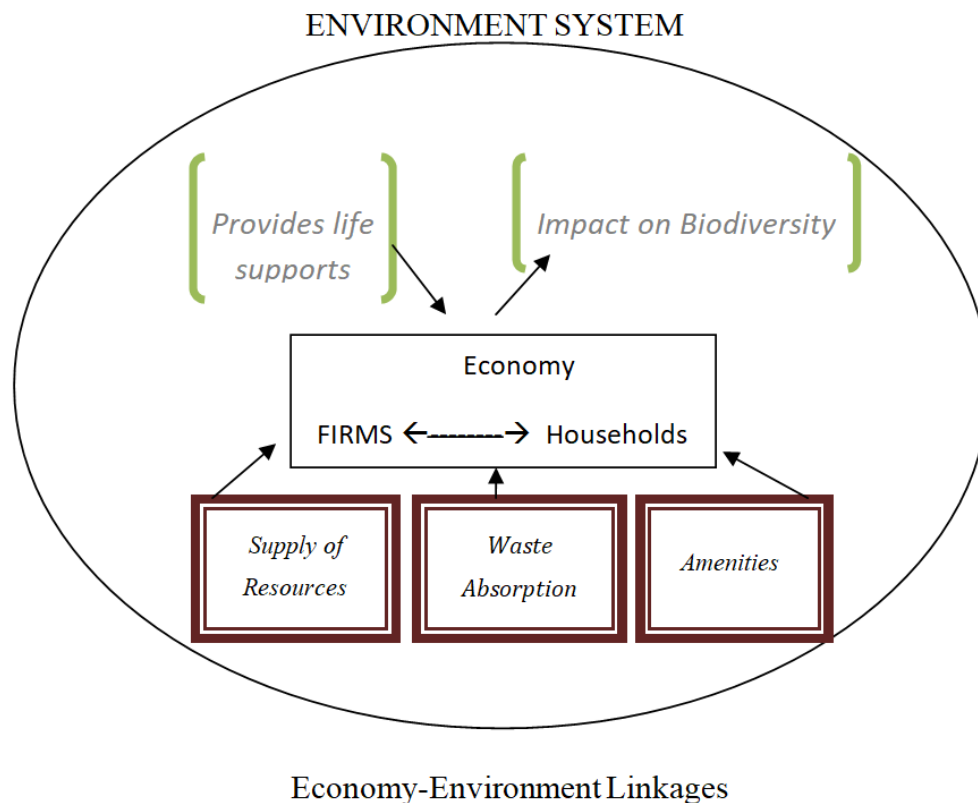
I.The Linkages between Economy and Environment

Every economic activity carried out has high dependence in the environment it persists. This is because economic activities are always backed by environment in ways such as-

- Providing with the support for life
- Supply of natural resources for production and consumption
- Absorbs waste
- Provides with amenity services

The economic activities for the purpose of production of goods and services uses man-made capital, labour and resources (renewable or non-renewable). Thus the economy that works from inside the environmental system affects the environment and latter also affects the economy as a whole.

The linkage between the economy and the environment is shown by a figure. The environment comprising of natural resources, minerals and metals, oceans and atmosphere etc is represented by the whole big circle. The economy that functions within the environment is shown by a square.



Source: Ahuja H.L. (2016): "Development Economics", 1st edition, S. Chand Publication, New Delhi

The firms comprising the economy produce goods and services with the use of natural resources, man-made capital and labor which makes up the environment to satisfy the consumption wants of households. The various relations between the environment and the economy is explained below:

1. The environment system that comprises of the air and atmosphere, rivers, the soil, biodiversity etc on which life of households depends are essential and necessary for the existence of human beings. If there is any large depletion in these conditions provided by environment system, there will be negative effect on human life. This life-support function of the environment system is shown by the arrow towards the economy in the figure.
2. The environment provides raw materials and resources such as minerals and metals, wood and cotton for production and use by the firms and households in the economy. These natural resources may be renewable or non-renewable. The non-renewable resources needs to be preserved for future generations. Similarly, renewable resources should be used in

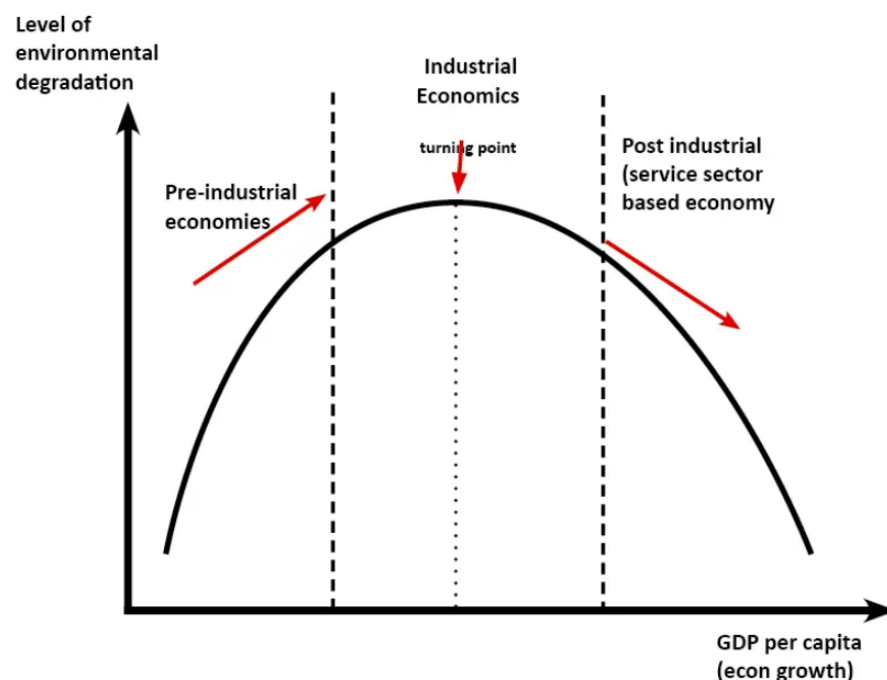
sustainable manner. The use of renewable resources is shown in the above diagram by opposite flow of resources from the economy to the environment.

3. Another postulate of environment is to absorb the waste produced by both firms and households. Thus, the environment is used as a waste sink. However, it is important to note that the environment only has a limited assimilative capacity to absorb these wastes or to dispose of them safely.

All that makes up the environment has more than one role to play as explained by Thirlwall (2011). For example, “the oceans are important in determining the life-support system provided by the global and microclimates; they are sources of many minerals and other resources; they assimilate many different wastes and they provide the space and opportunity for marine pastimes”.

Thus, the linkages between the economy and the environment is evident from the above figure.

II. Trade-off between Economic Growth and Environment



From times immorial the relationship between level of economic development and environmental quality was believed to be that rich economies destroyed the environment at a faster pace than poorer countries. However, this was well explained by Kuznet's findings (1901-1985) between Per Capita Income and inequality across countries. Thus, this relationship came to be known as the Environmental Kuznets Curve (EKC). The associated hypothesis with this curve has been put as “the environmental pressure tends to rise faster than economic growth

in early stages, then slows down and reaches a turning point after which it tends to decline with further growth. The last phase is referred to as delinking of environmental pressure from economic growth” (Grossman and Krueger, 1995)

The Environmental Kuznets Curve (EKC) hypothesis shows a trade-off between environment and development. It seems to suggest that underdeveloped countries will have to forgo environmental quality in order to attain a higher level of development. This is because, for a country to develop it also demands an extensive use of its available resources. Without the available assets or income, they have little choice, but to overuse the resources and to destroy their natural environment simply to survive. As the poor countries desire more economic growth they will use more available natural resources resulting in environmental degradation.

The Kuznets curve graphs economic inequality against income per capita over the course of economic activities. The EKC graphs the idea that as an economy develops there is intensified market activities which in turn reduces economic inequality which is illustrated by the inverted U-shape of Kuznets curve. The idea is that as economic development takes place the environment worsens upto a certain point where the country reaches a specific average income. Then money is invested back into the environment and the ecosystem is restored. Thus, the EKC shows that the relationship between economic growth and pollution is an inverse U shape. However, the EKC has never been shown to apply to all pollutants or environmental impacts and recent evidence (Dasgupta et al., 2002; Perman and Stern, 2003) challenges the notion of the EKC in general.

In order to balance economic growth and environmental degradation, it is necessary to break the cycle of poverty and environmental destruction in the less developed countries.

III. Assam and the economic costs for depleting environment

Assam is majorly affected by any environmental degradation not just for its geographic proximity to the delta region but also because of its poor socio-economic conditions. Needless to say Assam each year is the worst affecters of climate induced extreme events such as floods. To worsen the situation for its economy as Assam The Economy of Assam is largely agriculture based with 69% of the population engaged in it. The state is characterised by high rainfall and a subtropical climate. It faces the extremes of both the sides of the coin with annual floods and frequent droughts. However, like most developing regions, environmental issues have received short term focus and efforts are more focused on recovery than creation of adaptive capacity.

It is particularly worrisome for Assam as almost 32% of its population lives below the poverty line. With the floods hitting the state yearly not just because of heavy rainfall but poor drainage in the city areas and with the rivers becoming a dumping ground which makes them shallow are just the other side to the story. The loss of agricultural fields during flood in addition to the loss of livestock has adverse effects in the economy of the state. As they form the source of income for many. Frequent droughts have affected the produce of the bountiful state and have often led to economic consequences. Drought results in lowering the production of agricultural commodities, which in turn results in price rise. The result of low incomes and high prices during droughts and floods challenges the economy of the state further.

A fitting example of the impact of environmental changes is that of Majuli, the largest river island in the Brahmaputra River. Environmental changes have resulted in continuous shifts in rainfall pattern as well as it has also lost visibly large tracts of land due to erosion over the last century. Frequent floods, erosion, and siltation has lowered the farms productivity resulting in further fall in the income of the island which was already low owing to the high poverty rate. The loss of livelihood due to climate induced events has resulted in forced migration to neighbouring urban centres such as Jorhat.

Such deeply troubling economic outcome of climate extremes is reflected in other parts of the state. Climate change is even endangering the abundant tea plantations that are the very identity of Assam, as several research have pointed towards decreasing tea yields in the region.

Apart from the economic loss, the effect on the population's health and wellbeing further weakens the base for human capital. Unheard of a few years back, a place often enjoying a pleasant climate and very rarely extremes of weather has witnessed heat strokes as summer temperatures are touching 40 degrees Celsius.

The effects of industrialization and mismanaged waste, resulting in a shift of the rivers of the state into dumping drains is the worst scenario that needs high attention. To state the Bhogdoi river or the Bhorolumukh River resulting in pollution and further deteriorating the health which was once the asset of the state- "a water body being converted into a drain" is a loss not just to mankind but to our economy as a whole.

IV. Assam and Atma Nirbhar Bharat

The Atma Nirbhar Bharat meaning Self-Reliant India is a special economic package announced by the Prime Minister on 12 May 2020. The package comprises of Rs 20 lakh crore (equivalent to 10% of India's GDP) which was taken up to revive the country from the tough competition in

the global supply chain and make India self-reliant to sustain and tackle tough competition in the global supply chain. The package is divided into four tranches. The objective is in making the country self-reliant in all spheres- from manufacturing to supplying. It will help the country to reduce its dependence on imports and may also give a boost to exports. This economic scheme majorly focuses on MSMEs and agriculture and its allied activities. This special scheme brought in was due to the major economic loss the country faced due to the lockdown imposed for COVID-19 as it brought nearly 70% of economic activity, investment and exports to a standstill. Therefore to give a rise to the ailing economy the government announced the Atma Nirbhar Bharat Abhiyan,

The contribution of Atma Nirbhar Bharat Abhiyan to the state of Assam is huge. As stated earlier the package is divided into four tranches, where each tranche has their own focus areas. Tranche 3 is majorly focused on Agricultural and allied activities and the Economy of Assam is largely agriculture based with 69% of the population engaged in it. With this statistics it clearly brings to light as to the relief measures worth Rs 1,50,000 crore announced by the center shall be a boon to the agricultural sector of Assam. This fiscal assistance will benefit the sector as its focus is on bringing about infrastructural improvement along with investments in beekeeping, cattle feed and herbal and medicinal plants. Moreover, additional support by NABARD in funding for the above stated cause will help meet gaps in supply chain and help local products reach global markets. Also the planned reforms to be brought in under Atma Nirbhar Bharat including agricultural marketing reforms like barrier-free inter-state trading, possibilities to sell products at attractive prices, and also provide an e-trading platform for agricultural produce. Such measures shall be a boon to the economy of the state.

Moreover the MSMEs in Assam is most benefited under Atma Nirbhar Bharat Abhiyan. The chief minister of Assam has sanctioned financial credit worth ₹ 1,648.22 crore to nearly 95,000 MSMEs in the state. Assam industrial sector contributes 39% to the state GDP, it provides employment (Direct and indirect) to approximately 4 Lakh people and 20 Lakh people respectively. In a state with majority of the industries falling under MSME sector this is a boon as Tranche 1 of the Abhiyan majorly focuses on the MSMEs sector. The Atma Nirbhar Bharat Abhiyan package includes collateral free loan for small and medium enterprises of Rs 3 lakh crore without any additional processing fee. As seen “Collateral free loan for 28,654 number of Micro, Small and Medium Enterprises (MSMEs) worth Rs 738.44 crore have been sanctioned in Assam till date under the Atma Nirbhar Bharat Abhiyan.” (June 26, 2020 6:43 am By NE NOW)

CONCLUSION

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The relationship between economic growth and environmental degradation as focused upon in the paper throws light on why sustainable economic growth is the key towards “Save blue, Go Green”. Thus, to achieve sustainable growth without hampering Real growth or well being of the society environmental corrections need to be brought in. Since the environment supports economic activities in many ways it has resulted in the degradation of the environment with the fight for economic growth alone been focused upon. This has a negative impact on the long term goals of economic development. The environment corrections is important for the future development. The key factors of a developing nation like India i.e. poverty and population rise has contributed to the conflict between economic growth and environment. The linkages between environment and development as brought out in the paper highlights the concept of “sustainable development”. Sustainable development today aims to improve the quality of life in a comprehensive manner, including economic prosperity, social equity and environmental protection.

BIBLIOGRAPHY

Alvarado, R., Toledo, E.(2017) Environmental degradation and economic growth: evidence for a developing country. *Environ Dev Sustain* 19, 1205–1218.<https://doi.org/10.1007/s10668-016-9790-y>

Barbier, E.B.: 1997, Introduction to the Environmental Kuznets Curve special issue, *Environment and Development Economics* 2, 369–382

Beckerman, W.: 1992, Economic growth and the environment: Whose growth? Whose environment?, *World Development* 20, 481–496.

Chakraborty, Subhayan (2016): “Economic Toll of Air Pollution May Have Cost India 8.5% of GDP: World Bank Report,” *Business Standard*, https://www.business-standard.com/article/economy-policy/economic-toll-of-air-pollution-may-have-cost-india-8-5-of-gdp-world-bank-report-116090900235_1.html.

Galeotti Marzio (2007)Economic growth and the quality of the environment: Taking stock, *Environment, Development and Sustainability*, DOI 10.1007/s10668-006-9030-y

Mishra, Manjari (2014): “Rs 20,000 Crore Spent in 28 Years, Ganga Still a Flowing Mess,” *Times of India*, <https://m.timesofindia.com/india/Rs-20000-crore-spent-in-28-years-Ganga-still-a-flowing-mess/articleshow/35090392.cms>.

Muhammad Azam (2016), Does environmental degradation shackle economic growth? A panel data investigation on 11 Asian countries, Renewable and Sustainable Energy Reviews, Volume 65, November 2016, Pages 175-182, <https://doi.org/10.1016/j.rser.2016.06.087>

NAYAK ANKITA,(2020) The Promise of Environmental Action for Economic Growth, Economic and Political Weekly, Vol. 55, Issue No. 1,ISSN (Online) - 2349-8846

Qureshi, Siraj (2017): “Tourism Industry Alarmed as Agra Pollution Levels Reach Hazardous Levels,” India Today, 9 November, <https://www.indiatoday.in/india/story/taj-mahal-agra-tourism-pollution-air-quality-index-delhi-pollution-1082935-2017-11-09>.

STERN DAVID I., S. COMMON MICHAEL AND B. BARBIER EDWARD (1996), Economic Growth and Environmental Degradation: The Environmental Kuznets Curve and Sustainable Development, World Development, Vol. 24, No. 7, pp. 1151-1160

T. UttakarGorkhnath and A. Salvi Prakash, (2018) , The Linkages between Economy and Environment, IOSR Journal of Business and Management (IOSR-JBM) e-ISSN: 2278-487X, p-ISSN: 2319-7668. Volume 20, Issue 6. Ver. VII, PP 77-81

EFFECTIVENESS OF ONLINE EDUCATION- AN ACADEMICIAN'S PERSPECTIVE

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Abstract:

Online education ensures that a wide array of learning opportunities is available for students in a highly competitive world. It focuses on the advancement of technological based learning platforms, with innovative methods of delivering lectures and integrating the modern educational technology into the Digital world. The online education has allowed the young youths to grab the opportunities in advancing their education in diverse fields and progressing themselves independently. The study attempts a comparison of online education in the global arena through extensive review of literature as case studies to highlight the effectiveness of online education in the present scenario. It is a purposive sampling based on the perspective of academicians about effectiveness of online education on variable of time and cost benefit, fast learning, etc. Different statistical tools are used to portray the findings of the study. The findings of the study reveals that perspective of academicians have an positive impact on online education as a tool to produce future products with innovative skills to compete in the digital and global environment

Keywords:

Online Education, Effectiveness, Academician's, Global, Digital.

Introduction:

Education system in India is changing with the competitive environment. A vast change in the system has taken place from traditional offline educational system to online education system. In the present scenario where one is prohibited of going out the online education has made imparting of education possible. It ensures that a wide array of learning opportunities is available for students in a highly competitive world. It focuses on the advancement of technological based learning platforms, with innovative methods of delivering lectures and integrating the modern educational technology into the Digital world. As seen technology is highly involved in each & every part of our lives. The only thing one needs is a good Internet Connections, Smartphone's, Computers, Laptops, Tablet, etc. as the infrastructure by the trainer and the learner. The online education has allowed the young youths to grab the opportunities in advancing their education in diverse fields and progressing themselves independently. It is a system of learning and utilizing electronic technologies in accessing education outside the traditional classroom system. Online education helps the students to achieve the educational services and technology knowledge together. It is producing the products to match the needs of digital world which will fulfill the dream of "Digital India".

Literature Review:

An extensive review of literature was done by the researcher to find out the gap on the studies already done in the required field. Few studies have been mentioned in the present study.

- **Redmond (2011)**, observed a change in the beliefs and teaching presence of the instructors from their initial resistance to online teaching to an approach which is mindful of the student experience and promotes a dialogical approach to online learning.
- **Babson Study (2014)**, states online learning mode is a best solution in imparting distance education at times. The number of higher education students undergoing an at least one online course is approximately 33 percent of total higher education students.
- **Gilbert (2015)** online courses are best suited for high school students due to the amount of responsibility that accompanies the course work. Some students stated "stress" and "not being mature enough" as reasons for restricting students below high school from enrolling in an online course.

- **Sun and Chen (2016)**, observed development of an online community in the online environment as the primary challenge in imparting online education. This requires joint efforts of both the teachers and learners in establishing a healthy interaction.
- **Matthew et al (2018)**, An online instructor faces issues including being effective in delivering the course, responding to student emails, getting used to the online tools and infrastructure. Some less-developed countries view the online education as cost effective.

The review of literature depicts that online education is an effective mechanism for imparting education worldwide. It bridges the barrier gap of destination between the learner and the service provider.

Objectives of the study:

- To identify the challenges of online education.
- To identify the opportunities of online education.
- A comparison of online education in the global arena.

Research Methodology:

The present study is descriptive in nature. The methods used for data collection were both primary and secondary data. The secondary data was collected through books, research articles, journals, publications, etc. the primary data was collected through questionnaire distribution to the respondents through Google Forms.

The study is based on purposive sampling so as to fulfill the purpose of the study. The respondents selected were the academicians irrespective of permanent or adhoc in nature from all streams as online education is the need of the hour. The respondents were targeted through snowball sampling so as to reach to a vast response. A total of 155 Google Forms were distributed randomly of which 100 respondents were taken for the present study. From 17 colleges under Dibrugarh University (which forms 10% of the total colleges registered under Dibrugarh University).

The Data collected have been projected with the help of average, percentage, pie charts, bar diagrams, etc. for analyzing and interpretation.

Analysis and Interpretations:

The analysis and interpretation of the present study has been depicted with the help of percentage, graphs, pie charts, etc.

Count of Designation

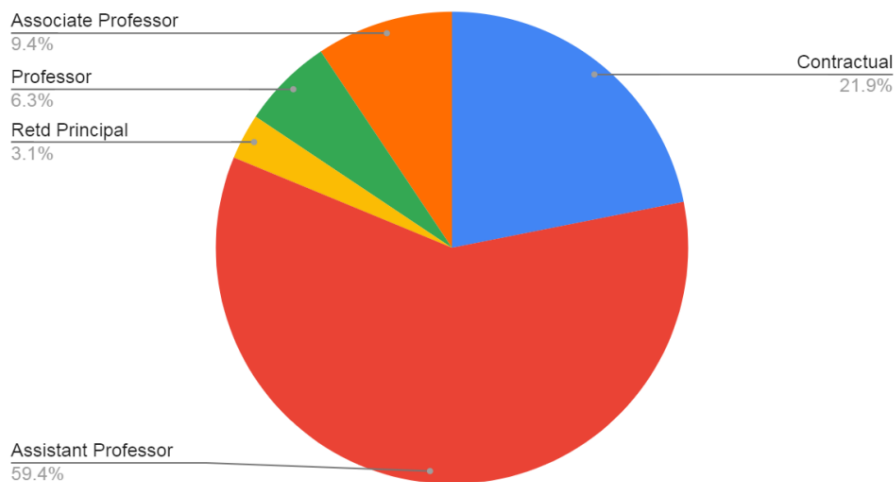


Figure:1.1 Designation of the Respondents

Majority (59.4%) of the respondents are Assistant Professor, followed by Contractual faculties (21.9%), Associate Professor (9.4%), Professors (6.3%). Also Retired Principal (3.1%)

Profile of respondents

Table 1.1.Highest educational qualification obtained

Educational qualification	Percentage of respondents
Post Graduate	18
M.Phil	34
PhD.	48

Name of educational institutions they belong:

1. DHSK Commerce College
2. Dibru College
3. DHSK College
4. MDK Girls
5. J.B. College
6. Sivsagar Commerce College
7. Tinsukia Commerce College
8. SIPE Law College
9. RKB Law College
10. Tinsukia College.
11. Nandlal Borgohain CT
12. Digboi College
13. Salt Brook Academy Commerce College
14. GolaghatCommerce College.
- 15.Indreswar Sharma Academy.
16. Shree Bharati College.
17. Women's College.

Age
32 responses

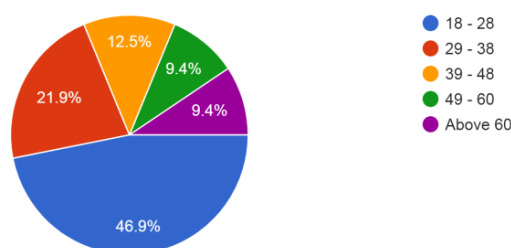


Figure1.2 Age of the Respondents.

Majority (46.9%) of the respondents are within the age group of 18- 28 years, followed by 29- 38 years and 39-48 years. Only (9.4%) equally are above 49%

Gender
32 responses

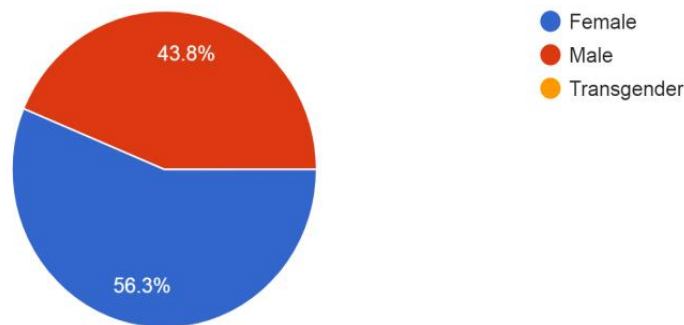


Figure 1.3 Gender of the Respondents.

Majority (56.3%) of the respondents of the present study are females and the rest are males.

Which Mode of teaching would you prefer.
32 responses

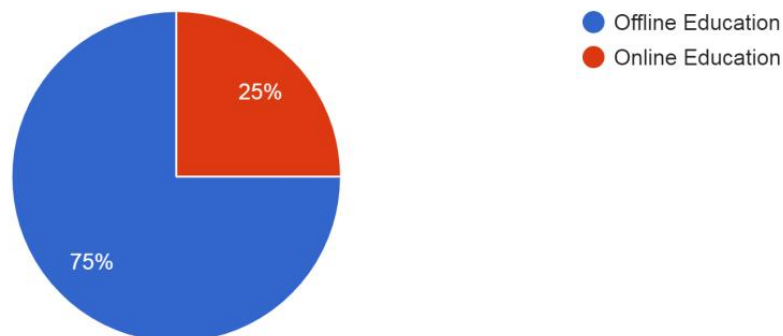


Figure 1.4 Preference on the mode of teaching.

The study reveals that majority of the respondents(75%) prefer the offline mode of education. Only 25% are enjoying the online teaching sessions.

Which Online Platform do you use frequently.

32 responses

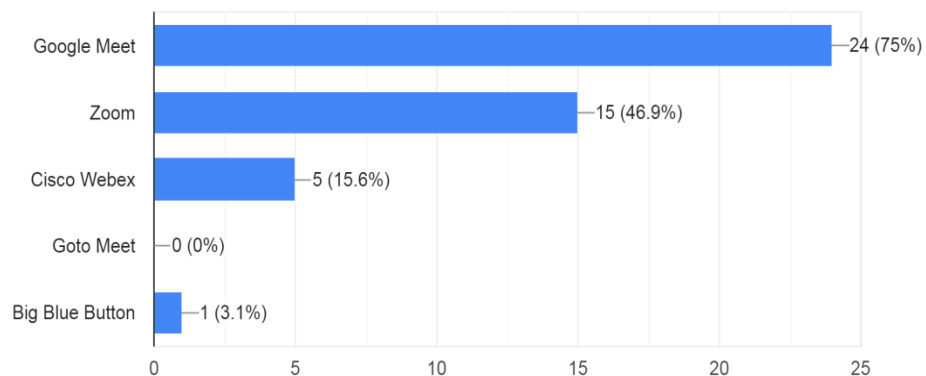


Figure 1.5 Frequency of using Online Platform

It has been observed that Google meet is the most widely used online platform followed by Zoom and Webex. Big Blue button is another app being used in imparting online education classes.

Table 1.2. Preference of respondents

	Percentage of respondents
Google Meet	38
Zoom	34
Webex	12
Others	16

Google meet is also the most widely preferred online platform followed by Zoom and Webex. Big Blue button is another app being used in imparting online education classes.

Do you prefer Google to Google Classroom.

32 responses

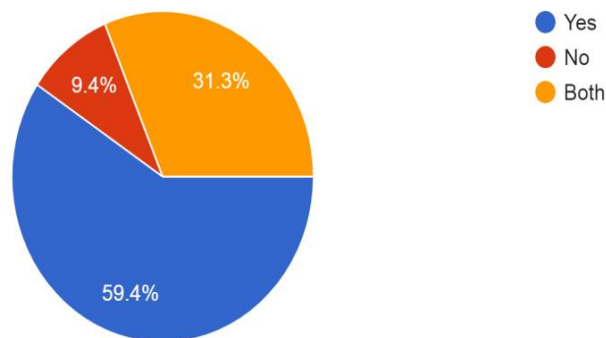


Figure 1.6. Preference from Google to Google Classroom.

Google classroom is found to be more convenient to majority of the online educators(59.4%). Only (9.4%) prefer google meet whereas rest (31.3%) prefer both platforms.

Do you feel safe & comfortable using online platform.

32 responses

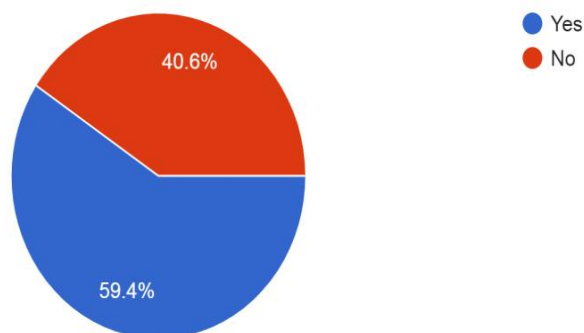


Figure 1.7 Safe & Comfortable in using online platform.

Majority of respondents (59.4%) are comfortable using the online platforms for imparting education.

If No state reasons:

14 responses

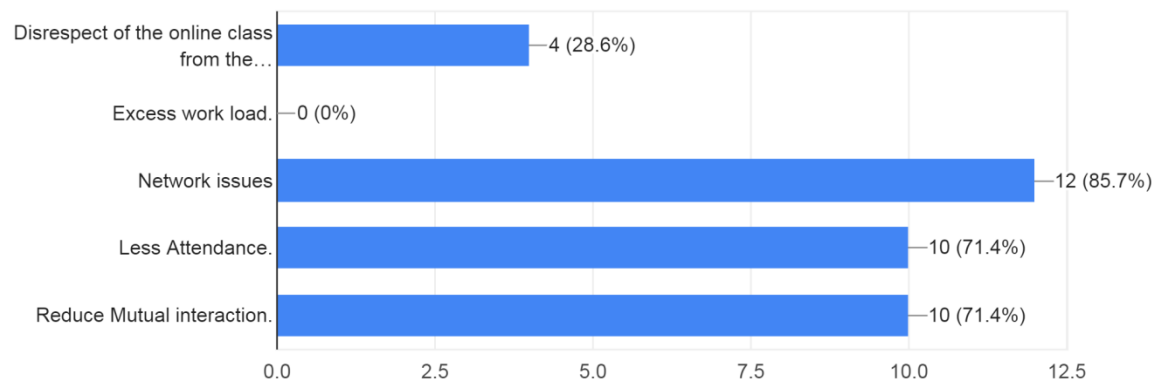


Figure 1.8 Reasons for not feeling safe & comfortable.

The reasons for uncomfortable in imparting online education include Network issues followed by less attendance, less mutual interaction and disrespect of the online class by the students as opined by the online educators.

Do you think Online library is an advantage to your students knowledge base.

32 responses

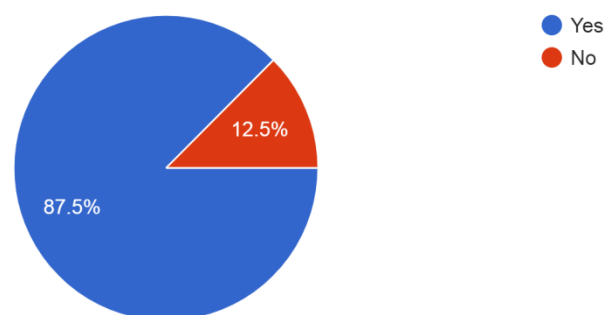


Figure 1.9 Online Library is an advantage to your students knowledge base.

Respondents (87.5%) opine online library as a useful tool in improving the knowledge base of students

Do you think we are lacking behind in imparting online education in comparision of global arena.

32 responses

81

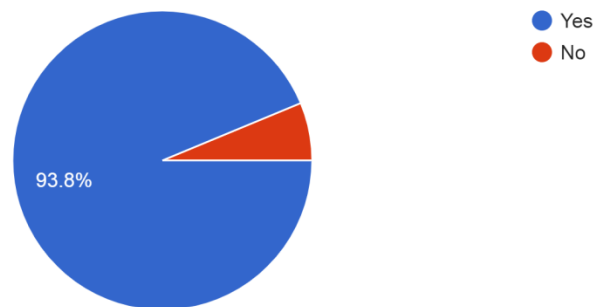


Figure 1.10 Lacking behind in imparting online education in comparision of global arena

Majority (93.8%) of the educators believe we are lacking behind in imparting online education in comparison to the global trends.

If Yes give reasons:

30 responses

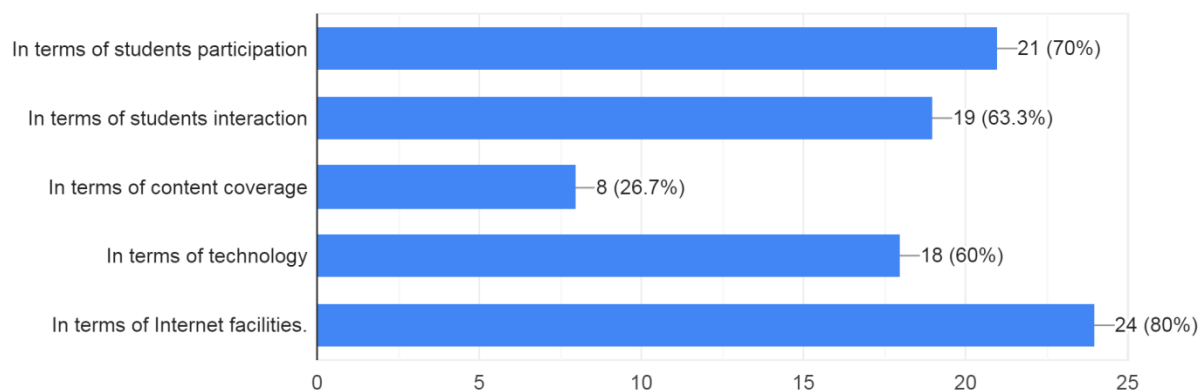


Figure 1.11 Reasons for lacking behind.

The reasons for lacking behind in the global trend of imparting online education include lack of adequate internet facilities, followed by less participation of students over the platforms and also in terms of technology and content coverage as opined by the online educators.

Findings:

- It has been found the most of the respondents were Assistant Professors.
- The study revealed that offline mode of education has been preferred most than online mode by the respondents.
- It has been found that Google meet is the most widely used and preferred online platform followed by Zoom and Webex. Big Blue button is another app highlighted in imparting online education classes.
- It has been found that Google classroom is more convenient to majority of the online educators,
- It has been observed that respondents feel uncomfortable in imparting online education due to inadequate Network , less attendance of students, less mutual interaction with the students and disrespect of the online class by the students.
- Online library is found to be a useful tool in improving the knowledge base of students.
- It has been found that due to lack of adequate internet facilities, less participation of students over the online platforms, lack of advanced and upgraded technology, we are unable to meet the criteria of online education in the Global perspective.

Future Suggestions:

- The standard infrastructure required for online teaching should be maintained by the educational institutions.
- Training for online classes in form of workshops or courses should be provided to the Academicians on compulsory basis so as to make them expert in the concerned field.
- Steps should be taken by the Government to improve the network facilities and ensure that it is affordable for all to continue with the education smoothly during emergency situation.

- Online platforms chosen must be made familiar to all academicians for smooth functioning.
- Government should help the educational institutions by granting them sufficient funds to update themselves with the entire requirement.

Limitation:

- Due to time constrain the study was limited to a small sample.
- Due to incomplete responses certain respondents could not be included.

Conclusion:

The online educators are of the opinion that online teaching allow them to share links, videos related to the topic delivered in a much easier way as compared to classroom teaching. Of course, this benefit is more pronounced for institutions lacking behind in terms of ICT tools. Education continued smoothly even during the massive outbreak of a global pandemic with the support of development in this online technology. Flexibility of time in arranging classes proved beneficial for both the teacher as well as the students, work from home became possible in a situation where people were restricted to obey quarantine rules. Content coverage in a much lesser time is added benefit as pointed by some researchers. Moreover, popularity of online education in the recent year has played a major role in educating both teachers and learners on the latest developments in e-technologies worldwide. Mass reach has allowed towards imparting global education not restricted the geographical boundaries of classroom. It reduces the cost of travelling and both teachers and learners separated by long distances and promote teaching and learning in a global platform.

But at the same time, online teaching is not free from certain loopholes. First of all, it is out of reach of some students belonging to a poor financial background to afford devices supporting the required technology. Moreover, a poor network sometimes leads to disruptions in the process of delivering and listening to lectures or a hurdle in the way of smooth classroom interaction. Again, this issue is sometimes taken as an excuse by certain students who despite of having all the required facilities skip classes. Some educators opine that online education do not allow them to check the participation level of students which is a key to gauge the effectiveness of their efforts in delivering lectures. Also due to lack of proper training, some educators and learners find it quite difficult to follow the latest developments in online technology

i.e. conducting and attending sessions over the interactive online platforms. Moreover delivering practical sessions over online platforms is quite a challenge for educators without an arranged and organized infrastructural setup. Government should provide free internet for students at least during an emergency situation like a pandemic so that no student is deprived of the same due to lack of finance.

Some educators believe that online teaching practices can be adopted as an alternative option in case of specific situation and can also be an add-on to the physical classroom teaching but cannot be taken as a replacement for the conventional classroom teaching. It has a huge potential in the coming days but this requires adequate training and more upgradation and mass reach of technology. Depriving a majority of students (who are unable to afford it) of the same will not achieve the desired results. So we are still miles away from reaching the optimal point. So in a developing country like India, online education needs to be promoted in a wider scale.

SYSTEMATIC REVIEW ON DIGITAL PAYMENT ADOPTION & TRENDS

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Abstract:

The study presents a review of literature on digital payments trends and its adoption throughout the globe, with a special emphasis on the Indian scenario. The paper discusses various aspects related to the digital financial transactions such as: advantages, disadvantages, factors, impact and users' perception associated with it. The digital payment trend of the past 20 years (2001-2020) has been analyzed in the study with some extra emphasis on India, especially India after Demonetization. The analysis shows that majority of papers reviewed in this study employed TAM model and its extension to analyze digital payments adoption, followed by UTAUT

model. The paper also briefly discusses upon the effect of COVID-19 pandemic on digital payments adoption and lays down the possible future trend of digital payment.

Keywords: digital payment, digital wallet, payment mode, mobile payment, TAM.

1. BACKGROUND & MOTIVATION

The last decade has seen tremendous growth in use of internet and mobile phones in India and throughout the globe. Increasing use of internet, mobile usage and government initiatives to boost digital payments adoption (such as for India, Digital India Initiative) are acting as a catalyst which lead to exponential growth in the use of digital payment. The consumer perception towards digital payment has a significant and positive impact on the adoption of digital payment, and with more satisfied users, this perception is going up. As for the Indian Scenario, demonetization triggered millions of citizens to shift and embrace digital payment systems. According to Nielsen Report Part II (2016), post the demonetization announcement, there was a windfall for digital payment system providers like digital wallets. A major chunk was driven by aggressive advertising along with swift adoption by small business firms. There was a quick adoption of digital payment systems by restaurants, cafes, small vendors, auto-rickshaw drivers and small shops (Kiranans). Government of India also provided incentives on using digital payment systems to progress the pace of adoption. There are many advantages of digital payment systems such as easy and convenient, pay and send anywhere, discount from taxes, written records easily maintained and less risky. On the other hand, there is a dark side to digital payment systems also, which people from all over the world face such as difficulty for non-technical persons to comprehend, risk of spending and risk of data theft.

As for the COVID-19 era, people all over the world, including India have been forced to stay at home and conduct transactions electronically; even major Shopping platforms disabled Cash on Delivery option, which used to be available before pandemic. The study aims to delve deeper into how this rise happened, in both qualitative and quantitative terms, how the present and before COVID-19 scenario, and the different factors lead to this change.

2. LITERATURE REVIEW

There are multiple studies in literature examining different factors involved in the adoption of mobile payments, analyzing the reach and effectiveness of Digital Payments in developing and developed nations, and finding the major challenges to adoption of the same. In this regard, Slade et al., (2013) opined that combining payment systems with mobile phones finally

provides consumers with a solution to each of the five payment scenarios: stationary merchant automat, stationary merchant person, electronic commerce(e-commerce), mobile commerce(m-commerce), and customer-to-customer transactions. (Singh, Sinha, Francisco &Li´ebana-Cabanillas, 2020). In this regard, various researches have explored different variables related to adoption of a new technology (Li´ebana-Cabanillas, Ramos de Luna, & Montoro-R´ios, 2017; Madan & Yadav, 2018; Ramos de Luna, Montoro-R´ios, &Li´ebana-Cabanillas, 2016; Ramos de Luna et al., 2019; Thakur & Srivastava, 2014; Upadhyay &Jahanyan, 2016). These variables are: perceived ease of use, usefulness, trust, attitude, perceived risk (Singh and Bhowal, 2010; Singh and Bhowal, 2011; Singh and Bhowal, 2012; Singh and Bhattacharjee, 2019; Singh, 2011), social influence, perceived hedonism etc. (Abhishek &Hemchand, 2016; Dennehy & Sammon, 2015; Duarte et al., 2018; Slade, Dwivedi, Williams, & Piercy, 2016; Upadhyay &Chattopadhyay, 2015; Wang, Wang, & Lin, 2018; Xu & Du, 2018). Li´ebana-Cabanillas and Lara-Rubio (2017) applied classic variables of the Technology Acceptance Model, as well as those of Perceived Security, to SMS and NFC mobile payment systems, and then to SMS, NFC and QR payment systems (Li´ebana-Cabanillas et al., 2019).

Conceptual Model

Multiple theories have been employed in Information Technology (IT)/Information Systems (IS) field to determine individual technology acceptance in various use contexts. Technology Acceptance Model (TAM) and its extension have been most utilized technology adoption theory/model in this domain. Multiple studies we reviewed had adopted, adapted and extended TAM across various use contexts. For instance, the study by (Jack and Suri, 2011) utilized TAM alongside with Innovation Diffusion Theory (IDT) to explore adoption of mobile payments and value-added services (VAS). Whereas Zhanga et al. (Zhanga, Yue, Kong, 2011) employed TAM standalone to explore factors affecting the adoption of mobile payment in particular cultural settings. The Unified Theory of Acceptance and Use of Technology (UTAUT) emerged as the second most utilized theory (originating from Venkatesh et al. with some studies employing it. Slade et al utilized UTAUT to examine consumer adoption of proximity mobile payments in the UK and Zhanga et al utilized it to examine consumer adoption of mobile payments in China.

3. METHODOLOGY

The study followed a multi-stage systematic literature review process to find, study, and analyze the papers.

A. Planning of Review; the Literature Search Approach

The First Phase involved Collection of Various Research papers from Various Journals. In the search of suitable papers, we searched through the web amongst thousands of papers, using multiple databases and studied an approximate of 100 papers, and finalized 75 papers based on following factors:

- Name/Origin/Type of Journal/Conference_ Compliant with the Subject of Research (Digital Payments trends and Adoption)
- Relevance to our research and reliant to research standards

Keeping above pointers in mind, a total of 75 Papers were Finalized as according to the Prisma model. They were further analysed based on Journals, Year, Country, and Techniques employed.

Given that we wanted to review the Global scenario as a whole with a special emphasis on India, we have accordingly chosen the number of Papers from Different Countries, with the major 3 factors in mind. The details of the papers studied classified by their Publishing Year are as under:

Table 1: Geographical location of the studies selected for review

Country	Number of Papers
India	30
United States of America	20
United Kingdom	04
China	04
Malaysia	02
Indonesia	03
France	03
South Korea	02
Others	07
Total	75

Source: Compiled by authors

The details of the papers studied classified by their Publishing Year are as follows:

Year of Publishing	Number of Papers
2020	10
2019	10
2018	08
2017	08
2016	06
2015	04
2014	02
2012	05
2011	03
2010	02
2009	02
2008	04
2007	02
2006	02
2005	04
2004	02
2001	01
Total	75

Source: Compiled by authors

To find these papers it was found appropriate to do keyword search in order to achieve objectives of this research. This study utilized following keywords and their combinations to undertake search for relevant work using various databases: “Digital Payment” OR “e-commerce” OR “Mobile Payment” OR “Cashless Payment”. We also tried “Digital Payment” AND (“Adoption” OR “Acceptance” OR “Diffusion” OR “Usage”), e-commerce adoption AND India,” e-commerce” AND (adoption OR Trend OR Introduction) in order to identify papers relevant to digital payment.

B. Conduction of Review

The review was conducted in this phase, creating a singular excel sheet/ master file, which contained the relative keywords, Author’s name, Journal, Year, Country, Identified Constructs /Factors, Methodology, Data Collection Technique, Findings, results, and limitations. Using this

technique proved useful to analyse papers based on Countries, or by Year etc, alongside having all the important data together at a single place.

C. Presentation of Report

This phase was Presentation of Review in a format which shows the comparison and detailed analysis of the findings, with discussion on the same. It was found during the study of these papers from multiple journals, that many factors are responsible for the adoption of Digital Payments, and there are various models according to which these factors are evaluated like the TAM model, and the UTAUT model. The above has been visualized in this Review paper in detailed manner, with the findings, advantages, disadvantages.

4. DISCUSSION AND FINDINGS

The study reveals various insights about Digital Payment Adoption and Trends. We have categorized them and presented them under the below given headings, going progressively from the early research in the field starting 2001 to the current scenario. Apart from these factors, another separate analysis is also done on the effect of COVID-19 and how it has altered and created a new upcoming trend in adoption and usage on Digital Payments.

A. Impact of Digital Payments

A London research from 2004 states that if an effective e-cash system can be developed then it will have the potential to address many of the limitations inherent to conventional cash systems (Baddeley, 2004). The digital payment market is expected to grow, owing to the worldwide initiatives for the promotion of digital payments, high proliferation of Smartphone's enabling m-Commerce growth, increase in e-Commerce sales, and growth in internet penetration. It can help improve productivity and fosters growth, improving transparency, increasing tax revenues, expanding the financial inclusion, and opening new economic opportunities for consumers specially in developing countries.

As a result of increased innovation, digital means of payment has brought down usage of cash transactions in the economy. Digital payments have many advantages over conventional cash payments: they are fast, cost less to the user, and are much more comfortable and easier to use. An efficient and secure digital payment mechanism has a lot of importance on the overall economic activity of a nation, its monetary policy, and financial stability. Digital payments are

also helping limit person-to-person physical transactions and enabling consumers to buy essentials and non-essentials from the comfort of their houses (Changsu Kim 2019).

B. Factors and their role

According to early research in this area dated back to the decade 2000-2010, when Mobile payments and digital payments had just started making its way in the lives of the common folk, some early factors of its usage were perceived ease of use and perceived usefulness. Further two user-centric factors (personal innovativeness and m-payment knowledge) and four m-payment system characteristics (mobility, reachability, compatibility, and convenience) (Kim, Mirusmonov & Lee, 2009).

A research conducted on young people in Finland highlighted that the advantages and usage of mobile payments are dependent on situational factors (Dahlberg et al, 2008). According to a 2007 qualitative research using focus group interviews in Finland, trust in mobile payment service providers and merchants is another important factor, along with Relative advantage, Compatibility, Complexity, Costs, Network ext., Trust, Perceived security risks (Mallat, 2007).

Lack of legal regulations is cited as one of the most serious factors of lack of usage of Digital Payments and hence Digital Payments was rarely used as payment medium back in 2005 (Singh, Krishnamurthy, Kaynak, Tatoglu & Kula, 2005.) In Early 2000s, some major factors owing to less adoption were the device limitations and technical restrictions related to the wireless network, in essence, the technology in place (Siau, Lim & Shen, 2001).

In recent studies, it was found that Digital disruption has driven Indonesian banks, including joint venture banks, local banks, state-owned banks and Sariah banks, to consider digital initiatives as part of their corporate strategies. The Govt. of India has also taken multiple steps and given several directives to make Indians use payment modes other than cash—the most dramatic example of that being the demonetization exercise (Brijesh Sivathanu 2017). There are multiple incentives and discounts given to customers using apps and mobile wallets. There are lucrative cash backs given by many digital payment wallets (like paytm) and banks. This gives the customers an added advantage and also acts a motivation to go cashless and adopt these payment mediums (Slozko, O., Pelo, A. 2014).

Compatibility and convenience were also found as critical factors of intention to adopt mobile payment standalone to explore factors affecting the adoption of mobile payment in particular cultural settings (A. and Zhao, 2015). The 17 key technological factors can be used to design,

improve and adjust current mobile payments with technology conditions; become tools to help customers meet requirements for financial institutions (Yan, Z., Eberle, 2012).

In a study from 2013, these actors were identified: innovation, incentive, customer convenience and legal framework. These were the factors which were said to contribute to strengthen the Digital payment system, along with reliability, or perception of reliability (Kazan, E., Damsgaard, 2013). Innovation is expected to continue to add to the adoption of digital payments. The latest reports showed that the forecast number of active mobile phones worldwide is 6.8 billion by the end of 2019, and that the number of mobile devices is forecast to grow to 7.33 billion by 2023 (Shy, O. (2016, April)

C. Disadvantages

A London research highlights this disadvantage: Face-to-face interactions dominate customer interactions, even among those with relatively complex ICT behaviors (Donner Tellez, 2008). Another disadvantage is lack of legal regulations, it is cited as one of the most serious limitations of EC and hence EC is rarely used for payment purpose (Singh, Krishnamurthy, Kaynak, Tatoglu Kula, 2005). One other major disadvantage of Digital Payments is that in addition to the device limitations, there are technical restrictions related to the wireless network, hence making it difficult, compared to traditional payment methods (Siau, Lim Shen, 2001).

D. The Effect of Demonetization

The results of various studies conducted around demonetization suggest that the Behavioral intention to use and innovation resistance affect the adoption and continued use of digital payments. The relation between BI to use digital payments and the digital payment systems itself is moderated by the person's tendency to stick to cash payments and conventional methods. India faced money problems during demonetization, people had suffered with no cash, and this increased the adoption of cashless mediums of payment. In addition, for this medium, different platform like Paytm helped the people adopt Digital payments effortlessly. Demonetization triggered millions of citizens to shift and embrace digital payment systems. According to Nielsen Report Part II (2016), post the demonetization announcement, there was a windfall for digital payment system providers like digital wallets. A major chunk was driven by aggressive advertising along with swift adoption by small business firms. There was a quick adoption of digital payment systems by restaurants, cafes, small vendors, auto-rickshaw drivers

and small shops(Kiranas). GOI also provided incentives on using digital payment systems to progress the pace of adoption.

E. The Effect of COVID-19 and the future of Digital Payments

The Covid-19 pandemic has led to an inevitable surge in the use of digital technologies due to the social distancing norms and worldwide lockdowns. Primarily Digital Payment being contactless medium paved way for the adoption and expansion of these services (Gardner, 2020; Samantha, 2020). Online delivery services encouraged consumers to make payments through digital payment systems like UPI, card payment or e-wallets, with several directives and restrictions by the government in several parts of India (Bhandari, 2020) and the world. People throughout the globe; at both ends of the business, customer as well as vendor have started using and accepting digital payment as it helps ensure social distancing and makes sure that business continues without physical contact, even with lockdown restrictions. Using digital payment methods also helps reduce the 'cash' for the market, now that experts have advised that notes can potentially contain the virus and need to be sanitized. Since the Covid-19 pandemic and after, we envisage a dramatic shift in digital usage, with an obvious surge in Digital Payments with impacts on all aspects of work and life (Pandey & Pal, 2020).

5. FUTURE SCOPE AND LIMITATIONS

This review presents a clear summary of Digital payment adoption research throughout the globe, but insights provided by it should be interpreted in light of some limitations as listed below. This review was based on literature search using publicly accessible databases (and Databases accessible from the IIIT-A student email credentials, for example Science Direct), so studies that are not indexed in these databases may have been excluded. Future literature reviews should consider other databases to address the limitations of this study. Also, this study could present review about theories, factors, trends and major inhibitors in the adoption of Digital Payments, there are other aspects that require further detailed analysis. For example, future studies might also add effectiveness and influence of the Social media platforms on the consumer's adoption of Digital Payments technology and recommending them. Role of the word of mouth and informal communication via these social media services can also be discussed in future studies. One other limitation is that this study focused primarily on adoption by the Customer (so did most of the relevant literature studied) of Digital payments, often excluding organization adoption and other stakeholders, which would need to be studied by

future studies. Another important limitation that was identified in the published literature related to Digital money is the relative absence of an analysis of the economic or social impact.

6. CONCLUSION

This study conducted a review of literature on Digital Payments adoption and its trends. We carefully studied papers from 2001-2020, analyzing them for various insights. The major points that emerged from this literature analysis suggest that TAM and its derivatives are the most popular technology adoption theory/model for understanding the adoption of Digital payments, followed by the UTAUT, and UTAUT. Among the various factors discussed in the study, Performance expectancy and perceived usefulness emerged as most important factors of a person's intent of adoption of digital payments while on the other hand, perceived risk was a factor that affected it negatively the most, as found in a lot of papers reviewed. We also reviewed papers on the effects of Demonetization and COVID-19, with respect to the Indian Scenario and found out how they provided a major boost to the adoption in India.

REFERENCES

- Andreev, P., Pliskin, N., Rafaeli, S. (2012). Drivers and inhibitors of mobile-payment adoption by smartphone users. *International Journal of E-Business Research (IJEBR)*, 8(3), 50-67.
- Anyanwu, A. C., Ezugwu, A. E., Abdullahi, S. E. (2012). Electronic payment system (EPS): facilitating the development and adoption in Nigeria. *International Journal of Computer Science Issues (IJCSI)*, 9(2), 462.
- Baddeley, M. (2004). Using e-cash in the new economy: An economic analysis of micro-payment systems. *Journal of Electronic Commerce Research*, 5(4), 239-253.
- Baddeley, M. (2005). Using e-cash in the new economy: An economic analysis of micro-payment systems. *Journal of Electronic Commerce Research*, 5(4), 239-253.
- Dahlberg, T., Mallat, N., Ondrus, J., Zmijewska, A. (2008). Past, present and future of mobile payments research: A literature review. *Electronic commerce research and applications*, 7(2), 165-181.

- Dahlberg, T., Oorni, A.: Understanding changes in consumer payment habits-do mobile payments and electronic invoices attract consumers? In: 40th Annual Hawaii International Conference on System Sciences (2007)
- De Kerviler, G., Demoulin, N. T., & Zidda, P. (2016). Adoption of in-store mobile payment: Are perceived risk and convenience the only drivers?. Journal of Retailing and Consumer Services, 31, 334-344.
- De Kerviler, G., Demoulin, N., Zidda, P.: Adoption of in-store mobile payment: are perceived risk and convenience the only drivers? J. Retail. Consum. Serv. 31, 334–344 (2016)
- Determining factors in the adoption and recommendation of mobile wallet services in India: Analysis of the effect of innovativeness, stress to use and social influence. Nidhi Singh; Neena Sinha; Francisco J. Li'ebana-Cabanillas. DOI: 10.1016/j.ijinfomgt.2019.05.022
- Determining factors in the adoption and recommendation of mobile wallet services in India: Analysis of the effect of innovativeness, stress to use and social influence. Nidhi Singh; Neena Sinha; Francisco J. Li'ebana-Cabanillas. DOI: 10.1016/j.ijinfomgt.2019.05.022
- Diniz, E., Porto de Albuquerque, J., Cernev, A. (2011). Mobile Money and Payment: a literature review based on academic and practitioner-oriented publications (2001-2011). Oriented Publications(2001-2011)(December 3, 2011). Proceedings of SIG GlobDev Fourth Annual Workshop, Shanghai, China December.
- Donner, J., Tellez, C. A. (2008). Mobile banking and economic development: Linking adoption, impact, and use. Asian journal of communication, 18(4), 318-332.
- Dwivedi, Y.K., Rana, N.P., Janssen, M., Lal, B., Williams, M.D., Clement, M.: An empirical validation of a Unified Model of Electronic Government Adoption (UMEGA). Gov. Inf. Q. (2017b). doi:10.1016/j.giq.2017.03.001 39
- E. Teo, B. Fraunholz, C. Unnithan, Inhibitors and facilitators for mobile payment adoption in Australia: a preliminary study, in: Proceedings of the Fourth International Conference on MobileBusiness (ICMB), Sydney, Australia, July 11–13, 2005.

- Examining consumer attitudes towards retailers' m-commerce mobile applications – An initial adoption vs. continuous use perspective; Graeme Mc Lean , Kofi Osei-Frimpong, Khalid Al-Nabhani, Hannah Marriott; <https://doi.org/10.1016/j.jbusres.2019.08.032>
- G. Karagiannopoulos, N. Georgopoulos, K. Nikolopoulos, Fathoming Porter's five forces model in the Internet era, *The Journal of Policy Regulation and Strategy for Telecommunications* 7 (6) (2005)66–76.
- H. Tewari, D. O'Mahony, Real-time payments for mobile IP, *IEEE Communications Magazine* 41 (2) (2003) 126–136.
- J. Liu, J. Liao, X. Zhu, A system model and protocol for mobile payment, in: *Proceedings of the IEEE International Conference on e-Business Engineering (ICEBE)*, Beijing, China, October 18–20, 2005.
- J. Lukkari, J. Korhonen, T. Ojala, Smartrestaurant: mobile payments in context-aware environment, in: *Proceedings of the Sixth International Conference on Electronic Commerce (ICEC)*, Delft, The Netherlands, October 25–27, 2004.
- Jack, W., Suri, T.: *Mobile money: the economics of M-PESA* (No. w16721). National Bureau of Economic Research (2011)
- Jayakumar, H. A. M., & Gupta, D. (2019). Indians' Choice of Payment Mode (s): A Study Based on the Impact of Demonetization. In *Information and Communication Technology for Intelligent Systems* (pp. 83-93). Springer, Singapore.
- Johnson, V. L., Kiser, A., Washington, R., & Torres, R. (2018). Limitations to the rapid adoption of M-payment services: Understanding the impact of privacy risk on M-Payment services. *Computers in Human Behavior*.
- Jonker, N. (2019). What drives the adoption of crypto-payments by online retailers?. *Electronic Commerce Research and Applications*, 35, 100848.
- K. Linck, K. Pousttchi, D.G. Wiedemann, Security issues in mobile payment from the customer viewpoint, in: *Proceedings of the 14thEuropean Conference on Information Systems (ECIS)*, Goteborg,Sweden, June 12–14, 2006

- Karnouskos, S. (2004). Mobile payment: A journey through existing procedures and standardization initiatives. *IEEE Communications Surveys Tutorials*, 6(4), 44-66.
- Kazan, E., & Damsgaard, J. (2013). A framework for analyzing digital payment as a multi-sided platform: A study of three european NFC solutions
- Koenig-Lewis, N., Marquet, M., Palmer, A., & Zhao, A. L. (2015). Enjoyment and social influence: predicting mobile payment adoption. *The Service Industries Journal*, 35(10), 537-554
- Koenig-Lewis, N., Marquet, M., Palmer, A., & Zhao, A. L. (2015). Enjoyment and social influence: predicting mobile payment adoption. *The Service Industries Journal*, 35(10), 537-554.
- Koenig-Lewis, N.; Morgan, M., Palmer, A. and Zhao, A. (2015). Enjoyment and social influence: predicting mobile payment adoption. *The Service Industries Journal* 35(10), pp. 537-554. (10.1080/02642069.2015.1043278)
- Komiak, S.Y., Benbasat, I.: The effects of personalization and familiarity on trust and adoption of recommendation agents. *MIS Q.* 30(4), 941–960 (2006)
- Korobeynikova, O., Korobeynikov, D., Popova, L. (2019, January). Scenarios of digital innovation of the payment market in Russia. In 2nd International Scientific conference on New Industrialization: Global, national, regional dimension (SICNI 2018). Atlantis Press.
- Kumar, I. S., Menod. Role of National Payment Corporation of India in Digital Era and Im of Service Quality on Customer Satisfaction with Special Reference to Bharat Bill Payment System.
- Kumar, P., & Chaubey, D. S. (2017). Demonetization and its impact on adoption of digital payment: Opportunities, issues and challenges. *Abhinav National Monthly Refereed Journal of Research in Commerce Management*, 6(6).
- L.Y. Leong, Hew, K.B. Ooi, Predicting the determinants of the NFC enabled mobile credit card acceptance: A neural networks approach, *Expert Systems with Applications*, 40 (14) (2013), pp. 5604-5620.

- Li'ebana-Cabanillas, F. J., S'anchez-Fern'andez, J., &Mu~noz-Leiva, F. (2014). Role of gender on acceptance of mobile payment. *Industrial Management Data Systems*.
- Ligon, E., Malick, B., Sheth, K., Trachtman, C. (2019). What explains low adoption of digital payment technologies? Evidence from smallscale merchants in Jaipur, India. *PloS one*, 14(7), e0219450.
- Lim, J. F. C., Koh, B., & Lee, D. (2018). Exploring Mobile Peer-to-Peer Payment Adoption: The Effects of SNS and Native Mobile Banking Apps Usage. In *PACIS* (p. 109)
- M.A. Mahmood, K. Bagchi, T.C. Ford, On-line shopping behavior: crosscountry empirical research, *International Journal of ElectronicCommerce* 9 (1) (2004) 9–3
- Magotra, I., Sharma, J., & Sharma, S. K. (2018). Investigating linkage between customer value and technology adoption behaviour: A study of banking sector in India. *European Research on Management and Business Economics*, 24(1), 17-26.
- Mallat, N. (2007). Exploring consumer adoption of mobile payments–A qualitative study. *The Journal of Strategic Information Systems*, 16(4), 413-432.
- Mobile payment service usage U.S. consumers' motivations and intentions Jong-Hyuok Jung a Eunseon Kwon Dong Hoo KiMobile payment service usag U.S. consumers' motivations and intentions Jong-Hyuok Jung a Eunseon Kwon a Dong Hoo Ki.
- Mwafise, A. M., Stapleton, L. (2012). Determinants of user adoption of mobile electronic payment systems for microfinance institutions in developing countries: Case study Cameroon. *IFAC Proceedings Volumes*, 45(10), 38-43.
- Nisar, T. M., & Prabhakar, G. (2017). What factors determine e-satisfaction and consumer spending in e-commerce retailing?. *Journal of retailing and consumer services*
- Olsen, M., Hedman, J., Vatrpu, R. (2012, August). Designing digital payment artifacts. In *Proceedings of the 14th Annual International Conference on Electronic Commerce* (pp. 161-168).

- Pandey, N., & Pal, A. (2020). Impact of Digital Surge during Covid-19 Pandemic: A Viewpoint on Research and Practice. *International Journal of Information Management*, 102171.
- Pandey, N., Pal, A. (2020). Impact of Digital Surge during Covid-19 Pandemic: A Viewpoint on Research and Practice. *International Journal of Information Management*, 102171.
- Patil, P. P., Dwivedi, Y. K., & Rana, N. P. (2017). Digital Payments Adoption: An Analysis of Literature. *Lecture Notes in Computer Science*, 61–70. doi:10.1007/978-3-319-68557-17
- Patil, P. P., Dwivedi, Y. K., Rana, N. P. (2017). Digital Payments Adoption: An Analysis of Literature. *Lecture Notes in Computer Science*, 61–70. doi:10.1007/978-3-319-68557-17
- Predić, B., Yan, Z., Eberle, J., Stojanovic, D., & Aberer, K. (2013, March). ExposureSense: Integrating daily activities with air quality using mobile participatory sensing. In 2013 IEEE international conference on pervasive computing and communications workshops .
- Rana, N.P., Dwivedi, Y.K., Lal, B., Williams, M.D., Clement, M.: Citizens' adoption of an electronic government system: toward a unified view. *Inf. Syst. Front.* 19(3), 549–568 (2017) 40.
- Rana, N.P., Dwivedi, Y.K., Lal, B., Williams, M.D., Clement, M.: Citizens' adoption of an electronic government system: toward a unified view. *Inf. Syst. Front.* 19(3), 549–568 (2017) 40.
- Schuh, S., & Shy, O. (2016, April). US consumers' adoption and use of Bitcoin and other virtual currencies. In DeNederlandsche bank, Conference entitled "Retail payments: mapping out the road ahead.
- Siau, K., Lim, E. P., Shen, Z. (2001). Mobile commerce: Promises, challenges and research agenda. *Journal of Database Management (JDM)*, 12(3), 4-13
- Singh, R., & Bhowal, A. (2010). Risk perception of employees with respect to equity shares. *Journal of behavioral finance*, 11(3), 177-183.

- Singh, R., & Bhowal, A. (2011). Development of marketing-driven measure of risk perception. *The Journal of Risk Finance*.
- Singh, R., & Bhowal, A. (2012). Marketing dimension of equity related risk perception of employees: Own company's shares vs other company's shares. *Management Insight*, 6(2).
- Singh, R., & Bhattacharjee, J. (2019). Measuring Equity Share Related Risk Perception of Investors in Economically Backward Regions. *Risks*, 7(1), 12.
- Singh, R. (2011). Equity investment culture and entrepreneurship culture-initiation and adaptation. *Pacific Business Review International*, 4(1), 66-71.
- Singh, N., Krishnamurthy, S., Kaynak, E., Tatoglu, E., Kula, V. (2005). An analysis of the factors affecting the adoption of electronic commerce by SMEs. *International marketing review*.
- Singh, N., Krishnamurthy, S., Kaynak, E., Tatoglu, E., Kula, V. (2005). An analysis of the factors affecting the adoption of electronic commerce by SMEs. *International marketing review*.
- Singh, N., Sinha, N., Liébana-Cabanillas, F. J. (2020). Determining factors in the adoption and recommendation of mobile wallet services in India: Analysis of the effect of innovativeness, stress to use and social influence. *International Journal of Information Management*, 50, 191- 205.
- Singh, S., & Rana, R. (2017). Study of consumer perception of digital payment mode. *Journal of Internet Banking and Commerce*, 22(3), 1-14.
- Singh, S., & Rana, R. (2017). Study of consumer perception of digital payment mode. *Journal of Internet Banking and Commerce*, 22(3), 1-14.
- Sivathanu, B. (2019). Adoption of digital payment systems in the era of demonetization in India. *Journal of Science and Technology Policy Management*.
- Sivathanu, B. (2019). Adoption of digital payment systems in the era of demonetization in India. *Journal of Science and Technology Policy Management*.

- Slade, E., Williams, M., Dwivedi, Y., Piercy, N.: Exploring consumers adoption of proximity mobile payments. *J. Strat. Mark.* 23, 209–223 (2014)
- Slozko, O., & Pelo, A. (2014). The Electronic Payments as a Major Factor for Futher Economic Development. *Economics Sociology*, 7, 130-140.
- Sundqvist, L. Frank, K. Puumalainen, The effects of country characteristics, cultural similarity and adoption timing on the diffusion of wireless communications, *Journal of Business Research* 58 (1) (2002) 107–110
- Technological Factors of Mobile Payment: A Systematic Literature Review; Marisa Karsena, Yakob Utama, Chandraa, Hanny Juwitasarya; doi: <https://doi.org/10.1016/j.procs.2019.09.004>
- Teoh, W. M. Y., Chong, S. C., Lin, B., Chua, J. W. (2013). Factors affecting consumers' perception of electronic payment: an empirical analysis. *Internet Research*
- Universtiy, K. L., Greenfields, V., District, G., & Pradesh, A. (2018). A study on Digital payments in India with perspective of consumers adoption. *International Journal of Pure and Applied Mathematics*,
- Universtiy, K. L., Greenfields, V., District, G., & Pradesh, A. (2018). A study on Digital payments in India with perspective of consumers adoption. *International Journal of Pure and Applied Mathematics*,
- Venkatesh, V., Morris, M.G., Davis, G.B., Davis, F.D.: User acceptance of information technology: toward a unified view. *MIS Q.* 27(3), 425–478 (2003)
- Wong, L. W., Leong, L. Y., Hew, J. J., Tan, G. W. H., Ooi, K. B. (2020). Time to seize the digital evolution: Adoption of blockchain in operations and supply chain management among Malaysian SMEs. *International Journal of Information Management*, 52, 101997.
- Yan, H., & Yang, Z. (2015). Examining mobile payment user adoption from the perspective of trust. *International Journal of u-and e-Service, Science and Technology*, 8(1), 117-130.

- Yang, S., Lu, Y., Gupta, S., Cao, Y., Zhang, R. (2004). Mobile payment services adoption across time: An empirical study of the effects of behavioral beliefs, social influences, and personal traits. *Computers in Human Behavior*
- Yang, S., Lu, Y., Gupta, S., Cao, Y., Zhang, R. (2012). Mobile payment services adoption across time: An empirical study of the effects of behavioral beliefs, social influences, and personal traits. *Computers in Human Behavior*, 28(1), 129-142.
- Zhanga, A., Yue, X., Kong, Y.: Exploring culture factors affecting the adoption of mobile payment. In: Tenth International Conference on Mobile Business, pp. 263–267 (2011)

SELF INDEPENDENCE CRISIS- A STUDY ON THE EFFECTS OF LOCKDOWN ON INCOME AND EXPENDITURE OF SELF-EMPLOYED INDIVIDUALS - WITH SPECIAL REFERENCE TO TINSUKIA TOWN

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Abstract:

This study is about the effect on the income and expenditure of the self-employed individuals of the Tinsukia town due to lockdown. It studies how the income and expenditure of the individuals have been affected. COVID-19 breakout has changed the world and has affected individuals around the world. From 24th of March 2020, India was put under Lockdown to curb the surging cases of COVID-19 and to break its chain. The lockdown changed the ways of doing the jobs; work from home was coined during this period to run the offices around the country. However, the self-employed individuals were affected the most because work from home concept did not apply to them. This study examines the changes in income and expenditure habit of the self-employed individuals of Tinsukia district, it also analyses mental agony faced by the individuals due to impaired income sources. This study was done with primary data collection using judgement sampling method on 60 respondents who are self-employed and are having only one income source. The respondents are from Tinsukia District itself. The data is analysed using descriptive statistics only. Descriptive statistics show an effect on income, expenditure, purchasing power and demand. Finally, discussion on the analysis and some implications are presented.

Keywords: Self-employed, purchasing power, impaired income, lockdown

I. Introduction

The world today as we know is severely affected by the pandemic COVID 19. The invention of a vaccine to perish this pandemic is still on an experimental stage. People from all over the world are quarantined in their homes. Hence, this COVID situation has brought about medical emergency and subsequently financial emergency having a harmful

impact upon almost all nations of the world (PK Sujathan, P Azad 2020). The International Labour Organization (ILO) describes in its report¹ as ‘the worst global crisis since World War II’. It is estimated that 4 in 5 people (81%) of the global workforce of 3.3 billion people are currently affected by the lockdowns in their countries. The United States, United Kingdom, Canada and most of the European nations and Asian nations are experiencing a rise in unemployment. The Head of the International Monetary Fund (IMF), Kristalina Georgieva has said the world is going through the worst economic crisis since the Great Depression in the 1930s. (K Chandra Shekar and Kashif Mansoor 2020).

ILO’s report on the rapid assessment of the impact of the Covid-19 crisis on employment released in June states that even before the Covid-19 crisis, India had been experiencing slower economic growth and rising unemployment — problems escalated dramatically and got worsened by the pandemic and the ensuing lockdown. The report added that those most likely to lose their work and incomes are casual workers and self-employed. Around three-quarters of employment in India is non-regular — either self-employed or casual workers.

“Using 2020 population figures (which generates an estimate of 473 million workers), around 118 million workers in India are casually employed, representing around 25 per cent of the total Indian workforce, while slightly more than half or 246 million are self-employed. Women are marginally more likely than men to be in non-regular employment,” the ILO reported. (Radheshyam Jadhav)

Inadequate data makes it difficult to estimate the actual rate of self-employment in India, which was 51% in 2013-14. India a mainly agrarian economy, the majority of Indians have always been self-employed. Recently it has been claimed that self-employment is the answer to India’s unemployment challenges by many economists, policymakers as well as the government.

According to the 2017-18 Periodic Labour Force Survey (PLFS), 70% of the self-employed are own-account workers who do not hire any other worker under them. 26% are unpaid helpers who assist their family members. Only 4% are employers who employ paid workers. It is also a worrying matter that only 10% of the self-employed reported an income of more than 20,000 per month. (Ritwika Patgiri, Rituparna Patgiri, 2020)

This study is based on non-agricultural self-employed persons; the work of most non-agricultural self-employed persons falls in the category of ‘non-essential’ activities (from

the point of view of exemptions from the COVID 19 lockdown). They are most likely or most vulnerable to lose their entire income. (Ishan Anand and Anjana Thampi 2020)

The median monthly income of a non-agricultural self-employed person was Rs 9,500 in the year 2017-18. And about 62% of the self-employed earned less than Rs 10,000 a month. Only about 1% of the self-employed earned over Rs 50,000 per month. (Periodic Labour Force Survey (PLFS) 2017-18)

This non-agricultural self-employed group are unlikely to get any compensation for their loss in income, or monetary support to tide over the recession that will surely follow the lockdown.

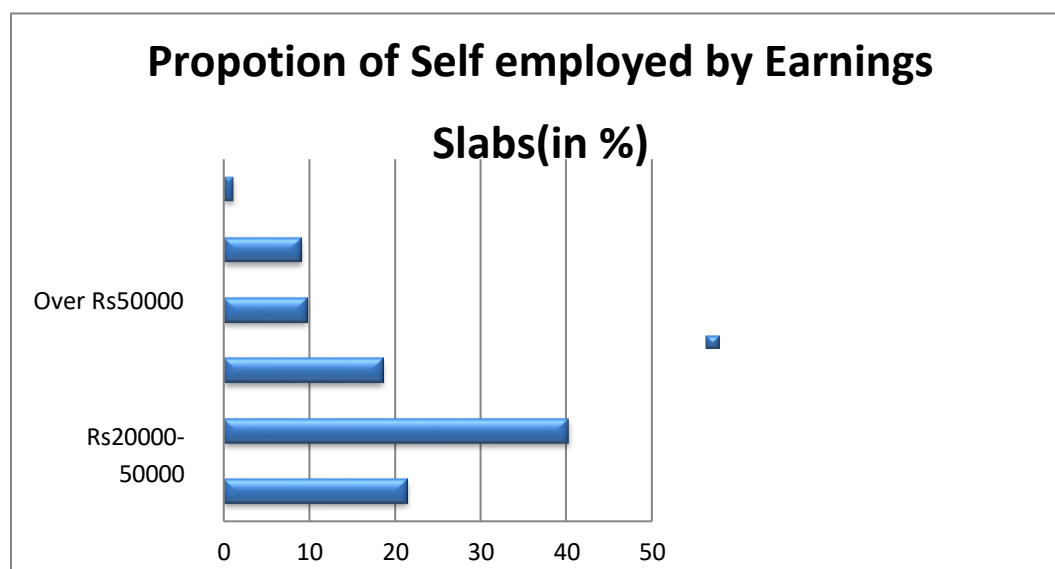


Figure 1.0

Source: Periodic Labour Force Survey (PLFS) 2017-18

According to the phone survey conducted by Azim Premji University in collaboration with 10 civil society organisations, about two-thirds, or 67 per cent, of workers, lost employment during the ongoing lockdown to counter the COVID-19 pandemic, with the urban area affected worse when compared to the rural area. The urban area lost 8 in 10 workers while rural areas lost almost 6 in 10 workers, as per initial findings of the phone survey of nearly 4,000 respondents conducted in Andhra Pradesh, Bihar, Delhi, Gujarat, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra (Pune), Odisha, Rajasthan, Telangana, and West Bengal to measure the impact of the lockdown on employment, livelihoods and access to government relief schemes.

In case of loss of employment for self-employed urban area performed worse than rural area as shown in the table below-

Table 1.0: Showing Loss of employment Urban vs Rural

Section	Urban (loss in %)	Rural (Loss in %)
Self-employed/Casual wage workers(rural)	84	66
Salaried	76	62
Casual	81	47

In the case of fall in Average weekly earnings for non-agricultural self-employed workers following were the findings:

- Self-employed workers who were still employed their average weekly earnings fell by over 90 per cent from Rs 2,240 to Rs218.
- Casual workers who were still employed, average weekly earnings almost halved from Rs 940 in February to Rs 495 during the lockdown.
- 51 per cent of salaried workers saw either a cut in their salary or received no salary.

The present study is been conducted to understand the plight of self-employed individuals of Tinsukia District. The study is important because, Tinsukia is a developing city, a combination of features of both urban and rural. For it continue wearing the crown of being a commercial city, the individuals, the households must have a flow of income and good purchasing power. This study discusses how the individuals of this city are affected. This study also an attempt to contribute further the insight into the cons of this arbitrary lockdown imposed upon, even with good intent.

II. Literature Review

The lockdown is a very recent phenomenon very few literatures are available at this moment.

- [1] PK Sujathan, P Azad, 2020- In their paper "Social Impact of Lockdown in Kerala: A Case Study"- concluded that Lockdown has put several strains on the households of Kerala state. They found that lockdown has more or less reduced the income, expenditure

and happiness of the households. The adverse of lockdown is comparatively lower in salaried households due to regular income. They also found the negative income effect is more in case of the lower-income group, while adverse expenditure effect is more in the middle-income group and some extent to the lower- income group.

[2] Azim Premji University COVID19 Livelihoods Survey 2020- The findings of the survey show that the disruption in the economy and labour markets due to lockdown is enormous. Livelihoods of the people have been devastated at unprecedented levels during the lockdown. The recovery from this could be slow and very painful. The immediate relief measures do not appear to be in proportion to the severity of the situation on the ground.

III. Objective

The objectives behind this research are as follows:-

- i. To analyse the effect of lockdown on the income of the self-employed individuals.
- ii. To analyse the effect of lockdown on the expenditure of self-employed individuals.
- iii. To discuss further effects of the variables-' income and expenditure' on the behaviour of self-employed individuals.

IV. Research Methodology

The present research is descriptive in nature. The observations for the current study are obtained from primary sources. 60 samples are selected using the judgmental sampling technique. Only those samples are selected who are self-employed and are from the middle- income group. Data were collected from respondents of Tinsukia district of Assam only.

Primary data were collected online through a structured questionnaire in Google docs, where respondents were requested to mark on a Likert's 5-point rating scale using. Online mode of data collection is chosen because of the present times of pandemic. The data is analyzed using simple descriptive statistics.

V. Data Analysis and Interpretation

VI. Demographic VII. Variables	Options	Frequency	Percentage (%)
Age	21-30	40	66.7
	31-40	0	0
	41-50	6	10
	51-60	6	10
	60 and above	8	13.3

Source-Field survey

Table 3 shows the percentage of respondents whose income were affected and who are facing cash crunch problem. It was found that the income of the majority of respondents were affected and they are facing cash crunch problem.

Table 3:- Table showing responses of respondents against adverse income effect.

Particulars	Options	Frequency	Percentage (%)
Income was affected due to lockdown	Affected	24	40
	Somewhat Affected	24	40
	Not Affected	12	20
Are you experiencing cash crunch problem	Strongly agree	18	30
	agree	16	26.7
	neutral	20	33.33
	disagree	6	10
	strongly disagree	0	0

Source-Field survey

Table 4 shows the percentage of respondents whose expenditure was affected and who are sorting their expenditure based on importance. It has been found that the majority of respondents agree that their expenditure has increase during the lockdown, though a fair number of respondents also agree that their expenditure did not increase during the lockdown.

It has also been found that majority of the respondents are sorting their expenditure based on priority or importance.

Table 4:- Table showings responses of respondents against adverse expenditure effect.

Particulars	Options	Frequency	Percentage (%)
Has your expenditure increased during the lockdown	Strongly agree	8	13.3
	agree	20	33.33
	neutral	10	16.7
	disagree	14	23.3
	strongly disagree	8	13.3
Are you sorting your expenditure based on the importance	Strongly agree	16	26.7
	agree	28	46.7
	neutral	10	16.7
	disagree	4	6.7
	strongly disagree	2	3.3

Source-Field survey

Table 5 shows the percentage of respondents whose savings and debts have been affected during the lockdown. It has been found that respondents agree that their savings are getting exhausted due to impaired income source; however maximum respondents disagree when asked if their debts have been increased during this lockdown.

Table 5:- Table showing the effect on saving and debts of the respondents.

Particulars	Options	Frequency	Percentage (%)
Are your savings exhausted during this lockdown, due to impaired income source	Strongly agree	14	23.3
	agree	22	36.7
	neutral	12	20
	disagree	10	16.7
	strongly disagree	2	3.3
Have your debts increased in comparison to pre Lockdown scenario	Strongly agree	6	10
	agree	14	23.3
	neutral	14	23.3
	Disagree	24	40
	strongly disagree	2	3.3

Source-Field survey

Table 6 shows the percentage of respondents experiencing stress and emotional distress, due to impaired income source, due to being confined in their homes for a long period of time and whether their family is experiencing stress because of lockdown. Respondents were asked to

mark on a scale of 5 if they are experiencing stress, scale 1 and scale 2 had maximum frequency implying respondents are experiencing stress and are emotionally distressed.

Table 6:- Table showing response of respondents regarding stress and emotional distress.

Particulars	Options	Frequency	Percentage (%)
Have you been in stress due to the loss of income in this lockdown	Strongly agree	14	23.3
	agree	20	33.33
	neutral	6	10
	disagree	18	30
	strongly disagree	2	3.3
Do you agree that being confined into the house for a long period has augmented the stress of income loss	Strongly agree	18	30
	agree	18	30
	neutral	14	23.3
	disagree	10	16.7
	strongly disagree	0	0
Have you observed that your family as a whole been emotionally distressed due to lockdown	Strongly agree	24	40
	agree	12	20
	neutral	18	30
	disagree	4	6.7
	strongly disagree	2	3.3

Source-Field survey

Table 7 shows whether the respondents agree the middle-income group has suffered more in this lockdown and do they agree that government has managed the lockdown appropriately, also if they agree that government should transfer money or allowances directly into the account of the individuals. It has been found that maximum respondents agree that middle-income group is the worst sufferer in this pandemic, half of the respondents disagree when asked if the government has managed the lockdown appropriately, maximum respondents agree that government should transfer money or allowances directly into the account of the individuals in these times of pandemic where their income source are impaired.

Table 7:- Table showing responses of the respondents regarding government measures.

Particulars	Options	Frequency	Percentage (%)
Do you agree that the middle-class families are suffering more in this lockdown	Strongly agree	36	60
	agree	22	36.7
	neutral	2	3.3
	disagree	0	0
	strongly disagree	0	0
Do you feel the government has managed this lockdown period appropriately	Strongly agree	2	3.3
	agree	14	23.3
	neutral	14	23.3
	disagree	12	20
	strongly disagree	18	30
Do you think that the government should transfer a certain amount of money directly into people's bank account for the lockdown period	Strongly agree	26	43.3
	agree	20	33.3
	neutral	12	20
	disagree	2	3.3
	strongly disagree	0	0

Source-Field survey

VIII. Discussion

The present study attempts to analyze how the self-employed individuals are affected in financial aspect as well as mental aspect due to lockdown. In the study we see that the income source of the individuals are impaired, and are facing cash crunch problem, this could have multiple implications. As the income of the individuals is impaired and they don't have enough cash in their hand, the purchasing power of the individuals is directly affected.

So, we can further draw this issue and can infer that loss of purchasing power of the individuals will also result in loss of demand, and loss of demand will also affect businesses of the Tinsukia District. The other implication of impaired income source is consumption, as the individuals are already sorting their consumption on the basis of priority or importance, the normal course consumption is severely hit, as only 'essential' needs or consumptions are been met. Another

implication of the loss of income is savings, cash crunch and impaired income are resulting in no saving, and it has been observed that the existing savings of the individuals are on the verge of exhaustion. The other implications of this loss of income could be that banks won't receive deposit and interest from the account holders, which will also put pressure on the banks as NPAs might pile up and the banks will not receive its main source of income that is interest on loans.

The implications of expenditure effect are also vital, with loss of income and increase in income, the self-employed individuals are burdened by the pressure of meeting their needs, even if the expenditure has not increased, and is same as before the implications will remain because the income has decreased, and if this continues, the individuals will have to sort debt and loans to meet their needs, which further increase their burden of individuals.

The loss of income and increase in expenditure is also taking a toll on the mental health of the individuals and their family, maximum individuals are experiencing stress and are emotionally distressed. The implications of stress cannot be ignored, because if individuals are unhappy and emotionally distressed, these might result in mental health problems and impairment of cognitive function, which will cause impulsive decision making on part of the individual and results of such decisions will cause more harm and might become fatal in extreme cases.

IX. Suggestions

In such times of pandemic to ease the financial burden of the individual and uplift their sentiment, the government is the only authority who can make a difference. The main need of people now is cash in hand, and it can be addressed by the government if it transfers money directly into the account of the individuals, which will also create demand and will start the demand-supply cycle. Another, like MGNREGA guarantees 100 days employment for rural area individuals, urban area individuals also need a guaranteed employment scheme.

X. References

- [1] Sujathan, PK and P, AZAD PARAMBANGAL, (April 25, 2020), Social Impact of Lockdown in Kerala: A Case Study. Available at SSRN: <https://ssrn.com/abstract=3587603> or <http://dx.doi.org/10.2139/ssrn.3587603>

- [2] Shekar, Chandra K and Mansoor, Kashif, (2020) COVID-19: Lockdown Impact on Informal Sector in India, Available at <https://practiceconnect.azimpremjiuniversity.edu.in/covid-19-lockdown-impact-on-informal-sector-in-india/>
- [3] Jadhav Radheshyam, (July 16, 2020), Covid-19: Why casual workers and the self-employed are most likely to lose their work and incomes, Available at: <https://www.thehindubusinessline.com/economy/covid-19-why-casual-workers-and-the-self-employed-are-most-likely-to-lose-their-work-and-incomes/article32101097.ece#>
- [4] Patgiri, Rituparna, and Patgiri, Ritwika, (May 25th, 2020), India's lockdown: Why small businesses and the self-employed need help, Available at <https://blogs.lse.ac.uk/southasia/2020/05/25/indias-lockdown-why-small-businesses-and-the-self-employed-need-help/>
- [5] Annual Report -Periodic Labour Force Survey (PLFS) 2017-18(May 2019), Ministry of Statistics and Programme Implementation, National Statistical Office, Available at http://www.mospi.gov.in/sites/default/files/publication_reports/Annual%20Report%20C%20PLFS%202017-18_31052019.pdf
- [6] Anand, Ishan and Thampi, Anjana (May 1st, 2020), Locking out the Working Poor: India's Inadequate Response to Covid-19's Economic Crisis, Available at <https://www.theindiaforum.in/article/india-s-workers-lockdown>
- [7] Azim Premji University COVID19 Livelihoods Survey: Release of Early Findings (May 12th, 2020) Available at https://cse.azimpremjiuniversity.edu.in/wpcontent/uploads/2020/05/COVID19_APU_Survey_PR_English_Final.pdf

HOLISTIC EDUCATION PROTOTYPE – VISUALISING AN INTEGRATED LEARNING SYSTEM- A CASE STUDY

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Abstract:

The Vision of our Prime Minister “Shri. Narendraj Modi” is to make India “Atma Nirbhar” that is self- sufficient in every aspect and in every industry. The study focuses on the steps that are being taken and need to be taken to build the nation at the local level and get to the global level. The research examines the Indian education system towards a holistic approach and its need for the development of the tertiary sector. It's the 21st century, and the current scenario of the country tells us about the need for advancement in technology as well as the rapid change in the thought process of the people around us. The study focuses on the current scenario of the Indian education system and how it is evolving. It will also focus on the gap in the current system and what is the need of the hour. The current scenario of the country tells us about the advancement of technology as well as the rapid change in the thought process of the people around us. Education plays a significant role in the lives of human beings, it is not only about getting literate but it has got a lot more to do with holistic approaches like our behavior, thinking patterns, instructing our attitude, ethical and practical learning. To summarize, holistic education includes an overall improvement and development of the individual. However, we need to first bridge the gap between the demand and supply of education and simultaneously focus on improving the approach towards its delivery. Because of sheer poverty and capitalism, a huge percentage of the population is still illiterate and these people cannot afford to get a basic education. They have a lack of wisdom and are unaware of knowledge in their lives. This paper aims at presenting a holistic, active learning program, which basically includes three different steps as mentioned below:

- [1] Experiential Learning (Practical knowledge with clarity of concepts)
- [2] Creative thinking (Ideation)
- [3] Cognitive thinking (overall intelligence with problem-solving ability)
- [4] This research aims to discuss and identify the framework of Holistic Education and how the change in
- [5] the education system can contribute to the vision of “Atma Nirbhar Bharat”.

INTRODUCTION

India is growing as a superpower and it cannot function without the support of information and communication technology. The need to fill the gap between demand and supply of higher education has adjured the government to formulate the policies and initiatives that integrate education with technology. For decades, our education system has been distressed to many challenges such as poor infrastructure, lack of quality teachers, and a standard curriculum. By holistic education, the research is not indicating the curriculum being taught in schools or colleges/institutions. It's rather referring to the teachings, guidance, and suggestions that take care of the moral, social, psychological, emotional, spiritual, and creative development of the individual. It not only results in cognitive, social, and emotional development but also has a major impact on the student's/candidate's learning capabilities. It is proven that students harness positive feelings towards education when they use computers to complete tasks, which also make them adapt to advancement. This way, children gain a myriad of enriched learning experiences that drive them to be successful in the future, and the economic growth of citizens helps in the economic growth of the country. However, there are many obstacles to successful integration. It requires IT-enabled infrastructure, and the automation is very expensive, technological advancement and its use in the current era is a need in every sector of the economy but it is most crucial in the tertiary sector as it includes all the industries working and the lack of advancement here affects the overall economy of the country.

Scope of the study

To become "Atma Nirbhar", a country's economy has to be strong. Three major pillars that contribute to the economy of India: Primary sector, Secondary Sector, Tertiary Sector.

The Tertiary sector is the backbone of the Indian economy and accounts for almost 54.40% of India's GVA and comprise of various industries like the banking sector, distribution, healthcare, defense, tourism, insurance, entertainment, etc [1]. The study will establish the fact that how the right approaches to education and correct methodology will help in the development of the tertiary sector which in return will contribute to the country's GDP growth and development. The study will also address a few major issues and concerns in the education sector and will highlight key steps that can be taken to improve the education scenario in the country.

OBJECTIVE OF THE STUDY

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- Primary objective of the study is to analyze the difference between education and holistic education.
- To study the process of education and to evaluate the effectiveness of the holistic education system.
- Secondary objective of the study is to create awareness and emphasize the need for holistic education in India.

Rather than focusing on conventional education people should seek a holistic approach.

METHODOLOGY

The data presented is of secondary nature. To address the problem and establish solutions, a detailed study of the strategies of existing education policies is done that were able to define and comprehend the problem of conventional education and solve it by strengthening the holistic approach of education. The Delhi Educational Model and The Norway Education System are taken into consideration for the case study. A lot of changes have happened in recent years. In Delhi, Educational Minister has lined up to transform the schools and institutions that lack basic facilities. The government has decided to change by building newly designed classrooms equipped with well-furnished furniture, smart boards, libraries, and so on. Norway provides good quality education and It is also known as a tuition-free country and ranks high in quality of education. To compare it with Indian education that currently ranks, Delhi Educational Model is considered.

CURRENT SCENARIO

Development of the tertiary sector has become important in India (considering India as a growing economy) because:

1. Demand for services such as transport, trade, storage will increase with the development of primary and secondary sectors.
2. Demand for tourism, shopping, private schools, private hospitals, etc increases with the increase in the level of income.

And to boost development in current times, an integrated learning system is very important that can provide training to individuals with a holistic approach and make them great thinkers and skilled.

India has one of the biggest advanced education frameworks on the planet, with the strength of 1.5million schools with more than 260 million students enrolled and around 751 universities and 35,539 colleges [2]. Despite so much of available resources, lack of education is a fundamental problem in India, and the state of the Indian government schools is a clear illustration. School infrastructure is in a poor state and many school teachers are not properly qualified, with 31% of them not having a degree. 40% of schools are without electricity [3]. Right Education in every sense is one of the fundamental factors of development. Education raises people's productivity, creativity, and promotes entrepreneurship and technological advancement. In addition, it plays a very crucial role in securing economic and social progress and improving income distribution. We need to not just focus on the holistic way of providing education but pay heed towards the improvement of infrastructure and the training of the trainers. Kerala has emerged on top among 20 large states in terms of quality of school education, followed by Rajasthan and Karnataka, while the most-populous Uttar Pradesh ranked at the bottom position during 2016-17, according to a report released by the Niti Aayog [4]. We have witnessed major developments in the education system post the vision of Atma Nirbhar Bharat has been shared with the citizens of India as the leadership today understands the value of education and the important role it possesses towards building a developed and self-sufficient society. The perfect example is the recent reform which is the new "education policy 2020". Speculations are that it will change the complete face of the Indian education system and will help in building new techniques to provide education.

The education and training sector in India have seen some significant speculations and improvements in the ongoing past. Some of them are:

1. The Indian Institute of Technology, Delhi has been positioned 145 in the Global University Employability Ranking 2017, in view of hiring by top organizations[5].
2. India has consented to a credit arrangement with World Bank under 'The Skill Acquisition and Knowledge Awareness for Livelihood Promotion' (SANKALP) project to upgrade institutional systems for skills development[6].
1. Singapore will open its first skill development centre in Assam, which will provide vocational training to youth in the locale[7].
2. Dabur India Ltd. has opened a skill development centre for ladies in Dhekidol village in the province of Assam that will furnish rustic ladies with enhanced work and independent work openings[8].

There have been amazing works in this segment but still, there are some major concerns that need to be addressed immediately that arises due to contingencies. The world is facing one of such contingencies. The world knows it by the name “COVID 19”. Due to the pandemic, the education system in many countries has taken a big hit. India being a developing country was still not prepared for it due to a lack of technological advancement in the education system. To deal with the current situation and to prepare ourselves for the future, the Indian government has allocated a special budget and aims towards making the Indian education system automated. Moreover, with online methods of education being utilized by several educational organizations, the advanced education sector in India is set for some significant changes and improvements in the years to come.

Case Study: 1 The Delhi Model of Education

In the last five years, the Delhi model of education has piqued our attention. There have been two kinds of educational models in India: one for classes other for masses. The AAP government in Delhi sought to bridge the gap between these two. They believe quality education is a necessity, not a luxury. Hence, it built a model that essentially has five major components and is supported by nearly 25% of the state budget [9]. It creates a pathway for the next set of reforms.

1. The first component of education is the transformation of schools and institutions. Schools that lack basic facilities not only indicate the apathy of the government but also significantly lower the motivation of teachers and the enthusiasm of the students. The government decided to change this by building new, designed classrooms equipped with well-furnished smart boards, staff rooms, auditoriums, laboratories, libraries, sports facilities, and a lot more.
2. The second is the training component of the teachers and principals. Apart from the fact that a forum was created to encourage peer learning among them, several opportunities were given to the teachers for their professional growth. They visited Cambridge University; the National Institute of Education, Singapore; IIM, Ahmedabad; and other models of excellence in India [10].
3. The third component involved engaging with the community by reconstituting school management committees (SMC). The annual budget of each SMC is Rupees 5-7 Lac. The SMCs can spend this money on any material or activity, such as even hiring teachers on a short-term basis [11].
4. There have been major curricular reforms in teaching and learning. Special initiatives to ensure that all the children learn to read write and do basic mathematics. Few more initiatives were taken for the emotional well-being, problem-solving, and critical thinking abilities of children

5.Fifth, there was no fee increase in private schools. In the past, almost all the schools increased their fee 8-15% annually. The AAP government not only ensured the refund of about ₹32crores to parents which were excessively charged by private schools but it also ensured that any fee hike proposal was examined by authorized chartered accountants [12]. Thus, for two years no school was allowed to raise its fee.

Manish Sisodia, the leader of the Delhi education model is focusing on how to shift from, “having built the foundation of education to “education as the foundation”. What distinguishes holistic education from other forms of education, at its most general level, are its objectives, its focus to learning through experience, its goals, and the significance it places on primary human values and relationships, within a learning environment. Now that Delhi has decisively acknowledged education as a top agenda of governance, the natural expectation from the government would be to ensure that all children get an education that passes the test of quality, opportunity, and equity.

Case Study: 2 Norway Education System

Norway offers some of the best education policies in the world. It boasts good quality facilities for schools and higher education. Norway’s education is the tuition-free country- even for international students. This is because Norway believes that everyone should have access to education regardless of socio-economic background. Compulsory education starts at the age of 6 and is mandatory until a student reaches 16 years of age. A great portion of the cost is subsidized by the government. The public education system in the country is one of the best in the world. Norway has a higher level of general education than the European average.

1. Entire education system is state supported.
2. Compulsion of school between age group of 6-16
3. Classes are taught in Norwegian with foreign language.
4. Students receive grades in lower secondary school

Entire education system is state-supportedEntire education system is state-supported

Figure 1: The education facts about Norway

The educational approach of Norway mainly focuses on preschool daycares and kindergartens. They take a holistic approach to education. They focus on fun learning, social

skills, and a play-based program. There is also a strong emphasis on an outdoor play (some even have lunch outside). Preschool daycares and kindergartens promote well-being and enjoyment. They also concentrate on fostering children's creativity, natural curiosity, and language skills. Education and international schools in Norway include schools that offer the International Baccalaureate and more. This is excellent for ex-pat families and children of multinational corporation executives, NGO staff, diplomats, etc. While public schooling is free in Norway. The assessment of student achievement, or understanding what students know and can do, is fundamental to effective teaching and to students' learning. Holistic education concentrates on learning through experience. This gives a new definition and style of education. Through this system, children can learn by doing whatever they love to do. This system induces interest in learning among children and education is being made fun by this process.

PERSPECTIVE SOLUTION

Educational Exchanges, collaboration, and networking is the way to build international relationships and partnerships. However, the knowledge extraction and application by the Indian students is an incomplete journey. Studying in the UK and getting to know their culture as well as imparting the Indian culture works divided on the individual. The Indian education system is hardly benefiting from it. The processes and systems in India at the grassroots level are still traditional which kills the motive of the entire international build-up process. The students need to make sure that the necessary change in culture and system are made here back in India so, that the roadmap is built for the growing future. Announcement on the changes in the education system in India is a huge step for the progress of Indian education in the longer run. For instance, Coding subject right from class 6 is one of the best things to happen at the grassroots in the Indian education system. The huge gap in the international and national education and technical system needs to be taken off for the overall internationalization to be successful. According to me, India targeted towards devoting 6% share of the GDP towards the educational sector, the performance has definitely fallen short of expectations. Also, funding is needed to be spend on building infrastructure. Use of proper technological tools in teaching has many benefits. It will solve many problems of infrastructure, quality of education and so on. One should also focus on educational policies; they need to be frequently updated. It should cover the personality development aspect of student. It should also imbibe values of culture and social services. Removing psychological bias towards poor or lower middle class will help them grow faster. Scholarships should be provided for an encouragement because

first generation school-goers undergo a lot of pressure as their family has a lot of expectations from them.

CONCLUSION

We as a country have a clear focus towards bringing changes that lead us towards becoming AtmaNirbhar. And the ongoing changes concerning education in our country will work wonders however, we need to strive for better every day as it is still a long way for us as a nation and we should try and eliminate the concerns which we have discussed in the case study. Continuous development in education in a country will lead to the continuous development of the nation. “Padhega India, Tabhi To Badhega India”

References

[1] “Sector-wise contribution of GDP of India (08 Feb

2019)” <http://statisticstimes.com/economy/sectorwise-gdp-contribution-of-india.php>

[2] “Today’s education scenario of India”

<https://www.atg.world/view-article/9584>

[3] “Do we really need a revolutionary change in India’s education system? Discuss the answer with education plan for a new and changing India.”

<https://iasgatewayy.com/change-in-indias-education-system/>

[4] “NITI Aayog releases SEQI: Kerala tops in quality of schools among 20 large states in India, Uttar Pradesh worst performer (**October 01, 2019**)”

<https://www.firstpost.com/india/niti-aayog-releases-school-education-quality-index-seqi-kerala-tops-in-quality-of-schools-among-20-large-states-in-india-uttar-pradesh-worst-performer-7428161.html#:~:text=New%20Delhi%3A%20Kerala%20has%20emerged,released%20by%20the%20Niti%20Aayog.>

[5] Global University Employability Ranking 2018: IISc Bangalore Tops From India (Friday, November 16, 2018)

<https://www.careerindia.com/news/global-university-employability-ranking-2018-iisc-bangalore-tops-from-india-024121.html>

[6] Govt releases Rs 95.47 crore to 9 states under Skill India Sankalp scheme (August 03, 2019)

<https://government.economictimes.indiatimes.com/news/policy/govt-releases-rs-95-47-crore-to-9-states-under-skill-india-sankalp-scheme/70510353>

[7] “Singapore to open skill development centre in Assam(01 Nov2017)”

<https://www.livemint.com/Politics/68dZPFCX7KG13ReTqNFz8K/Singapore-to-open-skill-development-centre-in-Assam.html>

[8] “India's 10 best overseas education institutes in 2018 (Oct 12, 2018)”
<https://www.slideshare.net/Theknowledgereview/indias-10-best-overseas-education-institutes-in-2018>

[9] “The Delhi model of education (FEBRUARY 12,2020)”

<https://www.thehindu.com/opinion/op-ed/the-delhi-model-of-education/article30796187.ece>

[10] “The Delhi model of education (FEBRUARY 12,2020)”

<https://www.thehindu.com/opinion/op-ed/the-delhi-model-of-education/article30796187.ece>

[11] “[Editorial Analysis] the Delhi Model of Education (February 12,2020)”

<https://aspirantworld.in/editorial-analysis-the-delhi-model-of-education/>

[12] “The Delhi model of education (FEBRUARY 12,2020)”

<https://www.thehindu.com/opinion/op-ed/the-delhi-model-of-education/article30796187.ece>

PROSPECTS OF LIBRARIES AS KNOWLEDGE AND INNOVATION HUB FOR MAKING INDIA: AN ATMA NIRBHAR NATION

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Abstract:

In today's information society, everyone takes turn towards sources (be it individual or an institute) which can provide with relevant and authentic information. And in this context, A Library as an institute has a very big role to play. A library as a hub of knowledge provides genuine research and more proven facts. And the resources are also affordable because a library deals in data which would be made readily available to users. In this paper an effort is being undertaken to study how libraries are contributing through knowledge and resources towards research and innovation which is the utmost need towards making an institute self sufficient in itself and in turn enable a nation to become self dependent or Atma Nirbhar. This paper is an attempt to throw light on the competencies of a library as a knowledge centre to attain the goal of Atma Nirbhar, which is a vision of our honorable Prime Minister.

Keywords: *India, Atma Nirbhar, Self Sufficient, Library, Innovation hub*

1. Introduction:

It's a fact that a country or a nation cannot exist all by itself or it can be said it cannot become self sufficient by all means i.e., economically, politically, socially or technologically. It is obvious that it has to depend on other countries for several of its resources so to say, advanced technological tools, arms and ammunitions, for funds to be utilized on various sectors, for various other goods and services. However, too much dependence for something by a particular nation on another nation in turn may pose a serious threat or leads to severe loss of the former nation which in the initial stages may not be directly visible or felt by that nation but in the due course of time it results in fall in its productivity, in its overall income and assets development, loss of wealth, loss of its resources and thus leading towards overall loss of the economy. Too much dependence prevents a country to know or realize its own potential and strength.

India as a nation also needs to depend on other advanced countries of the world for various goods and products from daily usage by its common people to technologies needed for country's peace and security purposes (arms, ammunitions, fighter plane and so on). But at the same time, it has also realized the need to utilize its own resources, to cut down imports, to prove the potentials of its people to the outside world. The country's government has time to time felt the need to put a thrust on country's indigenous industry, local craftsmanship or own local products. It has given utmost importance on infrastructure and innovation in order to realize the goal of self-reliant India.

1.2. AatmaNirbhar Bharat Abhiyan- A step ahead to strengthen Make in India:

The concept of 'self-reliant India' or '**AtmaNirbhar Bharat**' couldn't be said as a completely new one for the nation. The roots for this initiative has already been sowed when government has announced the initiative of '**Make in India**' during the year 2014. This initiative was taken to transform India into a global design and manufacturing hub. Various competitions were being organized as its part which invites innovators, designers from different parts of the country. This gives an opportunity to showcase their talents to get a exposure to the outside world. It gave a platform to Indian start-up community.

This initiative is really a successful and fruitful one till now. Sectors like automobile, aviation, Pharmaceuticals, Oil and Gas have been successful to attract investment from investors abroad and contributing to country's GDP and thus been successful to stand among top destinations of foreign direct investment in the world. For instance, it is also evident from the report of **Indian Cellular and Electronics Association** which states that Mobile and Component manufacturing industry has helped save the country an **approx.3 lakh crores** of possible outflows in the last four years.

Similar in the lines of Make in India initiative, the vision of 'AtmaNirbhar Bharat' is based on idea of encouraging the local entrepreneurs, local manufacturing industry, corporate to discharge their duties first as Indian Nationals, which will not only generate employment, but also boost the economy.

1.3. Library as a hub of Innovation and its role to support the cause of 'Self Reliant Nation'

Library once known to be the place for keeping or storing books, where one always has to maintain the tag 'Please Maintain Silence' is now transforming slowly their internal picture to a place of innovation, research, workshops, debates and open discussions.

Innovations and entrepreneurship programme of an academic institute (a college or a University) are collaborating with their libraries using their vast amount of information, databases maintained by a library, and resources to help students to take their ideas to the next level. Today libraries (be it academic, public or special library) wanted to transform them from a place where students go for quiet study and reading to a place for promoting innovation.

4. Libraries' impact on research and innovation

Library and information centers maintain databases related to different fields, which helps scholars, scientists, to remain updated with latest research, innovations, and inventions by peers from other countries. Along with primary resources like journals, theses it also maintains databases on the basis of primary sources like abstracting and indexing databases, digests which can provide a summary of the research or a link to the original research for immediate reference.

5. Libraries' impact on Entrepreneurship activities

Now Library has an exclusive space to support the growing entrepreneurship initiatives on campus. Ways by which libraries can affect business and entrepreneurs:

- **Make a difference with data:**

In today's information economy, updated market research defines winners and losers of business. Libraries are in a unique position to provide business idea through data subscription that small businesses and entrepreneurs cannot afford on their own

- **Collaborate with business assistance experts:**

Well to do businessman, established business organization, entrepreneurs of the local area, or nearby areas can be invited to provide training and workshop sessions on tax, accounting, marketing etc, in the meeting room or auditorium of the library.

- **Managing content that suits local industries:**

Each community has different industries eminent in their area may be agriculture, handloom industry, automobile industry etc. One thing libraries need to assure that trade journals, magazines or other business related resources that the library subscribe match the business located in that area or community.

Among many others, these are two important ways by which libraries can play its role as a medium to help the country achieve its goal. Here, focus is given primarily on the role of libraries as centre for research and innovation and how it can help in nation building.

2. Objectives:

- i. To study the role of libraries as a hub of research and innovation
- ii. To find out whether library have enough resources to support research for scholars, scientists and entrepreneurs.
- iii. To what extent libraries can make an impact on the cause of AtmaNirbhar.

3. Methodology:

For the present study, online portals and websites of some well-established libraries spread across all over the country are assessed and analyzed thoroughly to obtain information regarding initiatives taken by them to create an environment conducive to research.

Sources like E-journals, E- books, Government websites are being referred to obtain latest data.

4. A Brief Study of Selected Libraries of Top Institutes of India and its Contribution to Research and Innovation

As in the move of making India a self dependent country, contribution from each field and sector is required and positively it has been started by almost all sectors and fields, Library as service oriented organization is no exception to this. Infact it can be a bridge between entrepreneurs, designers, corporate, government at state, district and central level through its information resources

I. Scientific Information Resource Division, Bangalore –

Formerly known as Library and Info. Service Section is the library Division of BARC. Some of the activities taken up by the centre to support research facilities:

- Digital resources are available to the users through indigenously developed Library portal called **SARASWATI**.
- To access various digital resources available on the internet, an online Information gateway” Lakshya” is now been used by professionals like engineers, scientists for R & D activities.



- They have in-house facility to translate scientific and technical literature for its users so that these foreign literatures are speedily made available for carrying out research work.

II. Indian Institute of Entrepreneurship-

The library of IIE, Guwahati is well stocked with latest books, trade journals, and business magazines containing useful information related to micro, small and medium enterprises for professionals in the field of entrepreneurship.



Library and Doc.Centre, IIE

Besides, the documentation centre also provides document copies on request of visitors at a concessional rate.

Time to time, it organizes workshops and seminars for young entrepreneurs of the region and also for people with creative minds on how to start with their innovative ideas , to give a direction on their ways building up their career by experts, successful

businessman and entrepreneurs of the particular region and invited speakers of different areas.

III. INFLIBNET Centre-

Information and library Network, is a major national programme, an autonomous inter University Centre. Through its various activities like, e-shodhshindhu, e-shodhshuddhi, shodhganga repository, it assist in knowing the trend of research, developments of new field of knowledge. Through its programme e-shodhsuddhi, it has tried to provide a plagiarized- free content to scholars and innovators.



Its various activities include:

- e-PG Pathsala for providing digital content on post graduate courses.
- Developed its own software **SOUL** for supporting automation activities in libraries in all size and types.
- Through its N-list programme, it provides assistances to technical, government as well as government aided colleges to get access to various e-resources (journals, books from reputed publishers) valuable for them in carrying out research works.

IV. National Library of India



The Apex library of the country is in an advantageous position to collect all books published on India anywhere in the world under Delivery of Book Act, 1954.

It is continuously improving and innovating its digital services in an inclusive way.

It undertakes schemes to promote study the culture of India as well as promotion of culture of science thereby which a strong innovative eco-system is built up in the society (encouraging young scholars, researchers, entrepreneurs) facilitating birth of new ideas and also successful implementation these ideas.

V. National Digital Library of India



NDLI is a project funded by Ministry of Education, provides educational materials for all subjects. It has designed its resources in various formats as audio, video, simulations etc.

It acts as research resource repository provides information on new projects, initiatives, challenges undertaken by various agencies which help researchers and entrepreneurs to find exciting challenges, to take part as its active contributor.

For instance, with growing pandemic of covid 19 affects citizens several challenges, design competitions, hackathons etc., are regularly being announced by several agencies to solve small and big problems. Besides this, starts up opportunities are also being exposed. Some of the new challenges found in resource repository of NDLI:

- **Action Covid-19 team (ACT):** set up an amount of rs.100 crore grants to support NGOs and Indian startups whose work revolves around areas like covid-19 spread, testing, disease management at home and so on. Some of the startups like MATLab, Covid 19 helpline, Corona safe have already received grant from the ACT.
- **MoCI, Government. of India: Submit solutions to combat covid19:** challenge is open to all startups, companies, innovators etc. whose

innovations can bridge the gap between demand and supply of medical items.

NDLI has also uploaded tutorial videos on its site for guidance of innovators and start-ups on topics as:

- how to develop strong concept note that will help to win funding
- Training video on stepwise guide to individual fundraising

The description made above is a glimpse of initiatives and efforts taken up library and information centre as an agency of information provider to support research and innovation activities, Along with that, how libraries have designed their services in an innovative way to remain relevant in today's tech savvy era.

5. Conclusion and Findings

The mindset of giving neck to neck competitions has already been developed among all the sectors. The field of Library and Information Service industry with a similar motive started its journey to take India to achieve the Vision of 'AtmaNirbharBharat'. Libraries are serving as hubs of action and creativity, boosted by their position, campus wide spaces, used and owned by everyone. Libraries could become knowledge repositories and new interfaces in innovation process through expansion of knowledge, mediation and knowledge exchange process (textual/non-textual)

The push among information professional to be entrepreneurial might have come from the fact that technology has changed the way library operates and its result is that libraries could learn something from the business world where introducing new products and services implies that someone is planning for the future.

Some of the findings obtained from the study can be pointed out as:

- i. Products and services, designed in a library (index, news digests, email alert, SMS service etc.) to a large extent is successful in creating an environment that facilitates and encourages research by different communities like students, scholars and faculties.
- ii. Indigenously developed library software like LIBSYS, SOUL is giving a competition to a level to other software developed in advanced countries like CDS/ISIS, koha.

- iii. Services like translation service, interlibrary loan service, reference services, international exchange of documents being provided in institutes like BARC, ISI, IIM etc., of the country are assisting scientists, scholars to remain updated on research works carried out in other parts of the world, to understand documents published in other languages with the help of translators, translated documents.
- iv. Market research data provided through trade journals, magazines as well as personally by Library staff of the concerned library gives quick and relevant information to local businessman, entrepreneurs regarding and growth of a particular business, which provide them a glimpse or idea to decide what they should do next, how to make a start and so on.
- v. As primary information is not available and accessible all the times, so library collect, analyzed and organize data and information into a consolidated form which can be used for immediate reference for the purpose of research and so on.
- vi. Libraries can acts as a platform or a space to meet and to interact for different stakeholders of 'Self Reliant India'- Designers, startup Businessman, and Entrepreneurs etc.
- vii. Resources available in libraries in our country are developing at an increasing pace but cannot be said enough to support research and innovations.
- viii. Libraries receive funds time to time from sources like UGC, RRRLF as well as from central and state governments. Butstill, it is not sufficient for libraries to have state of the art infrastructure to support research in its premises and to practice innovative practices.

6. References:

- i. aatmanirbharbharat.mygov.in
- ii. *Five way local libraries can help small businesses and Entrepreneurs*. Retrieved 12 September, 2020 from [http:// medium.com/ everywhere/five-ways-local-libraries— can-help-small-businesses-and-entrepreneur](http://medium.com/everywhere/five-ways-local-libraries-can-help-small-businesses-and-entrepreneur)
- iii. Hutchinsona, A. (2019). Library entrepreneurship: taking a lesson from business history. Retrieved 15 September, 2020 from [http:// libraryconnect.elsevier.com/articles-entrepreneurship-taking-lessons-business-history](http://libraryconnect.elsevier.com/articles-entrepreneurship-taking-lessons-business-history)

- iv. <http://iie.gov.in/pages/display/20-librarydoc>
- v. <http://www.barc.gov.in/kmg/sird/index.html>
- vi. <https://www.startupindia.gov.in/content/sih/en/ams-application/challenge>
- vii. inflibnet.ac.in/activities
- viii. innovate.mygov.in/covid19/#tab1
- ix. Johnson, T.C. (2020).How Entrepreneurs can use their local library to access free resources and get ahead in their business. Retrieved 10th September, 2020 from <http://businessinsider.in/careers/news/how-entrepreneur-can-use-their-local-library-to-access-free-resources-and-get-ahead-in-their-business>
- x. Nationallibrary.gov.in
- xi. Ndl.iitkgp.ac.in/corona-research/challenges-startup
- xii. Raghunandan, D. (2020).*How India can become self- reliant*. Retrieved on 12th September,2020 from thehindu.com.opinion/op-ed/how-India-can-become-self-reliant
- xiii. *Strengthening libraries as hubs for entrepreneurship*. Retrieved 10 september,2020 from <http://urbanlibraries.org/initiatives/strengthening-libraries-as-hubs-for-entrepreneurship>
- xiv. www.india.gov.in
- xv. [www2.fundsforngos.org/listing/grant-opportunities-to-tackle-the coronavirus-outbreak](http://www2.fundsforngos.org/listing/grant-opportunities-to-tackle-the-coronavirus-outbreak)

SECTORAL POTENTIAL OF ATMA NIRBHAR BHARAT ABIYAN

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Abstract:

Mahatma Gandhi's conception of self-reliance was of simple living and self-sufficiency. The basic idea was to use local resources and a local work force for the production of commodities for local consumption to the extent possible, with minimal dependence on the outside world. The economy is the material basis of social life. In order to implement the principle of economic self-sufficiency, one must build an independent national economy. Atma Nirbhar Bharat Abhiyan is the new version of 'Make in India' which was announced by Hon'ble Prime Minister on 12th May, 2020 with new vision keeping in mind the concept of Self-sufficiency. To mitigate the negative economic effects of lockdown for COVID 19 pandemic and to strengthen the Atma Nirbhar Bharat movement, announcements for relief package by the Finance Minister Nirmala Sitharaman were made in details for five days. In the Indian context, self-reliance should not mean divorcing international trade which was clarified by the finance minister. The paper focuses on those sectors and areas which have potential to achieve self-reliance in the future. It tries to analyse the limitations and bring out the various suggestions to utilize the existing capacity for becoming a global supplier.

Keywords: Covid-19, AtmaNirbhar Bharat, Made in India, Economy, Sector

I. INTRODUCTION

Due to COVID-19 pandemic, India experienced declining international trade which gave an idea to achieve self-reliance in some sectors and to become a global supplier. Addressing the nation on the COVID-19 pandemic, Prime Minister emphasised the necessity of a self-reliant India. He said the need was brought home by the absence of domestic production of personal protective equipment (PPE) when COVID-19 struck, but India initiated and quickly ramped up PPE production. India opened itself to the global market in 1991 through its liberalisation,

privatisation and globalisation policies, but remained cautious as it skirted around the whirlwind of international capital in the following decades. This hesitant approach of India often led to a clamour from various vocal quarters for faster and deeper opening of its economy but its relative insularity from disruptive global headwinds turned out to be helpful several times in the last three decades. The pandemic brought to the fore at once the limits and inevitability of globalisation. Countries such as the U.S. that relied on others for the supply of essential medicines and medical equipment were suddenly vulnerable. China's unmatched leverage in global supply chains and concerns that it may weaponize trade has prompted a renewed global discussion on the components of national security and how to protect them.

Since March, 2020 whatever situation was faced by world as well as India due to COVID-19, gave a new concept to emerge that is self-reliant India. With the impact of COVID-19, many countries are adopting protectionist policies. PM understands this dynamic of global politics and has sought to advance India's interest within an emerging framework. India is a developing country; therefore, it is very difficult to adopt protectionism. But in some sectors in which there is potential to achieve self-reliance, India can impose trade barriers to protect and develop domestic industries. As mentioned by government, 12 sectors including auto components, textiles, industrial machinery and furniture, food processing, organic farming, iron, aluminium and copper, agro - chemicals, electronics, leather and shoes. Masks, Sanitizers and Ventilators have been identified to give more focus to become a global supplier. It has been seen that these products have comparative advantage as they can be produced domestically at low cost. India has huge potential in Agro-chemicals, Pharma & API's too.

India will have to seriously engage with the region and the world, but at the same time strengthen its own domestic industry by streamlining the governance system and go far beyond mere amendments and announcements. Swadeshi does not and should not be interpreted as isolation. Mahatma Gandhi's Swadeshi movement and self-reliance were two sides of the same coin that would find currency in a globalised world. Those sectors which require FDI and foreign technology are always welcome.

This paper focuses on those sectors and areas which have potential to achieve self-reliance in the future. It tries to analyse the limitations and bring out the various suggestions to utilize the existing capacity for becoming a global supplier. This study intends to reflect on the sectoral potential of policy package announced as part of "*Atma Nirbhar Bharat*" (Self-Dependent India) in order to revive the Indian industry.

II. OBJECTIVES

1. To find out the capacity of some sectors to achieve self-reliance
2. To find out the problems on the way to Atma Nirbhar Bharat.
3. To suggest remedies for existing loopholes.

III. RESEARCH METHODOLOGY

The study is descriptive in nature where qualitative methods are used. This paper is theoretical based on the extensive research for which information has collect form secondary sources. A descriptive method or theoretical based research is selected because it provides an accurate portrayal or accounts of the characteristics, for example, behaviour, opinions, abilities, beliefs, and knowledge of a particular individual, situation or group.

IV. LIMITATIONS

The topic of the study is new, so no literature review is added in the study. There is a scope of conducting research in future on the areas that has not been covered here in this study and will add to the literature for future researchers in this topic of importance.

V. SECTORS HAVING POTENTIAL TO ACHIEVE SELF-RELIANCE IN FUTURE

A) HEALTHCARE

COVID-19 has acquainted India to the fact that domestic innovators can develop high quality healthcare solutions at par with global competitors. Moreover, these solutions are usually adapted for local conditions and are significantly more affordable. Indian innovators felt a strong pull effect due to the need to fulfil a nationwide demand for high quality and affordable healthcare solutions spanning Diagnostics, Personnel Protective Equipment, Critical Care Equipment/ Ventilators, Cold Storage for Transportation, and Recuperative/ Assistive devices to fight the pandemic. This urgent pull effect coupled with the lack of global supplies due to restrictions and lockdowns, and nimble action by stakeholders ranging from regulatory authorities (ICMR and CDSCO), venture capital ecosystem (100 crore ACT Grants Fund), institutions (Invest India, Office of Principal Scientific Adviser to the Government of India) and innovators (start-ups, researchers) enabled a rapid launch of products and services for use by citizens. In fact, the record expansion of the PPE manufacturing industry in India, from almost

non-existent local production to now the world's 2nd largest producer, producing more than 5 lakh PPEs per day, is a clear indication of India's untapped potential.

The COVID-19 pandemic should be taken as a template to streamline operational processes and build preparedness for such future pandemics. For an Aatma Nirbhar Bharat (Self-Reliant India), the government is focusing on primary healthcare and improved facilities at grassroots health institutions. Steps are also being discussed to enable preparedness for future pandemics such as separate hospital blocks for infectious diseases and stronger and integrated lab networks. The blueprint for the National Digital Health Mission will be expedited for a better use of technology in the healthcare services. This creates prospects for R&D, and the opportunity for India to become a leader in digital health services globally. Apart from telemedicine and digital hospital/ patient management, some other areas of opportunity include early stage detection and monitoring of diseases, AI/ ML for testing, triaging and monitoring patients, medical robotics, and low cost medical equipment transportation for bio-specimen, telemedicine, and mental health support.

B) AGRICULTURE/ FOOD PROCESSING

A large proportion of the Indian population is dependent on agriculture, the majority of which is made up of small and medium farmers. There is tremendous potential for agri-tech start-ups to enhance rural livelihoods and reduce costs associated with climatic uncertainties and traditional farming practices. To enable this, financial credits/ concessional loans have been provided as a part of Aatma Nirbhar Bharat Abhiyan to boost crop management, repayment, efficiency of rural banks, and infrastructure development. Advancements in technologies which can improve the quality of agricultural produce such as IOT/ analytics/ block chain for climate intelligence, forecasting solutions, machine learning to identify crop stages, artificial intelligence to reduce crop wastage, soil health monitoring, plant image recognition, geospatial tracking, and sustainable packing, can help achieve this goal.

Moreover, an Agricultural Infrastructure Fund of INR 1 lakh crore has also been set up for cold chain and post-harvest management infrastructure. This presents opportunities for innovative solutions for cold chain storage and supply chain management for pre- and post-harvest crops.

Furthermore, to enable serving of the increasing demand for organic products in urban areas with people willing to pay a premium for quality-assured food, a separate INR 10,000 crore scheme has been set up to support Micro Food Enterprises (MFEs) attain FSSAI food standards,

build brands, and integrate with retail markets. This will further help India reach untapped export markets.

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Even animal husbandry has been targeted for improvement wherein the Animal Husbandry Infrastructure Development Fund of INR 15,000 crore for private dairy processing and management presents opportunities for innovations targeted at cattle disease management and intelligent livestock tracking. An additional INR 20,000 crore has been allocated for fishermen with an aim to increase fish production, employment, and export. This will enable fledgling start-ups working on innovations for water quality testing, water treatment, AI monitoring of aqua fauna to flourish.

The Cabinet's decision to allow farmers to sell directly through e-trading platforms to entities of their choice instead of being confined to state mandis is another game changer. This will enable contract farming and inter-state trade. However, breakthroughs are needed in areas of transportation, logistics, and digital access and payments to enable widespread prosperity. Thus, focus must be on production, distribution, and management of food i.e., the complete agricultural value chain.

C) EDUCATION

The pandemic has caused educational institutions to suspend attendance, delay examinations and hurriedly identify online learning tools since students are restricted to their homes. To enable innovation, the National Education Policy, 2020 is announced to be modified to be more technology oriented. The government has also launched the PM e-Vidya Program with the objective of educating students through digital platforms. Some highlights include Diksha platform for e-content and QR coded energized book for all the classes, TV channel for classes 1st to 12th, radio podcasts/ special e-content for virtually and hearing impaired, and permission to top 100 universities to start online courses from May 30, 2020 onwards. Digital learning has tremendous scope otherwise as well and has been gaining popularity over the years, to augment regular educational channels. The current pandemic has only accelerated the pace of technology adoption in this sector.

The focus on virtual education creates opportunities for AR/ VR for customized learning, systems for conducting remote exams, innovative tools for attendance monitoring, adaptive learning, low cost hardware for distance learning, mental health support for teachers and students, and upgradation of teachers' skills to adapt to digital education.

While most private institutions across the globe are being able to conduct classes and examinations online, India is facing issues due to a digital divide. Although India is the 2nd largest online market in the world, students belonging to rural areas, remote districts and economically backward families lack the resources to a fast-digital world. Thus, this not only highlights the role of telecom services in the education sector but also underlines the most crucial sector for India's communication infrastructure.

D) INFRASTRUCTURE

To meet the target of \$ 5 Trillion economy by 2025, be self-sufficient, become a global manufacturing hub, growth of infrastructure is key. The National Infrastructure Pipeline (NIP) is a major step with investments over INR 100 lakh crore to be made by the government to build world-class infrastructural facilities. With 65 per cent of India's population residing in rural areas, rural infrastructure needs to be upgraded to ensure basic amenities to rural population. Seeing the plight of migrant workers, the state governments have been permitted to use the state disaster response fund, funded by the Centre, for setting up shelters for migrants and providing them with food and water. Further, Cluster Upgradation Scheme (IUS) is to be implemented in states for industrial cluster upgradation of common infrastructure facilities and connectivity.

Infrastructure ranging from physical structures to digital highways attract innovations in a wide range of areas— construction materials for roads and railways, green buildings, smart energy meters, building management system, waste and water treatment, predictive maintenance/ IOT, telecommunications, sensors, security solutions for airports, consignment tracking for shipments, AI for work-flow management, and drone surveillance. It is critical to implement these and other solutions at-scale to mitigate the nation's infrastructure deficiencies and enable other sectors of the economy to flourish.

Innovation will have a major role in accelerating India's growth story. The uncertainty created by the pandemic and the allocation of the relief package for an Aatma Nirbhar Bharat, presents opportunities for innovative disruptions across sectors. However, the nation can leverage its existing skill and innovation base in Healthcare, Agriculture, Education, and Infrastructure, to help fast-track the creation of a resilient, self-sufficient 'New India'.

E) TEXTILE SECTOR

Strategy to reboot the Indian economy under Atma Nirbhar Bharat in the post-COVID world includes relooking at Textile Sector as well. If there is one sector in the country that is self-reliant end-to-end, it is textiles. Over the years a large spinning, weaving and apparel making capacity has been established in India to convert the raw material into end-products. Unlike Bangladesh and Vietnam or for that matter China, which are dominating the global textile market, India has abundant supply of raw material. India is the largest producer of cotton, accounting for 25% of the global output. India is also the second largest producer of man-made fibres — polyester and viscose. Labour availability is plenty in India which also possess traditional weaving skills. A strong domestic market also exists which ensures a good return on investment. Textile Sector in India accounts for-

- Seven per cent of India's manufacturing output
- Two per cent of GDP
- 12 per cent of exports
- Employs about 10 crore people
- Every \$1 billion increase in textile exports adds 1.5 lakh jobs

Textile exports from India have remained at the \$40-billion level for the last six years. The share of textiles in India's overall exports has declined from 15% in FY16 to 12% in FY 19. India's apparel (finished product) exports declined from \$18 billion in FY17 to \$17 billion in FY19. Relatively newer entrants like Bangladesh, Vietnam and Cambodia have gained substantially during this period. Bangladesh's apparel exports have risen from \$26.60 billion in 2015 to \$33 billion in 2019.

Internal factors, more than competition, are responsible for the stagnation of India's textile exports. While India's spinning capacity is of a global scale, the same cannot be said about weaving and apparel making. Apparel units in India have an average size of 100 machines. Bangladesh has an average of at least 500 machines per factory. Indian policymakers have always favoured cotton. This is because nearly 5.8 million farmers are engaged in cotton cultivation. GST on cotton is uniformly 5 percent. However, GST for man-made fibres (MMF) is taxed at 18 percent for fibre, 12 percent for yarn and 5 per cent for fabric. This inverted tax structure makes MMF textiles costly. Thus it accounts for just \$6 billion of the \$39-billion textile exports. However, 72% of today's global textile fibre consumption is MMF. Preferential

Trade Agreements, including FTAs, help gain duty-free access to large textile markets such as the EU, Australia and the UK which, otherwise, levy 12-14 per cent import duty. FTAs will help Indian players counter Bangladesh which, as a ‘least developed nation’, gets duty-free access. Vietnam has signed an FTA with the EU and its apparel exports will face no duty from September 2020. However, India’s FTA negotiation with the EU has remained suspended since 2013.

India should set up mega apparel parks close to ports with ‘plug and play’ facilities and common infrastructure for effluent treatment, etc. This will reduce the cost of Indian manufacturers and effectively compete in global market. India needs to have a fibre neutral tax policy to be a serious player in the global market. Also, there is an imminent need for an MMF Mission to upgrade the industry’s skill when it comes to non-cotton textiles. India needs to adopt an appropriate ‘give and take’ policy and sign the FTAs so as to increase the stagnated textile exports.

V. CONCLUSION

Atma Nirbhar Bharat may look like “New wine in Old Bottle”, a new name for “Make-in India.” But to bounce back after the lockdown, taking quick and timely decision of Indian government is really appreciable. For India, the major drivers for growth have to come from domestic economy as the pandemic has disrupted international trade. India’s strategies are on the verge of paradigm shift identifying sectors of self-reliance. It is a felt need that now India should practice effective governance without corruption, improve policies on Intellectual property rights helping domestic investments in the field of research and technology, develop skill oriented education system, change regulations to remove bottlenecks, grow economic zones and improve infrastructural facilities within, which will help in developing indigenous technology for own use. Being vocal for local is, in the real sense of the term, the recognition and promotion of the intrinsic strength of Indian entrepreneurship waiting to be freed from the shackles of inextricable tangles of land, labour, liquidity and laws. Swadeshi should be reinterpreted as a bridge between robust localisation and inevitable globalisation, complementary to one another and not diametrically opposed.

REFERENCES

- [1] Bhatia R. and Agrawal S, “International Journal of Applied Research, Make in India: A quantitative Approach,” ISSN: 2394-7500

[2] Shrivastava R. Hyderabad, India, Impact of “Make in India in Indian Economy’s International Journal of Trend in Scientific Research and Development (IJTSRD),” Vol:3, Issue:4, May-Jun 2019, ISSN 2456- 6470

[3] <https://www.insightsonindia.com/how-india-can-become-self-reliant/>

[4] <https://www.orfonline.org/driving-self-reliance-while-combating-a-pandemic-66332/>

[5] <https://www.inventiva.co.in/trends/nandini/covid-19-pandemic-can-india-be-self-reliant-in-the-middle-of-a-pandemic/>

[6] http://www2.law.columbia.edu/course_00S_L9436_001/North%20Korea%20materials/3a

[7] <https://iasbaba.com/2020/06/textile-sector-and-atmanirbharta/>

[8] <https://theprint.in/opinion/modis-idea-of-self-reliant-india-same-as-gandhis/421820/>

AN INDEPENDENT AND SELF-RELIANT ECONOMY AND GLOBALIZATION

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Abstract:

The concept of making India a Self-Reliant Nation is an on-going process, which has been emphasized since the pre-independence period and our former Prime ministers have also aimed at making India self reliant through development in various sectors of the economy. The research paper explores the vision and concept of 'Self-Reliant India Mission' introduced by Prime Minister, Shri Narendra Modi which can be termed as a reconceptualization of the 'Make in India' Initiative launched in the year 2014. The paper highlights the scope of an independent and self-reliant economy in presence of globalization and also presents an analysis to the roadmap of achieving self-reliance, through the various innovations announced by the government in some of the major sectors of the economy.

As a part of the research the views of various individuals have been gathered, regarding the introduction of the Self-Reliant India mission whereby data has been collected, with the help of questionnaire presented to various professionals and some of the students and results so obtained has been interpreted and presented with the help of different charts. Through the analysis of the data, it can be concluded that majority of the respondents are optimistic about the 'Self-Reliant India Mission' and various initiatives announced under this mission as a measure to boost the Indian economy.

Keywords: *Self-Reliant India Mission, Swadeshi Movement, pre-independence period, Make in India, self-reliance, reconceptualization, innovations, economy.*

1. INTRODUCTION

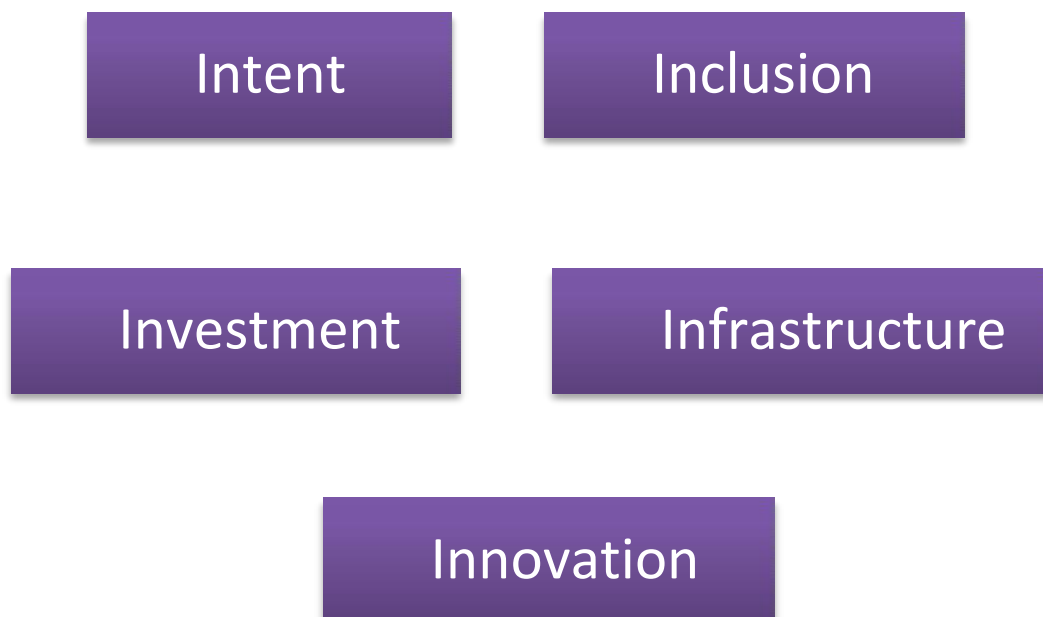
“IN ORDER TO EARN SELF- RESPECT, IT IS VITAL TO BE SELF-RELIANT”.

The 'Atmanirbhar Bharat Abhiyan' or the 'Self-Reliant India Mission' was announced by our honorable Prime Minister, Shri Narendra Modi during his address to the nation amidst Covid-19 crisis on 12th May, 2020. Under this mission, the government has announced a special

economic package of around Rs. 20 lakh crore which would focus on serving the needs of every class of people, be it the labourers, poor migrants, farmers, fishermen, industrialist, corporates or the business organizations (PRS Legislative Research, 2020).

The ‘Self-Reliant India’ Mission was introduced as a measure to uplift Indian Economy which has been affected drastically by the Covid-19 pandemic. The aim of the mission is to promote the use of local brands in every sector such as agriculture, textiles and leather, electronics, pharmaceuticals, defence equipments, processed foods etc and reduce our dependence on foreign brands. Emphasizing about being ‘Vocal for Local’ the government aims at making India a global manufacturing hub which should focus not only on satisfying domestic demands but also be able to export its products globally.

Under the ‘Self-Reliant India’ Mission, Five ‘I’s’ were listed which are vital for making India a Self-Reliant Nation. By specifying the five ‘I’s’ the government has expressed its intent to support the industry with modern infrastructural facilities, technological innovations in key sectors of the economy, increased inflow of foreign capital to the country and inclusion of private enterprises in various strategic sectors (Sharma, 2020). The Five I’s can be depicted as follows:



An Independent and Self-Reliant economy in presence of Globalization:

The 'Self-Reliant India Mission' focuses on creating an independent and self-reliant economy which would operate in presence of a new model of globalization as called by our prime minister, which would generate more opportunities for India as well as other countries. The renewed model of globalization will lead to the inflow of increased FDIs and innovative technologies to the country in order to boost the domestic production, and further facilitate creation of growth oriented jobs which would be a source of income for the local people of the country. Thus, it's the need of hour to convert the exploitative model of globalization introduced in 1991 into a renewed model in order to support and strengthen the indigenous industries and promote the local brands both locally and globally.

The scenario for trade has changed post Covid-19 due to which the companies are desirous of shifting their production centers from china to favorable locations which gives India an opportunity to increase its economic growth. In order to leverage this opportunity, the government needs to frame adequate laws governing the foreign investors and ensure that the laws framed would neither lead to the exploitation of indigenous industries nor hamper the interest of the farmers of the country (Mahajan, 2020). Thus, the government aims to align the vision of Self-Reliant India with a renewed model of globalization in order to make the country independent and self-reliant.

Roadmap towards a Self-Reliant India – A Brief Analysis:

The crisis caused due to the outbreak of the global pandemic enlightened the fact that a lot of hidden potential is being trapped in the country, which is capable of making the economy independent provided some innovations are made in key sectors of the economy. During the pandemic, there was a huge global shortage in the supply of PPE kits and N-95 masks, which was soon made available as the country ramped up its own manufacturing capacity. As a result of this increased domestic production of various medical equipments, India was able to establish itself as a global exporter of PPE kits (Sharma, 2020).

The vision of making India a self-reliant nation is based on the five pillars which serve as the basis of achieving self-reliance. The first and foremost step is to strengthen the economy by encouraging manufacturing activities in every sector of the economy, by modernizing the infrastructural facilities, setting up proper distribution networks, by introducing technological developments so as to fulfill the demands of the new generation. Since the working age population is more than the dependant population in India, it acts as a positive source of energy for the development of the nation, the cycle of demand and supply chain should also be strengthened by its fuller utilization so as to increase the demand of the products and to meet the increased demand by empowering our supply system (Times Now Digital, 2020).

Some of the major innovations introduced by the government as a way forward in making India a Self-Reliant Nation can be summarized as follows:

- **Agriculture and Allied Sectors:** The population of the country is primarily dependant on the agricultural sector for its livelihood. The government has introduced various financial incentives for the development of the sector which includes providing of institutional credit facilities at concessional rates through Kisan Credit Cards, setting up Agri Infrastructure Fund, maintaining emergency working capital for farmers for meeting their requirements of crop loans, supporting the fishermen by introducing Pradhan Mantri Matsya Sampada Yojana (PMMSY), and promoting private investment in dairy processing and cattle feed infrastructure by setting up Animal Husbandry Infrastructure Development fund (PRS Legislative Research,2020).
- **Education** – The government has announced the PM e-vidya program which will provide access to online education and support school education in the states through the DIKSHA platform and various schemes such as National Foundational Literacy and Numeracy Mission will be launched by the December 2020 which shall ensure that every child attains learning level till grade five (PRS Legislative Research, 2020). Further, the government has given special emphasis on the National Research Foundation in the New Education Policy announced, to promote research and innovation in the country (Press Information Bureau, 2020).

Infrastructure – The government has announced the National Infrastructure Pipeline Project which will boost the infrastructure sector and help in creation of new jobs (Press Information Bureau, 2020), further in order to modernize the social and economic infrastructure,anincreaseintheViabilityGapFunding(VGF)forsocialinfrastructureprojects by upto 30% of the total project cost has also been announced (PRS Legislative Research, 2020).

- **Defence** – The government has encouraged indigenous production in the defence sector by increasing the limit of FDI from 49% to 74% under automatic route to make the country self-reliant (PRS Legislative Research, 2020), further a negative list for import of 101 items has been issued and steps have been taken to improve the national security by strengthening the infrastructure in border and coastal areas (Press Information Bureau,2020).
- **Health** – Under this mission various initiatives have been introduced to improve the health care facilities, which include establishing hospitals in both urban and rural areas, reinforcing the lab networks and maintaining separate blocks for addressing the crisis caused due to pandemic. Further the government aims to implement the National Digital Health Blueprint which will provide universal health care services by using digitized technology (PRS Legislative Research,2020).

1. OBJECTIVES OF RESEARCH

- To study the concept and vision of an independent and self-reliant economy and its alignment with globalization.
- To study and summarize the roadmap specified by the government towards making India a self-reliant nation.
- To identify the various innovations announced by the Government in key sectors of the economy.
- To collect and interpret the views of individuals regarding the Introduction of 'Self-Reliant India Mission'.

2. REVIEW OF LITERATURE

The term 'Self-Reliance' was defined by Ralph Waldo Emerson in his 1841 Essay, which stressed the fact that a person should believe in his own abilities, which gives him the potential to discover one's hidden talents and competencies (Shawn, 2016).

The idea of Self-Reliant India introduced by the Prime Minister, Shri Narendra Modi finds its origin back in the historical period of pre-independent India, where Swadeshi Movement was introduced with the aim of encouraging the use of domestic products which paved the development of indigenous industries and played a major role in achieving Independence for India.

The study of literature further reflects those continuous efforts have been made since independence to make India a Self-Reliant nation. For instance, our First Prime Minister, Pt. Shri Jawaharlal Nehru practiced self-reliance by emphasizing self-sufficiency in food production, setting up various educational institutions, focusing on the development of the space research, and introduction of various five-year action plans (Trivedi, 2020). Secondly the former Prime Minister Shri Lal Bahadur Shastri gave the slogan of "*Jai Jawan, Jai Kisan*" to encourage India to become self-reliant in the agricultural and food processing sector as a result of which, India today exports food grains and also ranks among the top producers in the world (The Economic Times, 2018). The former Prime Minister Shri Rajiv Gandhi also laid the foundation of self-reliance by bringing a series of revolution in the Information Technology and Telecom Sector (Trivedi, 2020), which was further supported by the former Prime Minister Shri Atal Bihari Vajpayee who was regarded as the 'Father of Modern Telecommunication' in India as he took the telecom sector to new heights of development and also introduced a series of reforms in the defence sector (Talwar, 2018). Thus, these are among some of the many contributions made by the government towards establishing Self-Reliance in various sectors

of the economy.

The Self-Reliant India Mission can be considered to be a reconceptualization of the 'Make in India' launched by the Prime Minister in the year 2014. Under 'Make In India' the primary goal was encouraging domestic production to satisfy the needs of the country, but the 'Self-Reliant India Mission' emphasizes on producing not only for the country but also becoming global leaders in various sectors by optimum utilization of both natural and human resources.

3. RESEARCH METHODOLOGY

The research was initiated by understanding the concept and vision of an Independent and Self-reliant economy and its alignment with globalization as emphasized by the government in the 'Self-Reliant India Mission' through the various secondary sources of information available, such as newspaper articles, opinion pieces, and documents published in various websites.

Sources of Data: Primary and Secondary Sources

Research type: Descriptive Research.

The process of research can be listed in the following steps:

- Firstly, the concept and vision of an Independent and self-reliant economy and its alignment with globalization was studied and summarized.
- Secondly, the roadmap of achieving self-reliance and various innovations announced by the government in key sectors of the economy was summarized.
- Third step was preparation of a questionnaire to gather the views of various professionals and students regarding the introduction of this mission.
- Then the results so obtained was interpreted and presented with the help of pie and column charts.

Lastly, some of the suggestions and recommendations were put forward through which the Self-Reliant India Mission can achieve its objectives.

1. FINDINGS AND INTERPRETATION

A survey was conducted among a group of 50 individuals out of which some were professionals while others were students of undergraduate and postgraduate courses, in order to collect their views regarding the introduction of 'Self-Reliant India Mission' and the various initiatives announced under this mission. Among the 50 individuals, 45 of them answered the questionnaire. The questionnaire was composed of both open-ended and close-ended questions. The classification of the respondents

on the basis of gender and designation, and the results of the survey can be represented with the help of following figures.

Figure.1 Classification of Respondents on the basis of Gender

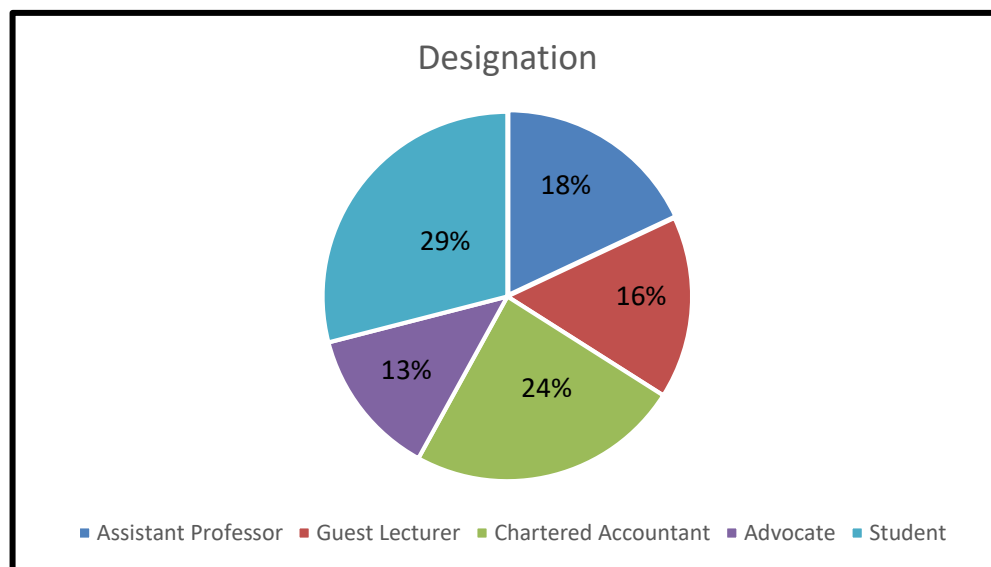
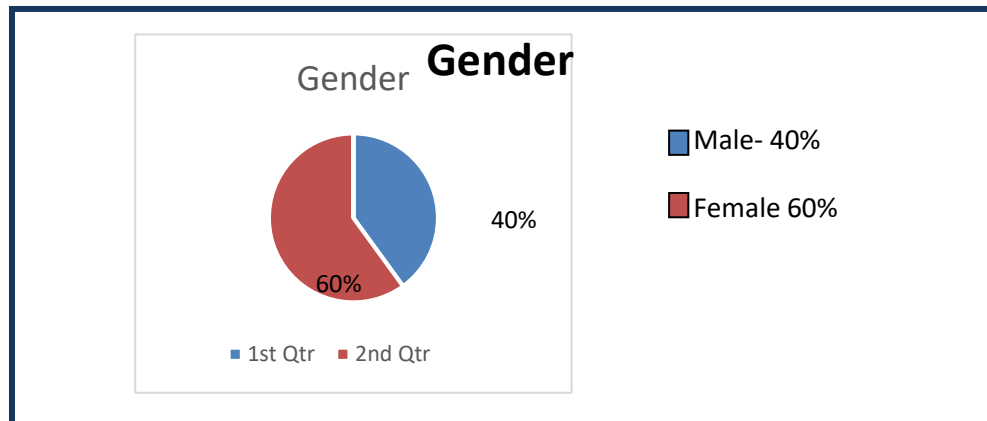


Figure.2 Classification of Respondents on the basis of Designation

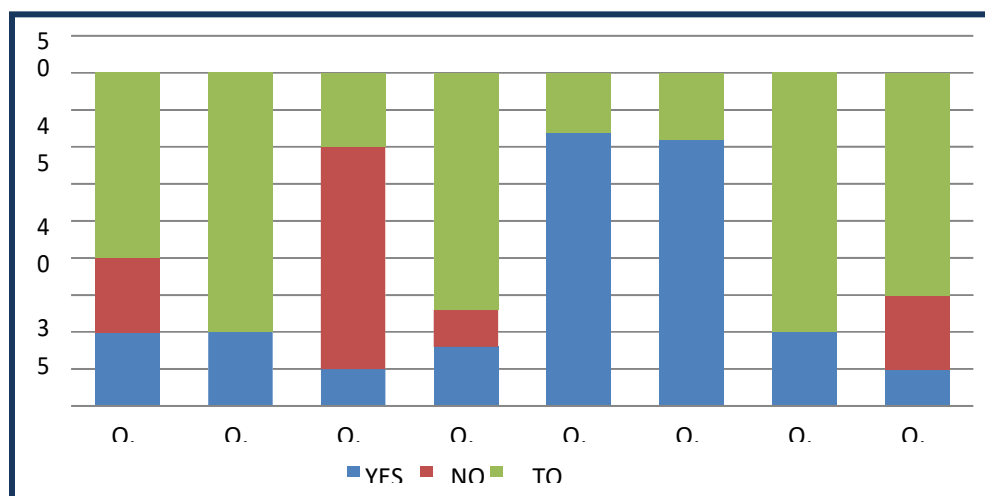


Figure 3. Summarized results of the answers made by the 45 respondents.

The findings of the survey can be summarized as follows:

- Majority of the respondents were of the view that the introduction of self-reliant India mission could be regarded as an initiative to translate the crisis into an opportunity to some extent.
- According to 78% of the respondents, the initiatives introduced by the government are justified to some extent.
- About 67% of the respondents, the enhancement of FDI limit in various sectors of the economy does not contradict with the government's vision of self-reliance and independence.
- About 71% of the respondents, the renewed model of globalization would prove to be beneficial for a self-reliant economy to some extent.
- Majority of the respondents feel that the increase in FDI limit in the defence sector from 49% to 74% under automatic route is a good step by the government.
- About 80% of the respondents consider planned investment in research and development projects as the development of young minds of the country.
- About 78 % of the respondents, the initiatives announced under this mission would primarily lead to the development of the rural sectors to some extent.
- About 67% of the respondents believe that the manufacturing sectors could satisfy the domestic demand without importing, with the help of initiatives introduced by the government to some extent.
- According to majority of the respondents government should primarily focus on the sectors such as education enriched with spirituality, health, manufacturing, defence and infrastructure.

According to the respondents, the role of common people is very important in making the 'Self-Reliant India' vision a reality and they can contribute in this vision by all their endeavors, promoting the use of local brands, paying the statutory dues in time, etc.

2. SUGGESTIONS AND RECOMMENDATIONS

The initiatives introduced by the government in various sectors of the economy are the need of the hour to make India a Self-Reliant Nation. But merely by announcing allocation of funds will not make this mission a reality. For the success of this mission government should focus on the practical implementation of the announced initiatives with strict administration and guidance of the policy makers. The suggestions in this regard are as follows:

- The first and foremost area of focus should be addressing the lack of adequate social infrastructural facilities such as health care services. The government should take initiatives for improving the public health care centers, establish more hospitals both in urban and rural areas that provide quality health care services, establish affordable medical labs in rural areas which would lead to earlier diagnosis of disease and introduce digitized technologies in the healthsector.
- The second area of focus should be planned investment in research and development, both in basic research and setting up research institutions since 80% of the respondents consider that it will help in developing the hidden talent of our youth and facilitate innovations through various research and developmentprojects.
- The government should support the farmers by granting them short term and long term loans, make arrangements for branding the local agricultural products and should make new technologies of production available to them, as more than 70% of the population is dependent on agriculture sector for its livelihood and the agriculture sector is one such sector where we can achieve self reliance easily and cost effectively.
- The investment in education sector needs to be boosted, where quality education should be made accessible to each and every child, various skill-based vocational training programmes should be introduced which would help the nation in reaping the demographicdividend.

1. FUTURE SCOPE OFRESEARCH

Since convenient sampling has been used for collection of data in the research paper, further research can be carried out by using various probability sampling methods. The areas of further research could be to determine the Impact of this mission on the Indian Economy, analyzing the future trends of foreign direct investment in various sectors of the economy, and analyzing the extent to which the initiatives announced by the government are implementedetc.

2. CONCLUSION

The ‘Self-Reliant India Mission’ which was introduced to protect the Indian economy struggling with the global pandemic caused by Covid-19 would prove to be an opportunity amidst crisis if the government focuses on developing the social and economic infrastructural facilities, developing various entrepreneurship models for the upliftment of the rural sectors, making availability of quality education, promoting adequate funding in the research and development sector and introducing modern technologies to compete globally. The Swadeshi Movement which for the first time prioritized the use of local products, helped us in getting independence from the Britishers likewise

the Self-Reliant India mission would help us in reducing our dependence on foreign products.

Emphasizing about being self –reliant in every sector of the economy, the government clarified that the vision of making India a Self-Reliant and Independent economy does not means isolating the country from the rest of the world. Instead under this campaign, new windows have been opened for the inflow of foreign investment and new technologies into the country which would assist in making India a global manufacturing and Investment hub. Further the limits of FDI have been raised in various sectors which reflect the government’s intent to open its economy for the world. The slogan of the campaign ‘Build Local, to go Global’ further exemplifies the notion of strengthening our domestic production and consumption and merging it with the global supply chain, reducing our dependence on imports and encouraging manufacturing activities so that we can not only serve the nation but also become global leaders.

REFERENCES

- [1] Mahajan, A. (2020, May 15). *Swadeshi by Another Name: PM Modi's Push For 'Local' is a New Sunrise for India*. Retrieved September 14, 2020, from News 18: <https://www.news18.com/news/opinion/swadeshi-by-another-name-pm-modis-push-for-local-is-a-new-sunrise-for-india-2622315.html>
- [2] Press Information Bureau. (2020, August 15). *Highlights of Prime Minister's Speech on 74th Independence Day*. Retrieved September 04, 2020, from Press Information Bureau: <https://pib.gov.in/PressReleaseDetailm.aspx?PRID=1646044>
- [3] PRS Legislative Research. (2020, May 13). *Summary of announcements: Aatma Nirbhar Bharat Abhiyaan*. Retrieved August 31, 2020, from PRS: <https://www.prsindia.org/report-summaries/summary-announcements-aatma-nirbhar-bharat-abhiyaan>
- [4] Sharma, S. (2020, June 02). *Modi's five 'I's to make India self-reliant economy*. Retrieved September 01, 2020, from <https://www.financialexpress.com/economy/modis-five-is-to-make-india-self-reliant-economy-tells-industry-to-trust-me-govt-is-supporting-you/1978615/>
- [5] Shawn. (2016, March 31). *What is Self-reliance?* Retrieved September 04, 2020, from My Self Reliance: <https://myselfreliance.com/what-is-self-reliance/>
- [6] Talwar, S. (2018, August 17). *From Y2K to Rafale: Atal Bihari Vajpayee was a man of progress and science*. Retrieved September 05, 2020, from dailyO: <https://www.dailyo.in/technology/atal-bihari-vajpayee-science-technology-progress-telecom-it-rafale-pokhran-ii/story/1/26122.html>

- [7] The Economic Times. (2018, July 14). *Indigenous defence production must for India's self-reliance*. Retrieved September 05, 2020, from The Economic Times: <https://economictimes.indiatimes.com/news/defence/indigenous-defence-production-must-for-indias-self-reliance-pm-narendra-modi/articleshow/50427033.cms?from=mdr>
- [8] Times Now Digital. (2020, May 12). *Aatmanirbhar Bharat: India's self-reliance to be based on five pillars, says PM Narendra Modi*. Retrieved September 01, 2020, from Times Now Digital: <https://www.timesnownews.com/india/article/aatmanirbhar-bharat-indias-self-reliance-to-be-based-on-five-pillars-economy-infra-system-demography-demand-pm-narendra-modi/590963>
- [9] Trivedi, M. (2020, June 05). *Self-reliance is a process, Prime Minister, which began long before you*. Retrieved September 04, 2020, from National Herald: <https://www.nationalheraldindia.com/opinion/self-reliance-is-a-process-prime-minister-which-began-long-before-you>

AATMANIRBHAR BHARAT: A MEDIUM TO REBUILD AGRICULTURE AND ALLIED ACTIVITIES

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Abstract:

The Covid 19 pandemic situation has necessitated a new set of reforms to strengthen the Indian economy. In this context, Prime Minister Narendra Modi has announced a campaign, Aatmanirbhar Bharat Abhiyan, on 12th May, 2020 with special economic package of Rs. 20 lakh Crores with a motive to make our country independent against the tough competition in the global supply chain and at the same time focuses on achieving the importance of promoting local products. The mission also expected to complement "Make in India" initiative which intends to encourage manufacturing in India including Agriculture sector which have a great potential. Out of the four Tranches, the third tranche focuses on Agricultural development reforms.

Agriculture has a vast impact on every citizen of the country either directly or indirectly. It continues to be the source of livelihood for majority of population. Therefore, for overall aggregate demand of the economy, the rural economy needs to get boosted by improving agriculture. This paper highlights the various measures undertaken in Self-Reliant India Campaign with regards to Agriculture and its allied activities which thereby assist in transforming Agriculture into a sustainable enterprise. Data collected are primarily based on Secondary Data. The paper also enumerates various suggestions towards the development of India's Agriculture.

Keywords: *Agriculture; Allied Activities; Aatmanirbhar Bharat Abhiyan; India; Indian economy.*

INTRODUCTION

India like many other countries has evolved through various stages of reforms in all the sectors of the economy. The year of 2020 is also proving to be an era where India is leaping forward not only trying to combat the COVID pandemic and any such situation in future but in normal cycle too, as a “self-reliant global economy” by launching the most needed initiative called “Aatmanirbhar Bharat Abhiyaan” covering all the sectors of the economy with a 20 Lakh crores package (equivalent to 10% of India’s GDP) based on 5 pillars of Economy, Infrastructure, System, Vibrant Demography, and Demand divided into 5 tranches namely :

- **Business including MSMEs**
- **Poor, including Migrants and Farmers**
- **Agriculture**
- **New Horizons of Growth**
- **Government Reforms and Enablers.**

This aims to benefit different sections which include cottage industry, labourers, MSMEs, industries, etc as well as the economy as a whole. Our economy being predominantly an agriculture based economy with 42% workforce with only 5% GDP (as per Economic Survey 2019-20 data), with the huge young working age group, majorly throws light on the importance of the inclusive agricultural reforms launched by the Government through this campaign.

INDIAN AGRO-ALLIED SECTOR: A GLANCE

India having one of the most precedent qualities of soil can be called a Biotic Queen, provided the utilization of resources to its best possible extent. Agriculture being the spinal cord of Indian economy since ages supports around 70% of livelihoods directly and indirectly. The sector can be classified into different segments namely poultry, fishery, silk, etc

Government of India has launched innumerable initiatives to enhance this sector of the economy. However, despite all measures, more or less the condition of this sector remains the same.

The various challenges faced by the farmers in this sector have been highlighted as follows:

- Natural calamities like floods, droughts and soil erosion devastating various states of the country specially Assam, Kerala, Rajasthan etc.
- Increasing rate of population of the country mostly in the semi-urban and urban parts.

- Migration of rural youths to urban parts leaving the sector unsecured.
- Disguised unemployment due to less land-holding in comparison to the population.
- Immigrants from other countries leading to increase the burden on resources.
- Abnormal change in climatic conditions due to reasons like deforestation, heavy industrialisation and commercialisation.
- Poor access to resources required by the farmers and cultivators.
- Lack of adequate technological upgradation and Research & Development along with unfilled gaps between Research & Development and improvements.
- Fragmented land-holdings of farmer families continuing to future generations.
- Caste tradition system where farmers are forced to engage in the occupation according to traditional caste laws.

OBJECTIVES

To highlight the:

- Scenario of agriculture pertaining to pre-atmanirbhar Bharat.
- Announcements made by Government of India for replenishing the sector.
- Prospects in the sector post atmanirbhar Bharat initiative.

RESEARCH METHODOLOGY

The present study is primarily based on secondary data. The paper is mainly descriptive in nature and main sources of data used in this paper are annual reports, newsletters, official websites and publications related to the study.

A GENERAL DESCRIPTION OF REFORMS UNDERTAKEN

1 COMPENSATORY AFFORESTATION MANAGEMENT AND PLANNING AUTHORITY:

CAMPA was constituted in 2004 by Ministry of Environment and Forests under Compensatory Afforestation Fund Act, 2016 to ensure compensatory afforestation and wildlife conservation activities.

- a) Though CAMPA Funds is an old initiative, but the government could not successfully implement the plan.
- b) By including the scheme in the Aatmanirbhar package, Government announced Rs 6000 crores to approve it in a very short time so as to create employment for tribals/adivasis and other people living in the urban, semi-urban and rural areas. Funds are to be used for:
 - Afforestation and plantation
 - Artificial Regeneration and Assisted Natural Regeneration
 - Forest management, soil and moisture conservation works
 - Forest and wildlife protection, conservation, infrastructural development and management.
- c) The measures can be helpful in successful harvest rotations, stabilisation of soil, production of diverse industrial and non-industrial products, better silviculture, prevention and protection of forest resources and habitat, thus balancing the ecological system and leading to earnings to the people.

2 ADDITIONAL WORKING CAPITAL:

- a) Despite provision of credit facilities to small and marginal farmers, states like Bihar, Odisha, West Bengal etc. lack proper institutional credit to meet the working capital requirement.
- b) Besides providing Rs 90000 crores fund through the normal finance route during the current year, Government of India has declared additional refinance support of Rs 30000 crores for meeting loan demands through Rural Cooperative Banks and Regional Rural Banks with front-loaded on tap-facility to 33 SCBs, 351 DCBs, 43 RRBs benefit around 3 crores farmers.
- c) This would enable farmers to have more access to working capital institutional credit and post harvest and current requirement..

3 CONCESSIONAL CREDIT BOOST:

- a) Kisan Credit Cards were launched in 1998 to enable farmers to withdraw funds for regular expenses incurred in farming activities like buying seeds etc. As mentioned earlier, farmers have low access to formal institutional credit where 30% of them i.e. around 17 crores of our agricultural population still suffer from non-accessibility of institutional credit.
- b) The PM-KISAN beneficiaries, fishermen and animal husbandry farmers would get KCC benefit which is a drive to boost around 2.5 crore farmers by providing credit of Rs 2 Lakhs.
- c) This scheme is basically expected to provide access to formal institutional credit at concessional interest rates.

4 AGRICULTURE INFRASTRUCTURE FUND:

- a) One of the most important issues in the agricultural sector relates to the problems faced by farmers at each stage of value chain, where supply chains tend to be unnecessarily longer with underdeveloped irrigation and inadequate storage facilities due to focus on short-term agricultural investments rather than long-term investments.
- b) Financial outlay of Rs 1,00,000 crores has been declared for Agriculture Infrastructure Projects at farm-gate and aggregation point (Farmer Producer Organizations, Start-ups etc.), affordable and financially viable Post Harvest Management infrastructure.
- c) The initiative can reduce the gaps in the improper linkage of the whole agricultural market with proper adequate cold chain and post-harvest infrastructure management.

5 FORMALISATION OF MICRO FOOD ENTERPRISES:

It is a centrally sponsored scheme where expenditure will be shared by GOI with states in 60:40 ratio, with NE and Himalayan states 90:10 ratio, with UTs with legislature 60:40 ratio and 100% by Centre for other UTs.

- a) The segment is unorganised, unrecognized, needs technological upgradation to

attain FSSAI food standards, build brands, capacity building and marketing.

- b) Scheme aims to promote 'Vocal for Local with Global outreach' by announcing Rs 10000 crores to help 2 lakhs MFEs to attain above goals on cluster based approach including existing Farmer Producer Organizations, Self Help Group etc.
- c) This measure can lead to forward and backward vertical linkages, health and safety standards, better income etc.

6 PRADHAN MANTRI MATSYA SAMPADAYOJANA:

- a) Poor database management of fisheries and critical gaps in fisheries value chain demands an effective framework.
- b) Rs 11000 crores for activities in Marine, Inland fisheries and Aquaculture, Rs 9000 crores for infrastructure in fishing harbours, markets etc, Ban Period Support, Personal Boat Insurance focusing on Islands, North-east etc.
- c) Expected results are additional fish production of 70 lakh tonnes over 5 years, employment to 55 lakhs with doubling of exports. This can result in holistic, effective development and management.

7 NATIONAL ANIMAL DISEASE CONTROL PROGRAMME:

- a) Poor cattle productivity, animal diseases, natural calamities and ecological imbalance demands an improvement.
- b) Measure for Foot and Mouth disease (FMD) and Brucellosis provided Rs 13,343 crores ensuring 100% vaccination for 53 crore animals.
- c) It can increase and manage cattle productivity to an extent.

8 ANIMAL HUSBANDRY INFRASTRUCTURE DEVELOPMENT FUND:

- a) Lack of proper investment, proper processing, low earnings though with great potential.
- b) Rs 15000 crore to support private investment in Dairy Processing, value addition, cattle feed infrastructure and establishing plants for export of niche products.
- c) Niche products will enable more focused and organised departmental

management and better earnings.

9 HERBAL CULTIVATION:

National Medicinal Plants Board was set up GOI on 24 November 2000, currently located in Ministry of AYUSH (Ayurveda, Yoga & Naturopathy, Unani, Siddha & Homeopathy) to develop appropriate mechanism for coordination between various departments etc.

- a) Lack of harmonization of medical systems and proper scientific testing methods etc. needs development and promotion of this segment.
- b) Rs 4000 has been initiated to cover 10,00,000 hectare in next 2 years leading to Rs 5000 cores of earnings with network of regional mandis for Medicinal Plants. Medicinal plants corridor along the banks of Ganga be developed covering 800 hectares by NMPB.
- c) Development and global recognition as a cultural resource.

BEE KEEPING:

- a) Apiculture, a cultural resource which has been supporting many rural families unfortunately lacks technical knowledge, storage, transportation, marketing and financial management.
- b) A financial package of Rs 500 crores has been announced by the government to improve implementation of standards and traceability system. Development of quality nucleus stock and bee breeders and infrastructure related to Integrated Beekeeping Development Centres, Collection, Marketing and Storage Centres, Post Harvest & value Addition facilities etc. It is also aiming to make women technically, economically financially reliable.
- c) The measure is expected to increase income for 2 Lakhs beekeepers, with standardised methods and infrastructure providing better quality honey to consumers.

1 TOP to TOTAL:

TOP indicates Tomato, Onion, Potato launched by Operation Greens scheme

under MoFPI extended to TOTAL i.e. all fruits and vegetables.

- a) Supply chain is one of the most problematic sectors leading to ambiguities and loopholes between the cultivator and the consumer.
- b) This financial reform extended with Rs 500 crores shall now include all fruits and vegetables with 50% subsidy on transportation from surplus to deficient markets and 50% subsidy on storage, including cold storages. This is a pilot initiative extended for 6 months which would be expanded and extended.
- c) The expected positivity can be reduced perishable commodities wastage with better price realisation and convenience to supply factors.

2 ESSENTIAL COMMODITIES ACT:

It is an act of Parliament of India introduced in 1955 through which the Government can control the production, storage, distribution and impose stock limit on commodities included under the act.

- a) This act is hindering the development of the farmers by limiting their storage of commodities, leading to selling of their commodities at unsatisfactory prices and low earnings.
- b) Act states that it will deregulate agricultural food commodities consisting cereals, edible oils, onions, pulses, oilseeds and potato and attract investment in the sector, but may include an item in public interest.
- c) Better infrastructure, adequate storage facilities, availability of stock throughout the year and healthy competition are few of the benefits expected through their form.

3 CENTRAL LAW:

Agricultural Produce Marketing Committee is a marketing board established by a State Government to ensure protection of farmers against exploitation where no person is allowed to conduct activities freely. Farmers and agents are required to sell only in accordance to APMC in local markets.

- a) Farmers face a lot of problem in selling and realizing prices in the market due to the reason that they are only allowed to sell their produce in Local *mandies* or licensees in APMCs and are restricted to sell it in outside their allotted local markets. This results in nonoptimal selling of and price realisation from

their produce.

- b) Government has declared that a central law shall be formulated which would enable farmers to participate in barrier-free intra-state and inter-state free flow of agricultural commodities with best satisfactory realisable prices. The framework would also enable farmers to engage in e-trading of their commodities.
- c) The measure can solve a huge problem relating to marketing of the agricultural commodities of the farmers. The regions having abundance of commodities can realize better prices in regions having scarcity of commodities. The commercialisation through e-trading will lead to integration of the agricultural sector of the world.

4 AGRICULTURE PRODUCE PRICE AND QUALITY ASSURANCE:

- a) A lack of comprehensive framework meeting all demands of farmers and other factors of supply chain did not exist.
- b) A facilitative legal framework has been established so as to enable farmers to engage in contract farming with any individual or private party he/she wishes to which may include the large retailers, processors, aggregators, exporters etc with transparency on forward prices.
- c) This reform can reduce market risks to a great extent that the farmers are exposed to by risk mitigation, assured returns and quality standardisation. Development through exchange of skills, technical know-how and private sector investment is achieved.

FINDINGS

- Aatmanirbhar Bharat is an initiative announced by the Government of India in the wake of COVID-19 from China so as to make India self-reliant as it is dependent on China for significant portion of exports and imports.
- By launching the legal schemes like ECA, central law facilitating barrier-free trade etc., the Government has removed big barriers that stood for the farmers.
- The overall package announced for agricultural and allied activities is basically

legislative and financial, mostly focused on supply chain and related infrastructure.

- However, it can be said that the Government is trying to compensate for the loss during the pandemic rather than to remediate the loopholes.
- Though the schemes are trying to cover short to long-term problems but is not addressing the urgent issues of farmers and cultivators.
- Moreover, the short-long term schemes too, do not guarantee effective implementation by the Government as has been seen from the past records.

The term “aatmanirbhar” suits well when the country has already achieved overall “comparative advantage” by solving major destructive problems like floods, droughts, soil erosion, corruption, employment security, to name a few, rather in a “competitive advantage” situation the country lives in now where she still has a lot to do in exploitation of new and renewed markets across the globe after the post-pandemic and post-aatmanirbhar situation.

RECOMMENDATIONS

- A comprehensive framework which can break the trap connecting poverty, corruption, unawareness, slow implementation.
- Proper streamline and guidance of measures targeting urgent, short term, medium term and long term needs connecting them globally from cultivation to export level.
- Increase in human resource investment.
- Appointment of strict investigators at all levels for standardisation, transparency and ethics.
- Training and skill development centres with user friendly IT applications.
- Highly regulated land reforms must be implemented.

CONCLUSION

Will India Become A Global Food Factory?

India has a great potential to become a food factory globally, provided it adopts all types of possible measures in each and every small to big segment relating to agriculture and allied sector. Post 1991 economic reforms in India have opened the doors to investment in many segments through comparative

advantage status. However, the average scoreline of the past decade has not been satisfactory enough with continuous inverse relationship in population and GDP. The elimination of problems in this sector will make India a strongly stand-out country in health & hygiene, technologically advanced and skilled, export oriented, higher investment, transparent, efficiently administered and regulated, biotech exploiter. This would lead to financially, economically, socio- culturally, technologically, ethnically, politically, environmentally leading to converging with the rest of the world in a conglobate.

REFERENCES

- <https://www.indi.mongabay.com/2020/02/forests-that-heal-medicinal-plants-as-an->
- <https://www.dof.gov.in/pmmsy>
- <https://m.rbi.org.in/scripts/PublicationReportDetails.aspx?UrlPage=&ID=942>
- <https://static.pib.gov.in/WriteReadData/userfiles/Aatmanirbhar%20Presentation%20Part-1%20Business%20including%20MSMEs%2013-5-2020.pdf>
- <https://static.pib.gov.in/WriteReadData/userfiles/Aatma%20Nirbhar%20Bharat%20presentation%20Part-2%2014-5-2020.pdf>
- <https://static.pib.gov.in/WriteReadData/userfiles/Aatma%20Nirbhar%20Bharat%20Presentation%20Part-3%20Agriculture%2015-5-2020%20revised.pdf>
- <https://static.pib.gov.in/WriteReadData/userfiles/Aatma%20Nirbhar%20Bharat%20%20Presentation%20Part%205%2017-5-2020.pdf>
- <https://static.pib.gov.in/WriteReadData/userfiles/Aatma%20Nirbhar%20Bharat%20%205%2017-5-2020.pdf>
- www.fao.org/forestry/anr/en/
- Goyal, S.K. Rai, Jai P. And Kumar, Sushil (2016). *Indian Agriculture and Farmers* [Research Gate]
- Kanowski, Peter J. & Australian National University. Resource Management in Asia-Pacific. (1997). *Afforestation and Plantation forestry*. Canberra: Australian National University, Resource Management in Asia-Pacific Project
- Shukla M, Al-Busaidi KT, Trivedi M, Tiwari RK. Status of research, regulations and challenges for genetically modified crops in India