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THE BIODIVERSITY CHECKLIST OF DRT'S A. E. KALSEKAR DEGREE COLLEGE CAMPUS, MUMBRA, THANE

Abhay Suresh Hule

ABSTRACT

Mumbra hill is a very well-known HOT-SPOT for bird-watching in Mumbai city (E-bird website). A. E. Kalsekar Degree College is situated in the vicinity or continuation of same hills. Being around the green hills, a large variety of faunal and floral species are thriving around it. Many varieties of birds, insects and reptiles were seen in the last three years of our survey duration. Although, Photographs were not clear as most of them are clicked by non-zoom mobile camera and from a large distance. General common names and species name were used to describe the species diversity. This documentation work of enlisting biodiversity will be a useful feature in future acting as baseline data for THANE MUNICIPALITY Corporation as Road building construction and human activities are increasing on northern side of our college campus.

INTRODUCTION:

A. E. Kalsekar Degree College is famous in Mumbra area of thane region under the University of Mumbai. The students from nearby suburban areas are taking admission along with local populations. It is full of large diversity of animals within and around the same. The large and fenced area of BHARAT GEARS Company present nearby our campus also helped a lot in preserving this diversity by cutting down local human intervention. It supports smallest ant to largest water monitor lizard in our campus.

It is seen that even the absence of any bird is indicator of pollution (Borale et al., 1994), so we decided to note down the observations of our college campus. Nowadays it is common practice of enlisting of birds in the campus in most of the IIT Campuses (IIT DELHI, IIT KANPUR AND IIT GUWAHATI) and educational institutes, these small efforts further illustrate the ever increasing environmental awareness and desire to aspire and protect the nature (Ismail Yusuf College and MPCOE Campus).

The top most predators are needed to be protected which will further protect the lower diversity and their interdependent animals of food chains as well as other animals around the hills. Also these hills are used as night roosting area by large raptors (black kites and other Aquila species) and many small birds like small green bee-eaters and blue cheeked bee-eaters (noted especially in the month of March-April). So it will be important to save these hills which will be in turn helpful in retaining the diversity of migratory as well as local fauna together.

STUDY AREA:

Mumbra is a city and suburb of Thane district in Western India in the state of Maharashtra, near Mumbai, and within the Mumbai Metropolitan Region area.

Mumbra was a flourishing ship building center in early times. It was named after Mumbra Devi, the prime deity of Agri and Koli tribes. The Mumba Devi goddess temple is situated at the peak of the hill. During the 17th century Mumbra was the small village of Koli and Agri (fishermen tribes). (<https://en.wikipedia.org/wiki/Mumbra>). These are the Location of Mumbra along with Coordinates: 19.176667°N 73.022222°E, in Maharashtra, India.

MATERIALS & METHODS:

College campus was surveyed every month (informal way, without any quadrant study) to identify different varieties of animal species and noted down to prepare a list of animals under simple zoological groups. They were included as amphibians, birds and reptiles. Mobile photographs were clicked wherever possible. General identification and common names were designated to each species as far as possible. The online resources like 'Google Lens' were also used besides various field guides and internet websites, articles, collections.

In all the observations which carried out, no animal or organisms are mishandled or disturb in their present habitat as per ethical birding and ethical study of nature. Most of the observations were noted by our FYBSC and SYBSC students and shared with us to compile our data or further to confirm the presence of the species noted down in our list around the college campus.

RESULTS:

During the entire survey, ten species of insects, thirty two species of birds, two species of arachnids and three species of reptiles were recorded. The separate tables were prepared for each group was prepared accordingly.

Few observations were noted down in more details in the discussion. Perhaps this would be more helpful for specific researcher like honey bee deaths in the entire buildings.

DISCUSSION:

Because of the greenery, many residents building construction projects are increasing in this area. Although, this lush green hills also plays a vital role in curbing the nearby highway pollution. Due to anthropogenic activities and habitat fragmentation, there is a need for conservation and sustainability of this remaining diversity as in future.

The honey bee colonies were observed for complete one calendar year period had shown that as soon as the monsoon approaches; they will shift their own colonies just below the water tanks area. This was noted down with the white coloured bee hive (Yadav S., Kumar Y., Jat B.L. (2017)) in the monsoon months of June to September months. This temporarily migration may save them with too much of exposure towards the heavy rains and strong winds.

The blue cheeked green bee-eater is seen feeding on them. Honeybees are insects that come under order Hymenoptera and family Apidae and showed complete metamorphosis. Honeybee species are characterized by particular functional traits that facilitate pollination services to a greater or lesser degree (Bluthgen and Klein 2011). The sparrows were nesting in our college buildings and it was seen that they are feeding on the ruminant part of the food in the empty classrooms and laboratory spaces, fallen down when students eat their Tiffin or lunch box in the canteen and they were also accompanied by common myna pair. In the monsoon, they were entering in the lab and other premises of our college building in order to search for good place for their nest. The naturally grown green grass on the open area or ground supports the spittlebug and its nest along with various types of insects.

These hills are used as night roosting area by large raptors (black kites and other *Aquila* species) and many small birds like small green bee-eaters and blue cheeked bee-eaters (noted especially in the month of March-April). Similar observations were made by (Bee-Eaters By C. Hilary Fry, ISBN: 9781408136867.). During the breeding season, adults burrow themselves in the night and in India breeding starts by March month.

The presence of *Naja naja* species in the monsoon period also exhibit the need of habitat preservation around the hills and the awareness of reptiles, especially the poisonous and non-poisonous snakes identification and few basic information on awareness about these reptiles which are living in and around the city areas.

More number of birds species followed by insect dominates our campus. Many bird species are known to inhabit the urban Mumbai metropolis (Monga, 2004) and its surrounding areas including Mahul (Verma et al., 2003), Uran (Pawar, 2011), Vasai (Walmiki et al., 2013), and Thane Creek (Nitsure, 2002; Quadros, 2001). So we need to preserve and conserve this diversity for our future generations and ecological services provided by all the organisms.

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REFERENCES:

- Kehimkar, I., 2016, Butterflies of India, BNHS.
- Menon, V., Indian mammals, Hachette Book Publishing India Pvt. Ltd.
- Grimmett, R., 2016, Birds of the Indian Subcontinent, Bloomsbury Publishing, London.
- Ninad M. Marathe, Amit H. Tiwari, Pratik P. Chavan, Bhavita Chavan. Survey of biodiversity with reference to fauna in Ismail Yusuf College Campus, Jogeshwari (East), Mumbai, India.
- (<https://www.researchgate.net/publication/332368562>)
- Bluthgen N, Klein AM (2011) Functional complementarity and specialization: the role of biodiversity in plant–pollinator interactions. *Basic Appl Ecol* 12:282–291.
- Yadav S., Kumar Y., Jat B.L. (2017) Honeybee: Diversity, Castes and Life Cycle. In: Omkar (eds) *Industrial Entomology*. Springer, Singapore.

- https://doi.org/10.1007/978-981-10-3304-9_2.
- Bee eaters, book by Fry, C. H. Pages: 320. ISBN: 9781408136867.
- <https://britishlepidoptera.weebly.com/212-macaria-alternata-sharp-angled-peacock.html>
- <http://mothtaiwan.blogspot.com/2010/06/garudinia-bimaculata-rothschild-1912.html>
- [https://geohack.toolforge.org/geohack.php?pagename=Mumbra¶ms=19.176667_N_73.022222_E_type:city\(232689\)_region:IN-MH](https://geohack.toolforge.org/geohack.php?pagename=Mumbra¶ms=19.176667_N_73.022222_E_type:city(232689)_region:IN-MH)
- <https://en.wikipedia.org/wiki/Mumbra>
- <https://vpmmmpcoe.org/Complete%20list%20of%20birds%20in%20MPCOE,%20Velneshwar%20on%2018.3.14.pdf>
- <https://www.cse.iitd.ac.in/~suban/birds/index.html>
- <https://www.cse.iitk.ac.in/users/amit/birds/>
- <http://www.iitg.ac.in/biplabbose/files/birds.html>

The table 1: shows the list of animals seen or taken with photos and identified till common name or species name. It also provides other details on the same sightings. The photo ids were given according to the two initials of each species name (the jungle myna would be JM, a tiger moth would be TM) and number indicating the serial number in the picture collage.

Serial number	Animal or species.	Place	date	Identified or unidentified	Reference	Tool for id
1	Dusky Craig martin	Roof or parapet of college building	31-12-2018	Yes	Photo id 1, 2.	AH
2	Asian Bullfrog, <i>hoplobatrachus tigerinus</i>	Pool in backyard of college campus	02-01-2019	Yes	Photo id 3, 4, 5.	Google Lens
3	Common hibiscus flower, <i>Hibiscus syriacus</i> ?	In college garden	05-01-2020	Yes	Photo id 6.	Google Lens and MS
4	Green bee-eater, <i>Merops orientalis</i>	Around college campus	22-01-2020	Yes	Photo id 7, 8.	AH
5	<i>Plexippus paykulli</i> or pantropical jumping spider	Around the window, catching house flies	11-03-2019	Yes	Photo id 9.	Google Lens
6	Rosy starlings	Around college campus	18-03-2019	Yes	Photo id 10.	AH
7	Brahminy blind snake, <i>Indotyphlops braminus</i> .	In college garden	18-03-2019	Yes	Photo id 11.	AH
8	<i>Naja naja</i> or spectacled cobra.	In college canteen	20-03-2019	Yes	Photo id 12.	AH
9	Indian jungle crow, Young ones with red beak	In college garden	26-04-2019	Yes	Photo id 13, 14.	AH
10	Purple-red-bourbon rose.	In college garden	14-05-2019	Yes	Photo id 15.	Google Lens
11	Asian common	Near college	14-09-	Yes.	Photo id 16,	SG.

	toad was seen with eating ant	entrance	2019		17.	
12	Barn owl, <i>Tyto alba</i>	Near college entrance	17-02-2018	Yes	Photo id 18.	AH
13	Chinese hibiscus or Shoeblack plant, <i>hibiscus rosa-sinensis</i>	In college garden	02-11-2019	Yes	Photo id 19.	AH
14	Yellow Paper wasp and its nest,	In college lab window	27-11-2020	Yes	Photo id 20.	SG
15	Pied bush-chat, <i>Saxicola caprata</i>	Around college campus	28-01-2020	Yes	Photo id 21.	AH. By call for the second time. As earlier seen in 2018.
16	Jungle myna, <i>Acridotheres fuscus</i>	Around college campus	09-12-2017	Yes	Photo id 22.	AH.
17	Lily moth, <i>Polytela gloriosae</i> (Fabricus 1781)	In corridor, on steps.	10-08-2020	Yes	Photo id 23, 24.	AH
18	Spittlebug	In college lawn.	23-08-2018	Yes	Photo id 25, 26.	AH
19	Indian monitor lizard	Outside college campus.	06-09-2018	Yes	Photo id 27.	AH
20	Asian Bullfrog, <i>hoplobatrachus tigerinus</i>	Near college entrance	10-10-2017	No	Photo id 28.	SG
21	Jungle myna	Around college campus	14-11-2017	Yes	Photo id 29.	AH.
22	Geometrid moth ??	In corridor, on steps.	30-11-2020	No	Photo id 30.	AH
23	Jaint honey bee, <i>Apis dorsata</i>	In corridor, on steps.	30-11-2020	Yes	Photo id 31.	AH
24	<i>Bradinopyga konkanensis</i> or konkan rock-dweller	Near college entrance	23-12-2017	Yes	Photo id 32, 33.	AH
25	<i>Calotes versicolor</i> or Garden lizard (juvenile)	Outside college campus.	17-11-2018	Yes	Photo id 34.	AH
26	Peacock moth or <i>Macaria notata</i>	In college lab	05-01-2018	Yes	Photo id 35.	AH
27	Convolvulus hawk moth	Near college entrance	19-02-2020.	Yes	Photo id 36.	Google Lens
28	Oleander hawk moth, <i>Daphnis nerii</i>	In college garden	24-02-2020.	Yes	Photo id 37, 38.	Google Lens
29	Tiger moth, <i>Thysanoptyx tetragona</i>	In corridor, on steps	04-03-2020	Yes	Photo id 39, 40.	Google Lens

- SG Stands for Mr. Sunilkumar Gupta and AH stands for Abhay Hule.

Table 2: Below is the list of the birds and animals seen around the campus without any photographic proof. They were noted down during the entire period of our study.

Serial number	Birds list without photos	Serial number	Animals list without photos	
1	Feral pigeon	1	The skink	
2	House sparrow	2	The snake skink	
3	House crow	3	The garden lizard	
4	Common myna	4	The earthworm	
5	Black kite	5	Millipede	
6	Asian Koel	6	Carpenter bee	
7	Purple rumped sunbird	7	Stick insect	
8	Vigour's sunbird <i>only seen in monsoon and one sighting</i>	8	House gecko	
9	White breasted kingfisher	9	Centipede	
10	Indian pond heron	10	Long legged spider	
11	Oriental magpie robin	11	Micro bat with specimen	
12	Rose ringed parakeet	12	Macro bat	
13	Alexandrine parakeet	13	Dragonfly	
14	Greater spotted eagle	14	Bracket fungus.	
15	Shikra	15	The red ant	
16	Painted stork in flight	16	The black ant larger ones.	
17	Wagtail species in flight may be grey wagtail	17	The Rattus bandicoot	
18	Cattle egret	18	The Indian shrew	
19	Asian pied starling	19	The mosquito	
20	Scaly breasted Munia	20	The grasshopper	
21	Ashy Prinia	21	The palm squirrel	
22	Black drongo	22	The house moth.	
23	Falcon species probably Shaheen falcon			
24	Common iora			
25	Coppersmith barbet			
26	Long tailed shrike			
27	Indian golden oriole			
28	White spotted fantail flycatcher			
29	Red vented bulbul			
30	Red whiskered bulbul			
31	Wire tailed swallow			
32	Common tailor bird.			



COVID-19 IMPACT ON NIFTY STOCKS

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ABSTRACT

Nifty is down about 31% from its recent record high of 12,430 hit on 20.01.2020, and more than 90% of the companies hit their 52-week low in March. As many as 45 companies out of Nifty50 have hit their multi-year low amid the volatility caused by the outbreak of COVID-19 virus across the countries. Foreign institutional investors (FIIs) have alone sold out more than Rs 60,000 cr from the cash segment of the Indian equity market in the month of March 2020. Most of the companies which are part of the index are blue-chip names and are leaders of their respective sectors. With the recent fall seen in the markets, many of the blue-chip names are trading at multi-year lows. This study analyses the impact of Covid 19 related announcements on NIFTY index stocks and finds out the effect of important announcements made by WHO and Indian Government on the prices of stocks

Keywords: Covid-19, NIFTY, Indian Equity Market, Stock Return

1. INTRODUCTION

Both retail and big investors are worried over the future of stock market. Volatility on exchanges were very high and stock market started to respond to COVID related announcements with knee jerk reactions. The question now is, “are these large cap top 50 stocks, good long-term buys?” Some of the stocks are going through a weakening of prices due to structural or industry-specific issues; hence, it does make sense to avoid. Whereas, some of them are under pressure due to bulk selling by institutions. It makes a valid case for retail investors who are looking at a long-term investment for the period 3 years and above. Because the volatility is likely to continue amidst the Coronavirus outbreak at least till the time a medically approved vaccine or treatments comes to affect. “Though there is no guarantee that stock market will show further downside due to on-going covid-19 issue and its impact on the economy, it is advisable that some caution is taken on the part of investors before making a buy or a sell decision. Positions in quality stocks can be made in a systematic manner keeping in view the risk profile of investor in order to avoid opportunity loss. Behavioural bias such as over confidence bias and herd behaviour may be seen in this type of scenario. Markets are in a grip of risk aversion due to the spread of covid-19 pandemic. Though the stocks have corrected significantly from their highs, the uncertainty involved in the markets has not abated given the escalation of new cases and casualties. In fact, at this point of time, market has regained some of the losses due to stimulus packages announced by various countries like US, European nations etc.

2. LITERATURE REVIEW

Martin Karlsson et al, in their study “The impact of the 1918 Spanish flu epidemic on economic performance in Sweden: An investigation into the consequences of an extraordinary mortality shock” studied the force of the 1918 flu virus on short- and medium-term financial show in Sweden. The epidemic was one of the worst diseases in creature times past, but it has up till now established only limited notice in the financial prose – regardless of in place of a supreme manpower upset. In this article, the authors exhibit apparently exogenous difference in occurrence toll between Swedish regions to approximation the force of the epidemic. The epidemic lead to a important boost in bad livelihood rates. There is also confirmation that resources proceeds were unconstructively impacted by the epidemic.

I.D. MillsFirst in the paper “The 1918-1919 Influenza Pandemic— the Indian Experience” recognized ninety-four influenza pandemics between 1175 and 1875 of which 15 were of virulent disease scope. From 1875 there have been supplementary epidemics in 1889-90, 1918-19, 1946, 1957-5/, 1968-70 and 1977. it makes the 1918-19 results of meticulous concern is not plainly its being as one of the successions, but the information measured to grade in admiration not only of complete but even of comparative death nor inferior than third and possibly still next ahead the revolve of huge pestilences. There was no pandemic of small pox or cholera, not even the typhus period of the previous nineteenth century, can compete with the flu of 1918-19 as agents of destruction.

Lars Jonung et al in “The Macroeconomic Effects of a Pandemic in Europe - a Model-Based Assessment” tale the likely major financial consequence of a deadly disease captivating position in the EU in 2006, a periodical monetary replica. The macroeconomic outlay of a virulent disease, that is the price in stipulations of making lost owing to sickness and fatality calculated as decline in GDP increase and/or turn down in the point of GDP, are compute in a mixture of virulent disease picture. The authors spotlight on two sectors of the European economy

that are anticipated to be chiefly harshly hit visiting the attractions and deal. The fallout is contrast with those get hold of in alike learn for the United States and Canada.

3. RESEARCH METHODOLOGY

This paper is based on analytical research. The shares of companies which are indexed in NSE's NIFTY 50 is considered for analysis. The price quotes have gathered from the website of National Stock Exchange(www1.nseindia.com). All the fifty firms were clubbed under fourteen sectors such as Automobile, Cement, Construction, Consumer Goods, Fertilizers, Financial Services, Information Technology (IT), Oil & Gas, Media and Entertainment, Metals, Power, Pharma, Telecom and Services. The study has considered the impact of two major events on the share prices and share returns of fourteen sectors. The events considered in this study are:

Announcement of COVID-19 as global pandemic by World Health Organization (WHO).

Announcement of 21 days lock down for India by Indian Prime Minister.

Tools applied to analyse the data

Return of the shares

Mean return of the shares

Paired t test

One-way ANOVA

3. HYPOTHESES OF THE STUDY

H01: There is no significant difference existed among the different sectors' share returns during the announcement of COVID-19 as global pandemic by WHO

H02: There is no significant difference existed among different sectors' share returns during the announcement of 21 days lock down in India.

H03: There is no effect of announcement of Covid-19 as global pandemic by WHO on the different sectors' share prices

H04: There is no effect of announcement of 21 days lockdown on the different sectors' share prices

4. OBJECTIVES OF THE STUDY

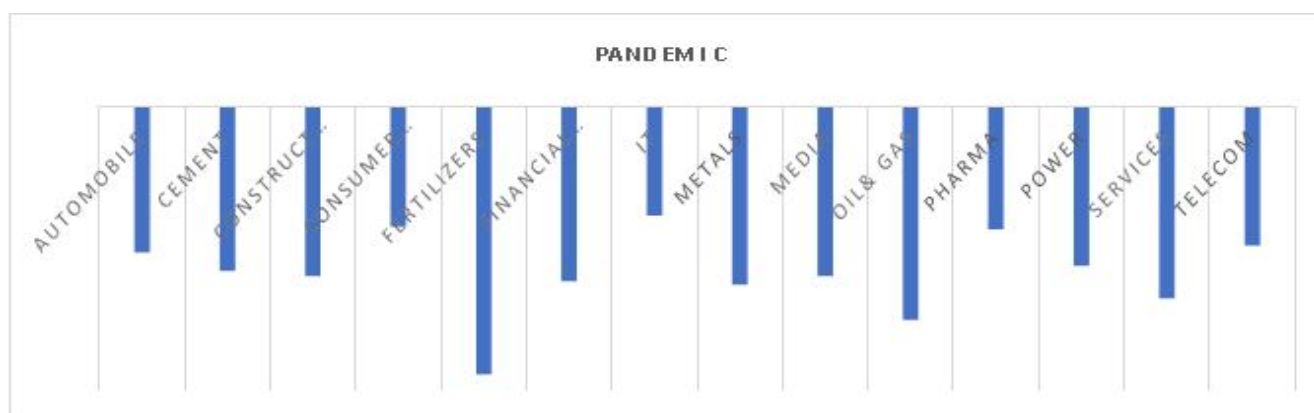
To study the impact of COVID-19 on the returns of stocks indexed in NSE's NIFTY 50.

To find out the effect of important announcements made by WHO and Indian Government on the prices of stocks.

To ascertain the level of difference existed among different sectors' stock returns during covid- 19 announcements.

5. DATA ANALYSIS AND INTERPRETATION

Figure 1- Mean Return of Shares of Various Sectors during Pandemic Announcement made by WHO



Source: Data collected from National Stock Exchange website

It could be observed from the figure 1 that among the fourteen sectors indexed under NIFTY 50 the shares of financial services sector have fared the highest negative mean returns of 14.19 percent during the global

pandemic announcement followed by the pharma sector with the negative mean returns of 11.3 per cent. All the sectors indexed under NIFTY 50 have reported with negative mean returns during the pandemic announcement.

Table 1: Paired t Test on The Effect of Announcement of Covid-19 As Global Pandemic By WHO on Different Sectors' Share Prices

Sectors	Event Pair	Mean	S.D	t-value	Df	Sig.(2 tailed)
Automobile Sector	Pre- Event	4885.183	44.62	-41.355	4	.000**
	Post Event	4485.375	188.51			
Cement and Cement Products	Pre- Event	9279.92	248.61	11.93	4	.000**
	Post Event	8107.2	309.93			
Construction	Pre- Event	1160.24	33.93	11.24	4	.000**
	Post Event	979.6	56.57			
Consumer Goods	Pre- Event	4150.08	54	6.23	4	.003**
	Post Event	3700.2	178.34			
Fertilisers and Pesticides	Pre- Event	515.16	3.91	6.57	4	.003**
	Post Event	380.78	48.04			
Financial Services	Pre- Event	2259.57	79.91	9.112	4	.001**
	Post Event	1862.08	162.19			
IT & ITES	Pre- Event	864.43	28.04	13.24	4	.000**
	Post Event	708.91	35.98			
Media & Entertainment	Pre- Event	231.32	24.07	6.72	4	.003**
	Post Event	167.4	22.17			
Metals	Pre- Event	208.49	11.92	11.91	4	.000**
	Post Event	165.21	10.49			
Oil & Gas	Pre- Event	393.15	26.92	9.79	4	.001**
	Post Event	315.61	14.83			
Pharma	Pre- Event	1320.26	27.36	9.8	4	.001**
	Post Event	1190.46	33.57			
Power	Pre- Event	148.9	4.29	11.93	4	.000**
	Post Event	124.99	7.92			
Services	Pre- Event	341.14	11.12	10.93	4	.000**
	Post Event	273.87	15.23			
Telecom	Pre- Event	364.96	7.36	3.76	4	.020**
	Post Event	330.41	26.98			
All Stocks in Nifty	Pre- Event	2340.8	44.28	10.163	4	.001**
	Post Event	2050.77	95.69			

Source: Data collected from National Stock Exchange website Note : ** statistically significant at 5% level

One could observe from the results of Paired t test which was applied to find out the effect of announcement of Covid-19 as global pandemic by WHO on the different sectors' share prices that the null hypothesis has rejected at 5 percent level of significance. It could be inferred that the shares of various sectors such as automobile, cement, construction, consumer goods, financial services, fertilisers, IT and ITES, Media, Metals, Oil and Gas, Power, Pharma, Services and telecom indexed under NSE's major index Nifty 50 have an impact due to the announcement of Covid-19 as global pandemic by WHO.

Table 2: Paired t Test on the Effect Of Announcement Of 21 Days Lock Down On Different Sectors' Share Prices

Sectors	Event Pair	Mean	S.D	t-value	Df	Sig.(2 tailed)
Automobile Sector	Pre- Event	4133.06	332.26	3.17	4	.034**
	Post Event	3777.83	191.96			
Cement and Cement Products	Pre- Event	7466.6	482.77	1.84	4	0.14
	Post Event	7025.51	114.64			
Construction	Pre- Event	858.63	86.78	1.091	4	0.337
	Post Event	809.59	30.01			

Consumer Goods	Pre- Event	3453.75	183.78	-2.38	4	.075*
	Post Event	3785.56	150.94			
Fertilisers and Pesticides	Pre- Event	304.84	35.41	-0.36	4	0.737
	Post Event	312.5	13.17			
Financial Services	Pre- Event	1562.33	194.59	2.21	4	.091*
	Post Event	1380.16	67.21			
IT & ITES	Pre- Event	679.65	13.23	-5.19	4	.007**
	Post Event	714	5.54			
Media & Entertainment	Pre- Event	141.06	15.59	2.355	4	.078*
	Post Event	126.38	1.97			
Metals	Pre- Event	151.07	8.63	1.974	4	0.12
	Post Event	142.06	3.43			
Oil & Gas	Pre- Event	300.21	18.8	-1.17	4	0.307
	Post Event	314.55	10.34			
Pharma	Pre- Event	1163.52	38.81	-3.78	4	.020**
	Post Event	1242.4	34.62			
Power	Pre- Event	116.82	5.35	-0.672	4	0.538
	Post Event	119.16	2.71			
Services	Pre- Event	250.01	23.94	-0.15	4	0.888
	Post Event	251.6	2.63			
Telecom	Pre- Event	295.49	19.56	-0.339	4	0.751
	Post Event	299.66	9.71			
All Stocks in Nifty	Pre- Event	1870.12	132.15	0.863	4	0.437
	Post Event	1815.93	29.68			

Source: Data collected from National Stock Exchange website

Note : ** statistically significant at 5% level * statistically significant at 10% level.

It could be found from the results of Paired t test that the announcement of 21 days lock down by Indian Government has impacted on the prices of shares from automobile, Information Technology and Pharma sectors. Therefore, the null hypothesis has rejected at 5 percent level. It could be further inferred that the lock down announcement has impacted the share prices of companies from the sectors of Media, Consumer goods and financial services. Hence, the null hypotheses rejected at 10% level of significance. On the other hand, it could be identified that there existed no significance effect of announcement of lock down on the prices of shares from cement, construction, fertilizers, metals, oil & gas, power, services and telecom sectors. Hence, the null hypotheses accepted at 5% level of significance.

Table 3: Analysis of variance of mean stock returns of various sectors during Announcements

		Sum of Squares	df	Mean Square	F	Sig.
Difference of returns among various sectors during WHO announcement	Between Groups	212.141	13	16.319	1.857	.071*
	Within Groups	316.338	36	8.787		
	Total	528.479	49			
Difference of returns among various sectors during 21 days lockdown by India	Between Groups	248.843	13	19.142	1.060	.421
	Within Groups	649.969	36	18.055		
	Total	898.811	49			
Difference of Various sector returns between announcements of WHO and Government of India	Between Groups	4070.950	1	4070.950	279.518	.000**
	Within Groups	1427.290	98	14.564		
	Total	5498.241	99			

Source: Data collected from National Stock Exchange website

Note : ** statistically significant at 5% level * statistically significant at 10% level.

It could be obtained from results of one-way analysis of variance that the null hypothesis has rejected ($F=1.857$, $p=0.071$) at 10% level of significance. Hence, it is inferred that there existed significant difference among the different sectors in terms of mean share return during the announcement of COVID-19 as global pandemic by WHO. It could be found from the results of one-way analysis of variance among different sectors in terms of mean share return during the announcement of lock down by India that the null hypothesis has accepted at 5% level of significance ($F=1.060$, $p=.421$). Hence, there existed no significant difference among different sectors in terms of mean share return during the announcement of lockdown in India.

The results of one-way analysis of variance depicted that the null hypotheses have rejected at 5% level of significance ($F=279.518$, $p=.000$). Hence, it could be stated as there existed significant difference among the mean returns of various sectors in terms of announcements made by WHO and Indian Government.

6. CONCLUSION

Results of the study show that the impact of Covid-19 Announcements on NIFTY Stocks varied among various sectors; the financial sector demonstrated highest negative return followed by the pharmaceutical sector. All sectors have reported negative performance amid covid-19 pandemic. Sectors like fertilizers and services provided highest mean return. After the major announcements, stock markets started rising mainly due to the stimulus packages announced by the various Governments.

7. REFERENCES

1. Karlsson, M., Nilsson, T., & Pichler, S. (2014). The impact of the 1918 Spanish flu epidemic on economic performance in Sweden: An investigation into the consequences of an extraordinary mortality shock. *Journal of health economics*, 36, 1-19.
2. Mills, I. D. (1986). The 1918-1919 influenza pandemic— the Indian experience. *The Indian Economic & Social History Review*, 23(1), 1-40.
3. Meltzer, M. I., Cox, N. J., & Fukuda, K. (1999). The economic impact of pandemic influenza in the United States: priorities for intervention. *Emerging infectious diseases*, 5(5), 659.
4. Alfani, G. (2010). The effects of plague on the distribution of property: Ivrea, Northern Italy 1630. *Population Studies*, 64(1), 61-75.
5. Jonung, L., & Roeger, W. (2006). The macroeconomic effects of a pandemic in Europe-A model-based assessment. Available at SSRN 920851.
6. Barker, L., & Bacon, F. (2015). THE EBOLA OUTBREAK: A TEST OF MARKET EFFICIENCY. In *Allied Academies International Conference. Academy of Accounting and Financial Studies. Proceedings* (Vol. 20, No. 1, p. 2). Jordan Whitney Enterprises, Inc.
7. Jiang, Y., Zhang, Y., Ma, C., Wang, Q., Xu, C., Donovan, C., ... & Sun, W. (2017). H7N9 not only endanger human health but also hit stock marketing. *Advances in disease control and prevention*, 2(1), 1.
8. Loh, E. (2006). The impact of SARS on the performance and risk profile of airline stocks. *International Journal of Transport Economics/Rivista internazionale di economia dei trasporti*, 401-422.
9. Dreyer, A., Kritzing, G., & Decker, J. D. (2007, June). Assessing the Impact of a Pandemic on the Life Insurance Industry in South Africa. In *1st IAA Life Colloquium*, Stockholm.
10. Siu, A., & Wong, Y. R. (2004). Economic impact of SARS: the case of Hong Kong. *Asian Economic Papers*, 3(1), 62-83.
11. Sankararaman, G., Suresh, S., & Thomas, T. C. Impact of Economic Decisions on Behaviour of Bombay Stock Exchange in India. *International Journal of Recent Technology and Engineering (IJRTE)* ISSN: 2277- 3878, Volume-7, Issue-6S5, April 2019.

THE RELATIONSHIP BETWEEN SPIRITUAL INTELLIGENCE AND ITS COMPONENTS WITH PSYCHOLOGICAL WELL-BEING OF UNIVERSITY STUDENTS

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ABSTRACT

In order to solve queries related to existence and meaning in life, the term Spiritual intelligence was devised. It integrates the relation between human beings and the surroundings around. A spiritually intelligent individual possesses the Psychological well as add on. The purpose of this study was to assess the relationship between spiritual intelligence and its components with psychological well-being among the students of Jammu University.

The study was a descriptive correlation study. In this study, 200 students were selected from University of Jammu through convenient sampling. Data were collected through questionnaires including demographic characteristics, a 24-item questionnaire of spiritual intelligence and its four components and psychological well-being questionnaire having 42 questions was selected. The data obtained from the questionnaires were analyzed through SPSS software. The results showed that there was a significant relationship between spiritual intelligence and psychological well-being of University students. Furthermore, there was a significant association between the components of spiritual intelligence including conscious state expansion, personal meaning production, transcendental awareness, and critical existential thinking with psychological well-being.

Conclusion:

High level of spiritual intelligence in students help them to improve their psychological well-being and which can lead to the achievement of their goals in life.

Keywords: *Spiritual Intelligence, University students, psychological well being.*

INTRODUCTION

Intelligence was considered as an ability for cognitive processes by Alfred Binet in the early 20th century, but now the meaning of intelligence has been changed and also includes other domains such as emotional intelligence and spiritual intelligence also. Salovey considered human intelligence as not only a collaboration of cognitive abilities, but emotional aspect also.

One of the most prime models constructing psychological well-being is multi-dimensional Psychological well-being Scales by Carol Ryff. Ryff considers psychological well-being as an individuals' endeavour to satisfy their potentials and abilities. This model has been evolved and devised by integrating various theories of personal growth and adaptive functions. Some of the researchers consider Psychological well-being through specific components like emotional processes. Some lay stress on physical processes and also stipulate an association between good quality of life and physical health.

Some researchers also describe psychological well-being as a cognitive process with life satisfaction as its indicator. Some researchers, while describing intelligence, opined the role of spiritual processes like having a goal in life to get optimum level of functioning.

MATERIALS AND METHODS

It is a descriptive correlation study on 200 subjects selected through convenient sampling from the students studying in different departments of University of Jammu for finding out the relationship of psychological well-being with spiritual intelligence and its components among students. Data collection tool included four questionnaires: Demographic characteristics including age, gender, religion, Area: Rural/ urban, family type: Nuclear/ Joint, No. of Siblings, birth order of the child, educational qualification of Mother and father, Monthly Income of the family and Believe in existence of God

The Spiritual intelligence Self report inventory by David King (2008) containing four components of 24 items (Critical Existential Thinking, Personal Meaning Production, Transcendental Awareness, and Conscious State Expansion) which were scored 0-4

Ryff Scales of Psychological Well-being included six components of self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth, which were scored in a Likert 6-point scale from agree to disagree. with 42 questions.

The subjects were explained about the questionnaires and later on collected. The data was analyzed by descriptive statistical tests (concrete and relative frequency distribution, mean and SD) and inferential statistical tests (Pearson correlation coefficient) through SPSS.

RESULTS

Table

Correlation coefficient between spiritual intelligence and psychological well-being

VARIABLES	NO.	r	P
<i>Spiritual Intelligence and Psychological well-being</i>	200	.45	.001
<i>Critical Existential Thinking</i>	200	.23	.002
<i>Personal Meaning Production</i>	200	.51	.001
<i>Transcendental Awareness</i>	200	.23	.02
<i>Conscious State Expansion</i>	200	.43	.001

DISCUSSION AND CONCLUSION

In this study, significant association was not found between and demographic details and spiritual intelligence like Age, Gender, Address, rural/ urban, Joint or Nuclear family, Education qualification of the mother and father, Monthly income of the family. With respect to the association between spiritual intelligence with psychological well-being, Pearson correlation coefficient was 0.45 ($P = 0.001$) which indicated the association between the two.. With respect to the association of each component of spiritual intelligence with psychological well-being, Pearson correlation coefficient was 0.43 ($P = 0.001$) for conscious state expansion, 0.51 ($P = 0.001$) for personal meaning production, 0.23 ($P = 0.02$) for transcendental awareness, and 0.23 ($P = 0.002$) for critical existential thinking [Table 1].

Spiritual intelligence is the ultimate intelligence that reflects basic values along with meanings, incorporating mental adaptation potentialities in the direction of non-materialistic and non-mandatory aspects. It incorporates spiritual inceptions, values, and stipulations those enhance individuals daily affairs along with the health. Individuals scoring high on spiritual intelligence outstrip the body and also material. Spiritually intelligent people acquaint them with the optimum level of consciousness, solve problems through spiritual sources, and are eventually characterized by reticence, forgiveness, fair mindedness, and humanity.

Experiencing no pressure, apprehension, panic and anxiety, along with the increase of spiritual growth fabricate individuals stronger and accomplish opportunities to participate in innovative enterprises while doing their jobs more purposefully. Spiritual intelligence not only makes the individual fearless for accepting any change but also grows his productivity. Spiritual intelligence helps the individuals in regulating their emotions required for balanced personality.

REFERENCES

1. Rajai A. Spiritual intelligence: Perspectives and challenges. *J Islamic Azad Univ Bojnourd*. 2010;21–50.
2. Samadi P. Spiritual intelligence. *Journal of Modern Educational Thoughts. Faculty of Educational Sciences and Psychology. Faculty Alzahra Tehran*. 2006;2:99–144. [Google Scholar]
3. Lambert VA, Lambert CE, Petlini M, Li XM, Zhang YJ. Workplace and personal factors associated with physical and mental health in hospital nurses china. *Nurse Health Sci*. 2007;9:120–6. [PubMed] [Google Scholar]
4. Michael Manie F. Structural relationship between psychological wellbeing and perceived emotional intelligence, the ability to control negative thinking and depression in mothers of children with mental retardation compared with normal children. *Exceptional children research. ninth. Num 2*. 2008:103–20. [Google Scholar]
5. Shecari O, Gravnd F, Zin Abadi H, Poor Danshvar Z, Ghanai Z, Dastjerdi R. Bhrysty gender differences in psychological measures in the public university students Birjand in the 2006-2005 school year. *J Med Sci*. 2008;15:54. [Google Scholar]
6. Ghadiri M, Jon Bozorgi M. Relationship of demographic factors in life. *Psychology and religion, the second year, ghom*. 2009;2:131–56. Available from: <http://ravanshenasi.nashriyat.ir> . [Google Scholar]

7. Yaghobi A, Zoghi M, Abdolazadeh H, Mohagheghy H. The relationship between mental health and spiritual intelligence Synahmdan Bouali University academic year 2007-2008, paper presented at the Fourth National Conference on Student Mental Health, Shiraz University. 2008 [Google Scholar]
8. Nadery F, Asgari P, Roshani K, Mehri Adryany M. *Journal New Findings in Psychology*. The Islamic Azad University of Ahvaz; 2008. Relationship and spiritual intelligence emotional intelligence with life satisfaction of elderly; pp. 127–138. [Google Scholar]
9. Aghababaei N, Farahani H, Rahimi Nejad A. The characteristics assessment of spiritual intelligence machinery in the short questionnaire study. *J Psychol Sci*. 2010;9:169–179. [Google Scholar]
10. Cheraghi M, Arizi H, Farahani H. *Journal of Psychology*. Faculty of Psychology and Educational Sciences, Tehran University; 2008. The assessment validity, reliability, and factor analysis of questionnaire purpose in life Grambaf and Mahulyk; pp. 396–413. [Google Scholar]
11. Biani A, Goodarzi H, Mohammadkochaci A. The relationship the dimensions of psychological well-being and general health in the Islamic Azad University Isfahan (khorasgan) *J Knowl Res Psychol*. 2008;35-36:153. [Google Scholar]
12. Bagheri F, Akbarizade F, Hatami H. The relationship between nurse's spiritual intelligence and happiness in Iran. *Procedia Soc Behav Sci*. 2010:1556–61. [Google Scholar]
13. Yang KP. The spiritual intelligence of nurses in Taiwan. *J Nurs Res*. 2006;14:24–35. [PubMed] [Google Scholar]
14. Yang KP, Moa XY. A study of nurse's spiritual intelligence: Across-sectional questionnaire survey. *Int J Nurs Stud*. 2007;44:999–1010. [PubMed] [Google Scholar]
15. Abdullah Zadeh H, Bagher-Pour M, Bvzhmhrany C, Lotfi M. Tehran: Psychometric Publishing Center; 2008. Spiritual intelligence. [Google Scholar]
16. Mohammad Sahebalzamani Hojjatollah Farahani, Reza Abasi, and Mehdi Talebi The relationship between spiritual intelligence with psychological well-being and purpose in life of nurses Iranian journal of Nursing and Midwifery Research 2013 Jan-Feb; 18(1): 38–41.

AN EMPIRICAL STUDY UNFOLDING THE HIATUS IN CREATING AWARENESS REGARDING GREEN PRODUCTS AMONG RETAILERS OF GUJARAT

Anjali Manglani

ABSTRACT

Retailers of any stream are holding a significant place as they are the key player of entire supply chain. A green product is a product which contains various environment friendly features in it. This study tries to explore retailers' awareness regarding same. The study is conducted among 30 retailers from different regions of Gujarat state. The sample for the study is collected by convenience random sampling with the help of a structured questionnaire. The study has tried to reveal the significance of awareness regarding green marketing practices and a green product among retailers and how this can contribute in spreading awareness further. The study explored various reasons behind unawareness and also it tries to present significant sources for spreading information. The results disclosed that only two sources of information are contributing significantly i.e. whole-seller/dealer and product label. Further they also disclosed their relationship with various features of a green product. To analyze the data frequency distribution, Weighted Average Mean and One-way ANOVA is applied in the study. The study concluded by disclosing the importance awareness about green products and manufacturers' contribution in generating and spreading awareness among FMCG retailers as well as the entire down-stream of FMCG.

Key Words: Green Products, Awareness, Retailers

INTRODUCTION:

Retailers of any stream are holding a significant place as they are the key player of entire supply chain. A company's product is been mostly promoted by a retailer as they are the only stake holder that comes directly in front of consumers/customers for selling a company's product. Green marketing practices are those practices which are pursued by taking care of environment as the crucial base for performing any commercial activity right from manufacturing till disposal of a product's packaging. A green product is a product which contains various environmental features in it. This study tries to explore retailers' awareness regarding same. The study has tried to reveal the significance of awareness regarding green marketing practices and a green product among retailers and how this can contribute in spreading awareness further.

OBJECTIVES:

1. To examine level of awareness among FMCG retailers with regard to Green products.
2. To identify the reason behind lack of awareness among FMCG retailers.

REVIEW OF LITERATURE:

Anna Siefken; Lindsey Gertler (2008) has tried to explore the trends among consumers regarding environment and retailers' perception; how efficiently energy consumption contributes in making retail green; case studies of green market players i.e. "Wal-Mart, The Home Depot, Best Buy and Amazon.com" and tried to explore the strategies that made retail green successfully.

Dr. Anubha Vashisht; Dr. Bharti Wadhwa; Prof. Aakansha Uppal (2013) has made an attempt to examine the level of awareness regarding green marketing among consumers and retailers. Also, study included consumer's attitude factors affecting buying behavior and certain key advices to promoters.

Dr.P.Mohanraj; Mr.S.Rajesh (2018) has derived the prospects pertaining to future scenario of retail industry with regard to green marketing practices. The study aimed to examine the demographic profile of green retailers of Erode district and to evaluate them with regard to green marketing.

G.Deepalakshmi (2019) conducted a quantitative study to explore the awareness among retailers regarding green marketing and its significance on environment. This was a descriptive study conducted with the help of primary as well as secondary data.

K.Sathiya Priya; ERB. PRATIKSHA (2019) has explored present and future scenario of green marketing with regard to manufacturers, retailers and consumers along with upcoming various challenges and future scope of growing in green marketing.

RESEARCH METHODOLOGY:

To accomplish the research objectives the study is conducted among 30 retailers from various districts of Gujarat state. The data is collected through convenience random sampling with the help of a structured

questionnaire is used as an instrument for collecting the data for the study. The study is analyzed by One way ANOVA for hypothesis testing, Weighted Average Mean and Frequency Distribution for representing significant data and figures. To pursue the analysis, Cronbach's alpha is determined to check the correlation among variables and reliability of the instrument. The value of Cronbach's alpha is determined as 0.883 which is highly significant.

HYPOTHESIS FOR THE STUDY:

Ha: Various sources of information are contributing significantly in creating awareness among retailers

Ha1: Awareness is having significant relation with various sources of information

Ha2: Various sources of information are contributing significantly in creating awareness regarding various features of a green product among retailers

ANALYSIS AND INTERPRETATION:

The study is undertaken in Gujarat among 30 FMCG retailers. The study disclosed that out of 30 retailers, only 6 retailers are aware about green products and 24 retailers are unaware which is a huge number pertaining to sample size of the study. For increasing awareness among retailers, it is necessary to identify the significant source of information from which retailers are able to create awareness.

Researcher inquired from retailers regarding various sources which included 'News Papers, various periodicals or magazine, journals, labels on a product, e-commerce and social media portals, events such as conference or exhibitions, brochure of a respective company, respective company's website or advertisement and information generated via whole seller or a dealer'. The results disclosed that out of above all the means of generating information only two sources contributed significantly to retailers' awareness. From 6 aware retailers, majority of retailers gained knowledge about green products with the help only two sources of information i.e. '**a whole seller or dealer and from product's label**'. To examine the significance of both the sources with retailers' awareness One-way ANOVA is applied. The results disclosed that both the sources of information i.e. a whole seller or dealer has significance value of **0.000** and product's label has significance value of **0.043** are having significant relation with awareness as the value is significance is below 0.05.

Therefore, alternative hypothesis is accepted; Ha1: Awareness is having significant relation with various sources of information.

To explore the contribution of each of the two sources critically, One way ANOVA is applied between all the features of a green product and both the sources of awareness. A Green Product has following features along with their relation with relevant source of awareness.

Table No.1: Features of a Green Product and their Sources of Information

Features of a Green Product	Product's Label	Whole-Seller/Dealer	Interpretation
Use of renewable resources in manufacturing a product	0.479	0.000	Only Whole-Seller/Dealer Contributed Significantly
Energy (Electricity Power) efficient manufacturing	0.479	0.000	Only Whole-Seller/Dealer Contributed Significantly
Water efficient manufacturing practices	0.479	0.000	Only Whole-Seller/Dealer Contributed Significantly
Less pollution from manufacturing practices (reduced CO ₂ /GHG emissions)	0.282	0.000	Only Whole-Seller/Dealer Contributed Significantly
Minimum waste from manufacturing process/ Efficient waste management	0.658	0.000	Only Whole-Seller/Dealer Contributed

Products are not tested on animals (this can be known with the help of label on product)	0.785	0.000	Significantly Only Whole-Seller/Dealer Contributed Significantly
Packaging is biodegradable/compostable (this can be known with the help of label on product)	0.001	0.000	Both the sources Contributed Significantly
ISO Certificate for environment (e.g. ISO 14001, etc.) this can be known with the help of label on product	0.010	0.001	Both the sources Contributed Significantly
Type of Plastic is recyclable or reusable or both or recoverable (this can be known with the help of label on product)	0.028	0.000	Both the sources Contributed Significantly
Any other green label (e.g. Green dot) except labels mentioned above	0.000	0.001	Both the sources Contributed Significantly
Use of renewable energy in manufacturing a product such as biomass, bio fuel, Agro waste, PNG, etc. with replacement to fossil fuel.	0.102	0.000	Only Whole-Seller/Dealer Contributed Significantly
Eco friendly logistics	0.014	0.000	Both the sources Contributed Significantly

The results disclosed that the Alternate Hypothesis is accepted; Ha2: Various sources of information are contributing significantly in creating awareness regarding various features of a green product among retailers.

Hence, the main alternate hypothesis is accepted i.e. Ha: Various sources of information are contributing significantly in creating awareness among retailers.

To examine the reason behind unawareness among retailers a question pertaining with Likert Scale was asked to retailers which consists of various reasons behind unawareness. To analyze the obtained responses weighted average mean is applied and the results are disclosed as below:

Table No. 2: Weighted Average Mean for Reasons behind Unawareness

	Lack of Advertisement	Poor communication from company's side about their Green Marketing and Green Manufacturing Practices	Lack of information/awareness among dealers/whole sellers regarding green marketing practices in Indian FMCG sector	Consumers' lack of awareness about Green Marketing Practices and Green FMCG Product	Lack of demand for Green FMCG Product from consumers' side	Poor understanding about green marketing practices
Strongly Agree	75	85	95	90	85	105
Agree	12	12	8	12	16	8
Neutral	12	6	-	-	9	-
Dis-Agree	4	4	6	-	-	2
Strongly Dis-Agree	-	-	-	-	-	-
Total	103	107	109	102	110	115
WAM	6.866667	7.133333	7.266667	6.8	7.333333	7.666667

Poor Understanding about green marketing practices is the main reason which gained the maximum weight among all the reasons i.e. 7.666667 but rest all the reasons are also having significant weights relevant to the highest weight. That means all the above mentioned reasons are significantly responsible behind the unawareness among retailers.

FINDINGS AND IMPLICATIONS OF THE STUDY:

Retailers are the significant stakeholders in a supply chain. Also, retailers are the only stakeholders that come directly in contact with the main consumers. Retailers can play a vital role in spreading awareness about green marketing practices among consumers as well as whole sellers and dealers. As retailer is the common factor between both the stake holders. Therefore it is necessary to make retailers aware about green products. Here, the study disclosed that very few retailers are aware regarding green products, the reasons behind their unawareness and there are only two main sources of information contributing significantly in creating awareness among retailers. To make maximum retailers aware it is required to utilize all the salient sources of spreading information actively by manufacturers. As a whole seller deals with multiple retailers as well as a retailer deals with multiple whole sellers, a spread of green information becomes easy if manufacturing company participates in spreading awareness among them. The down-stream supply chain of FMCG products can contribute in supply of products as well as supply of salient information about green products associated with respective company. This will result not only in increased awareness among retailers but will also help to spread awareness among entire supply chain stake holders.

LIMITATIONS AND SCOPE OF THE STUDY:

This study is limited in between 30 retailers within Gujarat state. To gain more precise reasons behind unawareness and to explore more sources for spreading the information, a more detailed study among a bigger sample size of retailers. Also, this can be conducted within entire down-stream to gain a meaning full and significant insight towards awareness of green products.

REFERENCES:

- Deepalakshmi , G. (2019). Awareness of Green Marketing in Retailing and its Impact in Environment. *International Journal of Innovative Technology and Exploring Engineering (IJITEE)*, 9(2S3), 440-444.
- Dr.P.Mohanraj, & Mr.S.Rajesh. (2018). A Study On Impact Of Retailing In Green Marketing In Erode District. *International Journal of Business and Management Invention (IJBMI)*, 7(9 Ver.1), 18-22.
- DrAnubhaVashisht*, D. P. (2013). Study on Awareness Level of Retailers as Well as Consumers Towards Green Marketing. *SSRN Electronic Journal*, 1-12.
- PRIYA, K., & ERB.PRATIKSHA. (2019). A Study on Green Marketing in Retail Industry with Special Reference to Coimbatore City. *International Journal for Research in Engineering Application & Management (IJREAM)*, 4(10), 675-682.
- Siefken, A., & Gertler, L. (2008). The Greening of Retail—Opportunities for Increased Retail Engagement on Energy Efficiency. *ACEEE Summer Study on Energy Efficiency in Buildings*, 260-273.

THE ASSOCIATION AMONG WORKING CAPITAL MANAGEMENT AND PROFITABILITY OF TELECOMMUNICATION FIRMS

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ABSTRACT

This research study aims to examine working capital management practice carried out by Tele Communication companies listed on BSE/NSE. The study tries to undertake the data evaluation of selected variables for the tenure of ten years i.e. 2010-2019. The aim of this study is get to know association between dependent and independent component. Dependent Variable is a profit after tax to sales ratio and Independent Variables is a Sales Growth Rate, Cash, Bank & Marketable Security, Fixed Assets Turnover Ratio, and Long Term Debt Equity Ratio. Matrix of Co-efficient of Correlations, Descriptive and Regression has been used for analysis. The result shows that only two variables has moderately significant and positive relation among Cash, Bank & Marketable Security, Fixed Assets Turnover Ratio and profit after tax to sale ratio and rest of two variable viz. Sales Growth Rate and Long Term Debt Equity Ratio has insignificantly positive relation with profit after tax to sale ratio.

Keywords: Sales Growth Rate, Cash, Bank & Marketable Security, Regression

INTRODUCTION

When a corporation invests in current assets, it has been think about as working capital in the custom sensibility. All industrial corporations' is effect by working capital management resolution as it has an effect on the liquidity of the company. Working capital management is precisely important part for management day to day costs. . Working capital management is exercise that bears current ratio. Working capital management is a tool of business. Deprived of working capital management is a necessity for every prosperous occupational. Alike to long term asset resolutions there has to be a proper evaluation of the merits and demerits with respect to every element of current assets while taking working capital results. Cash flow plays a dynamic role in working capital resolutions and long term investment resolution. The important part of variance with respect to long term resolutions and working capital results is the time line of management practice. Working capital conclusions in the usual situation has an effect on the cash flows of the company for a short time i.e. maximum one year.

LITERATURE REVIEW

Shikha Bhatia, Aman Srivastava (2016) in their study 179 firm a sample of 179 firms listed on S&P for the period of 13 years i.e. 2002 to 2014. They had taken gross operating profit and Tobin's Q as dependent variable and cash conversion cycle accounts receivable days, inventory days and accounts payable days as independent variable and size, sales growth, leverage, fixed financial assets, variability of net operating income and growth in GDP as control variables. Descriptive, regression, correlation analysis, panel data analysis have been used for this study. Result indicates that independent and control have significantly influence on profitability.

Dr. Benjamin Owuor Ombok, Judith Auma Omanga and Grace Ivy A. Odongo (2017) analysed four sugar companies over a period of ten years i.e. 2005 to 2014. They had taken return on assets as dependent variable and Average collection period (ACP); Inventory turnover in days (ITO); Average payment period (APP) and Cash conversion cycle as independent variables. Regression analysis and penal data methodology have been used in this study. It was notice that all independent components had a more impact on profitability.

Dr. Johnson Abiodun Oladimeji & Dr. Olufemi Aladejebi (2020) examine 30 SMEs for the period of 5 years i.e. 2014 to 2018. They had taken return on assets as dependent variable and Account Collection Period, Inventory Conversion Period, Average Payment Period, Cash Conversion Cycle, Debt Ratio, Current Ratio and Quick Ratio as independent variables. They were used descriptive statistics, correlation and regression analysis. It was notice that there is insignificant association among independent variable and profitability. Point out that there is negative relationship with Account Collection Period, Average Payment Period and profitability.

Zbigniew Gołaś (2020) examined 76 police milk industry over a time period of ten years with the span of 2008 to 2017. Researcher had taken return on assets as dependent variable and Days Sales of Inventory, Days Sales Outstanding, Days Payable Outstanding and the Cash Conversion Cycle as independent variables. Descriptive, matrix correlation and regression analysis have been used in this study. Results indicate that there is negative association among profitability and working capital cycle.

Phadindra Kumar Poudel and Pujan Maharjan (2020) examine the performance of 10 non-financial companies over a period of five years i.e. 2071-72 to 2075-76. The variable measure return on assets as dependent variable and days sales outstanding, days inventory outstanding, cash conversion cycle, current ratio as independent variable. Descriptive, correlation, regression analysis have been used in this study. It was notice that there is significantly positive relationship among current ratio and profitability. Point out that there is significantly negative association among Days' sales outstanding and financial performance of the company.

Dr. Namita Yash (2021) examined the dabur India ltd. company over a time period of 15 years i.e. 2005-06 to 2019-20. She considered current assets, current liability, net working capital, inventory turnover ratio, receivable turnover ratio, cash turnover ratio, working capital turnover ratio, gross working capital, total assets, working capital leverage return on net worth ratio and liquidity ratio as variable. She used ratio analysis, rank test, averages, standard deviation, co-efficient variations, and correlation coefficient. Result shows that there is negative relationship with profitability and liquidity.

RESEARCH METHODOLOGY

This study has measured only fourteen telecom companies over a time period of ten years i.e. 2009 to 2019. The evidence was acquired from Capitaline database. The aim of this study is get to know association between dependent and independent component. Dependent Variable is a profit after tax to sales ratio and Independent Variables is a Sales Growth Rate, Cash, Bank & Marketable Security, Fixed Assets Turnover Ratio, and Long Term Debt Equity Ratio. Matrix of Co-efficients of Correlations, descriptive and regression has been used for analysis.

OBJECTIVES

The objective of this study is to know and assess the extent of impact and the relationship among dependent and independent variable of the business enterprise in the telecommunication sector.

HYPOTHESIS

H0: SGR has positive association with PATSR.

H1: SGR has no positive association with PATSR.

H0: CB&MS has positive association with PATSR.

H1: CB&MS has positive association with PATSR.

H0: FATR has positive association with PATSR.

H1: FATR has positive association with PATSR.

H0: LTDER has positive association with PATSR.

H1: LTDER has positive association with PATSR.

ANALYSIS AND INTERPRETATION

1. Table – 1 indicate that the matrix of co-efficient of correlations between independent variables i.e. LTDR, SGR, CB&MS, FATR have been considered by karl-person coefficient of correlation. It is precisely displays that all component of co-efficient of correlations' value has not more than +0.1 and VIF data not close by 10. Thus the difficulty of multi co linearity does not occur between the independent component.
2. Table – 2 obtainable the element of descriptive statistics. The outcomes presented this studied will be more suitable to the organisations whose data sets resemble the descriptive method indicate in Table – 2.
3. Table – 3 obtain the regression coefficient. It is specifying that direction; standardized Beta, significance level, values and VIF are remark in Table – 3. Table – 3 displays that Sales Growth Rate, Cash, Bank & Marketable Security, Fixed Assets Turnover Ratio, and Long Term Debt Equity Ratio as independent variables has association with profit after tax to sales ratio. The β of debt equity ratio as presented in Table – 3, stands at +0.108 viz. indicate that Sales Growth Rate has positive relationship with profit after tax to sales ratio. The value of significance level is 0.207. It is notice that the significance coefficient beta (β) is statistically insignificance. Therefore null hypothesis (SGR) is accepted and H1 be rejected.
4. Table – 3 measured the cost of Cash, Bank & Marketable Security i.e. 0.114 it is revel that β has positive relationship with profit after tax to sales ratio. The value of significance level is 0.180 it means β is statistically moderately significant. Thus null hypothesis (ICR) be accepted and H1 be rejected.

5. The β of fixed assets turnover ratio as presented in Table – 3, stands at +0.139 viz. point out that fixed assets turnover ratio has positive relationship with profit after tax to sales ratio. The value of significance level is 0.106. It means that the significance coefficient beta (β) is statistically moderate. Therefore null hypothesis (CR) be accepted and H1 be rejected.
6. Table – 3 considered the long term debt equity ratio viz. +0.038 it is reveal that β has positive association with profit after tax to sales ratio. The value of significance level is 0.649 it means β is statistically not significant. Thus null hypothesis be accepted and alternate hypothesis be rejected.

FINDINGS

1. It is find that there is insignificantly positive association among Sales Growth Rate and profit after tax to sales ratio and the significance coefficient beta (β) is statistically not relevant.
2. Further find that Cash, Bank & Marketable Security has favourably association with profit after tax to sales ratio and significant co-efficient beta is statistically moderately significant.
3. The fixed assets turnover ratio has positive association with profitability and significance coefficient beta is statistically moderately significance.
4. It is notice that long term debt equity ratio has positive association with profit after tax to sale ratio but statistically significant co-efficient beta is not relevant.

CONCLUSION

The research disclosed relationship between Sales Growth Rate, Cash, Bank & Marketable Security, Fixed Assets Turnover Ratio, and Long Term Debt Equity Ratio and profit after tax to sale ratio that there is positive association between Sales Growth Rate, Cash, Bank & Marketable Security, Fixed Assets Turnover Ratio, and Long Term Debt Equity Ratio and profit after tax to sale ratio. The result shows that only two variables has moderately significant and positive relation among Cash, Bank & Marketable Security, Fixed Assets Turnover Ratio and profit after tax to sale ratio and rest of two variable viz. Sales Growth Rate and Long Term Debt Equity Ratio has insignificantly positive relation with profit after tax to sale ratio.

REFERENCES

- Aladejebi, D. J. (2020). The Impact of Working Capital Management on Profitability: Evidence from Selected Small Businesses in Nigeria. *Journal of Small Business and Entrepreneurship Development*, 8(1), 27-40.
- Dr. Benjamin Owuor Ombok, J. A. (2017). WORKING CAPITAL MANAGEMENT PRACTICES ON FINANCIAL PERFORMANCE OF PUBLIC OWNED SUGAR FIRMS IN WESTERN REGION, KENYA. *International Journal of Current Research*, 9(8), 56000-56005.
- Gołaś, Z. (2020). Impact of working capital management on business profitability: Evidence from the Polish dairy industry. *Agriculture Economics - Czech*, 66(6), 278-285.
- Maharjan, P. K. (2020). Effect of working capital management on profitability: A case of Nepalese manufacturing firms. *The International Research Journal of Management Science*, 5(1), 130-147.
- Shikha Bhatia, A. S. (2016). Working Capital Management and Firm Performance in Emerging Economies: Evidence from India. *Management and Labour Studies*, 41(2), 71-87.
- Yash, D. N. (2021). Management of Working Capital in Nature based Industry (A Case Study of Dabur India Limited). *Global Journals*, 21(2), 57-65.

Table – 1 Matrix of Co-efficients of Correlations

	SGR	CB&MS	FATR	LTDR
SGR	1.000	-0.023	0.177	0.018
CB&MS	-0.023	1.000	-0.079	-0.062
FATR	0.177	-0.079	1.000	0.026
LTDR	0.018	-0.062	0.026	1.000

Table – 2 Descriptive Statistics

Variables→	PTSAR	SGR	CB&MS	FATR	LTDER
Mean	-0.09078	10.3976	0.13627	0.5944	0.9953
Std. Deviation	0.73826	40.5573	0.35404	0.6758	5.32254

Table – 3 Regression Co-efficients

	Regression Co-efficients		t	Significance Level	VIF
	Direction	Value			
Constant	-	0.239			
SGR	+	0.108	1.267	0.207	1.033
CB&MS	+	0.114	1.348	0.180	1.010
FATR	+	0.139	1.629	0.106	1.039
LTDER	+	0.038	0.456	0.649	1.004

Dependent Variable : PATSR

$R^2 = 0.020$

Independent Variables: SGR, CB&MS, FATR, LTDER

N =140

A STUDY ON IMPACT OF COVID 19 ON INDIAN ECONOMY

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ABSTRACT

A terrible and severe infectious disease broke out in China at end of the 2019. It is known as a novel corona virus. In short, it is COVID 19. In a short period of time, it is spread to most of the countries of the world. India is not exception in this phenomenon. This disease has made tremendous economic, social and psychological impact on the various sectors at national level as well as global level. Government of India was used lockdown to prevent the spread of the disease in masses of the society. All businesses were stopped for 69 days due to this decision of the Government. It has made worst economic impact on the production of goods and services, trade and revenue generation of the Government. This paper has focused on short run impact of COVID-19 of various economic indicators like overall growth rate, sector wise growth rate and international trade of Indian economy. Due to this Covid, Government of India had imposed lockdown in whole economy of India. This lockdown has surged some negative impact on Indian economy. The overall growth rate of India was reduced more than minus 23 percent at a stage. This was happened first time after 1952 in India. Some crucial sectors of the economy except agriculture were registered negative growth rate in first quarter of the financial year. This trend was seen continuously in second quarter of the financial year except agriculture and manufacturing sectors. Due to this, some institutes were projected negative growth rate in whole financial year except ADB and IMF. The pandemic was also made negative effect on international trade of India. Exports have declined 10.14 percentages and imports have declined 20.83 percentages from same time of earlier year. Trade deficit was registered 7.80 US billion dollars.

Keywords: Covid, Pandemic, growth rate, international trade, GDP

1.0 INTRODUCTION:

We all are aware that a terrible and severe infectious disease broke out in China at end of the 2019. It is known as a novel corona virus. In short, it is COVID 19. In a short period of time, it is spread to most of the countries of the world. India is not exception in this phenomenon. This disease has made tremendous economic, social and psychological impact on the various sectors at national level as well as global level. Government of India was used lockdown to prevent the spread of the disease in masses of the society. All businesses were stopped for 69 days due to this decision of the Government. It has made worst economic impact on the production of goods and services, trade and revenue generation of the Government. Ultimately, the epidemic has had a detrimental effect on the country's economic growth rate. This paper has tries to examine the impact on growth rate, international trade and some industry in the country.

Very few authors have been studied the economic impact of the pandemic on Indian Economy. Arunkumar observed in his study on covid 19 crisis: understanding the state of economy during and after the lockdown that Since GDP would be decreased by more than 30%, tax collection of various government would fall drastically than this amount and tax on essentials goods would come with a low rate almost nearby zero rate. Presently, whatever production is happening, it is mostly essentials. As per writer calculations, revenues of centre and states could decrease by 50% to 8% of the reduced GDP of 2020–21. So, from Rs 32 lakh crore, it would be fallen to about Rs 10.4 lakh crore. It may be noted that last year, the tax/GDP ratio was around 16%. This cannot even meet the current levels of expenditures with the burden of new expenditures due to COVID-19. Hence it is happening that the state governments are complaining of shortage of resources and they have to carry much of the burden of taking care of the people.

N. Kavyaashri and others studied on COVID-2019 and impact on industry that corona virus has affected on all industry but it has made severe effect on tourism, aviation and other transportation industry. Due to lock down, all industries had been shut downed the production. Hence, unemployment rate has risen very high level. This phenomenon has created big problem on mankind. Many casual workers had been shifted at their native from workplace due to lockdown. So it is very difficult to revive for many industries in the short period of time.

Haya Khalid Hasmi and Vandana Dwivedi made the study on Effect of covid-19 pandemic on Indian Economy with special reference to Indian Industrial sector that the pandemic has made worse effect on all three sectors of economy and specially to industrial sector in variation. The writer has gathered all information through print and electronic media exhibits that the virus has made the commerce freeze, demand fall and supply chain disruption led to economic devastation.

Dr. Rajesh B. and Mrs. Rajimol KP studied on Performance of Indian Economy in pre and post Covid 19 that the pandemic brought social and economic life to a standstill. Government of India had lockdown the economy and due to this all economic activity had interrupted in the economy. Hence the GDP of the country had drastically declined in the first quarter of year 20-21 by minus around 23 percent. Due to this, the revenue of government in form of taxes had declined very sharply during initial quarter of the year. But it was the good news for economy that the Indian economy has revive very shortly after open up of lockdown in the country.

I have studied few papers on impact of covid 19 pandemic on different indicators of Indian Economy. Very few studies are available due to short period of the time of covid 19 pandemic. All studies observed that the covid pandemic made very severe impact on various indicators of the Indian Economy. But economy has revive very shortly after unlock of economy. My observation is that the pandemic will also make some economic effect for long time.

This paper has tries to examine the effect of covid pandemic on growth rate of economy and future estimate of economic growth. Further, this paper has studied some impact on selected industry of India. Moreover, This paper has assessed impact on international trade during the covid pandemic.

In this paper, secondary data has used to carry out the study. Various data's on growth rate, prediction of future growth rate have been collected from different website. Graph has been prepared to present the analyze of the data's. Simple statistical tools have been used to compare the various data's.

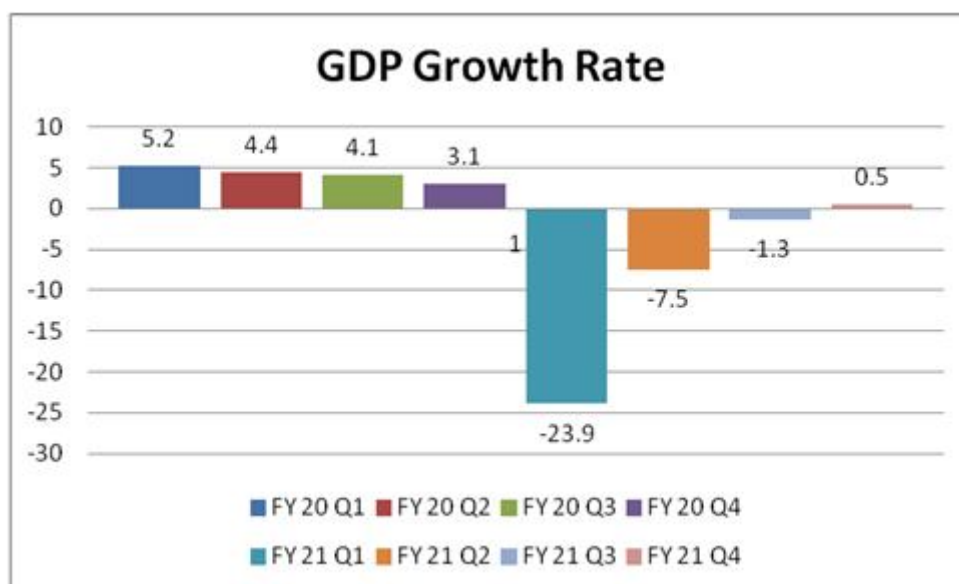
This paper divides into three parts. First part shows introduction, review, objectives and methodology of the study. Analysis of the study has elaborates in the second part and final conclusion and suggestion drawn in the third part of the study.

2.0 IMPACT OF COVID 19 ON INDIAN ECONOMY:

This paper has focused on impact of covid 19 on different indicators of Indian economy like GDP growth rate, Industrial growth rate and international trade. In this part, analysis of these different indicators will expressed by using latest data with graph.

2.1 Impact on GDP Growth Rate:

Level of the development of any country measures by using this indicator. Higher GDP growth rate indicates higher level of development and vice versa. Gross Domestic product (GDP) is the final monetary value of the goods and services produced within the country during a specific period of time, normally a year. Thus GDP growth rate measures how fast the economy is growing. This COVID 19 has adversely impact on the GDP growth rate in various quarter of the year 2020-21. This impact has shown through below graph.



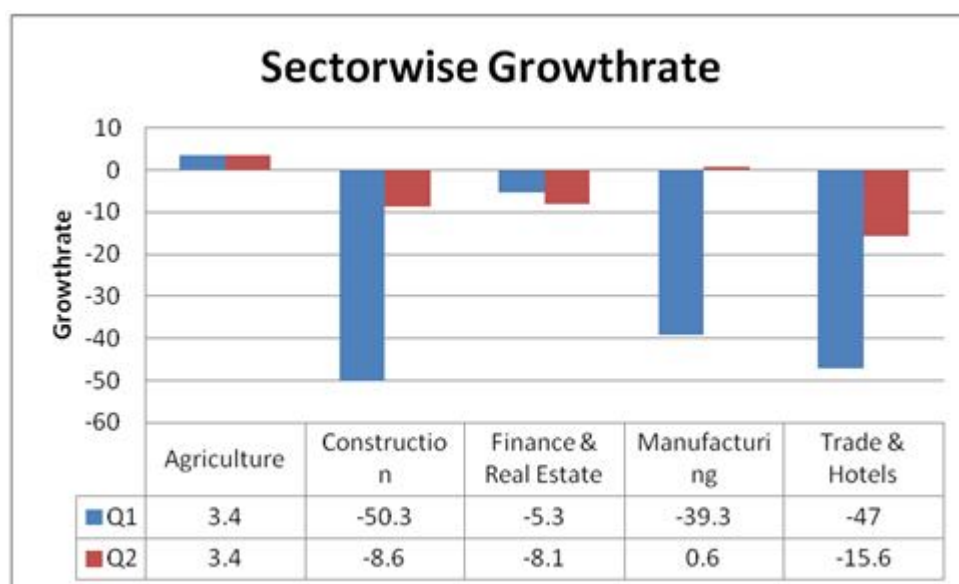
Source: RBI website

The graph has shown that GDP growth rate was slow but positive in all quarters of year 2019-20. After this, it was not only fallen down but also becomes negative in the first quarter of the year 2020-21. It was minus 23.9 percent in first quarter of 20-21 as compare to 3.1 in the immediate earlier quarter. This was happened first time in the history of growth rate of the India. However, this result was quite less bad according to estimate of

Arunkumar's study. Because Arunkumar assumed that GDP growth rate would be fallen more than 30 percent in this period. After this, India was experienced negative growth rate in more two quarter of that year but it was showed improvement in some extent. It was minus 7.5 and 1.3 percents in second and third quarter of the year 20-21. Further, India was registered 0.5 percent growth rate but it was positive and hopeful in the last quarter.

2.2 Impact on Sector wise Growth rate:

This pandemic has not made equal impact on every sector of economy. Some sectors have more affected and some have negligible or not affected by this pandemic. Some sectors like agriculture, essential goods and farma sectors have not closed down during lockdown. Hence, these sectors have negligible or not affected by the pandemic. Below graph shows impact on different selected sector due to lockdown.



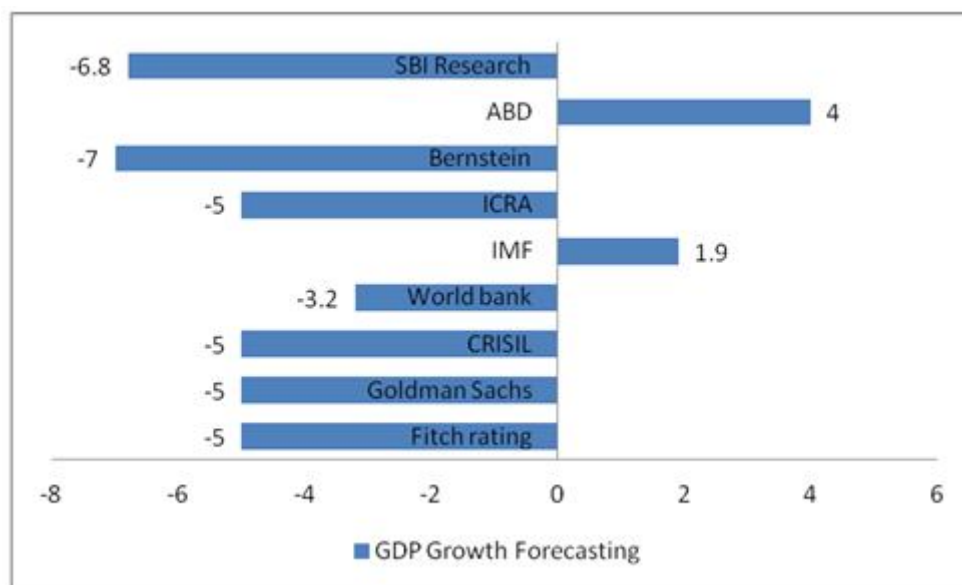
Source: Ministry of commerce and Industry

Here, I have selected five major sectors of economy on the basis of importance of the sectors and widely affected sector in the economy during lockdown namely agriculture, construction, finance and real estate, manufacturing and trade & hotels. The above data shows that only agriculture sector has been registered positive growth rate in the first quarter of 2020-21. Remaining four sectors have registered negative growth rate in the first quarter of 2020-21. Out of negative growth sectors, constructions, manufacturing and trade & hotels have been severely affected by the pandemic and lockdown whereas negligible effect has happened on finance and real estate sector.

In the second quarter of the year, agriculture and manufacturing sectors have been registered positive growth rate in the economy while remaining sectors have been registered negative growth rate even in the quarter. What amazing in the quarter is that the manufacturing sector was severe affected in first quarter although it has registered positive growth in the second quarter. The reason is that the manufacturing sector has been started production at an earlier position. Because most of the workers have been started their works after lockdown. Constructions, finance & real estate as well as trade & hotels sectors have been registered negative growth rate even in second quarter of the year. However, negative growth rate has been reduced very largely in the construction as well as trade & hotels sectors in the quarter. Shocking matter is that finance & real estate sector has been registered more negative growth rate in the second quarter.

2.3 Forecasting of Growth Rate:

Present condition of pandemic would leave the effect on different economic, social and other aspects of the economy in future. This impact may be positive or negative on the various aspects. Here, we are talking about future effect on growth rate of Indian economy. Some national and international credit institutes have been made forecasting on future growth rate of the Indian economy. The below graph highlights this future expectation of growth rate.

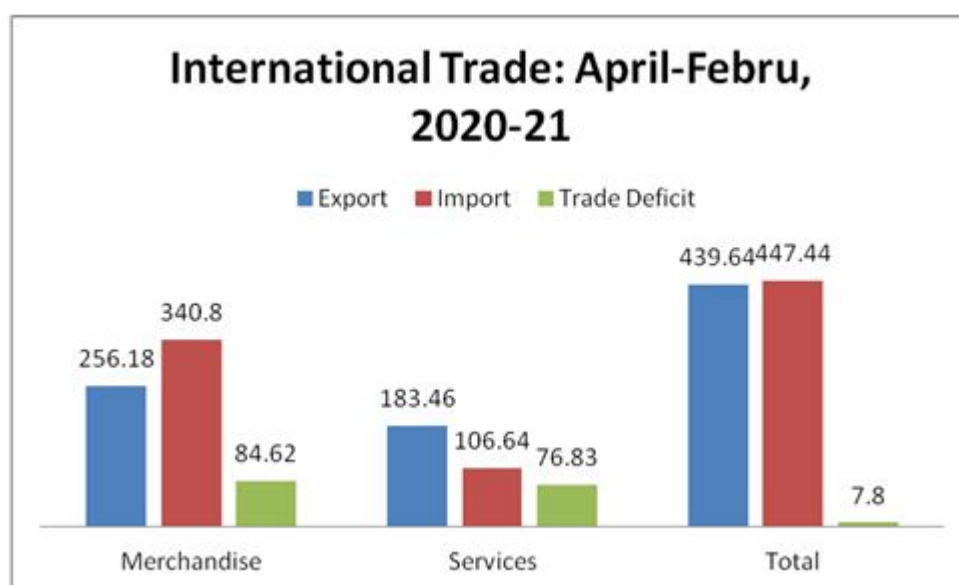


Source: Different website

Different institutes and credit institutes have estimated future growth rate of India. Only ADB and IMF have projected positive growth rate of India at the end of the year 2020-21. Remaining all Institutes have projected negative growth rate of Indian economy. Bernstein has reported highest negative growth rate for current financial year in the country. While World Bank has reported lower negative growth rate for India in this financial year. ICRA, CRISIL, Goldman Sachs and Fitch rating have been reported equal negative growth rate of the Indian economy in the financial year. In short, most of the institutes fear that India would register a negative growth rate in this financial year.

2.4 Impact on International Trade:

International trade between various countries is an important factor in enhance living standards, generate employment and enabling people to enjoy a different variety of goods. International trade allows countries to expand their markets and access goods and services that otherwise might not have been available domestically. As a result of international trade, the market becomes more competitive. This ultimately results in more competitive pricing and greater quality of goods and services and brings a cheaper product home to the consumer. International trade of India is continuously increasing after new economic reforms. But this pandemic has made negative effect on international trade of India. Below graph shows the picture of this effect.



Source: IMF website

Above data shows that merchandise export has reduced 12.23 percentage from the same time of earlier year. While merchandise import has reduced 23.11 percentage from the same time of earlier year. Trade deficit of

merchandise was registered 84.62 billion US dollar. Similarly, services export has also reduced 7.05 percentages from same time of earlier year. While services import has also reduced 12.53 percentage from same time of earlier year. Trade surplus was registered 76.83 US billion dollar. Overall, Exports have declined 10.14 percentages and imports have declined 20.83 percentages from same time of earlier year. Trade deficit was registered 7.80 US billion dollar. So it is obvious that the pandemic has made negative impact on international trade of India.

3.0 CONCLUSIONS:

This paper has focused on short run impact of COVID-19 of various economic indicators like overall growth rate, sector wise growth rate and international trade of Indian economy. Due to this Covid, Government of India had imposed lockdown in whole economy of India. This lockdown has surged some negative impact on Indian economy. The overall growth rate of India was reduced more than minus 23 percent at a stage. This was happened first time after 1952 in India. Some crucial sectors of the economy except agriculture were registered negative growth rate in first quarter of the financial year. This trend was seen continuously in second quarter of the financial year except agriculture and manufacturing sectors. Due to this, some institutes were projected negative growth rate in whole financial year except ADB and IMF. The pandemic was also made negative effect on international trade of India. Exports have declined 10.14 percentages and imports have declined 20.83 percentages from same time of earlier year. Trade deficit was registered 7.80 US billion dollars.

Now Government of India will have to take immediate steps to overcome the negative impact of pandemic on Indian economy. Government has announced one big package namely atmnirbhar bharat yojna to reduce the negative impact and surge the positive impact in economy. It is not enough to announced only package but government will have to implement this package in proper manner to boost the economy. Government should also take some actions to avoid the limitations of administrative measures in the country except this package. This all efforts will bring the positive effects on Indian economy.

REFERENCES:

- Arunkumar, (2020), ' COVID-19 Crisis: Understanding the State of Economy during and after the Lockdown', EPW, Volume 55 issue 19 9 may.
- Kalita unmillan at al, (2020), ' Economic Implication of a Novel Disease Outbreak, Understanding Its Genesis', EPW, vol. 55 issue no. 24, 13 june.
- M. Joshi, (2020), Impact of Covid-19 on Society, IJSSLR, Vol. 12 issuebno. 4, 18 August.
- WWW.rbi.org
- Ministry of commerce and Industry
- IMF website.

IMPACT OF COVID19 ON MIGRATION: PROBLEMS AND MEASURES**Deepak Powdel**

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ABSTRACT

The advent of covid19 was unexpected as we thought it is far away in another country. It spread rapidly and still we were relaxed initially, later when the cases started increasing gradually, the government went ahead with the lockdown. It saved our precious life, but migrant workers were too innocent to react. They thought the native place will be the safest in terms of life as well as living. Little that they and we knew that the problems were beginning to reveal a different life of the most vulnerable human beings known as migrant workers. The policy maker, the employer, government machinery, NGO, social workers and various organizations came to their rescue. Many were lucky they got humanitarian aid, those who could not, left us, humorously putting a scare on our preparedness of providing a just and equitable society. The article on Impact of covid19 on Migration: Problems and Measures tries to highlight the problems of migrant labour and the measures to overcome them. Secondary data is used to analyse the impact and suggestions are made on the basis of contemporary issues of migrant workers in general.

Key words: Migrant workers, Structural changes and Socioeconomic dimensions

INTRODUCTION:

The migration of human being is a continuous phenomenon world over. People move from one place to another place for better prospects in all areas, be it work, education, security of life, higher earning opportunities, marriage etc. Migration for whatever purpose, it has its own advantages and disadvantages. The advantages are few and not highlighted because it solves the problem, whereas the disadvantages which create or aggravate certain problems is what we are concerned with.

The issues of employment, health and transportation are federal as well as central in nature. This has been highlighted due to the ongoing pandemic specially from March, 2020. We observed that the central governments were busy finding ways and means to help migrants stay in their respective place as well as to provide transportation through railways, whereas migrants were desperate to reach their home, fearing no income and the pandemic itself. Instead, the exodus of migrants continuously increased not knowing the normal facilities were brought to standstill. Many would have been saved, not to mention we could have reduced their mental trauma and physical labour walking 500 miles or more by making them stay in the place of work itself. We all know men are in continuous search of employment and employer hires and pay them for their work. This is economic in character but the problem in the process generated could be psychological, cultural, sociological, statistical etc that are unfolded. In this context the research paper would like to explore the various areas of employment that migrant workers are in demand, their problem and the measures to overcome their plight. The research is based on the secondary data and simple calculations in terms of percentage is used.

THE OBJECTIVES OF THE RESEARCH:

1. To understand the impact of covid-19 on migrants.
2. To know the nature and the reasons for migration.
3. To find measures to overcome the problems of the migrant workers.

NATURE OF MIGRATION:

The permanent migration: It is believed that the permanent migration is a forced one due to various circumstances rather than the choice.

The temporary migration is for short term employment and quick earnings in this the native place is the permanent place of stay. Workers migrate from agriculture to work in Micro, Small and Medium Enterprises in the urban areas, but return to their native place when the rainy season begins for cultivation. The MSME attract workers because of higher pay and better facilities where physical labour is less as compared to the agricultural sector. This type of migration could be stopped by creating alternate employment opportunities in agricultural sector. The migrant workers are mainly concentrated in the following areas.

Sr. No	Sector	No. of Migrant Workers in millions
1	Construction	40

2	Domestic Work	20
3	Textiles	19
4	Brick kiln	10

Source: mospi.gov.in

There are more than 300 million migrant workers in the country. The others are engaged in transportation, mining and quarrying, agriculture, restaurants, canteens and hotels, trading, sales, creches, hospitals as nurses, as road side vendors, as security personnel, and in various industries as casual workers, etc.

The number of migrant workers are too large to be ignored, if India wants to become a developed nation.

Sr. No	Migration	No. of Migrant Workers in crores (Aprox.)
1	By Place of birth	30
2	By place of last residence	31
3	Within the state	26
4	Within districts	18
5	From other district within a state	8
6	From other states in India	4.23
7	From other countries	61 lacs

Source: census report, 2011.

The data reveals that one third of the population are migrants. Thus the problems that arises from the large number of migrant workers needs to be dealt in a systemic manner.

THE PROBLEMS OF THE MIGRANTS ARE AS FOLLOWS:

1. Migrant workers are unorganized, therefore has lack of bargaining power
2. Low level of skills and illiteracy
3. Lack of data of migrant workers and the hurdle of creating awareness
4. Exposed to hazardous and risky work
5. Lack of identification, documentation, etc
6. No legal protection, no benefits of central or state government schemes, etc.
7. Exploitation of the young labour force by depriving him his rights to educate and acquire skills.
8. Gender inequality, wage gap, security for women workers
9. Migrant workers children education.
10. Tradition and Cultural changes and the problem of adaptability and adjustments.

MEASURES TO OVERCOME THE PLIGHT OF MIGRANT WORKERS:

1) Structural Changes:

The Ministry of labour has existed since Independence and since 1919 India has represented in the International Labour Organization (ILO). Despite such association and organization, we still have many drawbacks, such as: Data Inadequacy, Low wages, Gender discrimination, Absence of insurance, PF, and compensation etc.

The Ministry of Labour should have a separate department under Minister of State with adequate funds to collect data, and implement and monitor the payment of wages, gender equality, and to ensure other benefits to be received by the Migrant workers. Data collection should be initiated from all sources. Gram Sabha, Village Panchayats, Zilla Parishad, Municipal Corporations, Industries, Traders and any form of business organizations. The secretary of government bodies such as Gram Sabha, Village Panchayats, Zila Parishad could be entrusted for collection of data.

The electronic medium of data collection could be initiated for which a dedicated website under the Ministry should be floated.

A structured questionnaire for collection of data should be included in the upcoming census of 2021 or any time in future, regarding the migration of population.

2) Education and skill:

I) All migrant workers should be provided with training so that their skill increases to do the work in a better way. As their productivity will increase the wages also will increase in proportion.

II) All migrant workers should compulsorily learn basic regional language of the state or of the place of work. Probably during the holidays and Sunday for three months (minimum 2 hours session every Sunday). Expenditure could be shared between the business organization and the government.

III) In addition all workers should be trained to use mobile phone for banking transactions so as to make easy for transactions and transfer of money.

3) Legal Changes:

A) The implementation of Minimum Wages Act, should be stricter so as to ensure a reasonable standard of living. All migrant workers employed in organized sector should get Rs. 18000 per month and above. All workers who gets less than Rs. 15000 and less, the central Governments promise to pay pension is laudable.

B) The Interstate Migrant Workmen (Regulation of Employment & Conditions of service) Act, 1979 emphasizes the role of contractor and Sub-Contractor who provides 5 or more workers. Registration of contractor is mandatory, but the entry of the workers details should also be compulsory in both the places. The workers place of residence as well as in the place of work. The registration should be in the website floated for the purpose for transparency as well as for better administration.

C) Registration in the central governments website from the place of residence, before migrating and after returning to the home town should be compulsory. Registration with the State Government website should be done both by the employee and the employer for intrastate migration..

4. The Socioeconomic dimensions:

Housing, Sanitation, Health, School for children, and the vision of Smart City for all has a separate budget allocation by the government of India. The government of India's budgetary allocation and the financial participation of industries who employ's migrant workers will ensure the best of the houses and a colony in creation will take care of many socioeconomic issues. The Central, State and Industries and business organization should come together and solve the problem of housing, sanitation, schooling and even adult literacy and learning of local languages, apart from inculcating various skills.

The tradition and culture remains protected for the migrant workers in their colony and exchange of the same is also possible.

5. The need to reduce migration:

Migration where necessary should be promoted, but there is a need to reduce or control migration.

I. The international migration mainly from Afghanistan, Bangladesh, Nepal, Pakistan and Sri-Lanka needs to be monitored and controlled.

II. There is a change in the trend of Interstate migration and intrastate migration. The census statistics of 1991, 2001 and 2011 brings out these changes in favour of intrastate migration. The intrastate migration could be solved by gradually upgrading the semi-urban (type II & III towns) into a higher level by considering PURA schemes. It should also promote Small Scale Industries. All state in India should emphasized on the development of micro small and medium enterprises, which will increase employment in the respective states and thus the number of migrants will reduce.

III. The focus of the government to provide tap water to every households is a welcome step. The irrigation facilities to increase agricultural productivity will reduce migration. The diversification of food crops to cash crops and horticultural crops has helped increased the income of the farmers. The agribusiness and the establishment of Food Processing Industries will reduce the number of intrastate migration. The increasing facilities such as warehousing, cold storage, insurance, transportation and research or agricultural activities will further add to the income of the farmers. If youths are engaged, the migration will be under control.

CONCLUSION:

Migration is a world wide phenomenon, in order to promote, control and reduce exploitation of migrants, the Central, State and local governments should work together. The collection of data, implementing various legal and socioeconomic measures to make the life of migrant workers better, we need to increase the involvement and participation of various government bodies, NGOs, contractors, laborers and businessmen together. The economic issues such as low wages, skill development, increasing productivity is to be solved immediately. The socioeconomic issues such as sanitation, housing, education should be addressed through NGOs whereas the cultural integration and exchanges needs both political and social acceptance.

REFERENCES:

1. Giddens, Anthony, "Modernity and Self Identity: Self & Society in the Late Modern Age" Standford, CA, Standford UP, 1991.
2. K.S Chalan, "Social Economy of Development in India" Sage Publication, 2017.
3. Census Survey Report of 1991, 2001 and 2011.
4. Mospi.nic.in
5. Ncert.nic.in
6. Taylor A, "South East Asia", David and Charles Ltd, 1972.
7. The Economic Survey Report - 2016-17
8. UNDP, Human Development Report-2003, Millennium Development Goals: A compact among nations to end poverty, Oxford University Press, NY, 2003.
9. World Development Report 2012, "Gender Equality and Development", the World Bank, Washington D.C
10. World Development Report 2013, "Jobs", the World Bank, Washington D.C

IMPACT OF COVID-19 ON CHANGE IN COST-EFFECTIVE LIFE OF TRIBAL COMMUNITIES IN RURAL AREAS OF ASSAM

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ABSTRACT

The tribal population suffers from discrimination, marginalization, extreme poverty and conflict. The monetary requisite is one of the basic wants of this segment of society for socio-economic improvement. But due to Covid-19 outbreak the middle and lower income groups of people are facing difficulties for their livelihood in India. Amongst them, the tribal Communities in upper Assam are also affected badly. Most of the tribal women are dependent on their economic activities supported by the SHGs. During this pandemic situation their income sources are rapidly declined and their families are struggling for their livelihood. Under this ground an investigation has been conducted by analyzing the cost-effective circumstance of tribal communities at rural and flood affected district of Assam like Lakhimpur. For analyzing 100 Tribal Households at North Lakhimpur and Kadam Revenue Circle of Lakhimpur district of Assam has been selected. Personal interview method was followed to collect the primary information. The study concluded about the decline in average expenditure on food consumption plus the average expenditure on non-food items per household during the pandemic situation.

Key Words: Covid-19, Rural Assam, Tribal Communities and Women SHGs.

1. INTRODUCTION:

In the largest part of the developing countries, tribal population living in the rural areas are engaged in agriculture or other allied rural activities. Moreover they have remained ignorant and relegated from the main streams of national life. The tribal population also suffers from discrimination, marginalization, extreme poverty and conflict. The monetary requisite is one of the basic wants of this segment of society for socio-economic improvement. But due to Covid-19 outbreak the economic situation of the World is suffering. It is to be reiterated that the fiscal and psychosocial impacts of the Covid-19 pandemic has affected all segments of India's population. In controlling the spread of Corona Virus government has attempted measures affected financially on individuals of daily wage workers, not earning a stable income, or the migrated people (*Amrita News*, 2020). Along with this, the middle and lower income groups of people are facing difficulties for their livelihood in India. Similarly, the tribal Communities in upper Assam are also affected badly. Since, most of the tribal women are dependent on their economic activities supported by the SHGs. During this pandemic situation their income sources are rapidly declined and their families are struggling for their livelihood. the Indian economy has also suffered adversely and affected badly. During this pandemic situation their income sources are rapidly declined and their families are struggling for their livelihood. Under this ground an investigation has been conducted by analyzing the cost-effective circumstance of tribal communities at rural and flood affected district of Assam like Lakhimpur.

2. OBJECTIVES OF THE STUDY:

For the purpose of the study the following objectives have been framed by the researcher:

- To investigate the profile of the tribal respondents.
- To investigate the pandemic impact of food usages on the tribal communities; and
- To investigate the pandemic impact of non-food usages on the tribal communities in the area under study.

3. SCOPE AND METHODOLOGY:

Lakhimpur district as a flood affected area of upper Assam has been purposively selected by the researcher to study the cost-effective condition of poor tribal households living in the rural area. For analyzing primary and secondary information were gathered for the study. Journals searching through internet, magazines, source documents, websites and newspapers were used for collecting the secondary data. Primary information was taken at North Lakhimpur and Kadam Revenue Circles under Lakhimpur district of Assam by searching 100 Households of women Tribal SHG members. Personal interview method was used by the researcher to assemble the primary data by following the Covid Protocol and by maintaining the physical distance guideline suggested by the administration. For processing the data, simple average method and percent analysis were used by the researcher.

4. OBSERVATION:

4.1 Respondents According to their Engagement and source of Income: Here the researcher wants to study the different engagements and the sources of income made by the tribal under the study area.

Table 1 Head of Tribal Household according to Engagement and Source of Income

Sl. No.	Type of Engagement	Frequency	Percentage
1	Daily Wage Worker	21	21.0
2	Vegetable Vendors	12	12.0
3	Meat Vendors	8	8.0
4	Fish Vendors	3	3.0
5	Milk Vendors	4	4.0
6	Hotel Boy	18	18.0
7	Barber	4	4.0
8	Farmer	12	12.0
9	Private Employee	8	8.0
10	Small Shop	10	10.0
	Total	100	100.0

Source: Primary survey.

Study showed that 21.0 per cent tribal were engaged themselves on daily workers and earn money for their households in the district under study. 18.0 per cent respondents have engaged as hotel boy as a source of income for their family which was followed by farmer (12.0 per cent), Vegetable vendors (12.0 per cent), Small shops/Business (10 per cent each), Private employees in different wholesaler and retail shops (8 per cent), Meat Vendor 8 per cent, Barber (4.0 Per cent each), Milk Vendor (4.0 per cent) and Fish Vendor (3 per cent).

4.2 Respondents According to Family Size:

Table 2 shows the family size of the respondents:

Table 2 Family Size of the Tribal Households

Sl. No.	Variable	Frequency	Percentage
1	Family with 2 members	10	10.0
2	Family with 3-5 members	32	32.0
3	More than 5 members family	58	58.0
	Total	100	100.0

Source: Primary survey.

It was found that 58.0 per cent tribal were having more than five in the study district, followed by five members among 32.0 per cent household and 2 member belongs to 10.0 per cent tribal families that have been observed in the district under study.

4.3 Daily Income Status of the Tribal Members:

Relevant data in this connection has been taken at **Table 3** below:

Table 3 Daily Income Status of Tribal Members

Sl. No.	Variable	Before Lockdown	During Lockdown
1	Less than Rs. 100/-	0 (0.0)	12(12.0)
2	Between Rs. 101 – Rs. 300/-	3 (3.0)	47 (47.0)
3	Between Rs. 301 – Rs. 500/-	37 (37.0)	23 (23.0)
4	Above Rs. 500	60 (60.0)	18 (18.0)
	Total	100 (100.0)	100 (100.0)

Source: Primary survey.

Note: () indicates percentages.

Analysis of the Study (**Table 3**) found that around 60 per cent tribal household were earned Rs. 500/- and above in a day earlier than lockdown period, but it was only 18.0 per cent at the time of survey. Majority of the

respondents i.e. 47 per cent household were able to gain every day takings between Rs. 101/- and Rs. 300/- which was less enough for their livelihood. The daily income was decreased gradually during this pandemic period. 12.0 per cent were able to earn less than Rs. 100/- in the district under study. Thus the financial situation of the tribal household was found extremely deprived in this outbreak situation in the area under study.

4.4 Food Consumption habits of the Tribal Households:

The food consumption habits of the tribal respondents have been shown at **Table 4** below:

Table 4 Food Consumption of Tribal (Per week)

Sl. No.	Variable	Before Lockdown		After Lockdown	
		Amount (Rs.)	Percentage	Amount (Rs.)	Percentage
1	Rice	1383.33	2.2	750.00	3.5
2	Sugar	2708.33	4.4	1101.67	5.1
3	Wheat	4600.00	7.4	1516.67	7.0
4	Grocery	13433.33	21.6	2591.67	12.0
5	Kerosene	8250.00	13.3	6303.33	29.1
6	Vegetables	12963.33	20.8	4091.67	18.9
7	Non-vegetables	16233.33	26.1	4933.33	22.8
8	Fruits	2666.67	4.3	354.17	1.6
	Total	62238.33	100.0	21642.50	100.0
	Average per households	622.38		216.43	

Source: Field survey.

The analysis of the study establishes that the food consumption pattern of the tribal community's was declined to Rs. 216.43/- from Rs. 622.38/- in a week on an average expenditure basis during the pandemic period. During this period it was also found that only 1.6 per cent tribal household were capable to bought fruits in their households. Interestingly, Kerosene users were found increased under the study area during the pandemic situation.

4.5 Non-Food Expenditure Condition the Tribal Households:

The usage of non-food substance consumed by the tribal respondents is shown at **Table 5** below:

Table 5 Non-Food Expenditure of the Tribal (Per Week)

Sl. No.	Variable	Before Lockdown		After Lockdown	
		Amount (Rs.)	Percentage	Amount (Rs.)	Percentage
1	Mobile Recharge	3822.88	18.91	1283.33	10.64
2	DTH/Cable Recharge	3728.67	18.44	2245.83	18.62
3	Petro/Diesel	3927.00	19.43	1411.67	11.70
4	Personal Hygiene	5454.17	26.98	2291.67	19.00
5	Cleaning Products	2082.50	10.30	2200.00	18.24
6	First Aid Items including Hand Sanitizers	1199.92	5.94	2630.83	21.81
	Total	20215.13	100.00	12063.33	100.00
	Average per households	202.15		120.63	

Source: Field survey.

The analysis of the study also establishes that the non-food consumption pattern of the tribal community's was declined to Rs. 120.63/- from Rs. 202.15/- in a week on an average expenditure basis during the pandemic period. The weekly expenditure on first aid items and cleaning products were increased from 16.24 per cent to 40.05 per cent during the pandemic period. In respect to expenditure on mobile and DTH Recharge, use of vehicle, the weekly expenditure was decreased rapidly as observed.

5. OPINION & RECOMMENDATION:

Analyses of the study have advised the following recommendations:

- There is a need to help poor people by the high-income group of people to come up with the financial crises during this pandemic situation.

- By following the Covid-19 Protocol and maintaining social distance, if probable, the medically fit individuals have to come forward to do and can help in their normal work so that the poor people can generate income for their livelihood and fulfil at least the basic need of their households.

6. CONCLUSION:

The Covid-19 outbreak has reduced almost many countries' economy around the world. Every people suffer from this tragic situation. It is seen that, during the Covid-19 pandemic situation the economic condition of the poor families particularly the households of the tribal SHG members are effected badly in rural areas of Assam. Many of them have not even unable to purchase the daily requirement for their households. Most of the daily incomes earning people have lost their daily work due to the lockdown situations. They are fighting for their livelihood in the pandemic situation. Analysis of the study showed about the decline in household income and thereby reduced the normal spending habits on food as well as on non-food items every tribal household in the rural areas which resulted in reduction of cost-effective life of the tribal in the area under study.

REFERENCES:

- Amrita News Service (2020), "Study of Impact of COVID-19 on Rural Communities" retrieved from <https://amritaworld.org/disaster-relief/study-of-impact-of-covid-19-on-rural-communities/>
- IrobiNnenna Christiana, (2008), "Microfinance and Poverty Alleviation- A Case of Obazu Progressive Women Association Mbieri, Imo State – Nigeria", Degree Thesis in Economics (Business Administration), Thesis No. 533, SLU, Department of Economics, Uppsala, Nigeria.
- Government of India (2018), "India in Figures, 2018", Ministry of Statistics and Programme Implementation, Central Statistics Office, Social Statistics Division, www.mosip.gov.in
- Jothi V.N., "Socio-Economic Impact: Microfinancing of SHGs", SCMS Journal of Indian Management, 2010, pp.91-103.
- Ministry of Rural Development (2012), "National Rural Livelihood Mission, Briefing Book", December, Government of India, retrieved from, <http://drdakangra.com/guidelines/Briefing%20book%20NRLM.pdf>.
- Planning Commission, (2005), "Mid-Term Appraisal of 10th Five Year Plan 2002-07", pp.238-242, retrived from <http://www.delhiplanning.nic.in/appraisal/mta04-05.PDF> on 05-09-2015.
- Prabhala K., Rao T Umanaheswara (2019), "A Review on Digitalization of SHG with Mobile usage in India", International Journal of Advance Research, Ideas and Innovations in Technology (IJARIIT), Vol. 5, Issue. 3, pp. 1798-1802.
- The Economics Times, April, 2020, Apr 13, 2020, retrieved from <https://economictimes.indiatimes.com/news/economy/indicators/covid-19-outbreak-and-lockdown-impact-income-of-85-of-ncr-households-ncraer-survey/articleshow/75120845.cms> access on 20th April, 2020.

EMERGING TRENDS IN E COMMERCE- THE ROAD AHEAD POST PANDEMIC

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ABSTRACT

E-commerce has transformed the way business is done in India. India stands second as far as the sales in E Commerce is concerned. The Indian E-commerce market is expected to grow to US\$ 200 billion by 2026 from US\$ 38.5 billion as of 2017. Much of the growth for the industry has been triggered by an increase in internet and smartphone penetration. As of September 2020, the number of internet connections in India significantly increased to 776.45 million, driven by the 'Digital India' programme. Out of the total internet connections, 61% connections are in urban areas, of which 97% connections are wireless. No one can deny the fact the E Commerce is the future and certainly all have started adapting and adopting it. The growth per year in this industry is more than 20 per cent which is quite remarkable for any industry. The trust of people in E Commerce is much more than ever before. In the current pandemic where most of the industries are incurring losses to the extent that many of them are even shutting down, E Commerce is one such industry that has earned huge profits and growing at an alarming rate. In the present study, the Researcher aims to understand and analyse the future trends that will dominate the E Commerce industry.

Keywords- E Commerce, Future trends, Voice Commerce, Mobile Commerce

INTRODUCTION

In simple words, E-commerce is the buying and selling of good or services via the internet, and the transfer of money and data to complete the sales. It's also known as electronic commerce or internet commerce. The most popular example of E-Commerce is online shopping, which is defined as buying and selling of goods via the internet on any device. However, E- Commerce can also entail other types of activities, such as online auctions, payment gateways, online ticketing, and internet banking.

According to Philip Kotler: E-commerce can be defined as a general term for buying and selling process that is supported by electronic means. ... It is any online transaction of buying and selling where business is done via Electronic Data Interchange (EDI).

Since 2014, the Government of India has announced various initiatives, namely Digital India, Make in India, Start-up India, Skill India and Innovation Fund. The timely and effective implementation of such programs will likely support growth of E-commerce in the country. As of February 15, 2020, the Government eMarketplace (GeM), listed 1,071,747 sellers and service providers across over 13,899 product and 176 service categories. For the financial year 2020-21, government procurement from micro and small enterprises was worth Rs. 23,424 crore (US\$ 3.2 billion). In a bid to systematise the onboarding process of retailers on e-commerce platforms, the Department for Promotion of Industry and Internal Trade (DPIIT) is reportedly planning to utilise the Open Network for Digital Commerce (ONDC) to set protocols for cataloguing, vendor discovery and price discovery. The department aims to provide equal opportunities to all marketplace players to make optimum use of the e-commerce ecosystem in the larger interest of the country and its citizen.

National Retail Policy: The government has identified five areas in its proposed national retail policy—ease of doing business, rationalisation of the licence process, digitisation of retail, focus on reforms and an open network for digital commerce—stating that offline retail and e-commerce need to be administered in an integral manner.

REVIEW OF LITERATURE:

(Shettar, 2016) in the research paper titled “EMERGING TRENDS OF E-COMMERCE IN INDIA: AN EMPIRICAL STUDY” studied the various problems and prospects as far as the E Commerce industry is concerned. The study found that, in the world of E-commerce, the existence of the wholesalers is at the greatest risk because the producer can easily ignore them and sell their products to the retailers and the consumers. Wholesalers can take the advantage of E-commerce in establishing contracts with reputed producers and linking their business with the online.

REVIEW OF LITERATURE

(Ashok Panigrahi, 2016) in the research paper “E-Commerce Services in India: Prospects and Problems” attempted to study the various factors such as Ethical issues, Perceptions of risk in e-service encounters,

challenges for e-business education and legal system. The authors further studied the e commerce with specific reference to the textile sector.

(D Mahipal, 2018) examined the growth and different segments of electronic commerce (ecommerce) in India. The study concludes that there would be a prospective growth of e-commerce in India, if the Government provide a legal security and framework for e-commerce and the domestic and international trade are allowed to expand their basic rights such as intellectual property, privacy, prevention of fraud, consumer protection, etc.

(Soni, 2017) in his research paper titled “ E Commerce in India: A Study” has studied the potential of E Commerce in India and the growth of the industries all through these years.

RESEARCH GAP

There are quite a few studies in the area of E Commerce. But, majority of these studies focus on the current trends in this industry for various sectors. There have not been much studies on the future of this industry specially post the pandemic. Therefore, this is an attempt to cover those aspects of E Commerce.

OBJECTIVES OF THE STUDY

1. To analyse the future trends in E Commerce post pandemic season
2. To understand the changes in buying pattern post pandemic

RESEARCH METHODOLOGY

Sources of Data Collection`: Data is sourced from primary as well as secondary sources.

Primary Data:- Primary data was collected by using a structured questionnaire.

Secondary Data: Journals and websites were referred as a secondary source of data

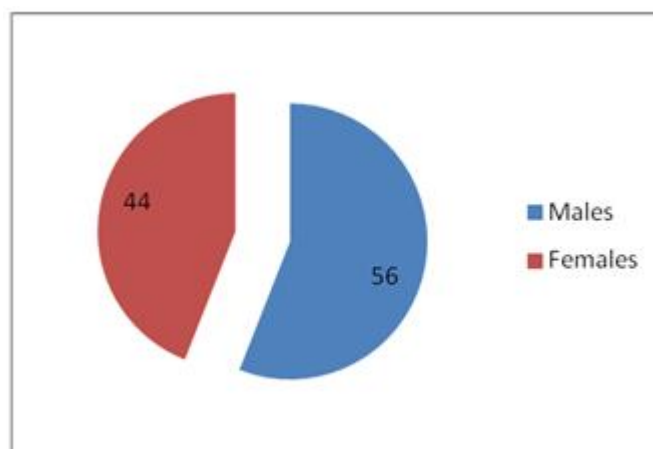
Sample size and the profile of the sample : The study is based on the data collected from 100 respondents from the Navi Mumbai region. These respondents are both males and females across various age groups.

FINDINGS OF THE STUDY

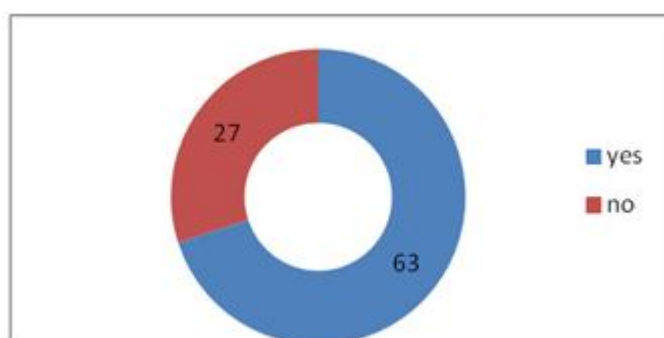
Objective based findings:-

1. To know the emerging trends in E Commerce. The following are the emerging trends that will dominate the industry in future
 - A. **Mobile commerce is the current trend:-** Presently nearly 70 per cent of the people shop through Mobile Commerce. M-commerce (mobile commerce) is the buying and selling of goods and services through wireless handheld devices such as smartphones and tablets. As a form of e-commerce, m-commerce enables users to access online shopping platforms without needing to use a desktop computer. Finance and payments, .Catalogs. Marketing, .Tickets , .Entertainment and games and Healthcare.
 - B. **Voice commerce is the future trend-** It is a technology that helps reduce the end-users' dependence on hardware and allowing them to use voice commands to search and purchase products online. Most e-commerce brands are looking at voice as an opportunity to grow and expand their businesses. Reports state that 43% of brands surveyed agree that Voice Search in e-commerce is an opportunity to harness while 26% agree on the same to a reasonable extent. With added risks, the benefits still seem to outweigh for most brands. Voice assistants are now part of most homes' everyday life, starting from morning alarms, reminders to turn off their cookers to even playing music. This seems to be a promising touch point for e-commerce as consumers could soon begin online transactions through voice, as the technology becomes more pervasive in their everyday lives.

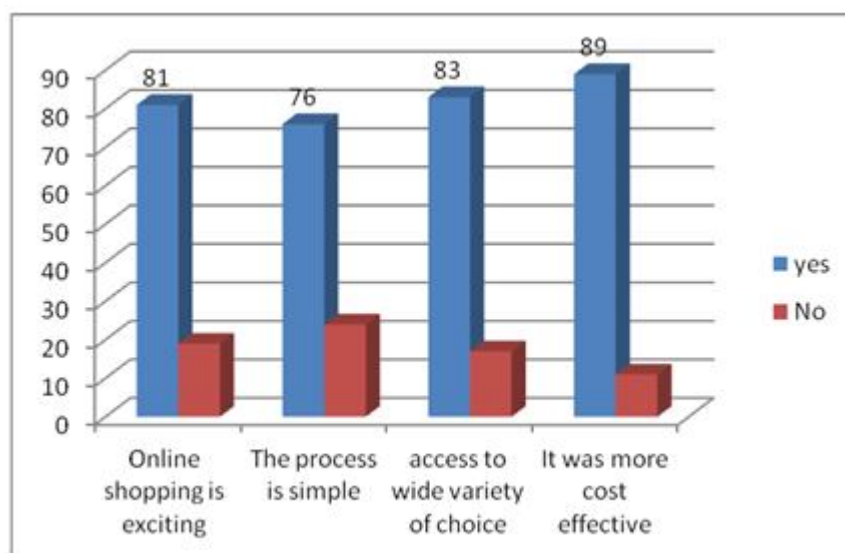
Objective 2- To understand the changes in buying pattern post pandemic



Out of the total number of respondents 56 percent of them were males and 44 were females.



Out of the total respondents 63 respondents had a prior experience of electronic commerce. Whereas 27% of them did not have prior experience of using an e commerce application or website. However, during the lockdown, they experienced the use of e commerce for the first time



The respondents were asked various questions with related to the use of electronic commerce. It was observed that majority of them found the experience very exciting. Around 76 per cent found the process to be simple. Around 83 respondents felt they had access to a variety of products. And 89 percent of the respondents felt an e commerce transaction was cost effective.

LIMITATIONS OF THE STUDY

1. The study is limited to Navi Mumbai region which is a metro city and thus the study may not be applied to the whole of India
2. There has not been cross sectional studies between the various income, age groups and inter relationships between the various variables have not been studied

-
3. The sample size of the study is too little representative of the entire population

RECOMMENDATIONS OF THE STUDY

1. It is very clear that E Commerce is here in a big way to stay. Majority of the Brick and Mortar stores is facing a challenging phase now and may not be able to survive post pandemic
2. Therefore, those stores who have only Offline presence must make it online to cater to the consumers who would continue transacting the E Commerce route only post the pandemic
3. The Online companies also need to work out on making their website more mobile friendly as most of them would continue their transactions through the mobile

CONCLUSION

Let us all gear up and march together in going and growing big in the digital way. India E Commerce will reach US\$ 99 billion by 2024, growing at a 27% CAGR , with grocery and fashion/ apparel to be the key drivers of the incremental growth. Despite the depressed consumer spending, economic slowdown and uncertainty created due to Covid- 19 e commerce players are expecting strong sales in the years to come

REFERENCES AND BIBLIOGRAPHY

- Ashok Panigrahi, 2. U. (2016, January). E-Commerce Services in India: Prospects and Problems. *International Journal on Textile Engineering and Processes*, 2(1).
- D Mahipal, K. S. (2018). E-commerce Growth in India: A Study of Segments Contribution. *Academy of Marketing Studies Journal*, 22(2).
- Shettar, R. M. (2016). EMERGING TRENDS OF E-COMMERCE IN INDIA: AN EMPIRICAL STUDY. *International Journal of Business and Management Invention*, 5(9), pp 25-31.
- Soni, A. N. (2017). E - Commerce in India: A Study. *IJRAR*.
- WEBSITE
- <https://www.ibef.org/>

A STUDY OF CHALLENGES FACED BY SELF HELP GROUPS OF WOMEN'S IN CURRENT COVID -19 SCENARIOS WITH RESPECT TO THANE CITY.

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ABSTRACT

The year 2020 had been a challenge for not only India but for the whole world. The loss in terms of finance, economy, people, opportunities and emotions is enormous, and which will take a long time ahead to cover up. People and business from all walks of life are affected, but the most suffered is the lower middle class and the poor section of the society. This paper is an attempt to study the impact of pandemic on the small businesses undertaken by the SHG (Self Help Group) women's and how they are surviving through the situation.

KEYWORDS *Self Help Group, Challenges of SHG & Resolving challenges of SHG.*

INTRODUCTION

The concept of SHG has gained momentum in developing Asian countries, in particular, India and Bangladesh. High levels of poverty in many developing countries have prompted governments, international donors, and development agencies to focus on programs that can reach rural women through small-scale programs. Governments and non-governmental organizations (NGOs) have played a key role in reducing poverty and empowering women in India.

Self Help Group is a group of 10-20 women from the same background who come together for the same purpose. The main goal is to save money and start a small business. It leads women to gain more power and control in their lives. The empowerment of women can also be seen as an important process of achieving gender equality, which is understood to mean that "the rights, obligations and opportunities of individuals will not depend on whether they are born male or female".

CHALLENGES FACED BY SELF HELP GROUPS.

1	Members have no information	5	Lack of unity among women
2	Insufficient Training Institutions	6	Exploitation by influential members.
3	Availability of raw materials.	7	Weak Financial Management
4	Marketing problems.	8	Low profit.

RESOLVING CHALLENGES OF SHG.

The following suggestions for resolving SHG's challenges:

1. SHG should try to use new materials in a new way to reduce procurement costs.
2. SHG's from the same area may jointly attempt to organize various exhibitions or marketing promotion campaigns to reduce sales costs.
3. NGOs can play an important role in providing training for employees, and providing information about government programs that can help members in creating new jobs.
4. Financial Institutions must come forward to provide members with credit facilities without discriminating against their category or domain.

REVIEW OF LITERATURE

Amtul Waris & B.C.Viraktamath [2013]

States that many women's area of work is limited only to their households and they do not have any knowledge of the outer world. Even women's get a chance to improve the standard of their lives, they first think of their family and their happiness before taking any decisions.

N. Nagaraja & H.S. Kongalappa [2014]

Mentions that the real empowerment of women is said to be undertaken only when she can take her own decisions, access to the financial resources and becomes self-confident. The power of women must be identified at each section of society.

Sreemoyee Das et.al [2015]

States that the women entrepreneurship is an effective strategy to solve many problems related to poverty in urban and rural areas. It promotes the sense of self confidence and a quality life among the women's.

S.P.Premaratne & Gamini Kudaliyanage [2016]

States that women's are usually less educated than men and due to this their business skills are not as sharp and developed as men. This reduces their morale and the confidence level to start up any business activity of their own.

Nisha Gujar [2019]

Mentions that SHG are helping women's to grow financially and become independent in their life. The group of women's in an SHG help and support each other in times of need and also help other women's who are not a part of SHG to solve their problems.

Faraz Ahmad [Jan - 2020]

States that the role of women entrepreneur in the development of economy is an important factor. The women's contribute half of the population, so their involvement in the shaping the economic scenario of India is very important.

OBJECTIVE

1. To understand the challenges faced by SHG.
2. To understand the various ways of resolving the challenges of SHG.

RESEARCH METHODOLOGY

PRIMARY DATA - For this research the data is collected from **20** existing self-help group members who are operating their own SHG in Thane city.

SECONDARY DATA - The paper is also based on Secondary Data collected from various sources like journals and websites.

DATA ANALYSIS & INTERPRETATION**Q1. Age of respondents.(Source: By Primary Data)**

Table 1 : Table representing Age of respondents.

Particulars	Frequency
20-25	2
26-30	2
31-35	8
Greater than 36	8
Total	20

Interpretation : The above graph states that majority of respondents are above the 30 years of age.

Graph 1 : Representing Age of respondents.

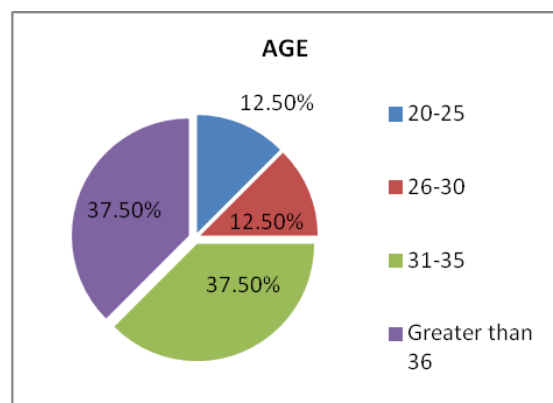
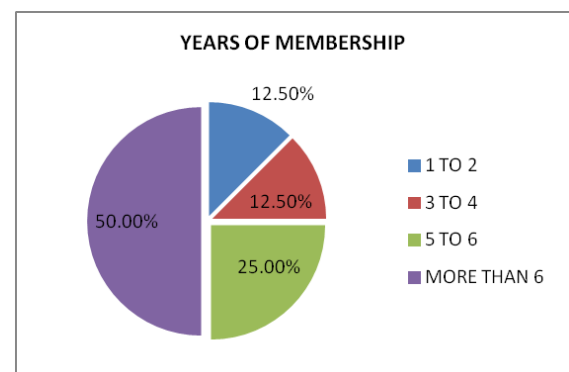
**Q2. For how many years you have been a member of SHG?(Source: By Primary Data)**

Table 2 : Years of membership of SHG of respondents.

Particulars(Years)	Frequency
1-2	3
3-4	2
5-6	5
More than 6 years	10
Total	20

Interpretation : The above graph represents that the majority of respondents are a member of SHG for greater than 5 years.

Graph 2 : Representing Years of membership of SHG of respondents.

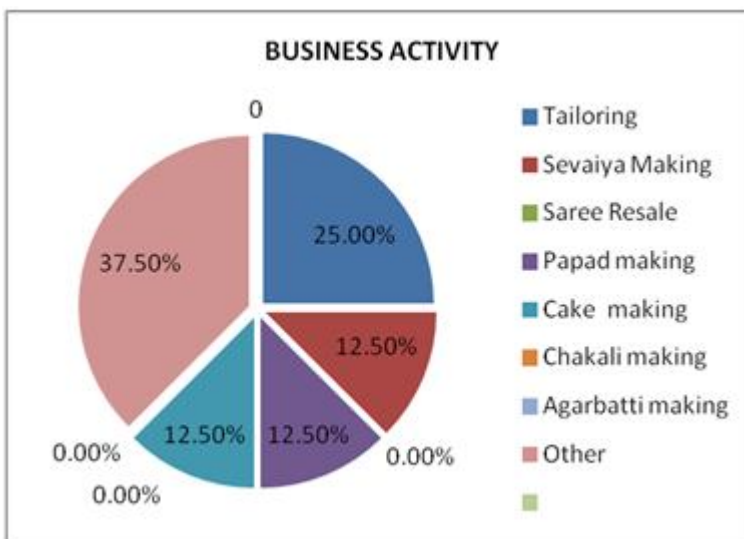


Q3. Which type of business do you undertake under SHG ? (Source: By Primary Data)

Table 3 : Type of business activity undertaken under SHG .

Particulars	Frequency
Tailoring	5
Sevaiya Making	2
Saree Resale	0
Papad making	2
Cake making	2
Chakali making	0
Agarbatti making	0
Other	9
Total	20

Graph 3 : Representing Type of business activity of SHG of respondents.



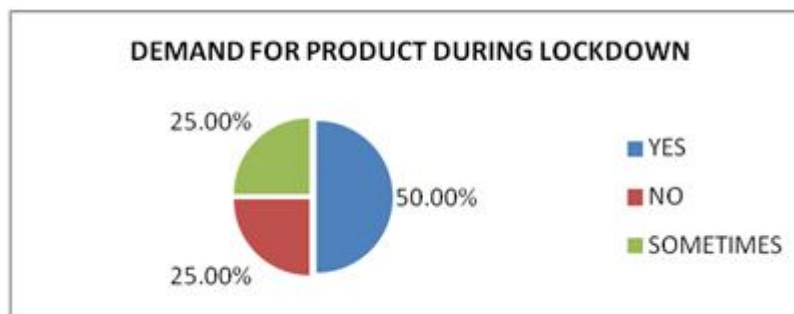
Interpretation : The above graph represents the business undertaken are of varied nature and related to various types.

Q4. Was there a demand for your products during lockdown?(Source: By Primary Data)

Table 4 : Demand for your products during lockdown

.Particulars	Frequency
Yes	10
No	5
Sometimes	5
Total	20

Graph 4 : Representing Demand for your products during lockdown.



Interpretation : The above graph represents that there was a demand for the products made by the members of SHG during lockdown.

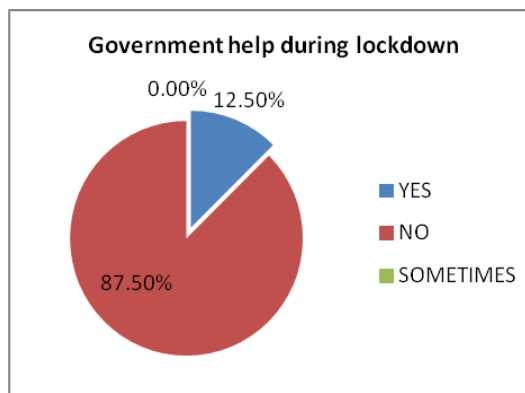
Q5. Did you received any Government help during lockdown? (Source: By Primary Data)

Table 5: Government help during lockdown.

Particulars	Frequency
Yes	2
No	18
Sometimes	0
Total	20

Interpretation : The above graph represents that majority of women's did not receive government help during lockdown.

Graph 5 : Representing Government help during lockdown.



Q6. What type of challenges did you faced in your business during the lockdown?

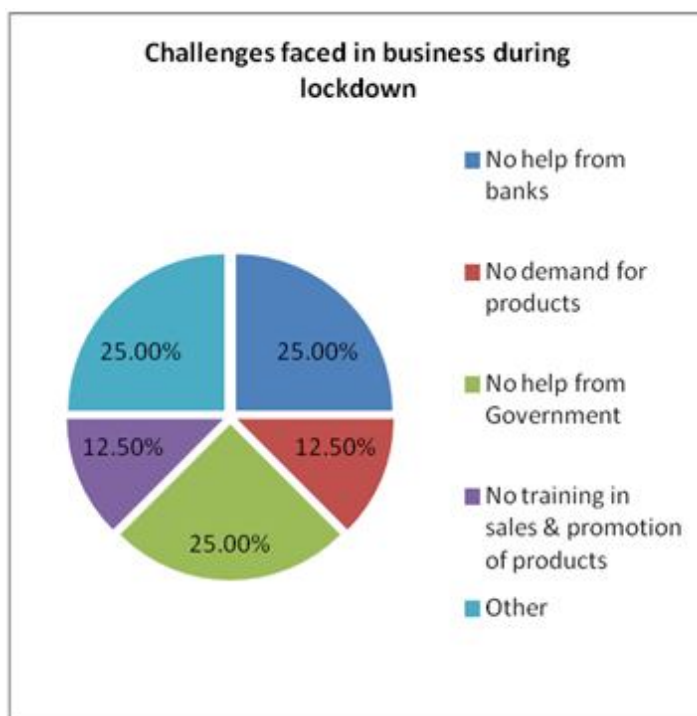
Source: By Primary Data)

Table 6: Challenges faced in business during lockdown.

Particulars	Frequency
No help from banks	5
No demand for products	2
No help from Government	5
No training in sales & promotion of products	3
Other	5
Total	20

Interpretation : The above graph represents that the lack of government & bank help was the severe challenged faced by the SHG members.

Graph 6 : Representing Challenges faced in business during lockdown.



Q7. Who helped you during the lockdown? (Source: By Primary Data)

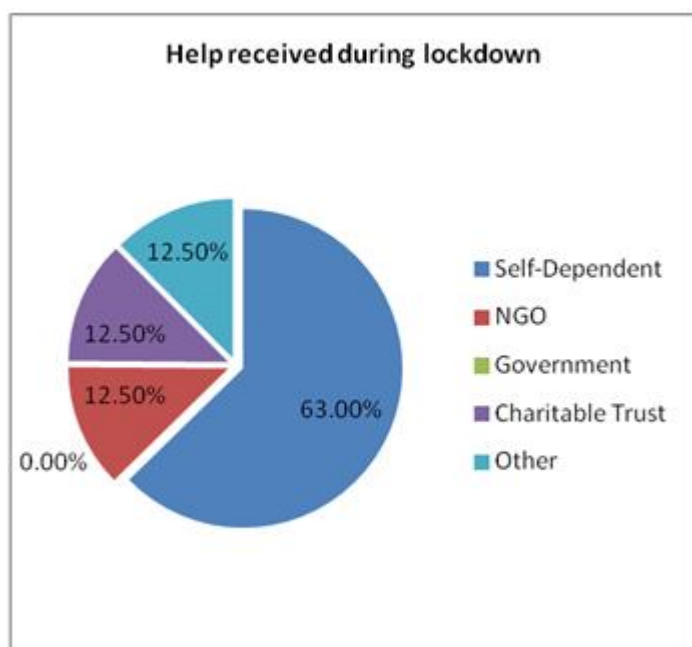
Table 7: Help received during lockdown.

Particulars	Frequency
Self-Dependent	14
NGO	2
Government	0
Charitable Trust	2
Other	2
Total	20

lockdown.

Interpretation : The above graph represents that majority of the SHG members were striving on their own and trying to survive.

Graph 7 : Representing Help received during lockdown.

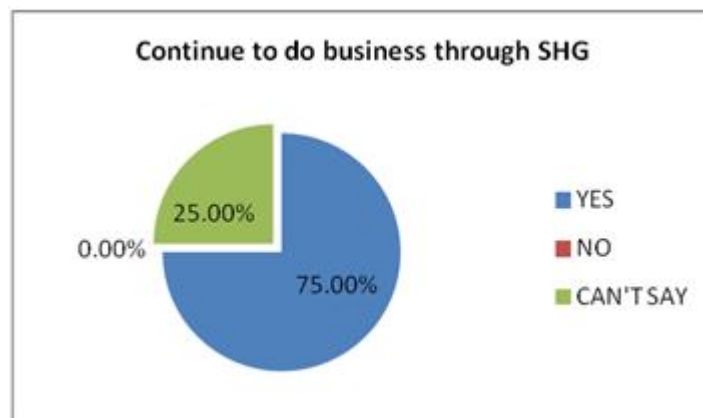


Q8. Do you think you can continue to do business through SHG?(Source: By Primary Data)

Table 8: Continue to do business through SHG.

Particulars	Frequency
YES	15
NO	0
CAN'T SAY	5
Total	20

Interpretation : The above graph represents the majority of members are willing to continue the business through SHG.

Graph 8 : Representing Continue to do business through SHG.

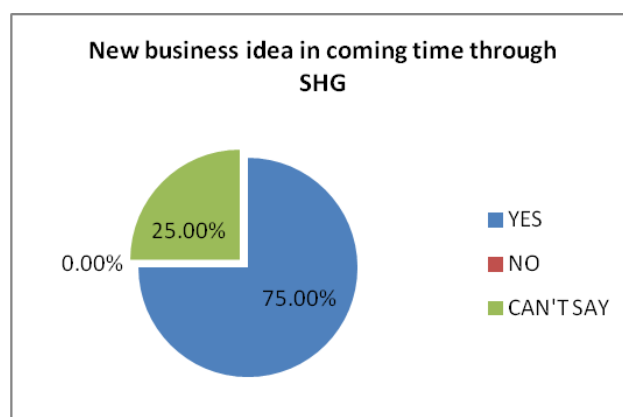
Q9. Do you plan to undertake new business idea in coming time through SHG?(
Source: By Primary Data)

Table 9: New business idea in

Particulars	Frequency
YES	15
NO	0
CAN'T SAY	5
Total	20

coming time through SHG.

Interpretation : The above graph represents that the SHG members are willing to undertake innovative new ideas in business in coming time.

Graph 9 : Representing New business idea in coming time through SHG.

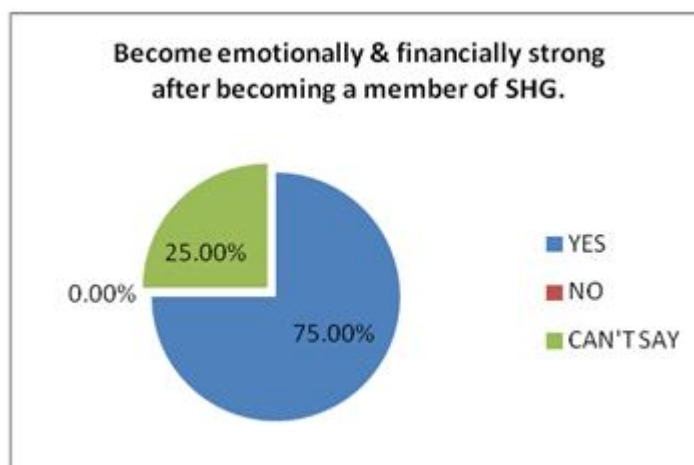
Q10. Do you think you have become emotionally & financially strong after becoming a member of SHG?(
Source: By Primary Data)

Table 10: Become emotionally & financially strong after becoming a

Particulars	Frequency
YES	15
NO	0
CAN'T SAY	5
Total	20

member of SHG.

Interpretation : The above graph represents that the members feel more strengthen and have high morale.

Graph 10 : Representing : Become emotionally & financially strong after becoming a member of SHG.

FINDINGS & CONCLUSION :

1. Majority of respondents are above the 30 years of age.
2. Majority of respondents are a member of SHG for greater than 5 years.
3. The business undertaken are of varied nature and related to various types.
4. There was a demand for the products made by the members of SHG during lockdown.
5. Majority of women's did not receive government help during lockdown.
6. The lack of government & bank help was the severe challenge faced by the SHG members.
7. Majority of the SHG members were striving on their own and trying to survive.
8. Majority of members are willing to continue the business through SHG.
9. SHG members are willing to undertake innovative new ideas in business in coming time.
10. SHG members feel more strengthened and have high morale as they work together in a group.

SUGGESTIONS :**FORMS OF DIGITAL MARKETING THAT CAN BE USED BY SHG.**

1. **Mobile phones:** The SHG manufacture items like handicrafts, hand bags, flower vases, decorative baskets, ornaments etc. The women's can create a whatsapp group and send the images and description of the product to their customers and request them to further forward them.
- 2) **Facebook:** The SHG can create their Facebook account and make small video of their products like chocolates, cakes, cookies etc. in an attractive manner and post on it.
- 3) **Websites and Pop ups:** The SHG that are manufacturing large number of products can start their own webpage, so that the customers can see all their products at one place
- 4) **Tie ups with Amazon or Flipkart:** This option is used by many local vendors, they post their product on various online shopping sites and get national and international orders.

REFERENCES**A) JOURNALS**

1. Amtul Waris & B.C. Viraktamath. [2013] - Gender gaps and Women's Empowerment in India – Issues and Strategies. [ISSN 2250-3153] - International Journal of Scientific and Research Publications.
2. N. Nagaraja & H.S. Kongalappa [2014] - A Study on Women Empowerment through Self-Help Groups. [ISSN No.: 2250-0758] - International Journal of Engineering and Management Research. Vol-4, Issue -6, PP 176-181.
3. Sreemoyee Das et.al [Mar-2015] – A Study on impact of Women SHG on rural Entrepreneurship development – A case study in selected areas of West Bengal.- [ISSN :2250-3153]- International Journal of Scientific Research & Publication.
4. S.P. Premaratne & Gamini Kudaliyanage [Sep – 2016] - Issues, Challenges and Prospects of Women-owned Small and Medium Scale Enterprises in Maldives. [ISSN 2250-3153] - International Journal of Scientific and Research Publications. PP 771-781.
5. Nisha Gujar [2019] - A study of women empowerment through SHG with special reference to ASMITA a SHG by Jindal Steel Ltd.- [ISSN :2454-132X] – International Journal of advance research, Ideas and innovations in Technology.
6. Faraz Ahmad [Jan - 2020] - An Overview of Women Entrepreneurs in the Country. [eISSN : 2581-5792] - International Journal of Research in Engineering, Science and Management .PP 369-372.

B) WEBSITES

1. <http://www.selfgrowth.com>
2. <http://www.womensempowerment.org>

COVID-19 PANDEMIC CRISIS AND THE WAY FORWARD FOR INDIA

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ABSTRACT

The slow economic growth in recent years has been further compounded by the COVID-19 pandemic making the recovery even more challenging because it makes an adverse impact on many sectors of the Indian economy. The recent wave of the pandemic has not only resulted in the loss of human lives but also distressed economies. The impact of this crisis is even higher in emerging economies like India due to already slowing growth rates, poor health infrastructure, and a significant population living in extreme poverty. It is expected to leave a long-term impact due to major disruptions in almost all sectors of the economy. It is vital to analyse long-term economic reforms apart from the stimulus package to mitigate the risk of a prolonged slowdown and save the lives and economy from repeated COVID variants. This research paper highlights the impact of the crisis in some selected sectors and the way forward for the happier and healthier India.

Keywords: Covid-19, Crisis, Slow down Stimulus package

INTRODUCTION

After World War II and the great depression of 1929, the world is facing a critical crisis in terms of economic progress, health and, humanity. Almost every country has been affected by the devastating Coronavirus disease (COVID-19) and the world is passing through great uncertainty. Undoubtedly, the COVID-19 pandemic putting the major global population under lockdown created a shock and put the world economy at a major risk. Humanity, Knowledge & Science stand challenged; posing socio-economic and political risks for the whole world.

Almost the whole world is in the grip of COVID-19 and groping curelessly around alternative short-term measures for reliving people from this life-threatening disease and subsequent livelihood hardship. In December 2019, it came from Wuhan in the Hubei region of China, and became a global threat, and plummeted the major socio-economic activities. India had recorded the first case of the disease on January 30, 2020 increase by about 25,000 people on 1 May 2020, and now it is about 37,04,893 active cases on 14 May 2021.

In order to curb the spread of the virus, the government of India had announced a nationwide lock-down in the first phase of COVID-19, and in the second wave, some states affected a lot and adopted different measure to control. The unprecedented lock-down partially or fully has had a significant adverse effect on the economy and the people. Millions of jobs and livelihoods are at higher risk. All over India activity came to a halt, with no job or income to the people, more than 50 million migrant workers even returned to their native villages. The intensity of the wave was slow and migrant workers were slowly move towards the urban areas in searching for their new jobs and livelihoods but unfortunately, the second strain of Covid-19 in different forms gripped the economy again.

To rescue the economy, India has announced a range of fiscal and monetary stimulus packages to the different sectors of the economy. The main aim of this effort was to increase the higher marginal propensity to spend to boost up the sagging demand which was Keynesian prescription of 'pump priming' through income transfer to people.

This article attempts to examine the health crisis, economic crisis, policy paradigm changes, warranted and the level of expected revival package again during the second wave in India and preparation to fight against the expected third wave.

REVIEW LITERATURE

The Covid-19 pandemic has had put tremendous pressure on the government institutions, health care facilities, and the economy at an international and national level. The different credit rating agencies and the World Bank have lowered the FY21 Indian growth rate at 1.2-2 percent, which is one of the lowest since 1990s economic reforms (The Hindu, 2020). The unemployment rate stands high at 28.6 % which has impacted millions of jobs and livelihoods (Sharma, 2020). The job losses have also led to the reverse migration of migrant workers in millions to their native place and the chance of them coming back is pretty low till the pandemic slows down. There is also an increasing worry for greater income inequality with the poorest of the population being pushed to greater rural poverty and food insecurity. There is an urgent need to make sure the movement of essential goods and services countrywide. As people stay at home, leads to the demand for domestic consumption in

various sectors (the most affected ones are tourism, hospitality, and hotel industry) heavily impacted and the state coffers are getting lower taxes.

The Global Supply chain has badly disturbed due to the closing of the national borders and international trade and transactions have been disrupted (Sengupta, 2020). It is a time of greater uncertainty for all at the micro and macro level and required huge relief packages again by the governments to protect the economy as well as human beings the well-coordinated fiscal- monetary policy. (Lekha Chakraborty, 2020).

OBJECTIVE OF RESEARCH

1. To overview the impact of COVID-19 on the overall Indian Economy
2. To assess the impact of a pandemic on selected sectors of the economy.
2. To focus on certain challenges and way forward

METHODOLOGY

The study is based on secondary sources of data that have been collected from various national and international reports, journals, newspapers, and magazines, etc. which are used to support our analysis.

SIGNIFICANCE OF THE STUDY

With the world facing unprecedented shock due to Covid-19 and with sudden stop of economic activities. In India as well, with the pandemic situation still evolving, the growth forecasts by all the agencies have been negative with the median forecasts at close to -10 percent. This pandemic has disrupted almost all sectors of the economies around the world and the lives of individuals. There are many areas of research needed regarding COVID-19 like health, GDP, agriculture, informal sector, employment, and global trade and commerce which be profoundly impacted.

IMPACT OF THE CRISIS

Over the last few years, India experiences a crisis when economic indicators showed poor economic performance resulted in unemployment, GDP growth is slowing down, investment rate, consumption, and export growth decelerated over time, and uncontrollable health concerns. It may happen because of a severe attack of COVID-19 since March 2020 and it has also continued in the year 2021 with a greater impact. The banking and financial sector was not functioning properly and the macroeconomic policy was not responding with its limited implementation.

Both formal and informal sectors impacted the emergence of economic shock due to the widespread of coronavirus everywhere. In the initial phase of the Pandemic, the Indian economy was primarily experienced a demand slowdown whereas during the lockdown and the second wave of Corona Virus in the month of April-May 2021 both demand and supply have been disrupted. Due to global recession and disruption of global supply chains, external supply and demand have also affected a lot. It may take a long time for the economy to recover from this shock even if the lock-down is fully lifted in the ahead months of 2021. The disruption of demand and supply forces is likely to continue even after the lockdown is lifted. Now it is a very tedious process to return the economy in a new normal state and normalise human beings.

AGRICULTURE

Agriculture of today is a witnessing transformation to improve farming techniques and to change farmers' livelihoods and increased income. Agriculture and its subsidiaries demonstrated a growth rate of 3.4 percent (at constant prices, 2020-21) whereas other economic sectors performed negatively. Excellent outputs in agriculture enhanced the share of agriculture in GDP to almost 20 percent for the first time in the last 17 years (Economic Survey, 2020-21). During the Rabi crop, it has witnessed high production of wheat, mustard, gram, sesame, etc. and Kharif production is also going to be good due to the normal monsoon this year. But there is a fear that due to panic situations supply chains are badly disturbed and farmers will not get the remunerative price of their crops. A survey by Azim Premji University shows that 37% of farmers were unable to harvest, 37% have sold at reduced prices and 15% were unable to sell the harvest. With the emerging crisis of Covid-19 and projected economic depression across the globe, the rural economy is sure to emerge as the lifeline for the country.

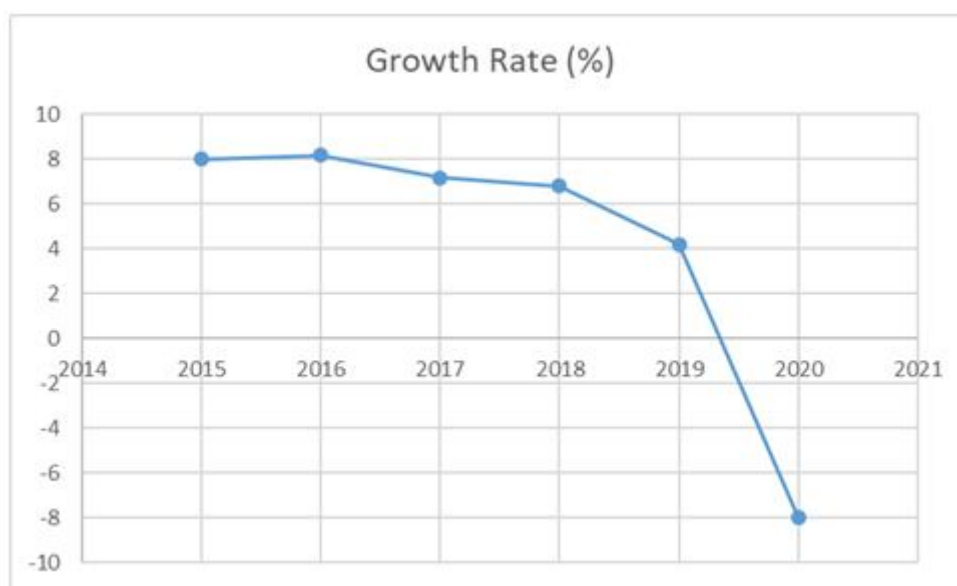
GDP GROWTH

World Economic Outlook (WEO) suggests that the Covid-19 pandemic will shrink world output by 3% in 2020 then after will grow 6.6 percent in 2021 and moderating to 4.4 percent in 2022 (As of 31 March 2021). As for as India is concerned, CRISIL estimated the economic growth rate to 1.8 percent, from 3.5 percent it had earlier predicted for 2020-21. Moody's slashed India's growth forecast for the calendar year 2020 to 0.2 percent. For

2021, the rating agency expects India's growth to rebound to 6.2 percent but there is a doubt to achieve this target because the Indian economy is facing the second wave of deadly coronavirus. India's growth rate was 6.81 percent in 2018, 4.2 percent in 2019, and -7.97 percent in 2020 respectively.

India's Growth Rate

Year	Growth Rate (%)
2015	8
2016	8.17
2017	7.17
2018	6.81
2019	4.2
2020	-7.97



Micro, Small and Medium Enterprises (MSMEs)

Micro, Small, and Medium Enterprises (MSMEs) play an important role to solve the problem of unemployment, inequality and emerged as a highly vibrant and dynamic sector of the Indian economy. MSMEs sector exports nearly 40 percent. According to the 2018-19 annual report on MSMEs indicate that the sector contributes around 30.27 percent of the country's GDP, and employs around 50 percent of industrial workers. Over 97% of MSMEs can be classified as micro-firms (with an investment in plant and machinery less than Rs 25 lakh), and 94% are unregistered with the government. We can see with the help of the following matrix where we connect the three sectors with three major players.

Matrix of Economic Performance

The Players		Agriculture	Industrial	Services
	SMEs	Low	Average	Average
	Private sector Big corporates	Low	More than Average	Good
	PSUs	Very low	Low	Average

Although all businesses have been affected by the pandemic, the MSME sector would also be badly hit by reduced cash flows caused by the unprecedented lockdown continuously till today. It has disrupted trade and transactions, supply chain management, migrant labours, availability of raw materials, travel bans, closure of business avenues like malls, hotels, theatres, etc., and educational institutions resulted in massive hamper the MSME business, salary, and job losses.

INFORMAL SECTOR

The share of the informal sector in India in total employment is very high and the largest in the world. It contributes more than 45 percent of its overall GDP and employing close to 90 percent of its working population. In a short span of time, this sector was faced by continuous shocks like Demonetisation in November 2016 when 86 percent of the money in the economy became unusable overnight, the haphazard introduction of the Goods and Services tax in 2017, and the presence of COVID-19 since March 2020 to May

2021 which is badly hit the informal sector and its independents. The real and miserable conditions of the workers during the lockdown period were noticed where all trading activities were stopped and they were migrated from their workplace to their native places in different modes.

Although during the pre-COVID-19 period, the informal workers were already facing problems with low wages and incomes but this deadly pandemic has affected even all levels of the society but informal workers including migrants are the worst. Due to lockdown and many restrictions, there is almost no economic activity particularly in urban areas, resulted from large-scale losses of jobs and incomes for these workers. According to CMIE, There was a loss of 122 million jobs in April 2020. Out of them, the small traders and daily wage labourers lost their 91 million jobs (CMIE). The employment rate was 39.1% on 22nd March 2020 which declined to 26.4% on 3rd May 2020 before improving to 37.8% on 21st June 2020. A survey by Azim Premji University shows that 57% of rural workers and 80% of urban workers lost work during the lockdown. Around 77% of the households consumed less food than before. Thus, it is expected to see the second wave and forecast about the third wave of Covid after May 2021 it can take a longer time to recover from this economic shock.



EMPLOYMENT

India is known for its demographic dividends. Over 62 percent of people in the country fall in the age group of 15-59 years which is expected to rise up to 65 percent by 2035. Job losses are a grim reality due to the pandemic. The current situation has certainly shocked to a large section of the working population.

On March 26, 2020, due to lockdown, the Finance Minister announced a Rs. 1.7 lakh crore package to provide a safety net for those who have been worse affected i.e. the unorganised sector workers, especially daily wage workers, and urban and rural poor under “*Pradhan Mantri Garib Kalyan Yojana*” and it will continue further in 2021.

CHALLENGES AND THE WAY FORWARD

The delivery of economic growth towards the poor and marginalised section of the society, innovation, competitive environment, lack of worthwhile industrial and scientific base, malnutrition, illiteracy, and poverty, etc. - are the ongoing challenges in India.

Covid-19 has posed unprecedented challenges such as loss of human lives, distressed economy, service gap, poor health infrastructure, and save the country from unfolding trade and economic uncertainty in India.

It is important to focus on the advancement of skills in line with the emerging reality of the market. There is a need for the government and private sector to work together to address skills gaps and link supply with demand and vice-versa. Due to the demographic dividend in India, the youth will be the torchbearers of India's march to becoming a self-reliant nation and they should be equipped with the right skills to meet the emerging demand of the new world order.

It is a wakeup call to the policy makers and planners of India that the shift in the policy paradigm is needed to put the Nation-State in the center stage and put their sincere efforts to revive the economy and keep it on the path of sustainable development while protecting the life and natural environment.

In the wake of the Covid-19, public health has been brought to the forefront. One thing has become clear---the need for affordable and accessible health care for all in the light of ongoing challenges of mitigating the pandemic,. As the pandemic has taught us, diseases know no boundaries and do not restrict themselves to a particular set of people, nation, or community.

CONCLUSION

The world is facing an unprecedented turmoil. Different Pandemic has come and gone in different a format all over the world, but it has never made the people and resources around the world struggle collectively with crumbling economies and a grim job which are seeing recently. India believes in *Vasudhaiva Kutumbakam*, the world is one family, strives to stand with the world. The global community has extended a helping hand in supporting the efforts of the Government of India in this collective fight against the global Covid pandemic. Medical equipment, medicines, oxygen, ventilators, etc. are being provided by many countries. India has also helped many countries of the world at the time of the crisis.

The Covid pandemic is exposing the quality of governance and competencies of our leaders because most of the time in the crisis situation people looking for assistance and protection from the government but during the pandemic, it has not realised. It is the time for everyone to stand together to outbreak of Covid-19 in any form to save our lives and accelerate the pace of economic growth. It is my observation that human kind has never taken lessons and wisdom from history so we are facing pandemic one after one wave and lost our near and dears ones. There is an urgent need to rethink, redesign, and restructuring the whole system to save lives and the economy.

REFERENCES:

1. S. Mahendra Dev and Rajeswari Sen Gupta (2020), Covid-19: Impact on the Indian Economy, Indira Gandhi Institute of Development Research, Mumbai.
2. The Economic Impact of Covid-19 with special reference to India (as on 1.5-2020), Reference Note, Lok Sabha Secretariat, New Delhi.
3. Covid-19 Challenges for the Indian Economy: Trade and Foreign Policy Effects, EEPIC India and AIC 2020.
4. CRISIL (2020). The COVID-19 fall out quantifying first-cut impact of the pandemic. 19th March 2020. <https://www.crisil.com/en/home/our-analysis/views-and-commentaries/2020/03/the-covid-19-fallout.html>
5. Dev, S, Mahendra (2020), "Addressing COVID-19 impacts on agriculture, food security, and livelihoods in India", IFPRI Blog, April 8. <https://www.ifpri.org/blog/addressing-covid-19-impacts-agriculture-food-security-and-livelihoods-india>
6. Krishnan, Deepa and Stephan Siegel (2017), "Survey of the Effects of Demonetisation on 28 Slum Neighbourhoods in Mumbai", *Economic and Political Weekly*, Vol. 52, Issue No. 3.
7. Khera, Reetika (2020) "Covid-19: What can be done immediately to help vulnerable population", Ideas for India. <https://www.ideasforindia.in/topics/poverty-inequality/covid-19-what-can-be-done-immediately-tohelp-vulnerable-population.html>
8. Mehrotra, Santosh, and Jajati K. Parida (2019): India's Employment Crisis: Rising Education Levels and Falling Non-agricultural Job Growth. https://cse.azimpremjiuniversity.edu.in/wpcontent/uploads/2019/10/Mehrotra_Parida_India_Employment_Crisis.pdf
9. Jakhotiya Girish (2020), Impact covid-19 on the Indian Economy and the Road Ahead
10. A development monthly Yojana January 2020 and 2021 Various Issues
11. FICCI (2020), Impact of Covid-19 on Indian Economy
12. Annual Report (2020-21), Government of India, Ministry of Micro, Small and Medium Enterprises.
13. J.D. Sonkhaskar (2020), Impact of Covid-19 on Indian Economy, International Journal of Advanced Science and Technology.
14. RBI (2020), Monetary Policy Report, Reserve Bank of India, April 2020.

BUSINESS LAW LEGAL FRAMEWORK IN COMBATING PANDEMIC; AN INDIAN EXPERIENCE

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ABSTRACT

Pandemic breakouts bring about a critical, disaster-like situation where the administration needs to evolve strategic decisions, policies, and regulations on an urgent basis. The legal framework plays an important role in smoothening this situation by acting as a guide while forming these policies. This paper is an inquiry into the various legislation existing in India for controlling a pandemic and their efficiency in serving the purpose.

Objectives: This research paper has the following objectives.

- *To understand the legal framework in controlling epidemics in India*
- *To study how efficient the existing legal framework in combating Covid-19*
- *To suggest a needed change in the framework*

Methodology: The research will be carried out through a detailed and deep reading and analysis of Primary data such as Bear Acts and other legal instruments such as Law Commission reports, Committee Reports, etc, and secondary data such as books, research papers, articles, comments, and opinions.

Keywords: Pandemic, Covid -19, Legal frame-work

PAPER:

India has a history of being ravaged by epidemics and pandemics. If Cholera, Plague, influenza were nightmares in the 19th and early 20th century. Swine flu, Ebola, Nipah, etc also did not spare our country, before the most monstrous Covid-19 strike in modern times. The legal framework, is an important tool in controlling a pandemic in any country. In India, there a handful of legislations exist in the country, which directly or indirectly becomes significant

- **EPIDEMIC DISEASES ACT, 1897:** This legislation, more than a century old, undoubtedly a colonial legacy, is still prominent in the sphere. The Act was passed to control and regulate the break out of bubonic plague in the Bombay Presidency. With only four sections, It is considered to be one of the shortest legislation in the country. Section 1 of the Act, defines the term “act of violence” but in a limited sense, done by any person against a healthcare service personnel only. The term “property” also has a limited meaning to include only that belongs to a clinical establishment. The term “health care service personnel” has a much wider meaning. It includes, not only doctors, nurses, paramedical workers, or community health workers but any person declared or empowered to take measures under the Act by the state. As it is evident, the Act was passed in an extreme case of emergency. Therefore, the provisions enable the administration to take any measure. Section 2 of the Act, considered to be the most draconian among them, empowers the state to take measures and prescribe regulations as to the dangerous epidemic disease. However, the term “dangerous epidemic disease” is not defined under the Act. Section 3, describes the penalty by making any offense under the Act, deemed to be committed under IPC and punishable thereof under IPC provisions such as Sections 188 and 324, depending on the nature of the offense. 2020 amendment to the Act, criminalizes attacks on healthcare personnel, including doctors, nurses, paramedics, and ASHA workers. It makes them a non-bailable offense. The Act was criticized for being empowering legislation that allows highhandedness by the authorities without any concern about citizen’s fundamental rights. The major drawbacks of this legislation are:
 - The Act failed in achieving the very purpose of its enactment, as the plague spread to other areas
 - It does not deal with the duties of the state and the rights of its citizen in a pandemic situation.
 - The wide and unfettered powers given to the authorities are often misused to stop, prohibit, detain, examine, test, and do surveillance of citizens, much against their fundamental human rights such as dignity and privacy.
 - There is no definition, neither scientific nor otherwise has given to the term ‘dangerous epidemic diseases’ under the Act.
 - It fails in application in clarifying the distinction between quarantine and isolation.

- This is a state law, not central legislation, thereby giving chance for varied modes of implementation in different places.
- **DISASTER MANAGEMENT ACT, 2005:** The Disaster Management Act was enacted in the year 2005, after the incident of the Tsunami disaster in 2004. The purpose of the Act is to enable authorities, to handle situations of disasters at both state and central levels. Section 2 (d) of the Act, gives the term disaster a very wide and generic definition to include, catastrophe, mishap, calamity or grave occurrence in any area, arising from natural or man-made causes. Covid-19 is covered under this generic definition, as it is a grave occurrence. The term disaster management is defined as an act of preventing, mitigating any danger, capacity building, and preparedness including evacuation rescue and relief. This Act, establishes a central agency, that is, the National Disaster Management Authority (NDMA). It acts as the nodal agency for coordinating disaster management operations. The NDMA lays down policies, plans, and guidelines for the management of disaster. Similarly, Section State, District, and Local level Disaster Management Authorities are established. Coordination of these authorities is expected in the management of any disaster. NDMA Guidelines on Management of Biological Disasters, 2008 is the broad legal framework within which activities to contain COVID-19 are being carried out by the Union and State governments. Unlike E.D. Act, DMA does not give blanket immunity to authorities. It expects people in power to act lawfully and includes checks and balances, particularly to curb discrimination in providing relief and protection of Human Rights. However, DMA was enacted to help authorities in managing disasters, which are affecting a specific area or specific group of people and not health disasters ravaging the entire country and a wider population.
- **OTHER LEGISLATIONS:** State governments have used various state-specific Public Health Acts to deal with the crisis. For Example, Tamil Nadu Public Health Act, 1939. Kerala invoked legislative power under Entry 6 (Public health and sanitation) of the State List and issued the Kerala Epidemic Diseases Ordinance, 2020. States, generally make the deputy commissioners or district collectors responsible for dealing with disastrous situations. These authorities, make use of provisions in the Criminal Procedure Code, Municipal Acts, or executive orders in an ad hoc manner. Section 144 of the Criminal Procedure Code (Cr. P C) of 1973 authorizes the Executive Magistrate of any state or territory to issue an order to prohibit the assembly of four or more people in an area. Section 144 of the Indian Penal Code (IPC) of 1860 is also invoked often to prohibit assembly. The mechanism to enforce a lockdown and the penalty for disobedience of quarantine rules comes under sections 269, 270, and 271 IPC, through E.D. Act. Similarly various provisions of the Essential Commodities Act, 1955 to control the production, supply and distribution of essential commodities in the interest of the general public are also invoked when required.
- **MAJOR CHALLENGES IN THE PRESENT SCENARIO:** India is a country with billion plus population. In addition to that the population has socio-economical and geo-political extremities. Therefore, pandemic situation, like the one we are experiencing now, brings forth a different set of challenges. Issues like movement of migrant laborers, distribution of essential supply, livelihoods of daily wagers, relief camps, entitlement of statutory minimum relief, etc. are to be addressed. However, the availability of hospital beds, treatment, ventilators, oxygen, and vaccination, etc. are bigger problems that need urgent solutions. Article 21 of the Indian Constitution makes the right to health a part of the right to life. However, the responsibility of the state to provide basic health facilities, in a pandemic situation, is not clearly defined in any of the existing legislation.
- **PATH AHEAD:** It was long since the demand to modify the colonial Epidemic Disease Act, 1987 has been raised. The recent Epidemic Diseases (Amendment) Act, 2020 has made violence towards health care workers non-bailable and punishable by more severe punishment. It was a required change and will go a long way in protecting health care workers, however, the ordinance did not address other issues such as duties of authorities and rights of citizens. In modern times, as a country, we are bound by International regulations as well. However, our system with a multiplicity of laws does not satisfy that requirement as well. The Public Health (Prevention, Control and Management of Epidemics, Bio-Terrorism and Disasters) Bill, 2017 was aimed to repeal the Epidemic Diseases Act and to address health emergencies that India might face in the future. The bill defines “epidemic,” “outbreak,” “bioterrorism” and “public health emergency.” This legal instrument is comprehensive and has clarity in legalizing measures like social distancing, quarantine, isolation, etc. This Bill was designed to deal with the legal challenges which a 21st-century pandemic might bring about. Unfortunately, it was never tabled in Parliament.
- **CONCLUSION:** International Health Regulations issued by the World Health Organization, outline obligations of the Government, during a pandemic. They also provide guidelines for smoother handling of

the situation. The existing legal framework in India is failing to deal with the pandemic justifiably due to the absence of uniformity and clarity, in the multiple legislations implemented across India. This creates a serious threat of infiltration to citizen's rights, discrimination in access to health care, emergency treatment, information, and immunization. Existing laws are not competent to tackle a 21st-century pandemic, as the nature of the spread of communicable diseases is changing and novel viruses are erupting. In order to make our legal framework in tune with the International standards, and capable of meeting the present-day challenges comprehensive legislation covering all health and sanitation emergencies is warranted.

REFERENCES

1. Chinmay Tumbe (2020), Pandemics and Historical Mortality in India, Working Paper, Indian Institute of Management, Retrieved from <https://web.iima.ac.in/snippets/workingpaperpdf>, Last visited on 09-05-2021 at 18.16 IST
2. The Epidemic Disease Act, 1897. Retrieved from <https://legislative.gov.in/sites/default/files/A1897-03.pdf>. Last visited on 09-05-2021 at 18.58 IST
3. Harleen Kaur, (2020), Can the Indian legal framework deal with the COVID-19 pandemic? A review of the Epidemic Diseases Act, Column, Bar, and Bench. Retrieved from, <https://www.barandbench.com/columns/can-the-indian-legal-framework-deal-with-the-covid-19-pandemic-a-review-of-the-epidemics-diseases-act>. Last visited on 09-05-2021 at 23.31 IST
4. Durgesh Prasad Sahoo, G. Alekhya, Vikas Bhatia, Swayam Pragyan Parida (2020), COVID-19 pandemic: a narrative review on legislative and regulatory framework in India for disaster and epidemic, Vol 8, No 7 (2020), International Journal of Research in Medical Sciences. Retrieved from <https://www.msjonline.org/index.php/ijrms/article/view/8295>. Last visited on 09-05-2021 at 23.41 IST
5. Tanvi Nigam, On the Legal Front, How Prepared Is India for the Next Public Health Emergency? The Wire 13th October 2020). Retrieved from <https://thewire.in/law/india-covid-19-legally-prepared-next-pandemic-epidemic>. Last visited on 09-05-2021 at 23.47 IST
6. Arunjit Miglani, Legal framework needed to manage epidemics, The Tribune (9th May 2021). Retrieved from <https://www.tribuneindia.com/news/comment/legal-framework-needed-to-manage-epidemics-50952>. Last visited on 09-05-2021 at 23.53 IST
7. Disaster Management Act, 2005. Retrieved from <https://cdn.s3waas.gov.in/s365658fde58ab3c2b6e5132a39fae7cb9/uploads/2018/04/2018041720.pdf>. Last visited on 09-05-2021 at 00.23 IST
8. M.P. Sajnani and Dr. Priya A. Sondhi (2020) Covid-19 – Necessary Reflections on Disaster Management Act, 2005, SCC online 2nd November 2020. Retrieved from, <https://www.sconline.com/blog/?p=238362>. Last visited on 10-05-2021 at 00.29 IST
9. M.P. Ram Mohan & Jacob P. Alex , COVID-19 and the ambit of the Disaster Management Act, The WEEK Magazine, 26th April 2020. Retrieved from <https://www.theweek.in/news/india/2020/04/26/covid-19-and-the-ambit-of-the-disaster-management-act.html>. Last visited on 10-05-2021 at 01.29 IST
10. Ramya Boduppalli & Greetika Francis (2020), Endemic Diseases (Amendment) Bill 2020: A missed Opportunity, ILI Law Review, Special Issue 2020. Retrieved from <https://www.ili.ac.in/covid/ramya.pdf>. Last visited on 10-05-2021 at 10.17 IST
11. Parikshit Goyal, (2020), The Epidemic Diseases Act, 1897 Needs An Urgent Overhaul, Engage, Economic & Political Weekly, Vol. 55, Issue No. 45, 07 Nov 2020. Retrieved from <https://www.epw.in/engage/article/epidemic-diseases-act-1897-needs-urgent-overhaul>. Last visited on 10-05-2021 at 10.55 IST

COVID'19 PANDEMIC AND FUTURE OF INDUSTRIAL SECTOR IN INDIA

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ABSTRACT

As the Novel Corona Virus infection is spreading and risking the lives of people globally it has also created a deep economic distress. Almost all countries in the world adopted lockdown as a last solution to face this pandemic and control the death rates of people. No doubt the pandemic affected healthcare sector the worst but it also impacted the industrial sector. Hotel, tourism and aviation industries in overall world has seen a major destruction. Automotive, construction, real estate and textile industries are majority hit. On the other side, pharmaceuticals, IT and telecommunications proved to be strong sectors in this situation. Most Indian companies are getting affected in terms of revenue and profits getting impacted amid Covid -19 pandemic.

This paper attempts to study the impact of Covid-19 pandemic on different industries.

INTRODUCTION:

On 11th March 2020, the WHO carried out a virtual press conference and confirmed COVID'19 as a pandemic. With such a wide reach and explosive magnitude the world braced itself for the impact. This is not just a health or an economic crisis, it has already affected multiple aspects of human lives. Lockdowns were imposed, economies brought to a halt and travel was shut down. It has affected millions of people worldwide. Work from Home is a new reality in the world.

The world is in a lockdown state with almost all the countries are supporting social distancing as the best possible method to prevent Coronavirus until its vaccination appears in the market.

This pandemic is infecting the world and countries are seeing an exponential rise in the number of cases with increasing fatality rate. Economies around the world are ruined and stock markets have collapsed like never before; the great recession is started and will continue to damage deep to the businesses worldwide except the healthcare, and FMCG (Fast Moving Consumer Goods) as they are the basic needs (Barua, 2020).

RESEARCH METHODOLOGY:

1. Area selected: the present study is confined to India.
2. Study period: the study is stretched over a period of one year i.e. March 2020 to March 2021.
3. Data Sources: The present study is based on secondary sources. The secondary data was collected from books, journals, newspapers and annual government reports.

IMPACT OF COVID'19 ON PHARMACEUTICAL INDUSTRY:

India has a 20% share in generic drug market globally, it is third largest producer of pharma drugs produced globally and Indian companies supply 4 out of 10 generic drugs consumed in US. India's pharma sector has witnessed a turnover of \$20 bn in 2019. During the crisis also India has supplied all those generic products fully to US. The industry was not much affected due to pandemic. The manufacturing in India was affected till first week of April but then it came down to normal. After the crisis Indian pharma companies are expected to be bigger and reliable supplier to the world. Increased hospitalization, incidence of COVID-19-related pneumonia and increased demand for assigning patients to ventilators, contributes to related prescription medicine shortages. The COVID-19 impact on the pharma sector has been less pronounced than observed in the other sectors, as pharmaceuticals fall under the essential service category and sector companies are exempt from the restrictions under the nationwide lock-down.

IMPACT OF COVID'19 ON TOURISM AND HOSPITALITY INDUSTRY:

While COVID'19 hit all businesses, for sectors like tourism and hospitality the impact has been much more severe. The hospitality industry is being considered as worst affected due to lockdown and it is being anticipated as one of the last ones to recover from the unprecedented loss to business. The Corona Virus outbreak has affected the hotel industry as many of the events got cancelled and many passengers chose to cancel their travel plans after January 2020. Since March 2020, hotels in India were facing a situation of Nil Occupancy till May 2020. It was in June 2020, Government of India announced Vande Bharat Mission which mandated passengers 7-14 days of quarantine. After which some hotels started getting batches of passengers with minimum charge packages which resulted into little bit occupancy but didn't get any commercial benefit

for the industry. As social gatherings were restricted and physical distancing were applied by people to avoid getting infected food and hotel industry faced financial problems even after unlocking. The lockdown has also led to the closure of pilgrimage and tourist sites and imposition of section 144, cancellation of flights and trains has also affected local small businesses and employment thriving around them.

As hospitality, food and travel does not come under necessity items, and thus it is a last item of preference for people. Hospitality industry which was getting corporate clients earlier also suffered due as corporate sector found more comfortable to Work from Home and relied mostly on webinars. So, the whole year was of low or even no business year for the industry.

After the Unlock Hospitality and Travel industry has seen a good recovery. With precautionary measures and certain restrictions the industry opened its doors for tourists. Some of the hotels reported that they had furlough or lay off staff due to COVID'19. This pandemic has traumatically compromised the business class segment, so the growth will be in a slow pace in near future. Food and Beverage industry also face uncertainty in post Covid world. The industry is trying to take many measures to reduce the contact with it's customer and make sure that the customer is safe.

IMPACT OF COVID'19 ON MANUFACTURING INDUSTRY:

India's manufacturing capacity has contracted sharply after first lockdown which was declared in March 2020. India's manufacturing industry witnessed a record low activity as this was 27.4 PMI. The production in the automobile sector was on hold in auto clusters of India. India's largest carmaker Maruti Suzuki reported a decline of 47%. The company sold 76,240 units in March 2020 as against the 1,45,031 units it sold in March 2019. Not only Maruti Suzuki but every manufacturer in auto industry has registered decline in number of units sold after lockdown. According to CARE ratings the automobile sector's volume declined by 15% to 15% in FY 2020. The slowdown in auto sector had direct impact on steel manufacturing. Steel factories faced the problem of low utilisation due to shortage of demand. Automakers are using their production lines and using the manufacturing knowledge to come up with personal protective equipment for medical staff. Companies like Mahindra and Tesla are designing and manufacturing ventilators for healthcare sector.

IMPACT OF COVID'19 ON IT INDUSTRY:

Information Technology is designated as essential service. Digital is becoming a new normal. The spread of this deadly virus has caused a lot of tech conferences to get cancelled, which could have been a great partnership opportunity for many companies to expand their horizons. A few of the meetings were shifter to teleconferences, but this won't have the same reach, and the conference attendees will not be able to have the networking opportunity as they would be attending the actual conference. Due to the cancellation of these major tech conferences, there is an estimated loss of US\$ 1 Billion. According to the National Association of Software and Services Companies (NASSCOM), India's software and services exports grew 8.1 percent to US\$147 billion in the fiscal year 2020.

IMPACT OF COVID'19 ON INDIAN RETAIL SECTOR:

The Indian retail industry was worth US\$790 billion in FY 2019. It accounts for over 10 per cent of the country's GDP and around 8 per cent of employment. In the past few years, online retail has seen a very rapid growth and the market projections had indicated a 30 per cent growth in online retail in 2020 (National Investment Promotion and Facilitation Agency, 2020). Non-essential services like retail stores and shopping malls had to temporarily shut their doors and follow lockdown orders to slow the spread of COVID'19. A month-long shutdown for retail will affect the Quarter 2 revenues. In the retail sector, the suppressed demand has a tendency to revive very fast and this will enable the sector to recover the losses once the lockdown is lifted. Online retail was operational in some parts of the country during the lockdown period and this will help in offsetting some of the losses for the industry. After unlock online as well as offline retail are recovering with the same pace. Moreover, smaller towns seeing demand coming back.

CONCLUSION:

It is observed that industries have moved swiftly to crisis management. Industries are trying to be a part of the solution for the community, countries and for the world. At the same time standard crisis management playbooks are likely to be insufficient in addressing the implications of this change. Decisions that used to take months and years are being accelerated. Organisations will need to stay ahead of the changes and use this opportunity to exit the disruption with the plan and building blocks to become true leaders.

REFERENCES:

1. <https://www.longdom.org/open-access/the-impact-of-covid19-in-the-indian-tourism-and-hospitality-industry-brief-report.pdf>

-
2. https://www.researchgate.net/publication/344558109_THE_IMPACT_OF_COVID-19_PANDEMIC_ON_DIFFERENT_SECTORS_OF_THE_INDIAN_ECONOMY_A_DESCRIPTIVE_STUDY

SERVING THE CITIES DURING PANDEMIC: A CRITICAL REVIEW OF FUNCTIONING OF MUNICIPALITIES IN MAHARASHTRA

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ABSTRACT

COVID-19, the global pandemic caused by Corona virus is devastating the entire world including India. The pandemic has taken its roots in cities and proven to be the single most potent disruptive force to the “engines of economic growth” in India. The Indian cities and municipalities are continuously struggling to combat the virus by adopting various ways to prevent, avoid and when possible cure the virus. The state of Maharashtra has the highest toll of COVID cases amongst the nation. This research paper focuses on the role of Municipalities to provide basic minimum amenities to citizens during pandemic. It also reviews of functioning of Municipalities in Maharashtra in serving the cities during pandemic and give suggestions thereon to improve its functioning.

Keywords: Municipalities, cities, pandemic, Maharashtra.

INTRODUCTION

COVID-19 the global pandemic has brought the entire world on its knees. The ever changing globalisation era which has resulted urban growth during the 21st century has posed new challenges to policy makers and planners in urban governance across the world. The Covid pandemic has further exposed the delicacy of urban governance across world, including India. The pandemic has taken its roots in cities and proven to be the single most disruptive force to the “engines of economic growth” in India (Debnath, 2020). It has very clearly demonstrated that while national and state governments play a crucial role towards a systematic and unified approach to response and mobilizing resources, it is the cities and urban systems where the battle is being fought. Making cities function in the backdrop of the COVID-19 pandemic is proving to be the biggest challenge.

Maharashtra is one of the most urbanised states of India. The uncontrolled growth of the cities in Maharashtra and especially Mumbai city, which is beyond their carrying capacity, has led to several consequences which were starkly seen during the pandemic. Since the passage of the 74th CAA 1992, the Municipalities in India has a significant responsibility in providing civic amenities to citizens and are responsive to the local needs (Pancholi, 2014). Thus, public service delivery plays a pivotal role in the quality of life of people in the state and also in the development of the nation. Despite this, the local governments are increasingly perceived as unresponsive and mere lip services especially to the marginalized communities. The municipalities play an important role as facilitators of basic services to its entire local thereby keeping their cities functioning. They need to work with the central and state planners in a truly decentralized manner. They also play a significant role in fostering the unity and harmony of communities.

OBJECTIVES OF THE RESEARCH WORK

1. To focus on the role of Municipalities in providing civic amenities to citizens during pandemic.
2. To review the functioning of Municipalities in Maharashtra in serving the cities during pandemic
3. To give suggestions thereon to improve it's functioning in serving cities.

RESEARCH DESIGN & METHODOLOGY

This study examined how government of Maharashtra formed reactive policies to fight coronavirus. The methodology used is multidisciplinary with descriptive analytical framework.

- A) Research Design: - This research involves the impact of COVID in Maharashtra and role of Municipalities in serving the cities during pandemic.
- B) Research Area And Sample Size :- The data is collected through Google form with a sample size of 106 respondents in the state.
- C) Sources Of Data:- Primary Data: Primary data is collected from the press releases of government plans, policies and programme initiatives on government websites and Google form. Secondary Data: Secondary data is collected from various data like, Articles, magazine, and newspaper- online and offline.

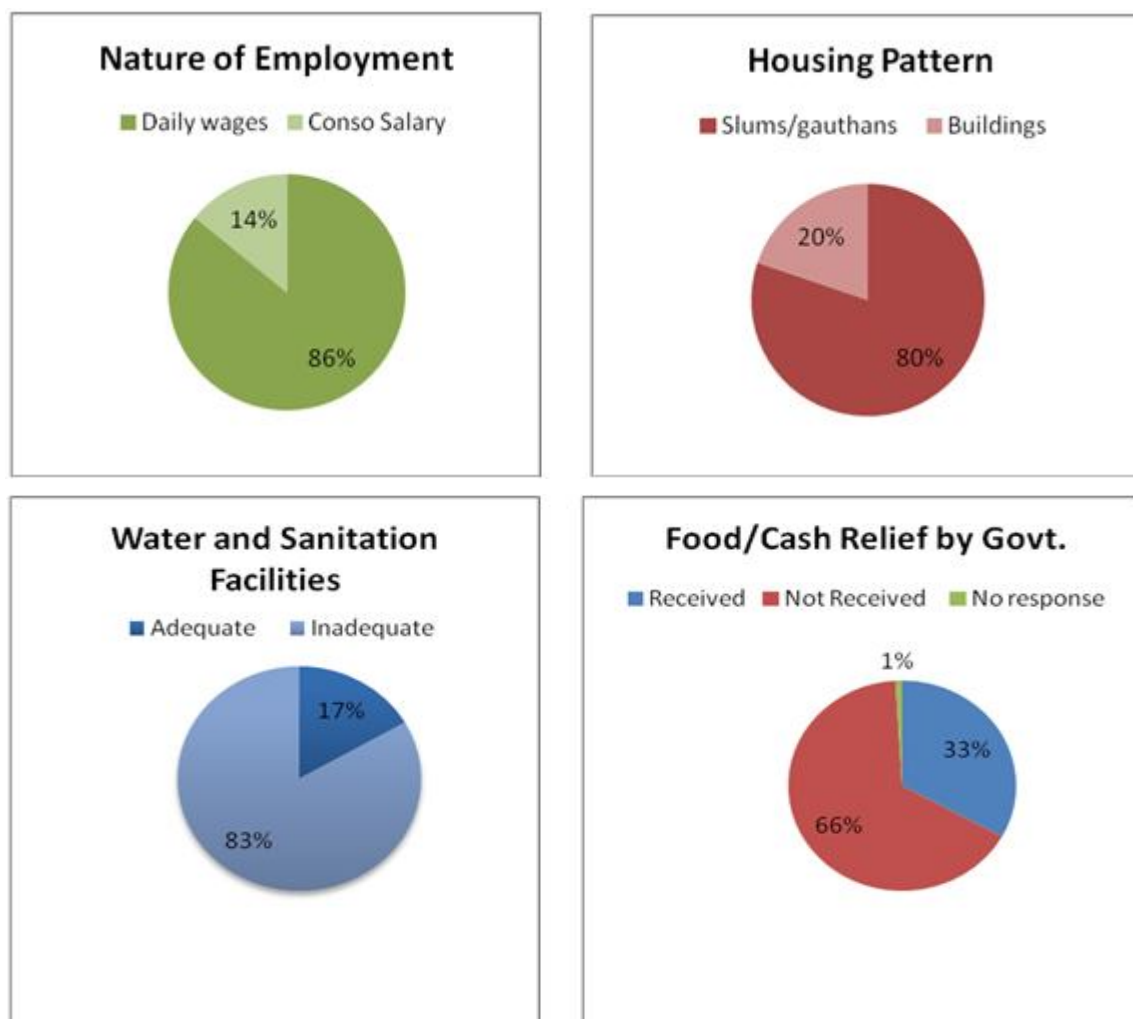
CENTRE –STATE RESPONSE TO COVID -19

There are several measures taken up by the central and state governments in India to deal with the pandemic such as issuing lockdown and social distancing guidelines. Health is a state subject in India, and at the ground level, it is the state governments that are leading the fight against the novel coronavirus in India. However, the most crucial aspects of the policy response to the pandemic rest overwhelmingly with the Centre. The centre went ahead with its decisions on restrictions on international travel and exports; testing strategy and criteria; treatment and drug protocols and to impose lockdowns. The Indian government continues to pursue to take top-down strategies and offer central solutions, vast government machinery led by state and locally elected officials remains under – utilized in the fight against this Pandemic.

The state of Maharashtra was gripped with alarming increase in the Covid cases since March 2019. Indian government declared locked down on March 25, 2020, in the wake of COVID-19 pandemic which affected billions of people spread all over the country. The economic cost of it was estimated at USD 98 billion (EconomicTimes, 2020), while the social costs are still unknown. Of the reported 10 million cases, approximately 2 million are from Maharashtra, which is a densely populated state (Lahane, 2021). Maharashtra has many working migrants population who were left stranded, when the state government of Maharashtra followed Central government guidelines and suspended all domestic public transport without notice on March 24 ahead of the 3-week national lockdown. Many were stranded literally thousands of miles from home, and the shutdown triggered a mass exodus by foot, taking a huge toll in lives and livelihoods.

To what extent state governments were consulted on these policy decisions is still not clear; but predictably, the global and pressing nature of the COVID-19 crisis seems to have further aggravated the imbalance centre-state relations in India. The Centre holds greater administrative power, while the states bear most of the administrative responsibility in India's COVID-19 response.

The State government of Maharashtra proposed a set of strategies to upgrade control measures in the state. An online survey and further research , reveals the functioning of Municipalities in Maharashtra in serving the cities during pandemic .



Survey Analysis :Compiled by Researcher

- Around 75% of all workers in Maharashtra are informal, with no legal or social protection. Around 86 % of participants surveyed were daily wage owners who were immediately and sharply affected by the lockdown, which deprived them of paid employment without warning. Further, 80% live in extremely crowded and congested conditions, in slums/gauthans with five or more people confined to one room. Social distancing norms cannot be effectively followed, especially for prolonged periods. Requirements like frequent and prolonged washing of hands with soap cannot be met by 83% participants as access to clean water and sanitation facilities is limited. All these aspects became more difficult as the lockdown continued, as declining incomes forced many people to cut back on spending for even essential items. Thus the study shows that in highly populated Mumbai and Thane regions, there were no official guidelines from Municipalities for people in these conditions to protect themselves from the virus.
- Fiscal centralisation had even worse consequences. Municipalities across nation were made responsible for essential public health measures and dealing with economic effects of the lockdown, but they were completely strapped for cash. This was more critical in Maharashtra with vast slums and no financial powers to Municipalities. The central government provided almost nothing by way of additional resources and imposed many conditions on their ability to borrow, thereby limiting their ability to spend and effectiveness in dealing with the disease and the economic distress.
- The researcher further found that 66% of marginalised poor surveyed had not received food rations or cash relief from the government. 85% participants complained of Delay in providing adequate and accessible transport facilities by government which added to distress and led to wider transmission of the virus. This can be related to the news of thousands of migrant workers who were forced to assemble on stations in Mumbai city (IndiaToday, 2020) to try and find their way home or had to walk hundreds of kilometres with greater chances of exposure to the virus. Social Exclusion is a harsh reality of Indian Society. Let's not be fallacious that COVID -19 has created this situation. In Maharashtra, this was more visible with the alarming number of cases. The kind of crisis reveals how capable cities are in terms of protecting the low income residents from disruptions like COVID-19. Many municipalities within the state did not have necessary resilience to combat inevitable healthcare and related problems. Thus the research study further revealed deliberate everyday inequalities faced by the urban poor, migrants, blue-collar workers, daily wagers, homeless, and a host of marginalised people which is hard to filter through the lens of growth.

THE WAY FORWARD

Public Service Delivery becomes more crucial in India in normal times as well as during pandemic. In a highly urbanised state like Maharashtra, Municipalities are expected to deliver effective services. However it has been observed that the role of providing basic civic services is transferred from central and state governments to local authorities without corresponding finances and resources. After a quarter century, incomplete decentralisation coupled with inadequate resources has had a negative impact on urban service delivery. This becomes a critical issue of concern especially during pandemic.

While COVID-19 testing has been considerably expanded in India including Maharashtra in the recent period, testing needs to cover additional categories of people including the marginalised community. The Municipalities in Maharashtra can follow the innovative measures adopted by Municipalities in other states like Kerala, Karnataka. The novel method of Social distancing –Break the Chain –followed in municipalities in Kerala and providing free food packets, distribution of umbrella (Ravi, 2020) for needy in Kerala and Karnataka are noteworthy. While the state of Kerala has shown that a decentralized model is effective to solve local challenges, in Maharashtra these powers have been given to the ward commissioners, who are act as agents of central/state governments rather working for locals.

A central question looming amongst the city planners, administrators and experts is how to translate lessons learned from this pandemic into the city's governance frameworks to reduce urban inequalities and burden of share on marginalized people. A focused approach for resilient governance needs to be pondered if we want to get back on track for inclusive growth and achieve sustainable development goals (SDG, 2020).

While all these measures are mentioned in the national containment strategy, implementing these as an integrated package with high effectivity at local level is very significant. Maharashtra has missed the one opportunity in COVID-19 epidemic control and measures to support marginalised, let us not miss the second

chance as municipalities have a significant role in serving the cities during Pandemic and providing effective and equitable amenities to all within the cities.

CONCLUSION

The COVID pandemic has brought to forefront the functioning of Governance in India. This research paper recommends continuous coordination between Centre-State-Local governments to serve the cities during normal times as well as during pandemic. The focus should be on effective and inclusive services where the government, Voluntary organisation along with peoples participation should work for the overall city development. To tackle the challenges and to have inclusive societies, there is need for transparency and with realistic government budgets.

REFERENCES

- Debnath, R. &. (2020). India nudges to contain COVID-19 pandemic: A reactive public policy analysis using machine-learning based topic modelling. *PloS one*15(9), e0238972.
- EconomicTimes. (2020, July). *biggest lockdown may have cost rs-7-8-lakh crore to indian-economy*. Retrieved March 14, 2021, from <https://m.economictimes.com>.
- IndiaToday. (2020, April 22). *Migrants reaching out Bandra station*. Retrieved March 14, 2021, from <https://www.google.com>.
- Lahane, T. (2021). COVID-19: The battle of Maharashtra., . *Indian Journal of Ophthalmology*, 69(3), 477.
- Pancholi, V. S. (2014). Measuring Decentralisation in Reforms Era: A Case of Kalyan-Dombivli,. *India. Current Urban Studies*, 2(02), 116-126.
- Ravi, R. (2020, April 30). *A unique initiative to distribute umbrella*. Retrieved May 1, 2020, from <https://thelogicalindian.com/news/kerala-umbrella-social-distancing-20853>
- SDG. (2020, April 25). *Sustainable Development-Peace -justice*. Retrieved April 29, 2020, from <https://www.un.org/sustainabledevelopment/peace-justice/>

THE ECHO OF SILENCE: LIFE OF CREMATORIUM WORKERS DURING PANDEMIC

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ABSTRACT

The Pandemic has brought the world at a crossroad. The uncertainty has forced people to adapt to new way of life known as the new normal. Loss of job and livelihood due to restrictions took a toll on every household. At a time when the common people were forced to stay inside their houses and maintain social distancing, the world saw group of people who headlined to fight the battle and protect the people from the deadly virus. Front line workers such as doctors, nurses, police, and private food delivery workers worked round the clock to serve the common people following the health protocols. There has been a group of individuals who unlike the other acknowledged and appreciated front line workers have been unperceived for a long period of time. The crematorium workers constitute a handful proportion of individuals who remain unnoticed for the work that they do. With the rise in death cases in the society, the work of the crematorium workers increased. However they remain underpaid for the work that they do. They are not provided with the basic health safety kits to protect themselves while cremating the infected bodies. This article aims to highlight the issues of the crematorium workers during the pandemic. Not much research is done on the plight of the crematorium workers as they often go unnoticed for the work that they perform in the society. It is time for governmental and community intervention for the upliftment of these vulnerable individuals who have been the victims of silenced oppressions for generations.

Keywords: Pandemic, Ignored, Casteism, Upliftment

INTRODUCTION:

An individual's caste in a traditional Indian society determines his/her occupation. It is this ascribed status that differentiates one and another on the basis of purity and pollution. Cremating the dead is considered to be one of the lowliest occupations where individuals have to dispose of the dead in a manner prescribed by the religious order. In India, it is assumed that individuals from the untouchable community have to undertake this profession as it is a taboo for those who belong to the higher caste. Crematorium workers or cemetery workers usually constitute individuals from the marginalized and vulnerable community who undertake this job to support their family. The status of the crematorium workers continues to linger in the marginalized section with no source of support from the religious orders or communities. The crematorium workers are reprimanded for the work they do which includes no source of grief or remorse while burying the dead while struggling to be accepted in the mainstream society.

The course of pandemic has highlighted the real plight of the crematorium workers. With the advent of Covid-19 which has altered life and death, the crematorium workers are on their watch as the numbers of bodies of patients who have been tested positive have increased. Although the bodies of the patients are wrapped and the officials carrying the bodies to the grave use the necessary health measures, the crematorium workers are at a higher risk of contracting the virus by coming in close contact with the body while burying it. Even with the surge in death cases, the crematorium workers are not provided with protective gears nor have they been paid adequately for their service (Ravichandran, 2020).

The sense of satisfaction is an important factor that people hold with their occupation. It gives them acceptance and also monetary support for the amount of work that they do. In the context of the crematorium workers also known as cemetery workers, not much has been researched on the way they survive by burying the dead. People tend to shy away from the topic of death as it is an end of the living. The same attitude is associated with the final rites except that there is an understanding of moral obligation. Providing a decent funeral to the deceased may lead the dead to attain salvation. The funeral rites that different religious communities follow are at the behest of the religious dogmas. In the context of religion, Christianity and Islam follow burial in the ground while Hinduism follows cremating the dead on a traditional wood pyre or electrical cremation. In the different customs that follow, the role of the crematorium worker is hidden by the religious patrons who initiate the funeral rites before cremating or burying the body. Once the rites are completed, the role of the crematorium workers begins which goes unnoticed in the social realm. As their work requires them to dispose the dead, the livings have no remorse towards them and consider them as outcasts in the society.

The pandemic has brought to light the most vulnerable phase of humanity. At one side it has proved there is no surety of life which is associated with pain and bereavement and on the other side it has highlighted the most inhumane side of the vulnerable communities. The marginalized groups who are often silenced because of their social ranking have been victims of the social, economic and political segregation in the society from the start and with the pandemic; their situation has worsened further. The cultural dogmas of the society have institutionalized the submissiveness of the marginalized which has further constricted their roles and opinions. The crematorium workers are one of the silenced individuals who have undertaken the task of cremating the dead at the fate of their own and their family's acceptance. There is an identity crisis among the crematorium workers as they are fighting the battle of social recognition not only from the hegemonic mainstream society, but also from their own members who feel that their employment is a disgrace to the whole family. The hands that bury the dead, in reality are dead within, courtesy of the social stigma labelled on their identity.

THEIR SILENCE, ECHOED:

Our emotions are based on the interactions we have with others. What we think of a person influences how we identify that person, and our identification influences our behaviour towards that person (Kearl, 1989). The concept of grief is associated with the interaction and the relation the individuals have with the deceased. It is therefore understood, that the pain of losing a person can be understood only by the person who has lost the person in their life. The symbolic potency of reviving or least restoring the memories of the deceased is through the cemeteries or burial grounds that account as a place designed to preserve the memories of the individuals. In a contemporary world, the ethos of death and bereavement have been reaffirmed and reconceptualised through the rites of passage and the cultural conception of time (Faunce, 1958). The exploration of feelings and emotions are restricted to the individuals who mourn the loss and not with the crematorium workers as it is assumed of their noble duty of burying the dead. This has in fact led to a transformation in the fear of death to the acceptance of mortalist hopes of people while altering their own existence among the living.

The rise in the number of death cases in the society is indeed a discomfoting notion. In the context of life and death, we prefer life as a gift in abundance. On the contrary, the crematorium workers find their source of livelihood through the death of a person. The number of burials provides them with the financial support on which they sustain. However the pandemic has further neglected the crematorium workers and their service to the society. Lack of medical kits and health measures have forced the crematorium workers to comply with the traditional way of digging the graves risking their life further. Moreover as per the regulations prescribed by health authorities, bodies of positive patients are not given to the family members but are wrapped and taken to the cemetery or the crematorium ground for the final rites. In the light of pandemic where social distancing is the norm, the crematorium workers have taken the initiative on the grounds of humanity and have continued to provide a dignified burial to the deceased while their family members are allowed to mourn from a distance (Reuters, 2020).

The plight of the crematorium workers continues to question the empathetic approach we hold towards the front line workers who are fighting to keep the city and its people safe. The difference remains that the officials are provided with the health kits and places to rest, while the crematorium workers have to resort to burial ground to sleep among the dead (Dhwani, 2021). Some of the crematorium workers in the city have lost the count of the bodies they had to cremate since the onset of the pandemic and the only thing that sustains them from the sympathy of the public and the stench of the bodies is alcohol (Shoshana, 2006). The number of death has affected the psychological wellbeing of the crematorium workers who are struggling for space at the cemetery to cremate the dead with the necessary precautions. The fear of coming in contact with the dead body will infect them and their family members entail them to work cautiously without any protective gear or tools. Most of the crematorium workers in the city remain unpaid from the initial stages of the pandemic outbreak. Not much support has been provided by the government towards the crematorium workers as they continue to survive in the dark.

The lack of support and empathy has not affected crematorium workers from doing their duty. Like other front line workers, the crematorium workers have been constantly helping the health authorities in disposing the dead bodies. Irrespective of their social standing in the society, the crematorium workers continue to provide their service to the community at the expense of being shunned and segregated. With the pandemic wiping out the source of income in most of the households, family members of the deceased have found it difficult to pay the crematorium workers and for the funeral rites. This however should not stop the government from reaching out the individuals who are putting their lives at risk every day and are recognized only when a deceased needs burial or has to be cremated. A joint initiative with the government and health authorities to provide medical kits to the crematorium workers will help them to carry on their duty without any fear of getting infected.

Providing them with basic housing with safe drinking water and sanitation will help them to lead a dignified life which they have been lacking for a considerable period of time.

CONCLUSION

Although not much research is done on the crematorium workers, it is the need of an hour to include the situation of the crematorium workers in the mainstream society. The empathetic approach towards them can only sustain when the society will treat them and their employment with dignity and respect. The humanitarian lens that belittles and segregates them needs to change and has to be open and accepted towards these individuals as it will help in uplifting not only the crematorium workers but also their family members and community who continue to be ostracized for the task of disposing the dead. Until the situations of the crematorium workers improves, the struggle for their representation will continue to remain echoes of silence.

REFERENCES:

- Dhvani, P. (2021, April 21). Mint. Retrieved April 1, 2021, from Google: <https://www.livemint.com/news/india/covid19-bodies-pile-up-at-india-crematoriums-overwhelmed-by-virus-surge-11618312006451.html>
- Faunce, W. a. (1958). The Sociology of Death: A Neglected Area of Research. *Social Forces*, 205-209.
- Kearl, M. (1989). The Social Psychology of Emotions. In M. Kearl, *Endings: A Sociology of Death and Dying* (pp. 472-477). New York: Oxford University Press.
- Ravichandran, N. (2020, July 06). Many Frontline Workers Have Been Left to Fend for Themselves in the Pandemic. *The Wire*, pp. 15-20.
- Reuters. (2020). As Delhi families bury coronavirus victims, a gravedigger watches on. *India Today*, 10-14.
- Shoshana, A. a. (2006). Coming Out of the Coffin: Life-Self and Death-Self in Six Feet Under. *Society for the Study of Symbolic Interaction*, 557-576.

A STUDY ON CONSUMER BEHAVIOUR TOWARDS FAST FOOD CONSUMPTION DURING PANDEMIC

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ABSTRACT

In this pandemic hit world, consumer behaviour will impact all the fundamentals of the economy. Restaurants and Food chains are worst hit by the lockdown in the country but according to Thomai Serdari, Professor of Luxury Marketing at New York University, "social distancing and deprivation is really intense — perhaps the restaurants and bars will be the first to recover." The recovery of Restaurants and Food Chain businesses shall hugely depend on the restaurant going consumer's behaviour post lockdown. The present study is a modest attempt to evaluate and analyse the consumer behaviour with respect to the functioning of Restaurants and Food Chains post Covid-19. The study aims to understand consumer's perception behind going to restaurants and ordering food, choice of restaurants, and expected health and hygiene standards to be followed by restaurants post pandemic.

The study is mainly based on primary data which is collected from a well-structured and close ended questionnaire. The data for the study is collected from 100 restaurant going consumers. Secondary data is collected from free and open online sources. The findings of the study indicate that restaurant goers wish to head back to their favourite restaurants and fast food chains post COVID with extra care on health and hygiene however the restaurant goers plan to reduce the frequency post pandemic era.

Keywords: Consumer Perception, Restaurants, Food Chains, Changing Consumer Behaviour, Post COVID

INTRODUCTION:

Pandemic has affected the Restaurant Industry at large as going to the restaurant these days is impossible. Consumers can no longer think about eating out at their favorite restaurants or fast food joints. The consumers fear infection of the highly contagious virus and therefore do not wish to take the risk of eating outside food. Most of the people these days are trying to eat freshly home cooked food in order to stay safe and the restaurant industry is suffering because of this change in consumer behaviour. Even amidst the pandemic, the moment some relaxations were brought to the lockdown, these online food delivery businesses were the first to resume. The restaurant Industry is currently surviving on the food delivery mechanism which is preferred by a segment of people. The restaurants are focusing on ensuring their consumers that their food delivery process is safe and trustworthy, which lead to the development of a new concept i.e. Zero Contact Delivery. Consumers prefer staying at home and ordering food at their doorstep with minimum physical contact and relish the same without compromising much on their health and safety. The online delivery apps and major MNCs are all now delivering with zero contact in order to gain consumer confidence. The consumer's expectations from food delivery process will definitely change during and post pandemic since the major concern of a consumer would be maintenance of health and hygiene standards. The consumers will now pay extra attention to the minimum physical contact, food packages, quality of food, hygiene ratings, etc.

The recent era in restaurant Industry saw a major shift as earlier the restaurants would get more customers only on weekends and at a certain hour of the day but lately the businesses far and wide across the city, no matter how big or small are working successfully on all days due to the changes in consumer perception and new facilities like online delivery being made available. However, this scenario will change due to the Covid-19 outbreak. Consumer behaviour will see a drastic switch from their own preferences to new ones.

There is an ongoing fear of consuming food or edibles which are not packed now which puts the street side food stalls specially at risk of business failure. The complete lockdown for over 2 months now has resulted in huge losses for many businesses in food industry and elsewhere. Making up for those losses post pandemic will be as challenging as inviting the customers to their restaurants and food outlets. Consumers will definitely take time to regain trust in their favorite restaurants in order to dine in. The new set of expectations of consumers will have to be studied and incorporated by the restaurant owners in order to start serving food and take up the hospitality at go. Extra care in terms of sanitization and cleansing will now become a priority for both the consumers and restaurant owners. The restaurant industry shall slowly be able to work and recover their

economic losses by regaining and retaining the trust of their old customers and rebuilding trust of new consumers.

The study involves evaluating and analysing the changing consumer behaviour amidst and post Covid-19 with respect to changing consumer preferences of eating outside, the concerns of ordering food online and precautions taken by them while doing so, the expectations of consumers from restaurant dining post pandemic.

REVIEW OF LITERATURE:

According to an article on “Restaurants’ Greatest Competition Post COVID-19: Home-Cooked Meals” dated May 2020, a survey found that majority of the consumers preferred food away from home as compared to home cooked food in the pre pandemic era which has now changed in the exact opposite way. According to Philip Daus, partner with Simon-Kucher & Partners, pandemic forced the consumers to eat at home especially during the lockdown phase which made consumers change their eating habits, therefore one of the important tasks for the restaurants post pandemic would be to change consumer’s eating habits towards their products.

Another e-article on, “Consumer Survey: COVID-19’s Impact on Food Purchasing, Eating Behaviours and Perceptions of Food Safety” states a change in consumer behaviour is noticed while buying groceries, consumers are now buying more grocery online and the proportion of people looking for healthfulness of food have increased. These studies clearly show the change in the behaviour of consumers towards eating habits which will decide their choice of restaurants to eat outside and frequency of eating outside post pandemic.

“The new normal: How corona virus pandemic is changing consumer behaviour” by Prashasti Awasthi dated May 25 2020, mentions the change in consumer behaviour with respect to health and food as more consumers have now prioritized eating healthy and exercising while some of the consumers have reduced the consumption of non-vegetarian food.

OBJECTIVES:

The following are the objectives for the study:

1. To understand consumer perception towards going to a restaurant or ordering food online.
2. To study consumer preferences post the pandemic with respect to street side stalls, local restaurants and MNC chains.
3. To enumerate everything that a consumer would expect while visiting a restaurant from health and hygiene perspective.
4. To voice a consumer’s opinions on increase in service cost/charges post Covid-19.

RESEARCH METHODOLOGY:

The study uses both primary and secondary data. Primary data has been collected using a well-structured questionnaire which was circulated online. The population includes the restaurant goers from Jogeshwari-Andheri area based in the Mumbai suburbs, but a sample of 100 was selected using purposive sampling technique. The secondary data for the study was collected from open online sources which include articles, survey reports and research papers.

LIMITATIONS:

- 1) The sample size of present study is limited in its nature, which puts a limitation on the generalization of results of the present study.
- 2) Sample is selected using purposive sampling method which poses a limitation of this study.
- 3) The study is restricted only up to Jogeshwari-Andheri area due to limitation of time and resource.
- 4) Only free and open online sources have been referred to collect the secondary data.

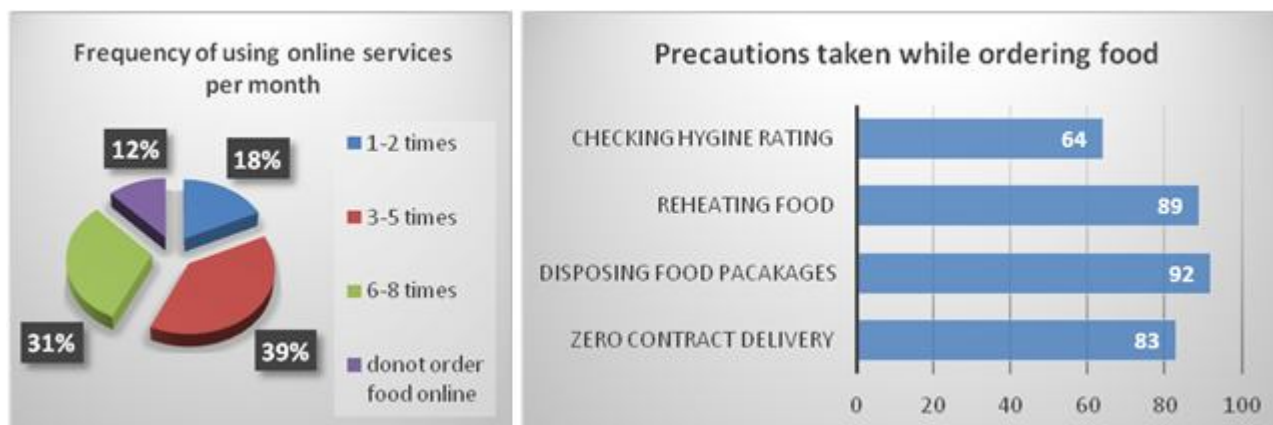
FINDINGS:

100 responses were collected and all the respondents belong to different families. The following are the findings of the survey:

- The frequency of eating outside has considerably changed post pandemic. Pre pandemic a majority of respondents forming 37% were eating out more than 8 times a month which has reduced to only 18% respondents who are/will eat outside post pandemic. A majority of 34% respondents prefer to eat 3-5 times a month in post pandemic era.

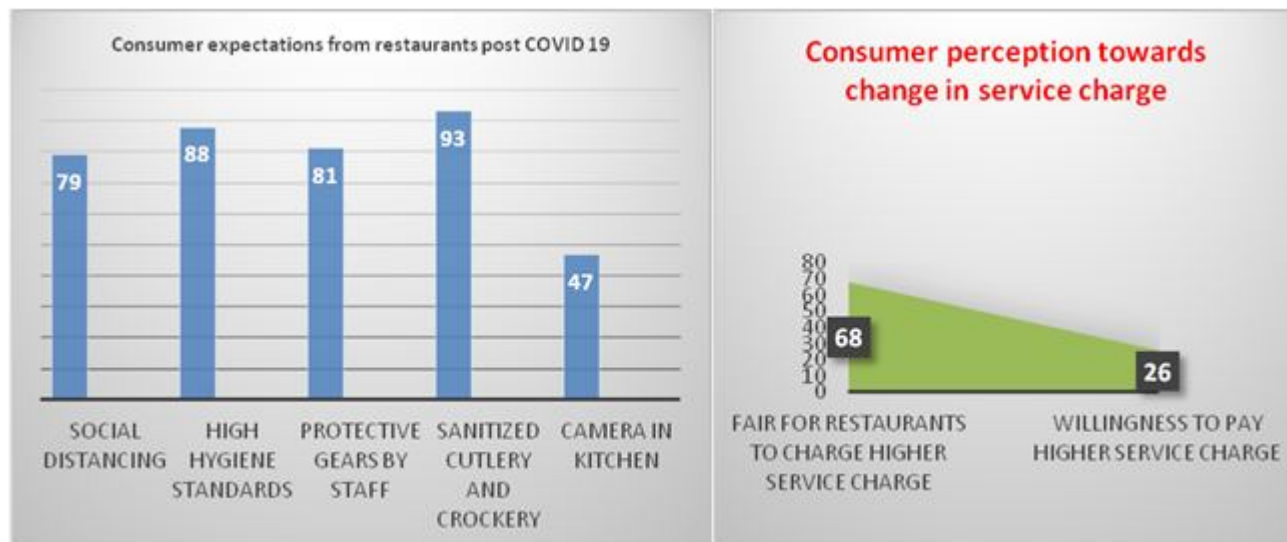


- Choice of Restaurants Post Covid-19 due to Health and hygiene now a priority, is pretty evident as it was observed that post pandemic most of the respondents would prefer eating at an MNC or a 3-5 star rated restaurant. This is because the respondents have said that they would trust them with safety precautions over a street side vendor or local restaurants.
- 90% of the respondents have strongly agreed that they would now be more conscious about the cleanliness and hygiene aspect of a food serving place.
- Respondent's opinion about their use of online platforms providing food delivery state that a majority of 88% of the respondents will prefer ordering food online and the remaining 12% do not prefer online platforms for food delivery. Out of the 75%, a majority forming 39% would use online delivery 3-5 times a week.



- Out of the 88% respondents who use online food delivery services, majority forming 83% strongly agree that their focus is now on Zero contact delivery which involves food being dropped off at the door step rather than being directly handed over without coming in contact with the delivery personnel.
- 92% of the respondents immediately dispose the food packages after delivery.
- About 89% of the respondents reheat their food before consumption as a precautionary measure. According to WHO, heating at 56 degrees Celsius kills the SARS corona virus at around 10,000 units per 15 minutes.
- Maximum respondents forming 64% have agreed to be checking the hygiene rating of a place while ordering the food from them.
- While trying to understand restaurant consumer's post pandemic expectation from the restaurants, a majority forming 76% strictly want the restaurants to follow social distancing norms.
- 88% respondents feel the restaurant staff must have protective head gears, gloves and masks while taking order and serving food.
- 81% of respondents will look for higher hygiene standards than before.
- 93% respondents feel well sanitized cutlery and crockery will be their concern.

- 47% respondents also feel the need for cameras in the kitchen for them to assured of the hygiene practices followed by chefs and staff members.



- 68% of the respondents agree that it would be fair for restaurants to charge higher service charges since they will be expected to provide you with a more hygienic and cleaner environment. However, only 28% of them will be willing to pay a higher service charge.
- 72% of the respondents will prefer not to eat at roadside stalls post Covid-19 whereas only 19% are sure of not eating at road side stalls at all.

SUGGESTIONS/ RECOMMENDATIONS:

- 1) Regulatory bodies should lay down new set of hygiene rules for restaurants and food outlets.
- Adaptability is the key ahead for all businesses big or small. Use of technology and flowing with the on-going trends is the only way to survive in the market.
 - Businesses should now have advertisements focusing on how the restaurants and food chains are prioritising the consumer's health and having their safety over anything else.
 - Giving utmost importance to basic sanitation and hygiene will be the most recommended at this stage for the food industry planning to reopen as every consumer will be wary about situations post Covid-19.
 - Consumers should themselves be aware of their health and therefore should look for the safest places for their future eating options.

CONCLUSION:

COVID 19 Pandemic has definitely affected the Restaurant Industry at large. Restaurant consumers fear the infection of highly contagious virus and therefore are likely to be highly conscious of the hygiene and social distancing norms post COVID-19. The behaviour of restaurant going consumer has definitely changed during the pandemic with regards to their health which has also resulted in reduced frequency of eating outside food. Consumers in the post pandemic era would definitely have higher expectations from the restaurants. The restaurants that are currently running only on food delivery mechanism will have to incorporate all the health and hygiene measures to win back the trust of their customers. A slight Adaptability of small and big restaurants to this change in expectation of consumers will not only help restaurant industry win, but will also help consumers have a delightful experience without compromising on their health.

REFERENCES:

- 1) Post Covid-19 scenario for restaurants, Shriram Sanjeevi, Apr 20, 2020: <https://retail.economictimes.indiatimes.com/re-tales/post-covid-19-scenario-for-restaurants/4178>
- 2) Covid-19 Impact on Consumer behaviour Trends : <https://www.accenture.com/us-en/insights/consumer-goods-services/coronavirus-consumer-behavior-research>
- 3) The New Normal: How Corona Virus Pandemic is changing consumer behaviour, Published on May 25, 2020 : www.thehindubusinessline.com

-
- 4) Online vs Offline- Is the consumer buying behaviour ready for transformation, Anurag Sharma, Dec 20, 2017: <https://retail.economictimes.indiatimes.com/re-tales/online-vs-offline-is-the-consumer-buying-behaviour-ready-for-transformation/2763>
 - 5) Silviu Stanciu, Riana Iren Radu, Violeta Sapira, Bogdan Dumitrache Bratoveanu , Andrei Mirel Florea, (May 2020). Consumer Behaviour in Crisis Situations. Research on the Effects of COVID-19 in Romania, ISSN-L 1584-0409 ISSN-Online 2344-441X, www.eia.feaa.ugal.ro
 - 6) HOW WILL RESTAURANT CONSUMERS CHANGE BEHAVIOR IN THE POST-COVID-19 ECONOMY, APRIL 22, 2020: <https://www.escoffier.edu/blog/food-entrepreneurship/how-will-restaurant-consumers-change-covid-19/>
 - 7) How consumer behaviour will change while dining out in the post Covid world, Ankita Garg, Co-Founder, Enthral Labs, MAY 15, 2020 : <https://www.restaurantindia.in/article/how-consumer-behavior-will-change-while-dining-out-in-the-post-covid-world.13651>
 - 8) Restaurants' Greatest Competition Post COVID-19: Home-Cooked Meals, CONSUMER TRENDS , MAY 2020 , DANNY KLEIN: <https://www.qsrmagazine.com/consumer-trends/restaurants-greatest-competition-post-covid-19-home-cooked-meals>

ROLE OF ARTIFICIAL INTELLIGENCE IN COVID 19 PANDEMIC BATTLE

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ABSTRACT

This paper provides role of A.I in global fight against COVID 19. The main areas where we can use A.I are discussed in this paper. AI is helpful for proper diagnosing and tracking the infected people. But at the same time, it has some limitations, using AI to predict and diagnose COVID-19 is hampered due to lack of historical training data.

Keywords: COVID-19, Artificial Intelligence, Machine learning, Public health, Pandemic

INTRODUCTION:

The **COVID-19 pandemic**, also known as the coronavirus pandemic, is an ongoing global pandemic of coronavirus disease 2019 (COVID-19). The virus was first identified in December 2019 in Wuhan, China.

Previous research has explained we can use AI for the detection of COVID-19 pneumonia on chest CT using multinational datasets. (Harmon,2020). AI system can diagnose novel coronavirus pneumonia and differentiate it from other common pneumonia. The AI system can assist radiologists and physicians in performing a quick diagnosis when the health system is overloaded.

MIT researchers have found that people who are asymptomatic for Covid-19 may differ from healthy individuals in the way that they cough. These differences are not decipherable to the human ear. But it turns out that they can be picked up by artificial intelligence. Recently DRDO has developed an Artificial Intelligence algorithm that can detect the presence of COVID-19 disease in Chest X-rays. Named ATMAN AI.

METHODOLOGY:

This paper uses secondary data from various sources collected and analysed in the context of application of AI for countering COVID-19.

Scope of Artificial intelligence in the fight against COVID-19**Detecting and Diagnosing of the disease:**

A.I can be used for detecting and diagnosing COVID-19. An early outbreak warning system, BlueDot, an AI-driven algorithm not only successfully detected the outbreak of Zika virus in Florida but also spotted COVID-19, 9 days before the WHO released its statement alerting people to the emergence of a novel coronavirus.

Researchers from the Huazhong University of Science and Technology and Tongji Hospital in Wuhan, Hubei have developed an AI diagnostic tool (XGBoost machine learning-based prognostic model) that can quickly analyse blood samples to predict survival rates of COVID-19 infected patients and it turns out to be 90% accurate.

COVID-Net, a deep learning model is designed to detect the COVID-19 positive cases from chest X-rays and accelerate treatment for those who need it the most.

Google's DeepMind is helping scientist to study various features of the SARS-CoV-2 and has predicted the protein structure of the virus.

Treatments and vaccine:

AI can potentially contribute to the fight against COVID-19 is in identifying possible treatments and vaccines. While hospitals are resorting to trial and error tactics for COVID-19 drug discovery, Virtual Screening (VS) has emerged as a popular method for discovering potent compounds due to the inefficiency of lab-based high throughput screening (HTS) (Jin et al., 2020; Kandeel and Al-Nazawi, 2020). VS for rational drug discovery is essentially an approach that involves computationally targeting a specific biomolecule (e.g., DNA, protein, RNA, lipid) of a cell to inhibit its growth and/or activation (Shoichet, 2004; Lionta et al., 2014). Structure-based and ligand-based drug discovery and design are two important subgroups of this type of screening (Lionta et al., 2014; Yu and Mackerell, 2017; Arshadi et al., 2020; Broom et al., 2020). Given our access to computationally and experimentally determined viral protein structures (Senior et al., 2020; Zhang L. et al., 2020), VS provides a rapid and cost-effective strategy for identifying antiviral candidates.

Additionally, conventional vaccine discovery methods have been costly, and it may take many years to develop an appropriate vaccine against a specified pathogen. In the early 1990s, the introduction of a genome-based vaccine design approach dubbed “Reverse Vaccinology” (RV) (Rappuoli, 2000; Bullock et al., 2020), revolutionized the field to a more efficient status, due in part to the fact that bacterial culturing was no longer required for identifying vaccine targets (Bruno et al., 2015; Heinson et al., 2015; Soria-Guerra et al., 2015). Moreover, all of the putative target protein antigens can be identified, rather than identification being limited to those isolated from bacterial cultures (Xiang and He, 2009; Bowman et al., 2011). All these advantages taken together led scientists to generate RV prediction programs.

Over the past decade, artificial intelligence (AI)-based models have revolutionized drug discovery in general (Zhong et al., 2018; Duan et al., 2019; Lavecchia, 2019). AI has also led to the creation of many RV virtual frameworks, which are generally classified as rule-based filtering models (Naz et al., 2019; Ong et al., 2020a). Machine learning (ML) enables the creation of models that learn and generalize the patterns within the available data and can make inferences from previously unseen data. With the advent of deep learning (DL), the learning procedure can also include automatic feature extraction from raw data (Lecun et al., 2015). Moreover, it has recently been found that deep learning's feature extraction can result in superior performance compared to other computer-aided models (Ma et al., 2015; Chen et al., 2018; Zhavoronkov et al., 2019).

Social distancing:

Social distancing refers to the non-pharmaceutical measures to reduce the frequency of physical contacts and the contact distances between people during an infectious disease outbreak.

Computer vision technology trains computers to interpret and understand visual data such as digital images or videos. AI (e.g., in pattern recognition and deep learning), computer vision has enabled computers to accurately identify and classify objects. Such capabilities can play an important role in enabling, encouraging, and enforcing social distancing. For example, computer vision can turn surveillance cameras into “smart” cameras which can monitor people, detect, recognize, and identify compliance of social distancing requirements.

Despite government restrictions and recommendations about social gathering, some people still do not comply with them, which can cause the virus infection to the community. In such context, human detection features in object detection, a major sub-field of computer vision, can help to detect crowds in public areas through real-time images from surveillance cameras. If the number of people in an area does not meet the social distancing requirement (e.g., gathering above 10 people), the authorities can be notified to take appropriate actions.

The infected person or people who had physical contact with them must be isolated at the restricted areas or at home for its prevention. People who come back from highly infected countries/regions of COVID-19 are often requested to be quarantined or self-isolate for 14 days. In this case, the face recognition capability of computer vision can help to enforce this requirement by analysing the images or videos from cameras to identify these people, to check for breach of self-isolation requirements. If these people are detected in public, the authorities can be notified to take appropriate actions.

To prevent the spread of infectious diseases, people are often required to wear masks in public places, which necessitates approaches to recognize or identify people with or without masks. For example, the cameras in front of a public building can recognize and send warning messages (e.g., a beep sound) to remind the person who does not wear a mask when h/she intends to get into the building.

Recognition of human behaviours from surveillance cameras is a challenging problem because the same behaviours may have different implications, depending on the relationship with the context and other movements.

LIMITATION

Using AI to predict and diagnose COVID-19 is hampered due to lack of historical training data, unlike AI tools such as computer vision and robots. Related technologies, such as mobile phones with AI-powered apps or wearables that harvest location, and usage, are more likely to be employed. Such apps “enable patients to receive real-time waiting-time information from their medical providers, to provide people with advice and updates about their medical condition without them having to visit a hospital in person, and to notify individuals of potential infection hotspots in real-time so those areas can be avoided” (Petropoulos 2020).

The fear is that once the outbreak is over, that erosion of data privacy would not be rolled back and that governments would continue to use their improved ability to survey their populations- and use the data obtained in the fight against COVID-19 for other purposes. As Harari (2020) warns “Even when infections from coronavirus are down to zero, some data- hungry governments could argue they needed to keep the biometric

surveillance systems in place because they fear a second wave of coronavirus, or because there is a new Ebola strain evolving in central Africa...”

CONCLUSION

AI has the potential to be a tool in the fight against pandemics. “AI systems are still at a preliminary stage, and it will take time before the results of such AI measures are visible” (Petropoulos 2020). Building an AI model is a process and its need time to continuously iterate and trained itself.

Clearly, data is central to whether AI will be an effective tool against pandemics. The fear is that public health concerns would trump data privacy concerns. In India, the Arogya Setu app can substantially contribute to the containment and management of COVID-19. Certain features of the app could compromise security. Bluetooth which mandatorily requires to be switched on was perceived to be making the device vulnerable to cyber threats. Other issues concerning the trustworthiness of app included privacy of the user, data security, and reliability of self-assessment questions.

REFERENCES

- Bogoch II, Brady OJ, Kraemer MUG, et al. Anticipating the international spread of Zika virus from Brazil. *Lancet*. 2016;387:335-336. 10.1016/S0140-6736(16)00080-5. Accessed on website: [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(16\)00080-5/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(16)00080-5/fulltext) date: 09/05/2021
- An AI epidemiologist sent the first warnings of the Wuhan virus. *Wired*. Accessed on website <https://www.wired.com/story/ai-epidemiologist-wuhan-public-health-warnings/>. Date: 09/05/2021.
- Yan, L., Zhang, H.T., Xiao, Y., Wang, M., Guo, Y., Sun, C., Tang, X., Jing, L., Li, S., Zhang, M. and Xiao, Y., 2020. Prediction of criticality in patients with severe Covid-19 infection using three clinical features: a machine learning-based prognostic model with clinical data in Wuhan. *MedRxiv*. Accessed on website: <https://www.medrxiv.org/content/10.1101/2020.02.27.20028027v2.full> date: 9/5/2021.
- Wang, L., Lin, Z.Q. and Wong, A., 2020. Covid-net: A tailored deep convolutional neural network design for detection of covid-19 cases from chest x-ray images. *Scientific Reports*, 10(1), pp.1-12. Accessed on website: <https://www.nature.com/articles/s41598-020-76550-z> date: 9/5/2021.
- Jumper, J., Tunyasuvunakool, K., Kohli, P. and Hassabis, D., 2020. the AlphaFold team. *Computational predictions of protein structures associated with COVID-19, version, 2*. Date: 10/5/2021.
- Liu, L., Ouyang, W., Wang, X., Fieguth, P., Chen, J., Liu, X. and Pietikäinen, M., 2020. Deep learning for generic object detection: A survey. *International journal of computer vision*, 128(2), pp.261-318. Accessed on website <https://link.springer.com/article/10.1007/s11263-019-01247-4> date:10/5/2021.
- Kelso, J.K., Milne, G.J. and Kelly, H., 2009. Simulation suggests that rapid activation of social distancing can arrest epidemic development due to a novel strain of influenza. *BMC public health*, 9(1), pp.1-10., accessed on website <https://bmcpublichealth.biomedcentral.com/articles/10.1186/1471-2458-9-117> date: 10/5/2021
- Batagelj, B., Peer, P., Štruc, V. and Dobrišek, S., 2021. How to Correctly Detect Face-Masks for COVID-19 from Visual Information?. *Applied Sciences*, 11(5), p.2070. accessed on website <https://www.mdpi.com/1012714> date 10/5/2021.
- Candamo, J., Shreve, M., Goldgof, D.B., Sapper, D.B. and Kasturi, R., 2009. Understanding transit scenes: A survey on human behavior-recognition algorithms. *IEEE transactions on intelligent transportation systems*, 11(1), pp.206-224. Accessed on website <https://ieeexplore.ieee.org/abstract/document/5276836> date 10/5/2021.
- Elloumi, W., Latoui, A., Canals, R., Chetouani, A. and Treuillet, S., 2016. Indoor pedestrian localization with a smartphone: A comparison of inertial and vision-based methods. *IEEE Sensors Journal*, 16(13), pp.5376-5388. Accessed on website <https://ieeexplore.ieee.org/abstract/document/7467423/> date 11/5/2021.
- Nguyen, C.T., Saputra, Y.M., Van Huynh, N., Nguyen, N.T., Khoa, T.V., Tuan, B.M., Nguyen, D.N., Hoang, D.T., Vu, T.X., Dutkiewicz, E. and Chatzinotas, S., 2020. A comprehensive survey of enabling and emerging technologies for social distancing—Part II: Emerging technologies and open issues. *IEEE Access*, 8, pp.154209-154236. Accessed on website <https://ieeexplore.ieee.org/abstract/document/9172065/> date 11/5/2021.

-
- Naudé, W., 2020. Artificial intelligence vs COVID-19: limitations, constraints and pitfalls. *AI & society*, 35(3), pp.761-765. Accessed on website <https://link.springer.com/article/10.1007/s00146-020-00978-0> date 11/5/2021.
 - Kodali, P.B., Hense, S., Kopparty, S., Kalapala, G.R. and Haloi, B., 2020. How Indians responded to the Arogya Setu app?. *Indian Journal of Public Health*, 64(6), p.228. accessed on website <https://www.ijph.in/article.asp?issn=0019-557X;year=2020;volume=64;issue=6;spage=228;epage=230;aulast=Kodali> date 11/5/2021.

HR MANAGERS RETHINK THEIR ROLE DURING THE CORONAVIRUS PANDEMIC

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ABSTRACT

The coronavirus pandemic has disrupted organizations and caused human resources managers to think differently about their role as they adjust to social distancing practices and a new work environment that they may never have imagined.

To prevent the spread of the coronavirus, companies have switched to a remote work model at a rate and scale they've never experienced. As face-to-face collaboration is replaced with e-mail and videoconferencing, HR managers have to do difficult work under difficult circumstances.

Not only are HR professionals concerned about employees' health and well-being during the pandemic, they are also under the strain of processing the paperwork and providing solace to the millions of workers who have been laid off or furloughed. For employees still on the job, HR managers are trying to keep their workers productive, motivated, engaged and connected—all factors that are moving targets in the new normal.

INTRODUCTION

The pandemic has thrown our world into uncharted territory. Experts believe that Covid-19 may significantly impact the USD 180 billion Indian IT sector. The silver lining is that this is expected to be a short-term challenge for the IT industry. Though the IT spend will initially dip in 2020, IT companies will gradually see a rise in market opportunities, especially the product companies.

The need for remote working would grow the demand for automation and collaboration tools and increase the shift to cloud computing. It is imperative to keep employees motivated and enthused to achieve this future together. In these times, human resources (HR) department is tasked with ensuring adequate enablement and engagement of teams while also preparing for some hard decisions.

CHALLENGES HR MANAGERS FACING DURING COVID -19

Challenges are sure to arise in every business and every job role. It is also essential since it provides us with the motivation to learn more and hone our abilities. It is well illustrated in HR's challenges, making it one of the most demanding corporate positions.

The hurdles that HR personnel face differs every day and helps them are better professionals. These can range from company norms, employee grievances, new hires, etc. However, amidst these numerous obstacles, some HR challenges are more distinct.

One can address these problems as fundamental that every person in this field needs to master. After all, the success of a company depends a lot on the human resource department. They are the ones in charge of the most valuable asset in business; the workforce.

Therefore, to handle this enormous responsibility, an HR professional must understand the job's everyday challenges and solutions. Here are six of the HR challenges in the business world today and how to approach them.

1. Mental Health and Wellbeing

The sudden shift in work culture took a toll on overall employee health and wellbeing. Stress, anxiety, and other mental health issues have always been there, and it is no new story. Organizations have always been initiating wellness programs and providing employees with security, health benefits, and flexibility to help them overcome their health issues. But the sudden COVID-19 outbreak has brought the employees' mental problems in the front seat.

2. Managing Remote Work

The transition to remote work culture is not as seamless as it seems. Before the COVID-19 outbreak, less than 50% of companies had a remote work program. Banks, regulated industries, and many financial services companies did not encourage remote working. Now almost all of them rushing to build remote work strategies.

This has led to many undiscovered problems. HR managers are trying to build seamless routes and strategies to overcome the challenges that it brings. Strategies are no more designed periodically or in advance but in real-time. The focus on employee productivity and engagement has shifted to immediate responses and diagnosis.

To provide employees with the right tools and also gather real-time updates from them from time to time to untangle the intricacies and offer support.

4. Employee Communication

Communication is another major challenge that is on the priority list. Communication, in itself, is a critical aspect that needs to be taken into account whether or not the workforce is working remotely. Without the right communication channels, it becomes difficult to manage a workforce. The COVID-19 crisis had the HR professionals on toes and kept them looking for the right remote working tools that suit their culture. Though tools like Zoom or Slack are commonly used to meet the needs of the workforce, it certainly is not enough to get everyone on the same page.

5. Uncertainty

Uncertainty can paralyze anyone. The daunting feeling of not knowing what the future holds or what measures to take to sustain organizational operations is a huge challenge. We all are more or less affected by uncertainty. Employees are affected mentally, not knowing what the future holds for them, and the HR teams are struggling to put everything in alignment. To respond to the crisis and develop effective measures and strategies for all.

6. Employee Engagement

The ultimate company goal is the productivity of its employees. It becomes challenging to keep the employees engaged when they are working remotely and that too, in a crisis. The internal communication is compromised, and keeping everyone on the same page becomes tough. With remote working, it is difficult to follow a routine and even except a systematic workflow. When the teams are cross-functional, you have little power to manage them. Not updating them regularly or not arranging meetings/ sessions can impact their morale to a great extent.

HRM STRATEGIES DURING COVID-19

1. Create/Activate an Emergency Response Team

Ensure that HR is part of an Emergency Response Team. Provide input in the guidelines to be implemented, gather and share staff and client's questions and concerns; inform the team of new developments in employment laws and benefits; share revised policies; provide strategies to manage remote workers; share risks related to the crisis; and make sure that values and equity are still at the center of decision-making.

2. Make Communication Deliberate, Consistent, and Over Communicate if Necessary

Communication and the actions you take should be thoughtful, clear, succinct, accurate, consistent, and as transparent as possible. This way of communication builds trust. Work with leadership and your internal communication team to build a robust internal updates framework and a communication plan.

3. Care for Staff! Employee Wellness and Safety Initiatives

Keep in constant communication with your employees on their physical and mental health. Staff should hear from leaders often and feel supported. Practice empathy and address concerns in a prompt matter.

Safety is basic and essential. Be forthcoming with hygiene and safety practices. Mitigate employee's concerns and anxiety by proactively talking about your organization's sanitary health practices, safety and health equipment that you are able to provide, and share the CDC guidelines for basic precautions.

Encourage social distancing by asking staff to not only limit travel and large group gatherings, but also avoid handshakes, hugs, and other physical interactions.

4. Reconsider Leaves and Policies

Stay updated. Monitor changes and updates on new employment legislation that impact employee benefits and leave, like the Families First Coronavirus Response Act (FFCRA), and communicate those with the Emergency Response Team to develop solutions around implementation and communication.

Define and modify policies, controls, and practices that address these emergencies. Communicate those changes with transparency through your leadership.

5. Implement Remote Work Strategies

Social distancing is key for helping slow down the spread of COVID-19. If working remotely is a possibility, HR should work with IT to ensure the smooth transition to a remote work scenario.

Activate a Communication Phone Tree, to make sure everyone know the channels of communication in an emergency.

Create and share a quick guide for supervisors and employees with best practices for working remotely. This guide should address efforts to encourage health and well-being, work engagement, boundaries, and the rhythm and pace of remote work. Make sure you set up a live meeting to share these practices.

FIVE TALENT-MANAGEMENT PRACTICES CAN HELP STEER ORGANIZATIONS THROUGH NEW WAYS OF WORKING AND INTO THE POST-COVID-19 ERA.

1. Finding and hiring the right people

During the COVID-19 crisis, changes in customer demand have caused a temporary spike in hiring in areas such as grocery while leading to massive layoffs in sectors such as hospitality. Even with those shifts and an overall rise in unemployment, efficient and effective hiring will continue to be important—especially for the scarce skills required for the next normal in areas such as IT.

2. Learning and growing

Learning organizations face a tension between continuing cost pressures in a downturn and the need to deliver training to help workers adapt to a changing organization and business environment. That tension was reflected in our survey, which shows that 29 percent of learning and development organizations plan to invest more in the next 12 months and that 38 percent plan to invest less.

3. Managing and rewarding performance

The COVID-19 crisis is speeding up needed shifts in how organizations manage and reward performance. As our previous research has shown, the majority of business leaders don't believe that their performance-management system accurately identifies top performers—and the majority of employees don't feel that the performance-management process accurately reflects their contributions.

4. Tailoring the employee experience

Employee experience and connectivity have taken on whole new meanings as extended work-from-home policies have required organizations to be intentional about building each. In blunt terms, work can't be another source of anxiety or uncertainty for employees right now. They have more than enough going on.

The blurring of the line between work and life while working remotely means that employee experience is even more critical. For virtual workers, there's no commute to the office, no coffee- or snack-room chat, and no in-person gathering after work. Tethered video (or phone) interactions during the course of the work day are going to make it or break it for most people.

One way to handle employee experience in a remote environment is to tailor the approach to individuals or segments of people. Our research shows that experiences vary widely. That is also true for the hybrid work environment, with some employees back in the office and others remaining at home.

5. Optimizing workforce planning and strategy

Given the shifts in how value is being created in the post-COVID-19 world (for instance, the shift to contactless experience in grocery, retail, and restaurants and the change from in-person sales meetings to remote sales calls), the talent base required to deliver that value may need to shift as well. As such, it is natural that workforce planning, strategy, and change is the category of HR spending that survey respondents cite as the most likely to increase over the next 12 months, with 76 percent reporting that they will spend the same or more.

CONCLUSION:

For HR managers, this is a time for them to play a defining role in shaping the future of organizations. To sum up, People, Policies, and Processes will be the three broad pillars on which they can build a new foundation for HR excellence. HR managers have to let employees know that they know they are at home with their family, that they are stressed because the kids are trying to get their attention while they are working, and that the company is there for them. HR managers' number one job right now is to keep people up-to-date, be reassuring and build trust. At the same time, wherever possible, remote working or flexible schedule can be implemented and to keep them motivated, e-training or virtual training needs to be provided. It also has to be ensured that communication is frequent and support is extended to the employees. Covid-19 has already altered the normal for every individual, organization, entity and economy. Individuals have feared the harsh effects of the prolonged lockdowns and entering the new unknown post lockdown period. However, to bring back the organisations to operation stage, HR managers have to alter their policies to ensure that employees are able to adjust to the NEW normal working period. In the manufacturing sector, it is quite important to ensure that migrant labor return to their work for which the HR managers have to provided assurance regarding job continuity and safety of their health. Lastly but most importantly, do not forget to show your humanity and your

compassion. Share strategies on how to stay physiologically resilient in the midst of these strange and difficult times. Business is not “as usual” right now, and it will take time to adjust to a new routine. There is still much uncertainty, and the economic and social impacts of this pandemic will have long lasting effects.

BIBLIOGRAPHY:

1. <https://www.shrm.org/hr-today/news/hr-news/pages/hr-managers-rethink-their-work-coronavirus-pandemic.aspx>
2. <https://hr.economictimes.indiatimes.com/news/hrtech/hr-to-play-a-bigger-role-during-and-after-covid-19/75740727>
3. <file:///C:/Users/moham/Downloads/6164-Article%20Text-11990-1-10-20210129.pdf>
4. <https://www.mckinsey.com/business-functions/organization/our-insights/hr-says-talent-is-crucial-for-performance-and-the-pandemic-proves-it#>
5. <https://www2.deloitte.com/content/dam/Deloitte/us/Documents/about-deloitte/workforce-strategies-for-post-covid-19-recovery.pdf>
6. <https://blog.vantagecircle.com/challenges-of-hr/>
7. <https://www.tsne.org/blog/human-resources-best-practices-during-covid-19>

HOME GARDENING: A REMEDY FOR MENTAL, PHYSICAL AND ECONOMICAL WELL-BEING DURING THE COVID-19 PANDEMIC**Misbah Hamid Shaikh**

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ABSTRACT:

Garden green spaces had always contributed to mental and physical well-being of individuals. Home gardening had been a promising therapeutic and sustainable tool during the period of pandemic. Home gardens had become an integral part of local food system in many countries due to fear of hygiene and demand for organic produce during covid-19 pandemic. This research paper highlights the physical, psychological and ecological potential of gardening and its valuable role during covid 19 pandemic. Emergence of New economic opportunities for horticulture and garden industry had brought a change in global market. This research focuses on variation in change in market trends and effectiveness of garden therapy during the period of social isolation and period of quarantine.

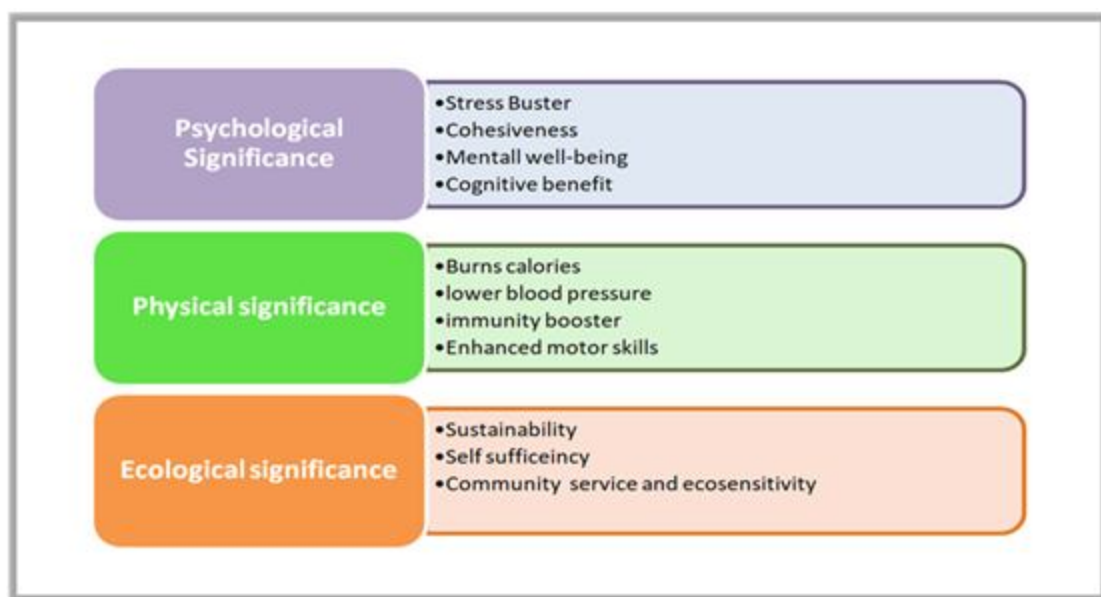
Key words: Mental, physical well being, social isolation and garden therapy.

INTRODUCTION:

All countries since year 2020 are in the state of war with the covid-19 pandemic which had resulted in forced shutdown in these countries. Long lock down periods had immense impact on lifestyles of citizens throughout the world. As people were compelled to be at their homes, many of them were seemed to be engaging themselves in various hobbies and creative activities. Major diversion in this period was noted globally towards indoor gardening. The legacy of victory garden was observed to be continued in current pandemic scenario. The victory garden movement in past had came into existence during world war I and was re-explored during world war II, wherein the Americans had directed their locals to grow food in available home spaces like backyards, roof tops, etc. It helped to contribute continued food availability for the locals, however the contribution was small but had overall positive impact in overcoming fear of expected food shortage during war period. The same idea of victory garden seemed to be revived due to fear of corona virus exposure during pandemic among people which had limited their trips to local grocery shops or markets. These household small plantations or green spaces helps to boosts morale and act as a tool of motivation during the phase of social isolation.

OBJECTIVES:

- To understand Physical, psychological and ecological significances of gardening during pandemic.
- To study recent change in economic trend in home gardening during the period of Covid-19 lockdown.
- Overview of popular greens/ plants during pandemic.
- Reviewing garden therapy effectiveness in covid-19 pandemic.
- **Significance of Gardening during pandemic:**



PSYCHOLOGICAL SIGNIFICANCE:

- ❖ **Reduces stress and cortisol hormone concentration:** Primary step in treatment of any trauma involves regaining sense of social security. Social isolation in the period of pandemic had exhibited outburst of feelings like frustrations, depression and anxiety among many individuals across the globe. Rise in cortisol hormone level was noted in many due to fear of pandemic. Cortisol is also called as stress hormone produced by adrenal gland; it is released in higher concentration in an individual during stressful state of mind. It causes increase in heart rate and blood pressure. Many validated literature reviews are available which support the fact that engagement in gardening activity helps to reduce cortisol measures among individuals/gardeners; Thus, exhibiting lower stress levels.
- ❖ **Inculcating cohesiveness and family bonding:** Social cohesiveness is a sense of togetherness which is required to boost morale and incubate sense of motivation among the group of individuals. Horticulture therapy helps to improve cohesiveness among the family by participating together in planting and garden activities. It had helped many families globally in strengthening bond between family members during long phase of lockdown.
- ❖ **Enhancing Mental well-being:** Gardening generates sense of satisfaction of self cultivation of kitchen produce shifting the state of mind in amidst lockdown; thus it helps to reduce stress and achieve a sense of mental peace. Gardening had proved beneficial to boost psychological well being of many individuals. Sustenance of individual mental well being in the situation of pandemic is a need of an hour.
- ❖ **Cognitive benefits:** Gardening during pandemic had proved to be a therapeutic act which had shown positive results in enhancing cognitive functioning among senior citizens. Physical garden activities help in increase in nerve growth which leads to immense improvement in memory retention and reasoning ability.

PHYSICAL SIGNIFICANCE:

- ❖ **Physical workout and burning calories:** Gardening is a physical activity that indirectly exposes gardeners to functional exercises. Gardening provides endurance, flexibility and helps in strengthening muscles. Various garden work like manual weeding, raking, mowing, etc. helps to burn calories. Many success stories had been reported during pandemic lockdown wherein working in garden for about an hour regularly had helped in reducing calories and maintaining body fitness in spite of closure of gym.
- ❖ **Lowers blood pressure:** During physical gardening activity cultivators are exposed to a good amount of sunlight. The right amount of exposure to sunlight helps to lower blood pressure. During the pandemic, a good amount of sunlight had also helped to maintain vitamin D concentrations in the body.
- ❖ **Enhances immunity:** During gardening, cultivators are directly in contact with natural soil and its microbiota; this exposure to harmless bacteria in the soil helps in enhancing the immune system. Study had proven that body of children exposed to dirt and microbes naturally get adapted by fighting with these microbes thus building strong immune system in them. A stronger immunity system is a need especially for young children and senior citizens to fight back the viral exposure in the situation of the pandemic.
- ❖ **Improved motor skills:** Gardening is an act of inclusion of both physical and mental well-being. It helps to enhance brain and muscle coordination i.e. motor skills. Fine motor skills need to be retained by performing activities that involve hand and eye coordination. Regular gardening practice helps individual to keep hands flexible and improve motor capabilities of individuals. These activities include repotting, picking out weeds, drifting, seeding, etc. Due to lesser physical activities and limited traveling during covid 19 lockdown, there is a high risk in early loss of motor skills abilities of individuals; so few basic gardening skills had helped to maintain and enhance the motor abilities of younger and older individuals across the globe.

ECOLOGICAL SIGNIFICANCE:

- ❖ **Sustainable initiative:** Major problem in urban areas is less availability of green spaces which is a necessity for healthier environment. Home and community gardens are best alternative for the same. In the period of lockdown many individuals have adopted gardening that had led to the path of development of small green spaces in area available in their resident. But this small contribution at individual level had a broader sustainable impact at larger regional level.
- ❖ **Self-sufficiency:** Spread of covid-19 virus had restricted individual access to markets and had also inculcated sense of fear in consuming inorganically grown agriculture produce. Hence, many people had adopted kitchen gardening practice; people with small resident areas had focused on herbal and micro-green cultivation. This had led to a notable shift of urban citizens towards organic produce and had also

helped them to be self sufficient at the individual levels. Food self sufficiency inculcates a feeling of social security among people which generates self satisfaction which was a necessity during the period of global lockdown.

- ❖ **Community responsibility and eco-sensitivity:** Spread of pandemic had changed individual outlook of people towards environment as people had experienced more time in exploring their backyards gardens, greens or nature view from their windows which had developed a connect between the individuals with nature. Many people who had changed their role play to home gardeners during lockdown had inculcated environmental sensibility among them. This had increased sense of community responsibility during the phase of pandemic.
- **Changing economic trends in home gardening during Pandemic:**
- ❖ **Increased sales of plants and garden products:** Surge of individual participations throughout the world in gardening activity had brought a massive change to gardening industry which had suddenly bloomed during the period of lockdown. There has been tremendous rise in the purchase of garden tools, plants and other related products since 2020. The immense rise in demand of gardening products throughout various countries can be traced with the rising sales records of gardening products on E-commerce platforms.
- ❖ **Growing demand for online nurseries:** In India companies as urban kisaan, nursery live, Farmizen, Upajfarm and Barton breeze had claimed sudden rise in sales in urban areas during pandemic lockdown. Majorly have claimed increase in demand and sales of farming/ gardening kit, organic vegetable seeds, micro-greens and herbs. Demand for hydroponic system was also massively noted during the time. Many local retail plant nurseries had also switched onto the online sales of the products due to high demand for the products.
- ❖ **Rise in green start-ups:** Many people had started sales of garden or plant products by mastering the skills of gardening during the period of lockdown. Many new plant nurseries had been set up globally due to growing demands for indoor, herbal and kitchen plants. Green thumb transformation has been reported among the population across the world. Due to easy maintenance of herbal plants and quick produce had led it to be a good option for home entrepreneurs. Many people had also had acclimatized with the various garden arts like terrarium making, kokedama and tray gardening; many have started with online sales of the same due increase in demand of plants and green art due to changing approach of living and for stress on ecological substance in the span of pandemic.
- ❖ **New economic opportunity for Gardeners and horticulturist:** Many horticulturists across the world had converted the pandemic into economic opportunity. Many live workshops, crash courses on gardening skills and art had received massive positive responses from people around the world which had opened new doors of earnings for the horticulturist. Online garden consultancy is also noted to be one of the popular economic benefiting options for the garden experts.
- **Overview of popular greens/ plants during pandemic.**
- ❖ **Indoor plants:** High demand in indoor plants was recorded on online e commerce platforms. Some popular plants during lockdown were alphonso, money plant, areca palm etc. prime focus on indoor planting was observed among many families in various countries.
- ❖ **Air-purifying and medicinal plants:** Due to fear of exposure to covid virus people had inclined towards finding natural eco-friendly solutions around in their homes; this has also led to rise in demand and sale of air purifying and medicinal plants. Some of the air purifying plants which have gained popularity during pandemic are ferns, bamboo plants, aloe vera. medicinal plants like *tulsi*, *ashwagandha*, *tinospora cordifolia* and *neem*
- ❖ **Micro-greens:** Pandemic had diverted people towards healthy eating and more focus immunity boosting diet during the pandemic. Micro-greens are the best source when it comes to strengthening immunity and high nutritive value. Besides these they are easy to cultivate and give quick produce had increased its demand during pandemic.
- ❖ **Kitchen veggies:** People had become more concerned about nutritional value of vegetables and fruits during the spread of pandemic. Organically self grown veggie are the best alternative to inorganic produce and also helps to overcome the hygiene concerns of many families throughout the world. Thus huge rise in sales of seeds of kitchen plants and herbal plantlets had been observed globally. Commonly grown

vegetables and herbs during pandemic were: Tomatoes, bitter gourd, bottle gourd, spinach, mint, parsley, oregano, etc.

➤ **Garden therapy: an effective therapeutic tool in era of covid-19 pandemic:**

- ❖ **Joy of Nurturing Life:** This can be well channelized by engaging oneself in creative work or activity. Looking over green spaces or seeing greenery in your window fill your mind with peace and inculcate a sense of relaxation. Many researches in past had already proven that horticulture therapy plays an important role in individual mind restoration. Gardening during pandemic had provided people involved in gardening activity with a purpose and also with a sense of joy of nurturing life. It is always a blissful feeling, observing the cycle of transformation of seed into a kitchen produce.
- ❖ **Act of Quarantine:** During home quarantine the patients struggles with their feelings like fear, frustration, low self-esteem and boredom; Boosting morale of these patients is extremely important. During home quarantine people engaging in act like painting and gardening had been successful in regaining their self-esteem. Encounter with nature always leads to mental relaxation. Thus, it contributes to change the mood in patients and increase their mental stability. Boosted sense of calmness and self control help them alleviate from depression.

CONCLUSION:

The present global scenario had witnessed transformation of gardening from hobby interest to a habit; which had lead to a path of physical, psychological upliftment of individuals and ecological sustenance during the period of covid-19 pandemic. Present research study exhibits agreement with the literature that supports gardening as a therapeutic solution during covid-19 pandemic and also with the positive economic market trends of garden industry. It can be concluded that pandemic had opened up new economic opportunities for horticulturist and garden industries in global market. During quarantine gardening proved to be a source of motivation a medium to build up self-esteem and achieve mental peace.

REFERENCES:

- **Pack, Charles Lthrop (1919):** Victory gardens feed the Hungry: the needs of peace demand the increased production of food in Americans gardens. National garden war commission.
- **Archie Sunga and Jowie Advincul (2021):** THE “PLANTITO/PLANTITA” HOME GARDENING DURING THE PANDEMIC. Community Psychology in Global Perspective (7(1); Pg: 88-105).
- **Rodiek. S (2002):** Influence of an outdoor garden on mood and stress in older persons. Journal of therapeutic Horticulture (XIII; Pg: 13-21).
- **Craig sams (2020):** COVID-19 has transformed the gardening industry – so what are the new trends?. <https://www.agweek.com/lifestyle/home-and-garden/6813622-The-pandemic-propelled-gardening-to-new-heights.-Will-the-trend-last>.
- <https://www.ft.com/content/c3abc0bb-7ade-4ae1-8d2b-d3fa6be53416>.
- <https://www.nurserymag.com/article/post-pandemic-gardening/>.
- <https://blog.marketresearch.com/home-food-gardening-surges-during-the-covid-19-pandemic>.
- <https://www.hortweek.com/covid-19-transformed-gardening-industry-%E2%80%93-so-new-trends/sretail/article/1701037>.

IMPACT OF NEW EDUCATION POLICY 2020 ON HIGHER EDUCATION

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ABSTRACT

The New Education Policy announced by Government of India (NEP 2020) was a welcoming change and fresh news amidst all the negativities surrounding the world due to the challenges posed by Covid-19 pandemic. The announcement of NEP 2020 was purely unexpected by many. The changes that NEP 2020 has recommended were something that many educationists never saw coming. Though the education policy has impacted school and college education equally, this article mainly focuses on NEP 2020 and its impact on Higher Education. This paper also outlines the salient features of NEP and analyses how they affect the existing education system

Keywords: *New Education Policy Higher Education, Covid-19*

I. INTRODUCTION

The National Policy on Education (NPE) is a policy formulated by the Government of India to promote education amongst India's people. The policy covers elementary education to colleges in both rural and urban India. The first NPE was promulgated by the Government of India by Prime Minister Indira Gandhi in 1968, the second by Prime Minister Rajiv Gandhi in 1986, and the third by Prime Minister Narendra Modi in 2020. The National Education Policy 2020 (NEP 2020), which was approved by the Union Cabinet of India on 29 July 2020, outlines the vision of India's new education system. The new policy replaces the previous National Policy on Education, 1986. The policy is a comprehensive framework for elementary education to higher education as well as vocational training in both rural and urban India. The policy aims to transform India's education system by 2021. The language policy in NEP is a broad guideline and advisory in nature; and it is up to the states, institutions, and schools to decide on the implementation.

The NEP 2020 enacts numerous changes in India's education policy. It aims to increase state expenditure on education from around 4% to 6% of the GDP as soon as possible. In January 2015, a committee under former Cabinet Secretary T. S. R. Subramanian started the consultation process for the New Education Policy. Based on the committee report, in June 2017, the draft NEP was submitted in 2019 by a panel led by former Indian Space Research Organisation (ISRO) chief Krishnaswamy Kasturirangan. The Draft New Education Policy (DNEP) 2019, was later released by Ministry of Human Resource Development, followed by a number of public consultations. The Draft NEP had 484 pages. The Ministry undertook a rigorous consultation process in formulating the draft policy: "Over two lakh suggestions from 2.5 lakh gram panchayats, 6,600 blocks, 6,000 Urban Local Bodies (ULBs), 676 districts were received.

"The vision of the National Education Policy is: "National Education Policy 2020 envisions an India-centric education system that contributes directly to transforming our nation sustainably into an equitable and vibrant knowledge society by providing high-quality education to all." Quality higher education must aim to develop individuals who are excellent, thoughtful, well-rounded, and creative. It must enable a person to study one or more specialized areas of interest at an in-depth level and develop character, ethical and constitutional values, intellectual curiosity, scientific temper, creativity, service spirit, and the skills of the 21st century across a range of fields, including sciences, social sciences, the arts, humanities, languages, personal, technological the vocational subjects. The new education policy brings some fundamental changes to the current system, and the key highlights are multidisciplinary universities and colleges, with at least one in or near every district, revamping student curricula, pedagogy, evaluation, and support for enhanced student experience, establishing a National Research Foundation to support excellent peer-reviewed work and effectively seed study at universities and colleges. The main problems faced by the Indian higher education system includes enforced separation of qualifications, early specialization and student streaming into restricted research areas, less focus on research at most universities and schools, and lack of competitive peer-reviewed academic research funding and large affiliated universities leading to low levels of undergraduate education.

Institutional restructuring and consolidation aim to end the fragmentation of higher education by transforming higher education institutions into large multidisciplinary, creating well-rounded and innovative individuals, and transforming other countries educationally and economically, increasing the gross enrolment ratio in higher education, including vocational training, from 26.3% (2018) to 50% by 2035.

Holistic and multidisciplinary education should strive in an integrated way to improve all human capacities- mental, cultural, social, physical, emotional, and moral. In the long term, such a comprehensive education shall

be the method for all undergraduate programs, including those in medical, technical, and vocational disciplines. Optimal learning environments and support for students offer a holistic approach including adequate curriculum, interactive pedagogy, consistent formative assessment, and adequate support for students.

OBJECTIVES OF THE STUDY

The primary objective of this research is to study the impact of New Education Policy 2020 on higher education. The study also outlines the salient features of NEP and analyses how they affect the existing education system.

RESEARCH METHODOLOGY

This research is a descriptive study. The necessary secondary data was collected from various websites including those of Government of India,

SALIENT FEATURES OF NEP RELATED TO HIGHER EDUCATION

The new NEP has been introduced with an aim to formalize changes in the system from school level to college/university level. Keeping in mind the developing scenario, education content henceforth, will focus on key-concepts, ideas, applications and problem-solving angles. The National Education Policy is expected to bring positive and long-lasting impact on the higher education system of the country. The fact that foreign universities will be allowed to open campuses in India is a commendable initiative by the government. This will help the students experience the global quality of education in their very own country.

The introduction of single common entrance test is another positive step which will reduce the stress of multiple competitive exams and ease off the pressure of preparing for so many of them.

Establishing Academic Bank of Credit (ABC) is definitely a robust idea to store the academic credits that students earn by taking courses from various recognized higher education institutions. A student can earn scores by completing a course and these will be credited to the ABC account. One can then transfer these credits if he/she decides to switch colleges. If a student ever drops out for some reasons, these credits will remain intact which means he/she can come back years later and pick up from where the student had left.

The new higher education regulatory structure will ensure that distinct administrative, accreditation, financing, and academic standard-setting roles are performed by separate, autonomous, and empowered bodies. These four structures will be established as four independent verticals within a single umbrella institution,

Some of the salient features are:

- 1. Single regulatory body for higher education :** The NEP aims to establish Higher Education Commission of India which will be the single regulatory body
- 2. Multiple entry and exit programme :** There will be multiple entry and exit options for those who wish to leave the course in the middle. Their credits will be transferred through Academic Bank of Credits. •Tech-based option for adult learning through apps,
- 3. E-courses to be available in Regional languages and Technology :** It will be part of education planning, teaching, learning, assessment, teacher, school, and student training. World's top 100 foreign universities will be facilitated to operate in India through a new law. According to the HRD Ministry document, "such (foreign) universities will be given special dispensation regarding regulatory, governance, and content norms on par with other autonomous institutions of India
- 4. Common entrance exam for all colleges :** The common Entrance exam for all higher education institutes to be held by National Testing Agency (NTA). The council's goal will be to increase gross enrollment ratio.

The HECI will have 4 verticals :

- a) National Higher Education Regulatory Council (NHERC)** To regulate higher education, including teacher education, while excluding medical and legal education.
- b) National Accreditation Council (NAC)** A "meta-accrediting body".
- c) Higher Education Grants Council (HEGC)** For funding and financing of universities and colleges. This will replace the existing National Council for Teacher Education, All India Council for Technical Education and the University Grants Commission.

- d) **General Education Council (GEC)** To frame "graduate attributes", namely the learning outcomes expected. NEP 2020 also allows foreign universities and colleges to come to India and this brings out a challenge for the native institutions to improve the quality of education provided by them. India has one of the largest networks of higher education systems in the world, with more than 900 universities and 40,000 colleges. But GER (Gross Enrolment Ratio) of India in higher education is 26.3%, which is significantly low when compared to other BRICS countries like Brazil (50%) India will need another more than 1,500 new higher education institutions by 2030 to accommodate a huge inflow of students, that's why the Indian government wants to promote FDIs (Foreign Direct Investment) and open up the ECB (External Commercial Borrowing) route to strengthen the capital investment for the education sector. Already more than 7 Lakhs of Indian students are studying abroad.

MORE HOLISTIC AND MULTIDISCIPLINARY EDUCATION:

The NEP 2020 claims that, a holistic and multidisciplinary education would aim to develop all capacities of human beings -intellectual, aesthetic, social, physical, emotional, and moral in an integrated manner.

THE STRUCTURE AND LENGTHS OF DEGREE PROGRAMMES :

In the context of the National Education Policy 2020 scheme, any undergraduate degree in any institution will be of duration of three or four years. One can leave the degree within this period. Any educational institution will have to give to the student a diploma degree after the student completes two years of study, a degree after the student completes three years of study and a certificate to those students who complete one year of study in any professional or vocational course of their choice. The Government of India will also help in establishing an Academic Bank of Credit for storing the academic scores digitally. This will enable the institutions to count the credit at the end and put it in the degree of the student. This will be helpful for those

individuals who might have to leave the course mid-way. They can start the course later on from where they left off and not start from the beginning once again.

CONCLUSION

The policy introduces a whole gamut of changes and reads largely as a very progressive document, with a firm grasp on the current socio-economic landscape and the prospect of future uncertainty. Education for a new generation of learners has to essentially engage with the increasing dematerialization and digitalization of economies, which requires a completely new set of capabilities in order to be able to keep up. This seems to be an even more vital requisite now, with the trend towards digitalization and disruptive automation being quick by the pandemic. Over all ,the NEP 2020 addresses the need to develop professionals in a variety of fields ranging from Agriculture to Artificial Intelligence. India needs to be ready for the future. And the NEP 2020 paves the way ahead for many young aspiring students to be equipped with the right skill set. The new education policy has a laudable vision, but its strength will depend on whether it is able to effectively integrate with the other policy initiatives of government like Digital India, Skill India and the New Industrial Policy to name a few ,in order to effect a coherent structural transformation. Hence, policy linkages can ensure that education policy addresses to and learns from Skill India's experience in engaging more dynamically with the corporate sector to shape vocational education curriculum in order to make it a success. There is also a necessity for more evidence-based decision-making, to adapt to rapidly evolving transmutations and disruptions. NEP has reassuringly provisioned for real-time evaluation systems and a consultative monitoring and review framework. This shall empower the education system to constantly reform itself, instead of expecting for a new education policy every decade for a shift in curriculum. This, in itself, will be a remarkable achievement. The NEP 2020 is a defining moment for higher education. Effective and time-bound implementation is what will make it truly path-breaking.

REFERENCES

1. P. S.; Aithal, Shubhrajyotsna (2019). "Analysis of Higher Education in Indian National Education Policy Proposal 2019 and Its Implementation Challenges". International Journal of Applied Engineering and Management Letters. 3 (2) 1–35. SSRN 3417517
2. Ms. Nandini, (29 July 2020). "New Education Policy 2020 Highlights: School and higher education to see major changes". Hindustan Times. Jebaraj,
3. Priscilla (2 August 2020). "The Hindu Explains | What has the National Education Policy 2020 proposed?". TheHindu. ISSN 0971-751XChopra,

-
4. Ritika (2 August 2020). "Explained: Reading the new National Education Policy 2020". The Indian Express. Rohatgi, Anubha, ed. (7 August 2020). "Highlights NEP will play role in reducing gap between research and education in India.
 5. PM Modi". Hindustan Times. Krishna, Atul (29 July 2020). "NEP 2020 Highlights: School And Higher Education". NDTV.
 6. Naidu, M. Venkaiah (8 August 2020). "The New Education Policy 2020 is set to be a landmark in India's history of education". Times of India Blog.

Lectures delivered by various experts

1. Dr. Bhushan Patwardhan member of Committee
2. Shri. Anirudh Deshpande Ex. Principle BMCC College Pune,
3. Hon'ble Pri. Minister Shri. Narendra Modi

RECRUITMENT VIA COMMUNITY MEDIA

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ABSTRACT

Electronically connected community media has become one of the more universally used methods for institutions to attract some of the best employees. Community recruitment is used to improve and boost human resource management, they address the needs of the employees through the internet, which increases the speed of employment, and improves the quality of recruitment and service. This paper describes the recruitment process that takes place through social media. The role of community media doesn't stop at hiring rather it also has a role in helping people begin a new job. Overall community media has enhanced the recruitment process by making it more open and autonomous. This paper provides a basis for considering the brunt of online and community recruitment direction and argument and how powerful it is been put into practice by overcoming other recruitment processes.

Keywords: Recruitment, Online recruitment, community media.

INTRODUCTION:

The new world which we have already entered is a world with fast-changing automation and these changes open up new freedom for institutions to communicate and work. Employees profit from the fact that community networking sites become crucial. They can gain a lot of personal instruction about the seeker. These sites afford institutions the freedom to search for potential aspirants. The number of community networking sites has emerged in enough in last few years and it still keeps on increasing the constant technology change has opened up new freedom for conservation, but at the same time this leads to turbulence, at present, there are only a few studies regarding community recruitment. Community media can be fast, productive, and cost-effective when used as a recruitment tool. Social media has made the process by making it more open and democratic using this method alone however leads to poor relationship building and candidate identification. This paper looks at the various tools in community recruitment, the other forms of recruitment, the benefits, and the importance of community recruitment, which is considered a fundamental aspect in today's universe.

DEFINITION

- “Social recruitment is a proactive process of sourcing and hiring candidates from across geographies using social media as a recruitment channel”.

LITERATURE REVIEW:

Archana L, Nivya V G.(2010), "Recruitment through Social Media area Human Resource, in the Journal of Business Management", denotes the quality and quantity of applicants with a specific focus on e-recruitment this book describes how recruitment takes place through social media which stands as the second most prevalent source of hire. Employees use sites such as LinkedIn, Facebook .to identify talents, and to find the right candidates for the right job.

Sandra Abel (2011), researched "The Role of Social Networking Sites in Recruitment" in her master thesis on Business Administration. The study highlights the new world in which we are living, which is fast changing day to day life and these changes lead to the emerging of new opportunities in the company to work. The Internet plays a major role in today's modern world, and networking sites have become popular among everyone. Employee finds it easy that the social network sites become an easy and cost-free method to advertise and it has been a tool for the employees to find fresher's and skilled people to find the right job in which they are in need.

COMMUNITY MEDIA AS TOOLS:

- | | |
|--------------|-------------|
| 1. Blog. | 6.Podcast |
| 2. Facebook | 7. Twitter |
| 3. Google | 8..Youtube |
| 4. LinkedIn. | 9.Wikipedia |
| 5. Myspace | 10. Yahoo |

METHODOLOGY

A quantitative type of research was chosen in this study. This study was conducted by making use of a survey among Human Resources departments in Bengaluru District. To determine the perceptions and experiences of the HR departments, by using social networking for the requirement by distributing the questionnaire to those who work in the HR department. This study reveals the usage and the perception of HR managers in leading organizations. HR departments enter a new terrain and gain their first experiences with community networking Sites in combination with recruitment. Expected outcomes indicate a trend to use the sites for recruitment and it became obvious this issue will gain importance in the future.

FINDINGS

Effective social site recruitment

	Frequency	Percent
Facebook	11	27.5
LinkedIn	24	60.0
Any other	5	12.5
Total	40	100.0

This table shows that more than half of the respondents are using the Linked in application for recruiting.

The source of getting the quality candidates

	Frequency	Percent
Referral	6	15.0
Direct sourcing	6	15.0
Social network site	12	30.0
Campus Recruiting	16	40.0
Total	40	100.0

After the Campus Recruitment, the social networking recruitment fills the more than one-fourth of the source getting the quality candidates.

Genuineness of the applicant through Social media recruitment

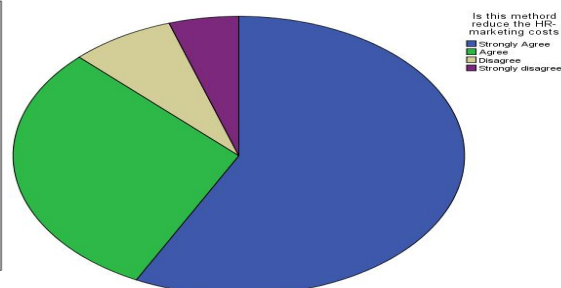
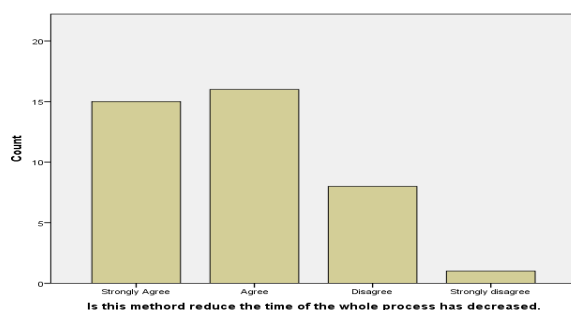
	Frequency	Percent
Strongly Agree	5	12.5
Agree	14	35.0
Disagree	17	42.5
Strongly disagree	4	10.0
Total	40	100.0

More than one-third of the HR's felt disagree with the genuineness of the social media recruitment.

Sufficient information from the social networking sites

	Frequency	Percent
Strongly Agree	5	12.5
Agree	26	65.0
Disagree	6	15.0
Strongly disagree	3	7.5
Total	40	100.0

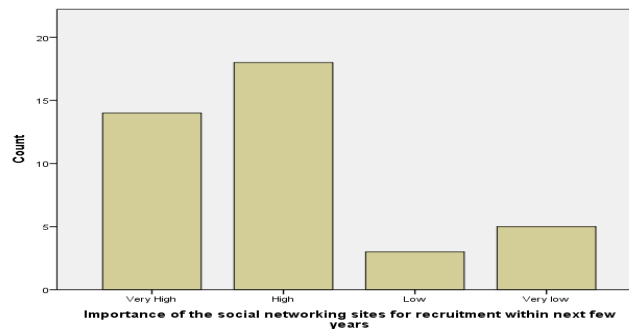
Two-third of the respondents agree the social networking sites gave sufficient information.



This bar diagram shows one-fourth of the respondents said that the social recruitment method reduces the timing of the whole process.

This pie diagram shows that marketing and advertising cost are reduced by this method and it was agreed by more than half of the respondents.

This pie diagram represents the more than two-thirds of the respondents are agree they get sufficient information from social networking sites.



Most of the respondent believes that social networking will play important role in future.

THE FOUR ASPECTS OF SOCIAL RECRUITMENT:

Human resources can influence social media for the best and efficient potential recruits which is called social recruiting. It is about the use of social media as a tool to recruit persons with talent and efficiencies. There are four major tools are as follows

- ❖ It's the best way to reach job seekers.
 - ❖ It's part of a cultural shift.
 - ❖ Transparency goes both ways.
 - ❖ It's not the network anymore.
1. It's the best way to reach the job seekers
 2. It's part of a cultural shift
 3. Transparency goes both ways
 4. It's not the network anymore

Social media vs. other forms of recruitment: The recruitment method can be classified into two types they are:

- ❖ **Traditional recruitment method.**
- ❖ **Modern recruitment method.**

TRADITIONAL RECRUITMENT METHOD:

Organizations around the world have been benefited of the traditional recruitment method for so long generations. Which have served them well and delivered employees who have played a key role in defining their organization, here are some traditional methods which are as follows:

- ❖ Local paper advertisement:
- ❖ Local employment office postings:
- ❖ Temporary agencies:
- ❖ Internal hiring:

MODERN RECRUITMENT METHOD:

The rise in technology and the modern lifestyle and trend has influenced and made a difference in selecting candidates for the organization according to the new generation's needs.

Social media: This is an inexpensive and time-saving method the websites such as LinkedIn, Facebook, and Twitter where potential employees submit their resumes to identify a job.

BENEFITS OF SOCIAL MEDIA RECRUITMENT:

It increases brand awareness: With millions and millions of cyberspace users on Facebook, Twitter, Linked In, and Google+, etc. the clarity of the institution will increase, which will be recorded by a big number of qualified applicants. It also shows the online association that the institution is succeeding direction of community networking.

1. It is costless
2. It increases the applicants
3. It provides the freedom to reach static applicants
4. The message is quick
5. It gives employees a sense of ownership
6. It ensures a good culture fit for the institution
7. It provides a better applicant screening

PROS AND CONS OF COMMUNITY RECRUITING:**Pros:**

- ❖ **Cost less.**
- ❖ **Fast**
- ❖ **Time-saving.**

Cons:

- ❖ **Lacks diversity**
- ❖ **Time-consuming Transparency Discrimination Limited**

IMPORTANCE OF SOCIAL MEDIA IN TODAY'S WORLD:

community networks are one of the fastest-growing industries in today's world. Studies have found that social media has increased brand awareness by 70% which one can understand how that has been attracted users especially job seekers, this increases the loyalty of an organization in which the customers receive a quick response from the institution and this can help to suggest the users to their well-wishers and that becomes as a process of cost-free advertisement. Social media creates direct access to candidates without any third-party intervention, so the concept of recommendation becomes less and the right person chooses the right job so the opportunity is be correctly given to a person who is capable and efficient. community media are the inexpensive way to promote ads and this could reach to persons than any other means.

SUGGESTIONS

- It would be good if the college promote community networking as a part of campus interview
- There must be a standard website without confusion in the process of interview through social recruitment
- All manufacturing and IT sectors should make social recruitment mandatory because it helps to find the right person for the right job
- There should be a strict cross-check of every document to reduce fake entry
- These social recruitment applications should bring new updating based on the requirements.
- Social recruitment should be made a part of the curriculum where a person from various discipline must be thought the basics where they can sustain on his/her own
- A suggesting team should be implemented in every organization where they find and suggest the area of improvement for the updating.

CONCLUSION:

community networking is a powerful tool used by recruiters to obtain qualified personal. There is no doubt that through community media the world of work and jobs has gone to the next level especially in the recruitment process by making it more feasible. community media increases visibility and has made life even simpler. This helps to find the right person for the right job knowing all his backgrounds his likes and dislikes etc. there is a lot of research which s successfully going on social recruitment to make this to reach the next level. This can

also be improved by interaction with the costumers, engaging with the employees, etc. the business what we do at present keeps on changing according to its trends and inventions, so it would be better than removing old tradition and implementing new tradition can bring a thrill to the up growing generations.

REFERENCE:

- ❖ Vicknair J., Elkersh, D., Yancey, K., Budden, M.C. (2010). The use of social networking websites as a recruiting tool for employers. *American Journal of Business Education*,3(11), 7-12.
- ❖ Doherty, R.D. (2010). Getting social with recruitment, *Strategic HR Review*. 9(6), 11-15.
- ❖ Running Head: Social Media Recruitment: Getting Generation Y'sAttention. Andrew Nixon, MihaiCiuca, Adam Venditti, Hailey Desormeaux, Kayla Dynan.
- ❖ www.nigelwright.com/_downloads/SM_Bibliography.pdf
- ❖ Recruitment Through Social Media Area: Human Resource Iarchana L, 2nivya V G, 3thankam S M 1,2,3Department of management studies Ponjesly College of Engineering Nagercoil.

COVID – 19: CHALLENGES, CONCERN AND ROAD AHEAD IMPACT ON HUMAN RESOURCE MANAGEMENT

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ABSTRACT

The COVID-19 pandemic has revealed the importance of the HRM “Human Resources Management” in organizations and companies especially with the new challenges raised by Corona virus. Employees need to be supported more than ever especially with the uncertain future and the high possibility of losing jobs or salary deduction. So, employers start depending more on their HR department to obtain the right HR strategy which could face the new challenges.

Therefore, this article spots the light on the different problems caused by COVID-19 pandemic such as the increasing unemployment rate, the salary deduction, the psychological impact of COVID-19 on employees, managing the remote work, the working hours, tensions between employees and the social distance.

For example, many families face big difficulties between staying with the kids at home during school shut down because of the Pandemic of COVID- 19 and going to their work or managing the remote work while their kids at home. So HR strategy could not be ideal for them. This article shows the importance of the HR flexibility in applying HR strategy and practices especially with the different circumstances of each employee may face because of the COVID-19 pandemic.

OBJECTIVE OF STUDY

- 1) *To recognize effects of Covid-19 on HRM*
- 2) *To evaluate strategy for future of HRM*

RESEARCH METHODOLOGY

Being an explanatory research it is based on secondary data of journals, articles. Considering the objectives of study descriptive type research design is adopted to have more accuracy and rigorous analysis of research study. The accessible secondary data is intensively used for research study.

INTRODUCTION

The importance of HRM “Human Resources Management” has been elevated recently especially with the outbreak of coronavirus as employees’ performance has been affected accordingly, and HRM describes all these policies, systems, and practices which could adjust employees’ attitudes, behavior and performance Therefore, the HR policies and practices should be modified to adapt with the new requirements such as working from home, social distance and supporting employees more than ever to maintain positive contribution and overcome the critical period of Covid-19 pandemic

However, most of these policies and practices have been made for managing people at workplace, not at home as refers that HR is all about managing people at work with policies, procedures, systems and rules as well as refers that HRM is the leadership of people within an organization by using different systems, methods and procedure which could enable employees to achieve their own goals which in return enhance employees’ positive contribution in achieving organization’s goals.

EMPLOYEES’ MENTAL HEALTH

The first priority of HR professionals since the beginning of Corona virus pandemic is the health and wellbeing of the employees and the mental health of the employees is a very important aspect as its affecting the performance and achievement of the employees’ contribution in organization goals.

Employees’ mental health could be affected by the Covid-19 pandemic because of the job insecurity and financial loss

As a matter of fact, many industries around the world has been affected by the outbreak of Corona virus as the pandemics lead to the closure of many workplaces which increases the anxiety of the Employees and the level of unemployment

EMPLOYEES' RETENTION MODEL

Employees' retention is a very important issue while planning the human resources strategy and many companies give this aspect a priority because employees are considered the most valuable asset and the backbone of an entity

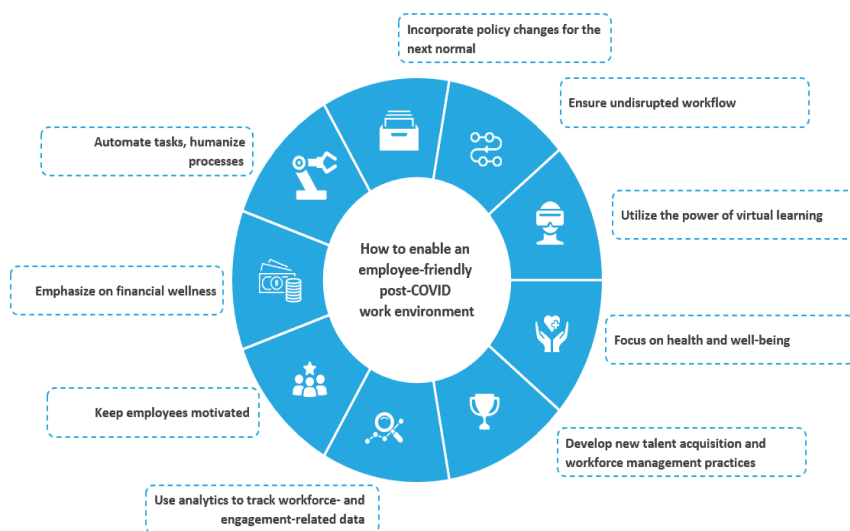
Therefore, to maintain the employees' retention, a suitable HR Strategy should be implemented in accordance with the new challenges of Covid-19 together with high concern on the Psychological contracts of the employees and taking into consideration the affected employees mental health as well as reducing the complexity of the HR practices by being more flexible instead.

ROLE OF HR: PRE & POST COVID WORLD

PRE-COVID LANDSCAPE

The HR department is at the heart of all employee-centric needs of any organization. HR professionals are the people-friendly ones, who know how to manage the workflow of the company by ensuring every single person is working seamlessly and the company's policies are regularly updated. Traditionally, this role involved in-person interactions with all the employees, throughout the day. HRs have been instrumental in talent acquisition, up skilling, and development of employees and conflict resolution within teams working together.

Over time, the sphere of HR has evolved from being limited to employee satisfaction, to have a larger impact on the company's overall growth. The influence of technology has brought several changes and has made HR a vital enabler for any workplace. The fortunate partnership of digitization and HR ushered in several advantageous outcomes like effective resource planning, requirement forecasting, talent sourcing, and recruitment assessments. The integration of resource management software within HR teams has given rise to smart HR programs and effective leadership.



POST-COVID SCENARIO

The COVID-19 pandemic hit all organizations and industries with the same magnitude but the repercussions are varied. While some companies found it easy to transform digitally and revive their operations without a glitch, others are still having a tough time switching to the digital mode of working. This asymmetry has been a function of several factors including the digital capabilities of businesses and the management tactics being used to connect people digitally.

REMOTE WORKING

The fancy idea of remote working has become indispensable now and HRs have novel responsibilities to address. The need for automation and flexible collaboration tools has grown even more now. As a sincere effort to strengthen employees living in Tier-2 cities, many renowned companies have made significant efforts in the past few months to facilitate them with the necessary infrastructure, thus making remote-working smooth for them.

CHALLENGES TO EMPLOYEES

- Stress
- Unemployment

- Unpaid leave
- Adaptability to remote working
- Lack of Knowledge in Online too

CHALLENGES TO HRM

- Managing panic
- Avoiding dismissals
- Lack of Knowledge in Technologies
- Lack of crisis Management skills and knowledge
- New safety regulations

PRODUCTIVITY AND COLLABORATION

In the areas of talent acquisition and management, HRs had to make some tough decisions. Drying up revenues and difficult team management calls for reduced team sizes and strategic talent sourcing. As a result, with the sky-rocketing layoff figures and increased freelancer intakes, employees are more uncertain than ever.

The HR role is not limited to the retention or removal of employees only.

The magical world of digitization that was embraced as a 'good-to-have', turned out to be a saviour for organizations across the globe. human touch, and work culture. The amalgamation of the humane HR function and digital solutions sustains the post-COVID era.

FINDING

FUTURE OF HR

Current situations call for thoughtful initiatives that help settle the chaos and resume work in the best possible manner. It's high time to pay heed to learning and development for the digital times.

Businesses stay in the same competitive world but the geographic have dismantled. Thus, judicious planning for workforce enhancement is imperative. The crisis might resolve soon but the lessons are to stay with us at our workplaces forever. This transformation of HR is to empower digital workplaces in the times ahead.

Boost employee morale during COVID-19



On the other hand, however, crisis management dictates the companies to cut costs on training sessions and on other development activities. Thus, it is important that the HR management finds the right balance between cutting costs due to recession and developing the staff. Otherwise, effectiveness and efficiency cannot be achieved.

REFERENCES

- <https://www.everestgrp.com/2020-05-preparing-for-the-future-covid-19-implications-for-the-hr-function-blog-.html>
- <https://www.peoplesmatters.in/article/skilling/budget-2021-the-top-people-and-work-highlights-28322>
- <https://www.everestgrp.com/2020-05-preparing-for-the-future-covid-19-implications-for-the-hr-function-bloghtml>
- <https://blogs.lse.ac.uk/businessreview/2020/05/22/the-impact-of-covid-19-on-human-resource-management-avoiding-generalisations/>
- <https://www.everestgrp.com/2020-05-preparing-for-the-future-covid-19-implications-for-the-hr-functionblog-.html>
- <https://www.peoplesmatters.in/article/skilling/budget-2021-the-top-people-and-work-highlights-28322>

COVID 19: CHALLENGES, CONCERNS AND THE ROAD AHEAD

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ABSTRACT

AIM:- *This study focuses on the challenges and risk faced by the citizens during the pandemic of COVID 19.*

OBJECTIVE:- *The objective of this study is to bring into light the view of the challenges faced by the citizens and how they are fighting with the situation. Also, we are going to discuss the mental, physical, professional and family life drastically hit by COVID 19.*

METHODS:- *The abstract is a literature study of various papers and articles search through Google, Google Scholar, and many search engines. It is also an observational study and some review as a common citizen.*

RESULTS:- *COVID 19 has brought with it many other challenges which are being overlooked.*

CONCLUSION:- *Apart from various precautionary measures taken we should now Save our Nature.*

Keywords: *Physical health, mental health, child health, Quarantine issues*

INTRODUCTION:

COVID 19 has brought with it lot of health issues and crisis . The World faced an complete lockdown since March 2020 and brought everything to a stop , work from home , Isolation , wearing mask while leaving a home and many more. Burden on health system increased to a peak in a sudden. Italy was the first western country to be affected by the coronavirus-2019 (COVID-19) pandemic. The exponential rise of COVID-19 cases and the increasingly urgent need for intensive care unit surge capacity for the management of critically ill patients posed an extraordinary strain on the healthcare systems of Lombardy, Veneto and Emilia-Romagna (1). The coronavirus disease 2019 (COVID-19) pandemic has critically impacted physical and mental health globally (2,3). Many countries have adopted varying measures to minimize the transmission of the disease, including adopting shelter in place policies, staying at home, limiting access to nursing homes, and prohibiting gatherings at places where people can potentially come into closer contact (4).

FINDINGS:

Mental health- Isolation is creating a burden as social distancing and maintaining isolation from family, friends and relatives. It is difficult to handle every family members needs, requirements and professional work balance. Also bearing the financial losses and cuts in the salary maintaining the growing family needs is creating a family disturbance and affecting the mental health. Seating in 4 corners of home maintaining social distance for a long year now is a problem. In the current COVID-19 crisis, there have been reports from all over the world about a significant increase in domestic violence (5). Besides Mental pressure, COVID-19 pandemic-related quarantine in several countries could significantly affect mental health. In a recent review on the psychological impact of quarantine, Samantha Brooks and colleagues pointed out that post-traumatic stress symptoms (PTSS) occur in 28 to 34% and fear in 20% of subjects in quar-antine (6). Additional quarantine-related mental health problems include depression, low mood, irritability, insomnia, anger and emotional exhaustion (6).

Physical health- As of 2021, all know that we are all doing work from home for a year and so. This is creating physical damage on their health as sitting in one place for hours and that too on a sofa or bed or a floor due to unavailability of proper office atmosphere. This has come up with back problems, neck pain, headache, obesity, etc and many more health issues. Also, this is not doing well with females of the families as they are also doing household work plus taking their children's online classes also doing household work and meeting everyone's daily food need. This is creating problems and fights between family members thus increasing pressure, hypertension like health issues.

Child health issues- Isolating children from not going out for playing. no parks, no school, no friends and all are creating child health issues. We as an adult can understand the situation but making it understand to children is a difficult task. Also, the current situation has put children's towards more screen time as online schools and watching television and gadgets. This is harming child health. . Recent empirical studies suggest a rapid increase in digital screen time in different populations during the COVID-19 pandemic (7)

COVID 19 has brought with it many difficulties to face as economic growth has rapidly fallen which is having a bad impact on middle-class peoples and daily workers who are facing a difficult challenge. More concern is the health system which is unable to fulfil the demanding needs of citizens as the rate of people infected by the COVID virus is increasing day by day. But leaving behind all the cons COVID 19 has taught us a lot like:

1. Maintaining hygiene, washing hands frequently, using sanitisers.
2. It has brought us close as a family because before 2019 nobody had enough of their family time in this busy working world.
3. It has brought us close as a Nation as we are helping each other in this difficult time of Quarantine, Isolation.
4. We are growing as a Nation as of now we have understood our strength and weakness and where we need to improve.
5. Health professionals, Paramedics, Policeman, even Teachers who learning all new aspects of teaching Online leaving behind their chalkboard, these all have taught us that nobody can do as more as they are doing to serve our Nation.

CONCLUSION:

MOTHER NATURE is our greatest teacher who has taught us to Protect and Save our Nature. As said “As we sow so we reap”.

REFERENCES:

1. Lazzarini M and Putoto G(2020) COVID-19 in Italy: momentous decisions and many uncertainties. *Lancet Global Health* 8, e641–e642. Liu
2. References 1. Acter T, Uddin N, Das J, et al.: Evolution of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) as coronavirus disease 2019 (COVID-19) pandemic: A global health emergency. *Sci Total Environ* J. 2020; 730: 138996. PubMed Abstract| Publisher Full Text| Free Full Text
3. Hossain MM, Tasnim S, Sultana A, et al.: Epidemiology of mental health problems in COVID-19: a review [version 1; peer review: 2 approved]. *F1000Res*. 2020; 9: 636. PubMed Abstract| Publisher Full Text| Free Full Text
4. Altmann DM, Douek DC, Boyton RJ: What policy makers need to know about COVID-19 protective immunity. *Lancet*. 2020; 395(10236): 1527–1529. PubMed Abstract| Publisher Full Text| Free Full Text
5. The Guardian. Lockdowns around the world bring rise in domestic violence. <https://www.theguardian.com/society/2020/mar/28/lockdowns-world-rise-domestic-violence>. 2020.
6. Brooks SK, Webster RK, Smith LE, Woodland L, Wessely S, Greenberg N, et al. The psychological impact of quarantine and how to reduce it: rapid review of the evidence. *Lancet*. 2020;395(10227):912–20.
7. Király O, Potenza MN, Stein DJ, et al.: Preventing problematic internet use during the COVID-19 pandemic: Consensus guidance. *Compr Psychiatry*. 2020; 100: 152180. PubMed Abstract| Publisher Full Text| Free Full Text

COMPARATIVE ANALYSIS OF FINANCIAL SOUNDNESS OF PUBLIC AND PRIVATE SECTOR BANKS

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ABSTRACT

Fundamental Analysis of a business involves analysing its financial statements and health, its management and competitive advantages, and its competitors and markets. Present study focus on comparative analysis of three public sector and three private sector banks financial position through ratio analysis. Research objective for the study is analyse the profitability position and operating efficiency of public and private sector banks. Public sector bank includes SBI, PNB and union bank of India and private sector bank includes ICICI, Axis and Yes Bank. For the study purpose ratio analysis technique is used. From the study it is concluded that SBI is good performer in public sector bank in terms of Earning per share, Dividend per share. In private sector bank Axis bank has highest Net profit margin, price to earnings ratio, Return on asset and Debts to equity ratio.

Keywords: -fundamental analysis, Public sector bank, Private sector bank, Profitability and Efficiency.

INTRODUCTION: -

Financial Management is a vital activity in any organization. It is the process of planning, organizing, controlling and monitoring financial resources with a view to achieve organizational goals and objectives. It is an ideal practice for controlling the financial activities of an organization such as procurement of funds, utilization of funds, accounting, payments, risk assessment and every other thing related to money. Fundamental Analysis of a business involves analysing its financial statements and health, its management and competitive advantages, and its competitors and markets. When applied to futures and forex, it focuses on the overall state of the economy, and considers factors including interest rates, production, earnings, employment, GDP, housing, manufacturing and management. When analysing a stock, futures contract, or currency using fundamental analysis there are two basic approaches one can use; bottom-up analysis and top-down analysis. Fundamental analysis is performed on historical and present data, but with the goal of making financial forecasts.

Fundamental analysis is the examination of the underlying forces that affect the wellbeing of the economy, industry groups, and companies. As with most analysis, the goal is to derive a forecast and profit from future price movements. At the company level, fundamental analysis may involve examination of financial data, management, business concept and competition. At the industry level, there might be an examination of supply and demand forces for the products offered. For the national economy, fundamental analysis might focus on economic data to assess the present and future growth of the economy.

REVIEW OF LITERATURE

Sana Samreen has analyzed the overall banking industry with the help of Porter's five forces model in her research study "Analysis of Indian Banking Industry with Special Reference to ICICI Bank (2014)". The study also concentrated on the various developments, challenges and opportunities in the banking industry in India. The author has concentrated on commercial banks in India and examined the upcoming challenges and opportunities to reap profits.

H.K. Singla in his study "Financial Performance of Banks in India (2008)" has examined the profitability position of the selected sixteen banks a period of six years (2001-06). The study identifies that the profitability position was consistent during the period of study when compared to the previous years. Strong capital position and greater revenues places the banks in a better position.

Omprakash K.Gupta, Yogesh Doshit and Aneesh Chinubhai in their study "Dynamics of Productive Efficiency of Indian Banks (2008)", have analyzed the performance of the Indian banking sector in two stages. Non-parametric frontier methodology DEA and TOBIT model have been used to construct productive inputs. The outputs are measured and efficiency scores have been determined for the period of 1999-2003. The efficiency is measured in terms of capital adequacy; the study concludes that the State Bank of India has highest efficiency level followed by private banks and other nationalized banks.

S. S. Rajan, K. L. N. Reddy and V. Pandit in their research paper "Efficiency and Productivity Growth in Indian Banking (2011)", have examined the technical efficiency and productivity performance of Indian scheduled

commercial banks, for the period 1979-2008. Using semi-parametric estimation methods they have model a multiple output/multiple input technology production frontier.

RESEARCH METHODOLOGY: -

Statement of Problem

As the banking sector occupies an important place in an economy. So this study can help to understand financial soundness of public and private banks in India. Fundamental analysis will help to know the banks performance over a period of time by comparing present ratios and past ratios. The Purpose of this study is to find out overall performance of selected public and private banks in India with the help of ratio analysis. That's why the research study entitled as **"COMPARATIVE ANALYSIS OF FINANCIAL SOUNDNESS OF PUBLIC AND PRIVATE SECTOR BANKS"**

RESEARCH OBJECTIVES

- To evaluate the liquidity and solvency position of selected private and public sector banks in India.
- To analyse the Profitability ratios and operating ratio of public and private sector banks in India.

DATA ANALYSIS AND INTERPRETATION

Return on Equity :- Return on equity measures a corporation's profitability by revealing how much profit the company generates with the money shareholders have invested. ROE is expressed as percentage. $ROE = \text{Net Income} / \text{shareholder's equity}$

Return on Equity (ROE)

YEARS	SBI	PNB	UNION	ICICI	AXIS	YES
2015-16	19.8	14.4	15.8	22.6	12.9	16.04
2016-17	16.9	14.5	16.4	17.1	13.7	14.6
2017-18	17.2	10.8	16.6	18.4	10.4	15.6
2018-19	16.6	9.7	15.6	15.1	12.8	13.5
2019-2020	16.9	7.7	16.4	12.3	14.25	11.2

Source: - calculated from Annual report of Banks

INTERPRETATION The return on equity of the selected banks is shown in Table 1. It can be seen that SBI bank has highest average ROE (16.9) followed by PNB bank (7.7) and AXIS bank (14.25). It is also seen that the ROE of YES bank has increased greatly when compared to other selected banks.

NET PROFIT MARGIN (NPM) Net Profit Margin is equal to net income or profits divided by total revenue, and represent how much profit each dollar of sales generates. Net profit margin expresses the ratio of net profits to revenues for a company. The net profit margin illustrates how much of each dollar collected by a company as revenue is converted into profit. $NPM = \text{Net Income} / \text{Revenue}$

YEARS	SBI	PNB	UNION	ICICI	AXIS	YES
2015-16	20.61	22.30	19.20	16.1	20.6	19.6
2016-17	21.07	22.30	20.50	17.3	22.9	20.1
2017-18	20.41	17.20	20.80	18.7	17	18.06
2018-19	20.99	16.70	20.20	20.3	22.1	17.6
2019-20	21.79	12.40	8.8	20.8	24.7	16.47

Net Profit Margin (NPM in %)

Source: - calculated from Annual report of Banks

INTERPRETATION From Table 2, it can be seen that Axis Bank has the highest NPM of 24.7, which implies that for every INR 100 the bank has earned INR 16.47. The SBI bank follows the Axis with NPM of 21.79. The NPM of Axis has increased greatly when compared to other selected banks.

RETURN ON ASSETS (ROA) Return on assets indicates how profitable a company is relative to its total assets. ROA gives any investor a guide to evaluate how efficient a company's management is using its assets to generate earnings. Return on assets is displayed as a percentage. **Return on Assets (ROA in %)**

YEARS	SBI	PNB	UNION	ICICI	AXIS	YES
2015-16	1.72	1.5	1.5	1.5	2	1.6

2016-17	1.73	1.5	1.6	1.5	2	1.8
2017-18	1.73	1.1	1.6	1.5	1.4	1.8
2018-19	1.68	1	1.5	1.4	1.8	1.6
2019-2020	1.64	0.7	0.6	1.4	1.8	1.7

Source: - calculated from Annual report of Banks

INTERPRETATION From the table 3, we can interpret that Axis has the highest Return on assets value with 1.8%, followed by YES bank with 1.7%. The most consistent bank in terms of ROA is Axis bank.

PRICE TO EARNINGS RATIO (P/E): The price-earnings ratio indicates the dollar amount an investor can expect to invest in a company in order to receive one dollar of that company's earnings. This reason for P/E ratio sometimes being referred to as the price multiple is because it shows how much investors are willing to pay per dollar of earnings. $P/E = \text{Market value per share} / \text{Earning per share}$

Price to Earnings ratio (P/E Ratio in %)

YEARS	SBI	PNB	UNION	ICICI	AXIS	YES
2015-16	17.7	10.7	10.9	8.5	21.7	9.24
2016-17	21.3	14.8	43.1	13.7	27.5	12.64
2017-18	20.3	14.7	14.9	12.4	36	14.6
2018-19	21.2	14.5	14	16.3	28.7	20.3
2019-2020	24.1	22.9	32	11.8	30.7	15.35

Source: - calculated from Annual report of Banks

INTERPRETATION From the Table 4, we can see that the Price to Earnings ratio of Axis bank is highest with 30.7% followed by SBI bank 24.1%. The most consistent bank in term of P/E ratio is Axis.

DEBT TO EQUITY RATIO (D/E) The debt/equity ratio measures a company's debt relative to the value of its net assets. A higher the debt/equity ratio, higher is the risk; it means that a company has been aggressive in financing its growth with debt. $D/E = \text{Total Liabilities} / \text{Total shareholder's equity}$

YEARS	SBI	PNB	UNION	ICICI	AXIS	YES
2015-16	9.4	7.1	8.9	13.4	4.5	8.6
2016-17	8.1	7.1	8.7	10.4	4.7	7.6
2017-18	8.7	7.1	9.0	10.1	5.4	8.6
2018-19	8.1	6.7	8.8	8.2	5.3	7.6
2019-2020	8.6	7.4	9.4	10.7	4.9	8.4

Source: - calculated from Annual report of Banks

INTERPRETATION From the table 5, we can be seen that Axis bank has the lowest D/E ratio with 4.9% followed by PNB bank with 7.4%. The lower Debt to Equity ratio implies that the bank has lower risk and more of the bank's financing is from issuing shares of equity and not from debt.

NET NON – PERFORMING ASSET RATIO (NPA) Net Non – Performing Asset ratio refers to a classification for loans or advances that are in default or are in arrears on scheduled payments of principal or interest. In most cases, debt is considered as nonperforming asset when loan or advance payments have not been made for a period of 90 days.

YEARS	SBI	PNB	UNION	ICICI	AXIS	YES
2015-16	0.3	1	0.4	0.1	1.1	0.6
2016-17	0.3	1.6	0.4	0.1	0.9	1.2
2017-18	0.3	3	0.4	0.3	1.1	0.6
2018-19	0.3	4.9	0.7	0.8	1.3	0.8
2019-2020	0.3	4.8	2.1	0.6	1	0.9

Net Non-Performing Assets (Net NPA in %)

Source: - calculated from Annual report of Banks

INTERPRETATION From the table 6, we can interpret that Net NPA of PNB bank is the lowest with 4.8%, closely followed by UNION bank with 2.1%. The lower Net NPA ratio indicates that the bank has lower number of defaults from loans and advances.

EARNINGS PER SHARE (EPS) Earnings per share is part of a company's profit distributed among each share of a common stock. Earnings per Share is one of the tools used to indicate a company's profitability position. For the study diluted EPS is considered which is calculated as follows: $EPS = (\text{Net Income} - \text{Dividends on preferred stock}) / (\text{Average outstanding shares} + \text{Diluted shares})$

YEARS	SBI	PNB	UNION	ICICI	AXIS	YES
2015-16	34.3	17.2	21.9	7	13.4	23.8
2016-17	42	19.1	26.4	8.7	16.6	24.3
2017-18	50.3	15.9	31.2	11.1	18.8	32.6
2018-19	59.9	15.9	34.9	14.6	26.9	28.4
2019-2020	72.7	12	16.5	18.5	33.8	25.8

Source: - calculated from Annual report of Banks

INTERPRETATION From the table 7, we can interpret that EPS of SBI bank is the highest 72.7, followed by YES bank average 25.8. The higher the EPS the higher is the profitability of a bank.

DIVIDEND PER SHARE (DPS): Dividend per share is the sum of total declared dividends issued by a company to every outstanding share. An increasing DPS indicates strong performance to its shareholders. While calculating DPS interim dividends has to included but special dividends should not be included as special dividends are expected to be issued only once. $DPS = \text{Dividends} / \text{No. of outstanding shares}$.

Dividend per Share (DPS)

YEARS	SBI	PNB	UNION	ICICI	AXIS	YES
2015-16	6.46	4.15	3.52	1.26	0.34	4.65
2016-17	7.88	4.51	19.66	1.64	0.38	6.42
2017-18	9.43	4.52	4.56	1.84	0.5	7.8
2018-19	11.07	2.27	4.99	2.39	0.6	9.54
2019-20	13.25	1.36	5.01	0.54	0.73	4.65

Source: - calculated from Annual report of Banks

INTERPRETATION: From the table 8, we can interpret that DPS of SBI bank is the highest with INR 13.25, followed by Yes bank with INR 4.65, Union bank has 5.01. The higher the DPS the higher is the performance of a bank.

CONCLUSIONS

- SBI bank scores highest in terms of Earnings per Share (EPS), Dividend per Share (DPS).
- SBI bank has the lowest Net NPA's which implies that number of defaulters in case of SBI bank are low and SBI has taken requisite precautionary methods to collect the loans or advances.
- SBI bank has highest EPS when compared to other selected banks, which indicates us that the bank has more available money to reinvest or to distribute the amount as dividends, in either of the scenarios the investors win.
- The higher DPS of SBI bank indicates that the bank has positive expectations about its future earnings and hence the market value of company's stock increases.
- The Axis bank performed best in terms of Net Profit Margin (NPM), Price to Earnings ratio (P/E), Return on Assets (ROA) and Debt to Equity ratio (D/E).
- The Debt to Equity (D/E) is lowest in case of Axis which implies that the bank is not financing its growth with debt. The P/E ratio of Axis Bank is 28.92% which implies that the investors are ready to pay \$28.92 for every \$1 of their current earnings, which eventually increases the demand of the shares of the bank.
- The Axis bank has a Net Profit Margin (NPM) of 21.46% which indicates that the bank is earns 21.46 cents in profit for every dollar it collects, making it most profitable among the selected private sector banks.
- The higher Return on Assets (ROA) value of Axis indicates that the bank is earning huge income on lower investment on assets.
- Yes bank performed best in terms of Return on Equity (ROE), the higher ROE of the bank indicates the rate of return the equity shareholders of the bank will receive on their shareholdings.

REFERENCE

- Benjamin Graham & David L. Dodd, Security Analysis: Principles and Techniques, Sixth edition, The McGraw Hill Companies, New York, 2009
- Rao, P.Hanumantha& Dutta Sudhendu (2014). Fundamental Analysis of Banking Sector in India. Indian Journal of Finance, (8:9), 47-56
- Samreen, Sana, (2014). An Analysis of Indian Banking Industry with Special Reference to ICICI Bank. International Journal of Recent Research in Social Sciences and Humanities (IJRRSSH), Vol. 1 (1), 29-39
- Bhattacharya, A., Lovell, C.A.K., and Sahay, P. (1997). The impact of liberalization on the productive efficiency of Indian commercial banks. European Journal of Operational Research, 98, 332-345
- Das, Abhiman & S. Ghosh. (2006). Financial Deregulation and Efficiency: An Empirical Analysis of Indian Banks during the Post Reform Period. Review of Financial Economics, Vol. 15(3), 193-221
- Malik Seema (2014), Technological Innovations in Indian Banking Sector: Changed face of banking. International Journal of Advance Research in Computer Science and Management Studies, Volume 2 (6)
- Mohaptra Malaya Ranjan, Lenka Avizeet, Pradhan Subrat Kumar (2015). A Study of Operational Efficiency of Commercial Banks in Indian Financial System: At a Glance. Abhinav Journal of Research In Commerce & Management, Vol. 4(6), 13-18
- Singla, H. K. (2008). Financial Performance of Banks in India. The ICFAI Journal of Bank Management, 22(1), 50-62
- Walia, Karan (2012). A Study on Fundamental Analysis of Banking Sector. Asian Journal of research in Banking & Finance, Vol.2 (4)

A STUDY ON "RENEWABLE ENERGY: CURRENT STATUS AND FUTURE POTENTIAL**Sujata Rizal**SM Shetty Faculty of Science, Commerce, and Management Studies, Powai

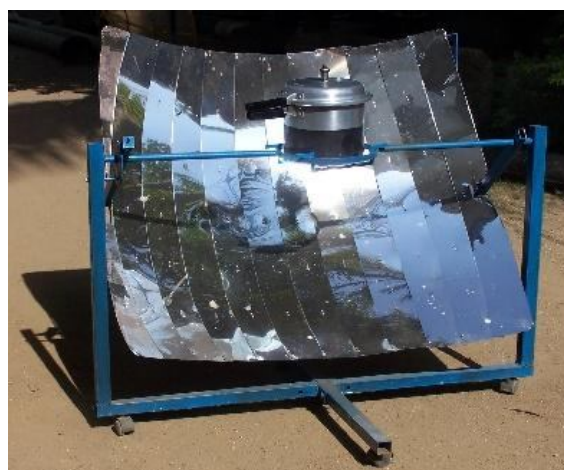
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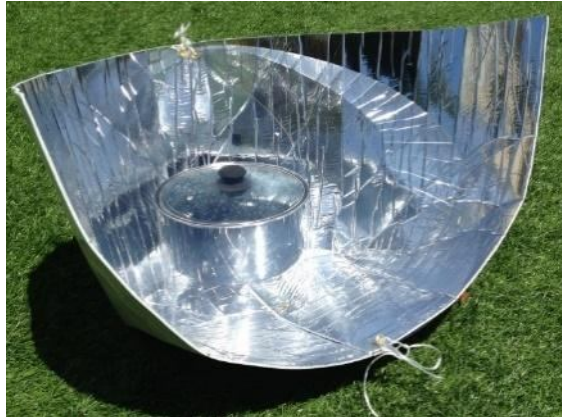
Renewable energy resources and significant energy efficiency opportunities exist in large geographic areas, unlike other energy sources, which are concentrated in a limited number of countries. Even when natural energy resources such as sun, wind and water are readily available, communities often lack the knowledge, experience and funds to use them. Energy supply is essential to help people out of poverty. Renewable energy technologies offer clean and sustainable options for power generation. If properly owned and managed, they can make a dramatic contribution to poverty reduction. This document contains primary data collected by the village of Uttan, Bhayandar, which led the weak renewable energy for students and teachers. Mainly focused on renewable solar energy sources which is used as an alternative energy source. Practical project consisting of solar cooker, solar panel,

Keywords: solar energy, Uttan village, technologies, benefits

1. INTRODUCTION

Renewable resources are an important aspect of sustainability. According to the US Energy Information Administration, the most used renewable resources are biomass, water, geothermal, wind and solar. Unlike fossil fuels, we can regenerate or replenish these resources. A renewable resource is an organic natural resource that can be replenished to overcome use and consumption, through biological reproduction or other naturally recurring processes. Renewable resources are part of the Earth's natural environment and the largest components of its ecosphere. Renewable resources are valuable because they provide "green" energy.

**TYPES OF RENEWABLE ENERGY RESOURCES**

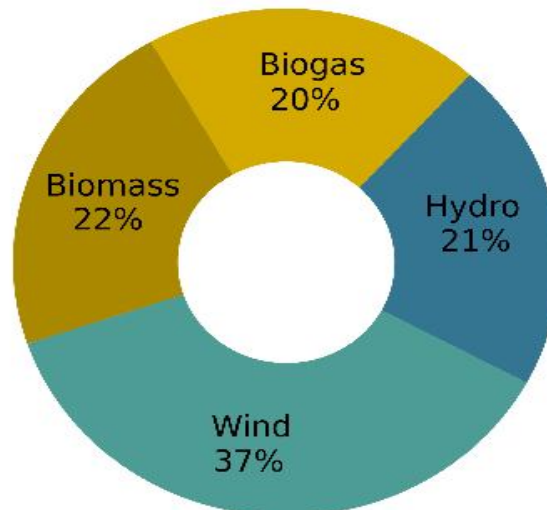


Biomass water Geothermal Solar Wind

DESIGN OF THE INVESTIGATION

2. REASONS TO INVEST IN INDIA

1. India has the fifth largest power generation portfolio in the world with a power generation capacity of 271,722 GW.



2. Economic growth, increased prosperity, increased urbanization rate and increased per capita energy consumption have expanded access to energy in the country.
3. The current renewable energy contribution amounts to 77 GW of the total installed capacity of 271,722 GW in the country as of 03/31/2015.

3. STATISTICS

- India's annual solar installations will grow more than four times by 2017. By 2016-17, 10.86 GW of industrial-scale solar and grid-connected rooftop solar capacity will be added.
- Solar module prices have fallen by nearly 80% since 2008 and wind turbine prices have fallen by more than 25% during the same period.

4. STATE INITIATIVES

State electricity regulation commissions in Andhra Pradesh, Haryana, Punjab, Madhya Pradesh, Maharashtra, Rajasthan, Tamil Nadu, Gujarat, Kerala, Punjab, Orissa and West Bengal have announced preferential tariffs for the purchase of energy from wind projects .

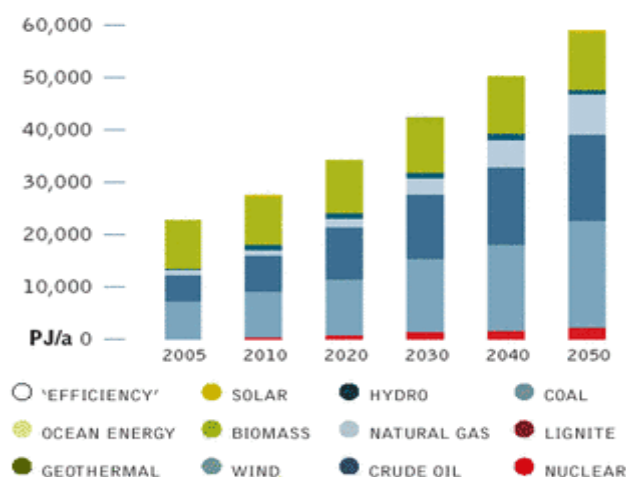
- New solar policy in 2015: Telangana and Andhra Pradesh.
- New solar policy in 2014: Karnataka and Rajasthan.

5. INVESTMENT OPPORTUNITY

- From just 20 MW in 2011, India's installed solar capacity rose to 3.74 GW on March 31, 2015.
- India has vast untapped renewable energy resources: wind energy has an installed capacity of 23.44 GW and an estimated potential of 102.8 GW.

- Solar energy has an installed capacity of 3.74 GW with a potential of 7.48 GW.

figure 25: india: development of primary energy consumption under the reference scenario



- The Rajasthan Solar Policy notified in 2011 provides for the installation of solar energy production facilities in the proposed solar parks.
- Gujarat Solar Park also has special provisions to encourage on-site manufacturing facilities to provide equipment to projects that are expected within the park, as well as adequate repairs, maintenance, and skilled labor to assist projects within the park.

PROCEDURE-STUDY

Here, the data is mainly collected by Keshav Srushti, a non-profit organization based in Bhayander, India. It is developing as a hub for various social service projects within an integrated development. The organization wishes to realize founder Dr. Hedgewar's vision of a strong, proud and self-sufficient Bharat. Part of its mission is to promote solar cooking, particularly with teenage students.



Keshav Srushti today stands as a center for innovative and versatile educational, irrigation and social projects aimed at creating socially aware leaders and dedicated citizens of the country. The campus immersed in nature and spread over kilometers of vegetation, streams and hills, is the result of generosity. It is home to several species of fauna and flora and herbaceous plants, along with mango and coconut plantations. All institutions take a creative and innovative approach, drawing on the latest teaching methods, advanced technology and environmentally friendly practices to nurture and train young minds. Keshav Srushti hopes to become the torchbearer in pioneering renewable energy projects and make the country "

3,484 children from over 80 schools attended the largest solar cooking class in the world in Mumbai in 2014. Keshav Srushti takes over the organization of the festival, MahaSuryaKumbh, which deals specifically with solar energy. Children attend workshops to learn solar cooking and prepare their own simple food. solar panel kitchens. In 2014, more than 8,500 students attended the seminars and the largest, held in January 2014, had an attendance of 3,500 students.



RESULTS

Thousands of students gather in Mumbai, India for an unprecedented solar cooking event. In January 2015, 15,000 Mumbai students cooked with solar energy and set a world record: 15,000 students from 80 Mumbai schools, India set a new world record for the largest solar cooking gathering in history hosted by Keshav Srushti. Each student was given a solar cooker and taught to use it as part of a nationwide campaign to raise awareness of the importance of solar technology. Keshav Srushti, an NGO based in Bhayander, is committed to raising awareness on solar cooking. Under the banner of MahaSuryaKumbh, will bring together students from 500 Mumbai schools in Bhayander, India, and then takes the festival to remote tribal villages. We hope it reaches the magic number of 100,000 solar-powered meals this year! Keshav Srushti was accredited by the Guinness Book of Records for teaching the largest solar oven cooking class in January 2014 with 3,639 participants from 62 schools.



DISCUSSION

To make sure we have enough energy in the future, it is up to all of us to use energy wisely. We all need to save energy and use it efficiently. It also depends on who will create the new energy technologies of the future. All

energy sources have an impact on the environment. Concerns about the greenhouse effect and global warming, air pollution and energy security have led to growing interest and further development in renewable energy sources such as solar, wind, geothermal, wave energy and hydrogen.

"The future is ours, but we need energy to get there"

REFERENCES

- <http://www.mnre.gov.in/>
- <http://www.makeinindia.com/sector/renewable-energy>
- <http://www.keshavsrushti.com/>
- <http://www.keshavsrushti.com/environment-education.php>
- http://solarcooking.wikia.com/wiki/Keshav_Srushti
- <http://www.geni.org/globalenergy/library/energytrends/currentusage/renewable/Renewable-Energy-Potential-for-India.pdf>
- <http://pencils.com/renewable-resources/>
- <http://homeguides.sfgate.com/definition-examples-renewable-resources-79625.html>
- http://www.ukss.org/agri_school_course.html

A STUDY OF RURAL AREA COVID-19 CENTRE, WITH SPECIAL REFERENCE TO COVID CENTRE, POSHERI, TAL WADA

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ABSTRACT

Today, the whole world is facing covid-19 pandemic. Also in India, pandemic situation is worsening day by day. Maharashtra's situation is not apart from this. Each and every district is suffering from this virus. In district like Mumbai, Pune, Nagpur, Nashik, etc. the number of corona patients is increasing continuously. This increasing number led to scarcity of hospitals. But yet, patient's recovery rate is increasing. District level health mechanism is working hard day and night to overcome the terrible situation. Like others, Palghar district is also suffering from the pandemic. Various places like private and government hospitals, schools, colleges, community halls etc. are converted into covid centres. A covid centre established in an engineering college at Posheri of Palghar district is one fine example of this. People from surrounding areas has been there for their treatment and many of them recovered. This centre is a blessing for those people. In the present article, I am going to study the contribution of the covid centre of Posheri, taluka Wada, dist. Palghar.

Objective of study :

- 1) To study the role of rural covid centre, Posheri.*
- 2) To find out the problems which doctors and health workers have to face.*
- 3) To find out the problems which patients have to face.*

Sources to information – Primary data.

Key words – Covid-19, Remdesivir, health workers

INTRODUCTION :

Today, most part of the world is affected by the Covid-19 virus. India has become a hotspot of this virus. This study is concentrated in the areas of Palghar district suffering from corona virus. Palghar district was the earlier part of Thane district. Thane district was divided into two parts, Thane district and Palghar district on 1st August 2014 and entire tribal belt of Thane district was moved into the Palghar district. Today, the entire tribal area of Thane district is a part of Palghar district. Palghar district consists of 8 talukas namely, Jawhar, Vikramgad, Mokhada, Talasari, Dahanu, Wada, Palghar and Vasai.

Palghar district population is 29,90,216. In this district, 45.23% population live in urban area and 54.77% population live in rural area.¹ Among the eight talukas of Palghar district, seven talukas other than Vasai are tribal areas. Hence, including Wada taluka, most of the part of Palghar district is rural. There are 170 villages in Wada taluka² and many of them are affected by Covid-19. Total population of Wada taluka is 1,78,370. In first wave of corona virus, most of the urban area was affected but in second wave, rural area is also affected, so most of the people of Wada taluka are suffering from corona virus. In this pandemic, the covid centre of Posheri is playing an important role in life of taluka's people.

Covid centre of Posheri is situated barely 3 hours away from Mumbai, the region is beset with poverty, water scarcity, high unemployment and illiteracy. It has seen over 2000 children under 6 die of chronic illness and under nourishment in last 4 years. The maternal mortality rate is higher than other districts due to many tribal women suffering from anaemia. This scenario shows that health facilities in that area are not well developed as compared to urban areas. In this situation, covid centre of Posheri is playing a vital role in pandemic. Following is a short overview of the covid centre.

The local administration was faced with a couple of challenges, to contain the spread of Covid-19 in tribal belts and ensure that dedicated facilities are set up to allow existing health infrastructure to cater to those suffering from other diseases. Hence, the government started converting private as well as governmental schools and colleges into covid centre. Covid centre of Posheri situated in the Ideal college of Engineering is one among many.

The chairman of Ideal foundation, Mr. Abhishek Jain, helped the local government body by letting them use the college premises as covid centre.

- **Covid Centre Posheri** : Located in the premises of the Ideal College of Engineering Covid Centre of Posheri is at a distance of 8.2 km. from Wada. It's campus is spread over 5 acres of land. Last year in the month of March, it was converted into Covid-19 centre. Since 15th March 2020 till date the campus is use as the Covid-19 centre. Dr. Anil Kumar H. Kanaujia said that the service of ambulance by dialing the number 108 is also available.
- **Ward** : At the beginning, the centre was provided with 100 beds.³ The information collected from Shri. Hanumant Rajaram Dange says that now the centre is facilitated with 15 wards consisting of 200 beds which are divided as following.
- 1) Covid Care Centre (C.C.C.) : The patients who has tested positive but are asymptomatic are admitted in this covid care centre which consist of 100 beds.
 - 2) Dedicated Covid Health Centre (D.C.H.C.) : Patients having symptoms like fever, cold, cough, etc. are admitted here. This sector too, consist of 100 beds. A 50 beds Dedicated Covid Health Centre (D.C.H.C.) was made for police personnel and their family.
- **Facilities provided by government** :
- Service of ambulance by dialing 108
 - Medicines
 - Healthy diet
 - Beds
 - Oxygen
- **Diet** : The Covid-19 centre provides healthy diet fulfilled with proteins to the patients which is very useful in recovery of patients. The diet is as following.
- Morning breakfast - 1 egg daily with Upama / Idli sambar / Tapioca (Sabudana) khichadi / Tea biscuit / Poha.
 - Lunch and dinner - 2 chapatis, rice, aamti, bhaaji, pickle, salad, etc.
 - Evening breakfast - Tea biscuit / soup Every Friday covid care centre provides chicken or egg curry to the patient.⁵
- **Staff** : There is a key role of staff members in recovering any sort of patients. In the same manner, staff of the covid centre of Posheri are giving their valuable contribution in recovery of patients. They are working by putting their lives in danger for recovering corona patients. The staff of covid centre, Posheri is as following⁶ :

Staff members	No.
Doctors	06
Nurse	35
Lab Technician	03
Ward boy	15

The trained staff provides good service to the patients. They create such an environment that the patients feel at home. As a result, patients recover fast and they thank the doctors and other staff members after recovery.⁷ The staff celebrates festivals like Rakshabandhan etc. with the patients so that the patients do not feel lonely.⁸

➤ **Hindrances in providing service to the patient** :

- 1) **Unawareness of the patient about covid-19 disease** : – So many patients are illiterate and unaware about Covid-19 disease so they are afraid at the time of taking treatment. Shri. Dange says that our staff gives comfort to them. Last year in first wave, most of the people were not getting ready easily for swab test.
- 2) **Disturbance of relative's phone calls** :– Patient's relatives are calling again and again for inquiry of patient's recovery. Due to this, patients as well as staff gets disturbed.

- 3) **Scarcity of fundamental facilities** :- In the second wave, the number of patients is increasing. In comparison to last year's virus, this year's strain is very dangerous. Many patients require bed, Oxygen, Remdesivir injection, medicines, etc. which some time are not available. The service of ICU and ventilators is not available. Lack of specialist doctors, intensivists, physicians and anesthetists can be seen. Due to this the patient's condition gets serious. There is lack of availability of warm water for bath. Above mentioned problems are facing by the staff and administration. Ambulance driver, Shri. Tushar Vichare, shares his experience that last year they have to go to bring the patients in Covid-19 centre but now – a – days people come for testing willingly.⁹
- **Number of patients** : Many people come for testing and many patients come for recovery in the Covid-19 centre of Posheri.

Table of patients :

Month & Year	Test	Positive	Death	Recovery rate
March – 2020	---	---	---	100%
April – 2020	52	03	---	100%
May – 2020	257	10	---	100%
June – 2020	881	288	---	100%
July – 2020	1624	296	---	100%
August – 2020	1337	422	---	100%
September – 2020	2368	729	---	100%
October – 2020	686	218	---	100%
November – 2020	975	71	---	100%
December – 2020	474	32	---	100%
January – 2021	2020	60	---	100%
February – 2021	686	19	---	100%
March – 2021	1171	127	---	100%
April – 2021	2959	425	---	100%

This scenario shows that despite the hindrances of providing service to the patients, the mortality rate of covid centre of Posheri is very low than other covid centres.¹⁰

➤ CONCLUSION:

The covid centre of Posheri provides good health services to the people, so, many patients get recovered fast.

1. The rate of the testing, recovery and mortality shows that the rural covid centre of Posheri plays a vital role to overcome in corona pandemic.
2. Doctors and health workers faces many problems at the times of providing service like unawareness of the patients about Covid-19 disease, disturbance of patients's relative's phone calls, scarcity of fundamental facilities like Intensive Care Unit (I.C.U.), Remdesivir injection, oxygens etc.
3. Due to the scarcity of fundamental facilities, patients face many problems, despite that the recovery rate shows that patients recover very fast in the covid centre of Posheri. Only 04 deaths are registered in this running month May 2021. In this way, the covid centre, Posheri is giving the best of their contribution to reduce this pandemic situation. Till date the centre has tested 16,624 people among which 2,794 tested positive. 2,790 patients has been successfully recovered and are safe and happy at their respective homes.

A photograph of the Ideal General Hospital building. The building is a two-story structure with a white facade and a large, dark, corrugated metal roof. A prominent blue sign with white text and red crosses is mounted above the entrance. The sign reads "IDEAL GENERAL HOSPITAL" and "AT POSHERI, TALUKA - WADA, DISTRICT - PALGHAR - 421 303, MAHARASHTRA". The entrance is open, showing some interior furniture. A few people are visible near the entrance, and a white car is partially visible in the foreground.

[illegible]

Staff with patients

[illegible]

Rakshabandhan celebration

➤ REFERENCES :

1. Palghar district census, 2011.
2. www.palghar.gov.in
3. The Indian Express, May 17, 2020
4. The Times of India, 8 June, 2020
5. Interview (05/05/2021) of Shri. Milind Vishe – a recovered patient.
6. Interview of Shri. Hanumant Rajaram Dange, Lab Technician, Covid centre, Posheri.
7. Interview of Pranali Subodh Vekhande, Nurse, Covid centre, Posheri.
8. Appendix (Rakshabandhan celebration photo)
9. Interview of Shri. Tushar Vichare, Ambulance driver, Covid centre, Posheri.
10. Administrative office, Covid centre, Posheri.

ROLE OF MOBILE LEARNING (M-LEARNING) DURING COVID-19 PANDEMIC

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ABSTRACT

The COVID-19 pandemic posed several challenges for all of us and still it is a very challenging period for every one of us. In the beginning of this pandemic, when the lockdown was imposed in the whole country by our honorable prime minister and then our educational institutions and other professional sectors got closed. It was very difficult for everyone of us to find out the alternatives for continuing our work. Like every sector, educational sector was trying to find out the alternatives for teaching the children as a result Zoom app, Google meet and Google classroom came into being for delivering the online education to the children and most importantly Mobile learning helped every student to the greater extent. Among all the platforms Mobile learning or M learning is the most significant and convenient tool for the students. Mobile learning means learning through the use of smart phones. It is actually the broad form of e learning. During pandemic mobile learning is contributing allot in the educational field. It is the most convenient tool of learning because everyone cannot afford desktop or computer but it is convenient to learn through smart phones as nowadays Smartphone's can be accessed at a very minimal rate. Still some families were not having Smartphone's and they faced certain issues with Mobile learning also but gradually the situation transformed and people felt that Mobile learning is a very good alternative to learn in this pandemic situation as we can learn from our home by following social distancing norms. Although our country is facing the serious problem of digital divide but M learning have tried to address this problem to the some extent. Everything has some strengths and shortcomings likewise M learning is also very useful in numerous ways but inspire of it, It has several weaknesses like internet connectivity and some another health issues. The present paper will explore the importance of Mobile learning and how it has become the best alternative for delivering the education in present pandemic situation.

Keyword: Alternative, Convenient, Online Education, Pandemic, Smartphone's.

INTRODUCTION

Learning occupies a really vital place in our life. Most of our behaviour is especially influenced by what we have a tendency to learn and the way we have a tendency to learn it. it's a lifelong method that involves constant amendment, adjustment and development. Our instincts, attitudes, appreciations, skills and skills are primarily the merchandise of learning. Learning implies acquisition of information and skills on one hand, modification of behaviour on the opposite hand. It's measured in terms of improvement of behaviour. Within the words of Skinner, learning isn't feat information or skills by mere mechanical repetitions. It's a method is that the learner organizes completely different parts and experiences to achieve a specific goal. Advancement in science and technology makes the educational method very easy and doable while not geographical barriers. The usage of non medium like instructional Radio, instructional TV, and computers enhance the method of learning. With the assistance of net, learning became learner centered method.

MOBILE PHONES

Now terribly recently mobile phones are used for the aim of learning while not geographical barrier. The itinerant has become associate aesthetic zed object that resembles wear, progressively incorporated into their look. Through the itinerant look youths seeks to manage the expression of UN agency they're and to whom they're connected. this can be the method of process the self, perceiving others and redefining the self .

Mobile phones were fictional only for communication and currently they play a vital role within the method of media transformation. Mobile phones are General Packet Radio Service (GPRS) chases devices, video and cameras, wireless net connections and pocket calculators. They're additionally accustomed deliver texts, audio clips and digital footage. Now, mobile phones have the power to speak and walk at a similar time {in a|during akin an exceedingly in a terribly} world village that creates learning a method very simple. Mobile phones permit interacting with people at anyplace and anytime via voice and thru the exchange of written messages. These devices are accustomed accessing content, reached through interconnection. where one appearance, the proof of mobile penetration and adoption is positive, no demographic is immune from this development. From toddlers to seniors, folks are progressively connected and are digitally human action with one another in ways in which would are not possible to imagine solely a couple of years ago (Wagner, 2005). Instant electronic communication permits real time and often-simultaneous connections among co-workers, friends and family where there's a access to a wireless communication network.

MOBILE LEARNING

Mobile learning (M-learning) aims at creating the educational method a lot of versatile, accessories and individualized. M-learning is that the acquisition of any information and talent victimisation mobile technology, anywhere, associate time that leads to an alternation of behaviour. It are often outlined as "learning that happens across locations or that takes benefits of learning opportunities offered by transportable technologies" (Wikipedia, 2007). The term covers quality of the learner, interacting with transportable or mounted technology, learning in a very mobile society, etc.

M-learning facilitates performance support at the purpose of operation, and permits staff to be told what they require, wherever they require, and once they wish. M-learning improves access to info, that folks will update their information unceasingly to two satisfy the stress, that wish to boost cultural experiences of life.

MOBILE DEVICES HAVE BEEN MAINLY USED FOR:

- Gathering responses from students
- Participatory simulations
- Collaborative data gathering
- Supporting communication among group members
- Helping the co-ordination between the learning activities
- Enhancing the student engagement
- Having effective interaction between students and teachers
- Autonomy, anonymity and motivation to the learners.
- Easy adoption to students and teachers
- Accessing word, phrase translations, and practicing new words in language learning
- Ensuring all students have equal data
- Creating learning community
- Accessing to a variety of learning resources
- Enhancing self-directed learning, etc.

Mobile phones use the wireless Internet to exchange voice messages, email and web pages at anywhere and anytime. Since most students already carry mobile phones, most classes are already equipped. Portability, connectivity, simplicity and low cost make them valuable educational tools and running cost and text input speed restricts its usage.

COVID-19 & MOBILE's LEARNING ROLE

- Helps to increase in the rate of course completion.
- Enhancing personalized as well as Diversified learning.
- Improves Knowledge Retention.
- High-Quality Content can be delivered in Mobile Learning.
- Promotes Communication & Knowledge Delivery.
- Optimum Utilization of ICT Resources.
- Enhancing Blended Mode of Learning.
- Promotes Digital Library and E-Content
- Provides platforms for E-Learning

CHALLENGES TO M-LEARNING

- Connectivity Issues.
- Battery Life of Devices.

- Interacting With Small Devices.
- Displaying Useful Content in Small Screen Devices.
- Low Resolution of Display.
- Diversity of Operating System.
- Issues Related to Mobile Age or Duration.
- Networks Issues in Rural and Hilly Geographical Area.
- Network speed & Reliability.
- Less Attention Span.
- Difficult to finds student's interest.
- Sometimes becomes passive mode of learning.
- Data Privacy & Security.
- Small screen or display can cause big pains.

RECOMMENDATIONS

1. For mobile learning to be effective, teachers need not to send long PDF's because due to small screen students get frustrated reading from long PDFs texts.
2. Teachers should take care that while learning from mobiles students don't get distracted due to social media.
3. Don't schedule long lectures for the mobile learning instead teach the content to students in small chunks?
4. While using Mobile learning feedback should be taken from the students on regular basis.
5. Giving group projects / assignments is the best way of promoting interaction among learners while using M learning. Teachers should promote group projects.
6. While using mobile learning teachers should teach through various interactive methods like teaching through videos or PPT to avoid monotony in the learning process.
7. Teachers should give the references of the content that he/she is teaching through M learning platform so that students don't waste their time to find out the appropriate material.
8. Online forums should be created by teachers while using M learning platform.
9. While using M learning teachers can also give the task to the students that encourage students to explore the concept and research about the concept.
10. Teachers should use quality content while using M-Learning platforms.

CONCLUSION

In nutshell, we can say that Mobile learning platforms are perfectly supporting the education system. Without mobile learning It was impossible to continue the teaching-learning process .M learning has proved a best alternative for continuing teaching - learning process in this pandemic period as it is the most convenient learning platform for students. They can easily get learning content and learning resources through mobile learning even mobile learning provides them the opportunity to attend online classes and interact with teachers .Apart from the many advantages there are also some shortcomings of M learning like internet connectivity ,health issues ,distraction and many more .Teachers should take care of these shortcomings while teaching through mobile learning platforms' learning can also be used during offline classes where it can complement classroom teaching and it can be used for online classes . It is the best and the most convenient platform of online learning which is highly being used in current scenario.

REFERENCES

- Basilaia, G., & Kvavadze, D. (2020). Transition to online education in schools during a SARS-CoV-2 coronavirus (COVID-19) pandemic in Georgia. *Pedagogical Research*, 5(4), 10. <https://doi.org/10.29333/pr/7937>

-
- Subedi, S., Nayaju, S., Subedi, S., Shah, S. K., & Shah, J. M. (2020). Impact of e-learning during COVID-19 pandemic among nursing students and teachers of Nepal. *International Journal of Science and Healthcare Research*, 5(3), 9
 - Poothullil John Mathew Martin & Arun Kalbage (2013). Accessibility of Higher Educational Institution's Websites — A Study *Indian Journal of Open Learning*, 2013, 22(2), 107-124 ISSN 0971-2690, Printed in India, Indira Gandhi National Open University.
 - 5. McGovern, G. (2006). Websites reflect true fact of an organization. Retrieved from <http://www.gerrymcgovern.com/nt/2006/nt-2006-03-13-customer-centric.html>
 - Doucet, A., Netolicky, D., Timmers, K., & Tuscano, F. J. (2020). Thinking about pedagogy in an unfolding pandemic (An Independent Report on Approaches to Distance Learning during COVID-19 School Closure). *Work of Education International and UNESCO*. https://issuu.com/educationinternational/docs/2020_research_covid-19_eng
 - Onyema, E.M., et al. (2020). Pedagogical use of Mobile technologies during Coronavirus School Closures. Sen, S., & Antara, N. (2018). Influencing Factors to Stay Off-Campus Living by Students. *International Multidisciplinary Research Journal*, 8, 40–44. <https://doi.org/10.25081/imrj.2018.v8.3698>.

AN ANALYTICAL STUDY ON E WASTE AND ITS IMPACT ON ENVIRONMENT

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ABSTRACT

E waste is a most hazardous for environment. WEEE (waste from electrical and electronic equipment's) comes under a special category of waste which is the result of industrialization and ever increasing demand of electronic products in daily life. With increasing usage waste production is also increasing. Now, the situation is alarming as a huge quantity of waste is generated by India as well as other countries. E waste is a big issue because using Electronic device is very easy but after throwing the E waste in the environment may lead to serious problem .The condition in India is much worse because about 80 present of the e-waste generated . The rest of it is handled by workers who work with bare hands, without masks under unhygienic conditions, informally recycling tons of e-waste for about 11-14 hours a day. It causes both environmental as well as health problems. No. of laws are framed but none is able to stop this informal recycling. In this paper, national and international e-waste scenario is discussed along with hazards caused by e-waste and bit about its recycling.

Keywords: WEEE, Informal recycling, hazards , E waste.

INTRODUCTION

According to the OCED (Organization for Economic Cooperation and Development) any appliance using an electronic power supply that has reached its end-of-life would come under WEEE. WEEE (waste from electronic and electrical equipment's) is a special category of waste that has received great deal of attention over past 15 years. WEEE is diverse and complex in terms of the material and component make up as well as in terms of original equipment manufacturing process. The electronic industry is the world's largest and fastest growing manufacturing industry 1, 2. The Indian information technology (IT) has a prominent global presence today largely due to software sector. More recently, policy changes have led to tremendous influx of leading MNC's into India to set up manufacturing facilities, R&D centers and software development facilities. Starting with 13 IT companies in 1991, about 3000 IT companies as of now in Bangalore are providing world class infrastructure. This phenomenon of Bangalore is getting replicated in several other cities of India viz., Chennai, Mumbai, Hyderabad, Pune, Gurgaon etc. This asymptotic growth in IT industry has brought its share of waste disposal problem. Economic Growth and Digital Revolution: 1980 was the year when the great digital revolution started and has not ceased till date. The digital revolution provided variety of products which were not only economical but also easy to use therefore they invaded our households completely. They are now easier and convenient to replace rather than getting them repair.

REVIEW OF LITERATURE

International E- Waste Scenario according to studies about 4000 tons per hour of E-waste is generated worldwide⁷ . E-Waste generated by different countries is given in table-2. The use of electronic devices, such as PC's has proliferated in recent decades and the quantity of electronics disposed off is growing rapidly throughout the world¹⁶ . Note: The table gives only an overview of the quantities of ewaste generated in different countries. It is difficult to make direct country-to-country comparisons regarding e-waste quantities, because each country has as different categories of appliances counted in e-waste and different methodologies of estimation. (*) This is the quantity of e-waste generated in Switzerland that is physically weighed and accounted for.

E- WASTE SCENARIO IN INDIA:

In present times if we study closely e-waste is one of the fastest growing pollution problems which is increasing almost three times than that of municipal waste globally. With the increase in consumption of electronic goods and also with their usage pattern the generation of e-waste also increases. As there is no separate collection of e-waste in India, no reliable figures are available as yet to quantify the e-waste generation. The current data shows that by 2012 global e-waste will reach 53 million tons from 42 million tons in 2008 thus growing at a CAGR(Compound Annual Growth Rate) of 6 percent⁴ . E-Waste is continuously growing in developed countries by 2010 it has grown to 2% in comparison to previous 1%. While in developing countries e-plastic waste contribute 0.01% -1% of total solid waste generation.

India with population of over 1 billion¹⁷, is one of the fastest growing economies of the world¹⁸ . The growing economy and increasing consumption is estimated to be generating approximately 4, 00,000 tons of waste annually (computers, mobile phone and television only) and is expected to grow at a much higher rate of 10-

15%. The situation is alarming as India generates about 1.5 lakh tones of e-waste annually and almost all of it finds its way into the informal sector as there is no organized alternative available at present¹⁹. E-waste generated in few cities across the nation show an alarming picture. Mumbai generates 11,000 tons of E-waste, Delhi 9000 tons, Bangalore 8000 tons and Chennai 5000-6000 tons each year. Maharashtra State (including Mumbai city) alone produces 20270 tons of E-waste annually²⁰. These figures have been shown through the table 3 and table 4. Toxics link, a Delhi-based non-government organization (NGO), says that India annually generates 1.5 billion worth of e-waste. As per a study done by Bangalore-based NGO, Saahas, the city generates around 8,000 tons of e-waste every year. It is true that the e-waste spectrum is broad, but IT companies are the single largest contributors to the growing mountains of it. This is because 30% of their equipments are rendered obsolete every year. Reason being is that the life cycle of some electronic goods as short as about 15-20 months. This average age of computer is only 3 years and is progressively decreased because of the demand for accelerating speeds in the processing capability of the telecommunication infrastructure. According to Manufacturer's Association for Information Technology (MAIT) report India in 2007 generated 3, 80,000 tones of e-waste from discarded Computers, Televisions and Mobile Phones. This is projected to grow to more than 8, 00,000 tones by 2012 with a growth rate of 15 %. According to this estimate about 50, 000 tones of such e-waste which is imported from developed countries as a gesture of charity for reuse is basically recycled informally either immediately or after discarding the reused product. It has become difficult for custom department to put a stop to illegal inflow of ewaste because of no availability of specific measures and policies²¹. Take back policy in India: Some of the well renowned companies like Apple, Sony, PCS, Philips, Microsoft, Panasonic, Sony Ericsson and Toshiba, HCL have adopted take back policy option at their production plant. HCL and WIPRO have the best take back policy in India. Even Nokia, Acer, Motorola are follow the policy at a good pace. But with such large population only one collection centre is not sufficient. Even a big company like Samsung claim to have a take back service but only one collection centre in India²³. Sources of e-waste Manufacturer: According to surveys conducted about 50% of PC's which are sold all over the country are basically from the secondary market and are reassembled on the old components. The rest of market share cover by MNC's (30%) and Indian brands (20%)²⁴. Besides manufacturers are major contributors of e-waste. The waste consists of defective IC chips, motherboards, CRTs and other peripheral items produced during the production process. It also includes defective PCs under guarantee procured from consumers as replacement items. Consumer: About 22% of junk computers are generated from Indian household²⁵. The routine process of getting rid of obsolete computers include exchanging from retailers or pass on the same to friends or relatives. The business sector accounts for 78% of all installed PC's in India²⁵. The junk computers from business sector are often sold during auction or sometimes donated to educational institutes or charitable institutions for reuse. Import of e-waste: Import of e-waste is legally prohibited no doubt the reports prove that lots of e-waste is imported from abroad. The ministry of environment has no data related to import of e-waste but above says that 100% control of the borders is not possible. Hazardous waste (management and Handling) rules 1989, amended in 2003: Schedule 2 of this act can be applied for the disposal of e-waste. The Basel Convention 32: Regulating the E-Waste Trade: The 1992 Basel Convention is an international treaty signed by 169 countries to regulate the international trade of hazardous waste. The Convention's central goal is "environmentally sound management" (ESM), which involves controlling hazardous waste from its production to its storage, transport, reuse, recycling, and final disposal. In addition, the Basel Ban Amendment was adopted in 1995 to outlaw the transfer of hazardous waste from developed to developing countries.

The Amendment has not yet entered into force, but several countries have already implemented the ban, including the European Union and China. However, illegal trading is pervasive and those who benefit from the waste trade continue to strongly oppose a global ban with European Union's (EU) directives such as WEEE and restriction of Hazardous substances (ROHS) coming into effect from 2006 in Europe. E-waste recycling is increasingly receiving a major trust. The motive of defining such guidelines is efficient recovery of useful components but also to safeguard the environment from harmful toxic substances such as lead, cadmium, mercury, arsenic hexavalent chromium and other brominated flame retardants (BFRs)³³ that are present in WEEE. These poisonous substances not only have harmful effect on the people recycling them but they also are the main source of environmental and ecological degradation.

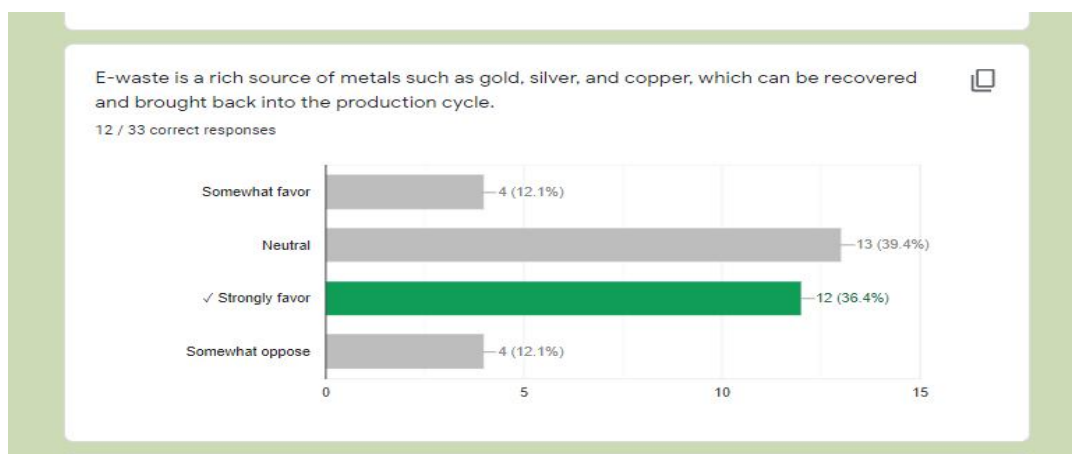
E-waste Hazards Lots of toxic metals and chemicals can be found in e-waste. If they are not treated properly or not recycled in a proper way even disposed off in landfills they can cause adverse effects on human health and environment as they can leach into the surrounding soil, water and the atmosphere. Waste contains poisonous substances like Pb, Sn, and Hg etc. which can hazard the environment.

RECYCLING OF E WASTE

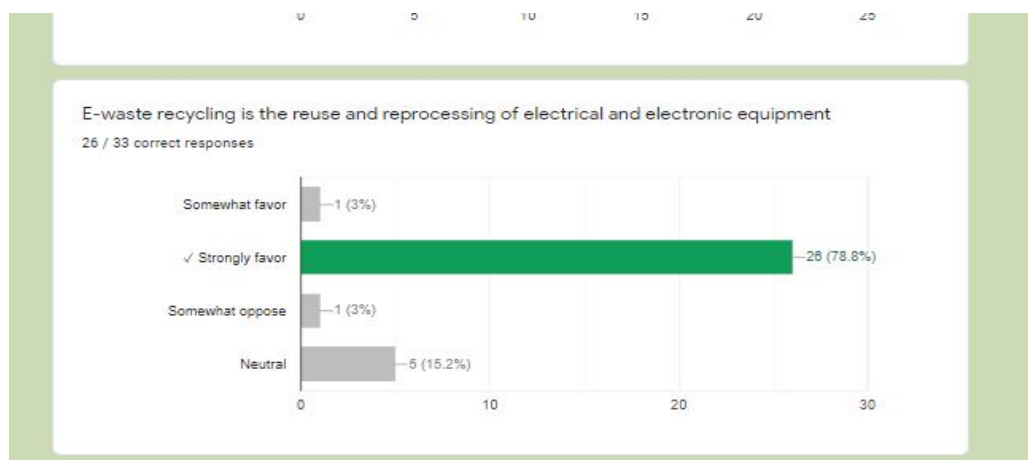
The challenges of managing E-waste in India are very different from those in other countries, both the developed and developing. No doubt, there can be several shared lessons; the complexity of the E-waste issue in India, given its vast geographical and cultural diversity and economic disparities, makes WEEE management challenges quite unique. A few of these are: Rapidly increasing E-waste volumes, both domestically generated as well as through imports. Imports are often disguised as second-hand computer donations towards bridging the digital divide or simply as metal scrap. No accurate estimates of the quantity of E-waste generated and recycled. Low level of awareness amongst manufacturers and consumers of the hazards of incorrect E-waste disposal. Widespread E-waste recycling in the informal sector using rudimentary techniques such as acid. E-waste workers have little or no knowledge of toxins in E-waste, and are exposed to serious health hazards. Inefficient recycling processes result in substantial losses of material value. The major problem we face in India there is no such technology or clear policy/guidelines to check the disposal of e-waste. E-waste is mostly recycled by backyard practioners. Recycling of e-waste: Recycling WEEE is an important subject not only from the view point of waste treatment but also in terms of recovery of valuable waste materials. Mechanical/physical processing provides an alternative means of recovering valuable materials but several difficulties exist. The main difficulty, industries have to afford is the separation of the different material in WEEE. This problem leads to several approaches to optimize the process. One of the most successful is the definition of separation systems based on the physical – chemical properties of materials to make recycling of material constituting WEEE economically profitable.^{34,35} Amount of plastics in e-waste obtained from computer: The data available shows that the major portion of WEEE comes from computer bodies and computer monitors.

DATA ANALYSIS :

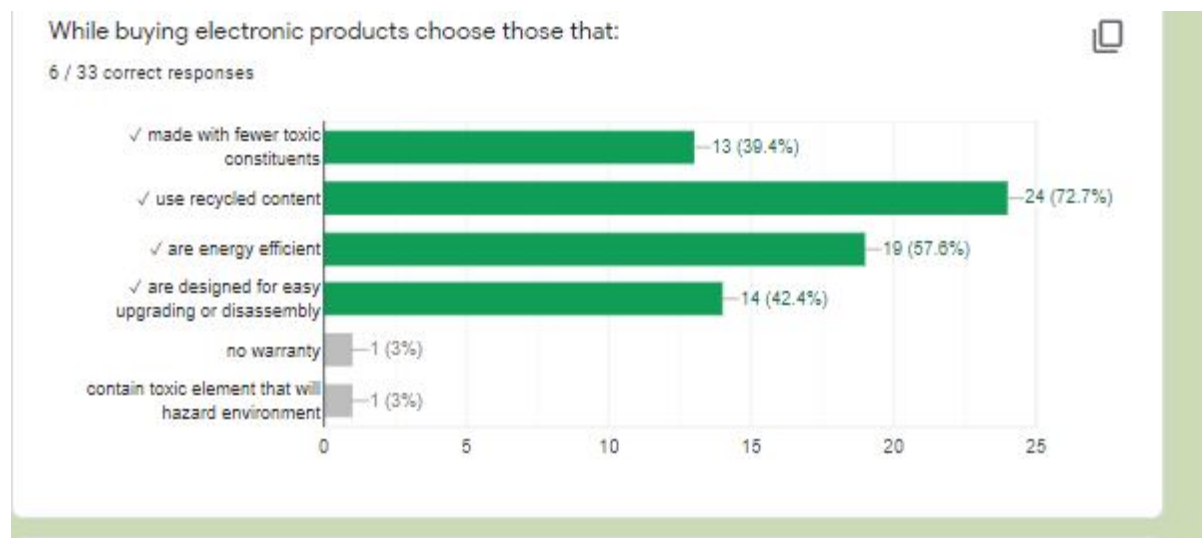
For this research paper we had created a Google form and received 33 responses for the same result analysis is shown below ,hypothesis for this particular research was that people don't aware about E waste but after performing the data analysis it is justified that people should know about E waste recycling process and further it is suggested E waste recycling should be done and awareness to the people about E waste and recycling should be given.



Screenshot1. Data analysis on E waste component



Scaenshot2. Responses for E waste recycling and reuse



Screenshot3 . analysis on what consumer think before buying any Electronic Product

CONCLUSION

The challenges of managing E-waste in India are very different from those in other countries, both the developed and developing. E waste is a challenge across the world because people are using this Electronic devices but like two side of a coin it is having various disadvantages as E waste contain many harmful substances and that can be very dangerous to human as well as environment. No doubt, there can be several shared lessons; the complexity of the E-waste issue in India, given its vast geographical and cultural diversity and economic disparities, makes WEEE management challenges quite unique. A few of these are: Rapidly increasing E-waste volumes, both domestically generated as well as through imports. Imports are often disguised as second-hand computer donations towards bridging the digital divide or simply as metal scrap. No accurate estimates of the quantity of E-waste generated and recycled. Low level of awareness amongst manufacturers and consumers of the hazards of incorrect E-waste disposal. Widespread E-waste recycling in the informal sector using rudimentary techniques such as acid. E-waste workers have little or no knowledge of toxins in E-waste, and are exposed to serious health hazards. Inefficient recycling processes result in substantial losses of material value. The major problem we face in India there is no such technology or clear policy/guidelines to check the disposal of e-waste. E-waste is mostly recycled by backyard practioners. Recycling of e-waste: Recycling WEEE is an important subject not only from the view point of waste treatment but also in terms of recovery of valuable waste materials. Mechanical/physical processing provides an alternative means of recovering valuable materials but several difficulties exist. The main difficulty, industries have to afford is the separation of the different material in WEEE. This problem leads to several approaches to optimize the process.

REFERENCES

1. Environmental management for Information Technology industry in India, Department of nformation Technology, Government of India, 122-124 (2003)
2. Radha G. A Study of the Performance of the Indian IT Sector' at www.nautilus.org (2002) .
3. Violet N. Pinto. E-waste hazard: The impending challenge, Indian J Occup Environ Med., 12(2), 65–70 Aug (2008) .
4. Sinha Satish. Sustainable E-waste Management.,Toxic link 3-Mar,(2010) Retrieved from: <http://www.toxiclink.org/art-view.php?id=134>.
5. Dwivedy M., Mittal R.K., Future trends in computer waste generation in India, Waste Management, (30), 2265-2277 (2010).
6. Singh S.K., The diffusion of mobile phones in India, Telecommunications Policy, 32, 642-651(2008) .
7. Kumar Ranapati and Tripathi Saumya, "ElectronicsHi_Tech-Highly Toxic" India, Green Peace (2007)

ECONOMICAL EFFECT OF COVID -19 ON INDIAN ECONOMY

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ABSTRACT

The outbreak of COVID-19 brought social and economic life to a standstill. In this study the focus is on assessing the impact on affected sectors, such as aviation, tourism, retail, capital markets, MSMEs, and oil. International and internal mobility is restricted, and the revenues generated by travel and tourism, which contributes 9.2% of the GDP, will take a major toll on the GDP growth rate. Aviation revenues will come down by USD 1.56 billion. Oil has plummeted to 18-year low of \$ 22 per barrel in March, and Foreign Portfolio Investors (FPIs) have withdrawn huge amounts from India, about USD 571.4 million. While lower oil prices will shrink the current account deficit, reverse capital flows will expand it. Rupee is continuously depreciating. MSMEs will undergo a severe cash crunch. The crisis witnessed a horrifying mass exodus of such floating population of migrants on foot, amidst countrywide lockdown. Their worries primarily were loss of job, daily ration, and absence of a social security net. India must rethink on her development paradigm and make it more inclusive. COVID 19 has also provided some unique opportunities to India. There is an opportunity to participate in global supply chains, multinationals are losing trust in China. To 'Make in India', some reforms are needed, labour reforms being one of them

Keywords : COVID 19, economic impact, GDP growth rate, sectoral impact, COVID relief measures

INTRODUCTION

The outbreak of COVID-19 has impacted nations in an enormous way, especially the nationwide lockdown which have brought social and economic life to a standstill, A world which forever buzzed with activities has fallen silent and all the resources have been diverted to meeting the never -experienced before crisis. There is a multi-sectoral impact of the virus as the economic activities of nations have slowed down. What is astonishing and worth noting is an alarm bell which was rung in 2019 by the world health organization (WHO) about the world's inability to fight a global pandemic. A 2019 joint report from the WHO and the world bank estimated the impact of such a pandemic at 2.2 per cent to 4.8 per cent of global GDP. That prediction seems to have come true, as we see the world getting engulfed by this crisis.

This COVID-19 pandemic affected the manufacturing and the services sector hospitality, tours and travels, healthcare, retail, banks, hotels, real estate, education, health, IT, recreation, media and others. The economic stress has started and will grow rapidly. While lockdown and social distancing result in productivity loss on the one hand, they cause a sharp decline in demand for goods and services by the consumers in the market on the others, thus leading to a collapse in economic activity. However, lockdown and social distancing are the only cost-effective tools available to prevent the spread of COVID-19. Government are learning by doing, as it was in a case of success of containment strategy in Bhilwara district, Rajasthan, India, the economic risks of closing the economy remain nonetheless. Similarly, flattening the caseload curve is critical for economy at large, but it comes with an economic cost.

OBJECTIVE OF RESEARCH

1. To focus on the impact of a pandemic on different sector of the economy.
2. To reflect the need for policy intervention.

RESEARCH METHODOLOGY

This part of the research furnishes the research methodology use in this study. This study considers December 2019 to May 2020 as its study period. The review uses secondary data. The data is collected through various magazines, newspaper, and government websites for this study. This study focuses on descriptive research design. The sample design chooses for this study is illustrative.

IMPACT OF PANDEMIC ON INDIAN ECONOMY

This pandemic has created new issues for the Indian economy that leads to a serious disastrous impact on the demand and supply side.

IMPACT ON DEMAND FRONT

Aviation, hospitality, and tourism are the worst suffers sectors that are bearing the maximum brunt of the present pandemic COVID -19. Due to the lockdown effect, the closing of shopping malls and cinema theaters has severely affected the retail sector by reducing the consumption of essentials and entertainment purposes items

There is a decline in the level of income, particularly daily wage earners due to slow economic activities in many sectors like retails, constructions, transport, and entertainment, etc. That ultimately leads to fall in consumption front. There is a postponement of buying decision by consumers due to widespread fear and panic. The transportation sector is severely affected due to the lockdown effects, which causes a restriction in travelling as all schools, colleges, university, and private firms are opting for work from home culture approach hotels and restaurants are seen as significant sufferers as there is the cancellation of Leisure trips, business trips, conferences, seminars, workshops Internships, etc.

IMPACT ON FINANCIAL MARKET

Financial market is seen extremely volatile that leads to colossal wealth erosion, huge crashes due to uncertain conditions regarding future prediction, and results of Covid -19 .Theweek of the stock market is responsible for declining consumption levels. March 12, 2020, was the black day as there were significant slides in domestic equity markets. Both BSE and NSE slipped more than 8% in a single day. There was 2919 points drop in the BSE sensex, and 868 points fall in NSE nifty. This drop has regularly taken place till date as stock investors resorted to continues selling amid increasing cases of Covid -19 .Indian stock markets again jumped to a new low level on March 19, 2020. BSE sensex closed 581 points low at 28,288 and NSE nifty closed 205 points lower at 8236 volatility and wealth erosion of investors are expected in equity markets during Covid 19.

IMPACT ON SUPPLY FRONT

If I focus on the supply front, delay in the supply chain of goods from China due to the shutdown of factories had adversely affected many Indian manufacturing sectors, which depend on china for their raw material and final products The problem of a shortage of raw material is faced by some crucial areas like electronics, automobiles, chemical products, and pharmaceutical, etc. Business sentiment, investment, and production schedules of firms get hampered due to the spread of Covid-19 .Exports of India have affected adversely due to the slowdown in manufacturing activity in China and other markets like Asia, the US, and Europe.

IMPACT ON INTERNATIONAL TRADE

China has been a game-changer for Indian markets dealing in many commodities like gems and Jewelry, seafood, petrochemical, etc. The outbreak of Covid -19 had made a negative impact on the exports of China. For example, the fishing sector is predicted to bear a loss of more than 1300 crores due to a reduction in exports. Even India exports 36 percent of its demand to china Jaipur incurred significant losses of 8000-10000 crores due to the cancellation of four major events between February and April. India exports 34 percent of its petrochemicals to china. Because of export restriction to china, petrochemicals commodities are expected to furnish a reduction in prices. Due to Covid -19, the impact on India's trade is about US dollar 348 million as per the report of UNCTAD. As a result of a manufacturing slowdown in China that is adversely affecting World Trade, India has become the top 15 economies that are adversely affected. If I talk of India, the overall impact on business is given below

Chemical sectors.	129 Million Dollars
Textiles and apparel.	064 Million Dollars
Automobile sector.	034 Million Dollars
Metals and Metals goods.	027 Million Dollars
Leather goods.	031 Million Dollars

SOURCE: REPORT OF UNCTAD, 2020

Let's have a definite look of Covid -19 on some sectors of an economy;

1. Digital and internet economy forms a new platform that is playing vital role everywhere which are described below: online groceries, essential good; sudden increase in digital content like PPTs, PDFs, audio and video lectures, etc.
2. Fast moving consumer goods and the retail sector will boost up immensely
3. With continuous fear of Covid -19, food outlets, chain stores, malls catering to low consumer demand, so digital platform to purchase the goods will lead a shoot up
4. Firms, selling chemicals will feel a big jump due to increased consumer demand for sanitizers, drugs, disinfectant, and medicines, etc.

5. Pharmaceuticals firms are set to observe growth prospects shortly. Many lives will be lost, and millions more get adversely affected. There is an immediate need for introspection within countries to make realignment of businesses. It's a common saying when life offers you a lemon, make it lemonade. The same is required to be followed in this situation of Covid -19. There may be a silver lining in this too. We all may have to wait patiently for the rain clouds to depart. If we look deeply, so we find that china is coming back to normal even though it too has faced the wreath of Covid -19 . China is still a dominant exporter of raw material and final products. In this scenario of Covid-19, Technology will now come on the frontline need in most corporations, whether it is the corporate world or education field or purchasing of online products, etc. Before COVID -19, Technology was taken as a support function tool as a means to get an end. *Work from home culture will be the new normal many corporations had realized that employees working from home are equally efficient and productive as compare to when they were working from coming to their department .I suppose it will reduce infrastructural cost .* Cities now are more focusing on sustainable development models. Environment, social and governance will be a new way forward by new -Environmentally friendly business unit. Extra mediators are given a backward push with the introduction of new and compact value chains. It will help to improve the efficiency and productivity of Labours. The best strategy to survive in this Covid -19 is to focus on sales without profit by business owners. The survival of business will become a new standard and more essential than claiming massive valuation based on scales growth.

NEED FOR RELEVANT POLICIES ON GOVERNMENT FRONT

There is an urgent need to form a combination of monetary, fiscal and financial markets measures to help businesses and the common public to cope with this spread of virus and crisis environment. For framing appropriate action Plans and policy, it is significant to know the specific issues that Businesses and the public, in general, are facing recently. At this juncture, it is necessary to provide support to Indian industries and economics by the Indians government and RBI.

- There is a need to reduce the cost of funds through a reduction in policy rates.
- There is a need to increase credit limits for all banking accounts by 25 percent
- There is a need to provide relaxation in the factory compliances to enable the industries to continue operation even in fewer labourers over longer work keeping in mind the healthier and safe environment. Social distancing is followed in this and bring a positive outcomes. If require, health concerns and lockdown decisions must be followed strictly.
- Direct Taxes: carry forward period of MAT may be increased for 15 to 17 years.
- All pending payments to vendors are required to be passed immediately by the government department. GST refunds should be cleared at the earliest.

CONCLUSION

This is a high time to rest everything as the world has become standstill for a few months due to the outbreak of Covid -19. We all are allowed to rethink, redesign, and restructure everything. If we involve in doing the right things, we may be able to fix challenges in new platforms, that can face and bear humankind's environmental damage, maybe it pollution, self-centered growth or inequalities, or concentration of economic power and wealth.

I think the most significant point is that we must ensure and makes the best of efforts that this black phase of life should never happen with all of use again. I am sure that humankind has never taken lessons and wisdom from history. Let's hope for the better, healthy, safe, prosperous, and, of course, sustainable future ahead.

REFERENCES

1. <https://indianexpress.com/article/explained/explained-how-has-covid-19-affected-the-global-economy-64110494/>.
2. <https://www.indiatoday.in/magazine/the-big-story/story/20200323-an-economic-coronary-1654645-2020-03-13>.
3. <https://www.livemint.com/news/india/coronavirus-outbreak-in-india-could-cost-the-economy>.

ANALYSIS OF SUSCEPTIBILITY OF DIFFERENT BLOOD GROUPS TO COVID -19

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ABSTRACT

Peoples have different blood groups and some blood groups are susceptible to different diseases. In view of this context, this study is carried out to find susceptibility of different blood groups to COVID-19. Mainly it's a survey based study, responses were given by all the types of blood groups and varied age groups. Mostly Rh⁺ blood group people showed infection of COVID-19. Minimum days required to recover from COVID-19 was 7 days and Maximum 14 days. Out of total population surveyed, 14.7% people suffered from COVID-19 infection.

Key Words: COVID-19, Blood Group, Infection.

INTRODUCTION

Disease is the result of entry and growth of pathogens in the human body. Diarrhoea which is caused due to Escherichia coli is studied to find the severity associated with certain blood groups. People with blood group A had a higher attack rate of diarrhoea than persons with other blood groups (Kumar et. al., 2018). People with blood group O are more prone to diarrhoea than people with other blood groups (Black et. al., 1987). These findings influenced to study the relation of COVID-19 with different blood groups.

METHODOLOGY

A google form was created with many questions and responses were obtained from general population. The responses were analysed and discussed in observation.

OBSERVATION

The responses were obtained from individuals ranging from 13-55 age groups. Out of total responses 72% was given by females and 28% by males. Responses given by different blood groups is shown (Table No.1 and Fig. No. 1). Mostly people have shown no COVID-19 infection and it was shown by only 15%. Number of days required to recover from COVID-19 positive infection by people ranges from 5-14 days (Table No. 2 and Fig. No. 2). COVID-19 positive people showed symptoms like fever, dry cough, tiredness, pink eye (conjunctivitis), running nose (Fig. No. 3). People followed some preventive measures like wearing mask, using hand sanitiser, following social distancing etc.

RESULT AND DISCUSSION

Peoples above 14 years of age and mostly females were infected with COVID-19. Mostly people with Rh⁺ blood group were infected with COVID-19 and among that B⁺ blood group showed highest percentage of infection. There is positive relationship between *E. coli* and O blood group (Black et. al., 1987) and A blood group (Kumar et. al., 2018) causing diarrhoea. Most of the people took 14 days to recover from the infection.

Table No.1: Percent responses by different blood groups.

Blood Groups	%age Response
A-	3
A+	25
AB+	10
B+	34
O-	3
O+	25

Fig No. 1: Percent responses by different blood groups.

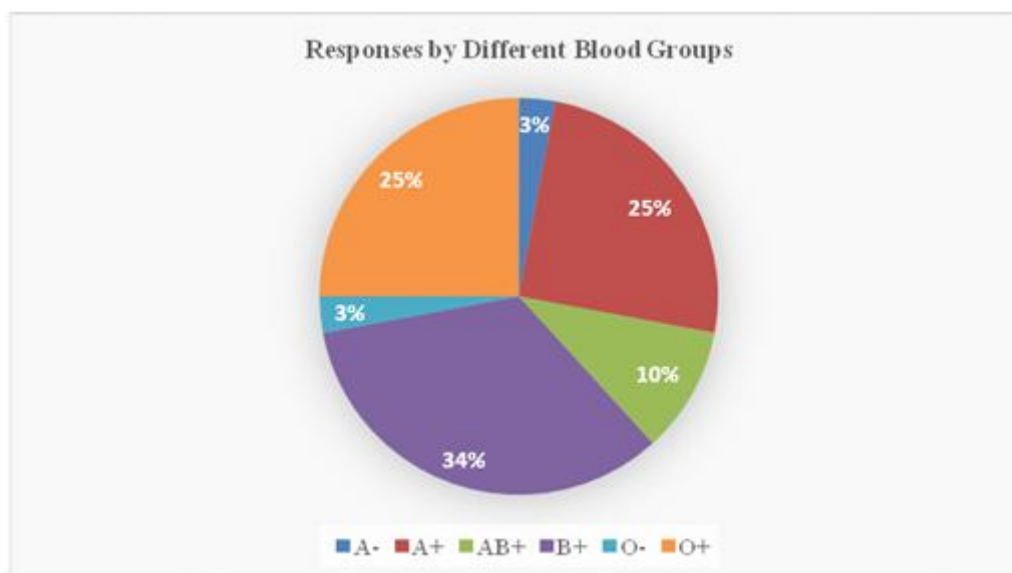


Table No. 2: Days Required for recovery from COVID-19 infection.

Number of people	Number of days Required for Recovery
1	5
3	7
1	10
9	14

Fig. No. 2: Days Required for recovery from COVID-19 infection.

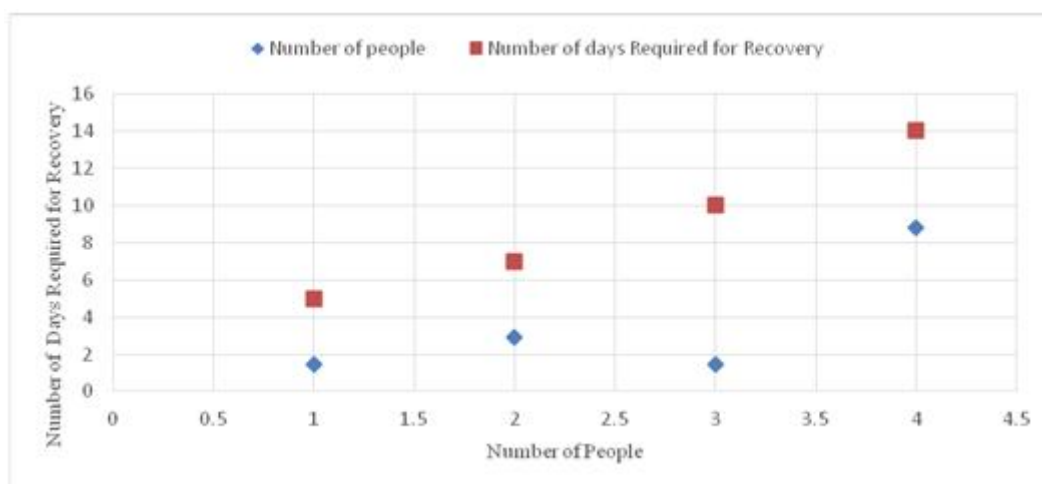
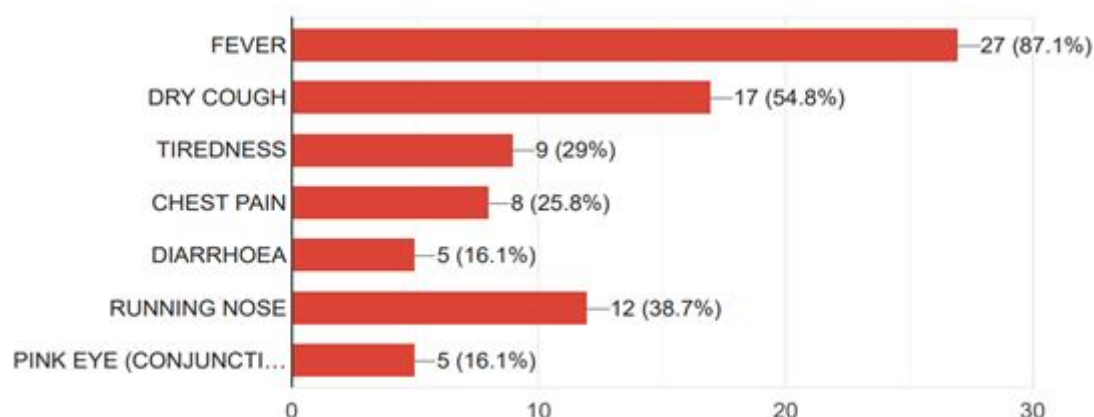


Fig. No. 3: COVID-19 Positive people showed following Symptoms.



REFERENCES

1. Pardeep Kumar , F. Matthew Kuhlmann , Subhra Chakraborty, A. Louis Bourgeois , Jennifer Foulke-Abel , Brunda Tumala, Tim J. Vickers, David A. Sack, Barbara DeNearing , Clayton D. Harro, W. Shea Wright, Jeffrey C. Gildersleeve, Matthew A. Ciorba, Srikanth Santhanam, Chad K Porter, Ramiro L. Gutierrez, Michael G. Prouty, Mark S. Riddle, Alexander Polino, Alaullah Sheikh, Mark Donowitz, James M. Fleckenstein (2018): Enterotoxigenic *Escherichia coli*-blood group A interactions intensify diarrheal severity. 1;128(8):3298-3311. doi: 10.1172/JCI97659. PMID:29771685.
2. R E Black , M M Levine, M L Clements, T Hughes, S O'Donnell (1987): Association between O blood group and occurrence and severity of diarrhoea due to *Escherichia coli*. 81(1):120-3. doi: 10.1016/0035-9203(87)90302-6. PMID: 3127953.

PSYCHOSOCIAL IMPACT OF COVID 19 PANDEMIC

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ABSTRACT

COVID-19 has been very unforgiving on individuals, society, business houses as well as nations. COVID-19 virus which started from Wuhan, China is now a threat to public health and society worldwide. The sudden onset of this monstrous virus has evoked a sense of anxiety and uncertainty in people all over the world. The virus has resulted in hazard to mental health all over the world.

The purpose of this research paper is to investigate & find out the psychosocial impact of this pandemic on people's mental health and wellbeing. A simple random sampling technique has been used where a sample size of 187 odd respondents have been collected. The paper uses primary as well as secondary data and the findings are summarized through simple statistical tools & techniques. Overall, this study focuses on how this virus has adversely impacted people's lives and their mental health .

Keywords—COVID 19, mental health, anxiety

INTRODUCTION

The COVID-19 pandemic and the lockdown due to the current second wave are likely to trigger and increase the symptoms of mental illnesses due to job insecurity and constant fear of dodging death.

Covid imposed lockdown is a major stress factor endangering the daily routine of people and their social outings and gatherings thereby increasing stress levels by increase of cortisol level which result in depression.

Man is a social animal and for him not able to go to work or meet and mingle with people coupled with diminishing finances triggers anxiety and does affect mental health. Many people are living off their savings as they have to shut their businesses due to lockdown .Many salaried people have been laid off as even corporates are not getting enough business due to the pandemic situation . Financial insecurity is one of the major cause of stress and mental agony.

Everyone is striving to survive during this pandemic period and support their family mentally and financially . People like doctors, nurses , policemen, army men have served for the nation even during this pandemic time risking their lives to save the world .They must have definitely faced immense stress , insecurities, fear anxiousness of contracting the virus and falling ill .

Most people are working from home due to lockdown and the isolation and quarantine has definitely lead to different kinds of issues. Not able to meet people or go out and socialize has brought feelings of loneliness, fear, anger, anxiety, insomnia, irritability and panic about the future. In a person with a psychiatric disorder it might lead to suicidal tendencies.

OBJECTIVES

The purpose of the study is as follows:

1. To understand the effect of the pandemic on mental health of people.
2. To examine the adverse impact of Pandemic on the mental health of people from different walks of life and age groups.

RESEARCH METHODOLOGY

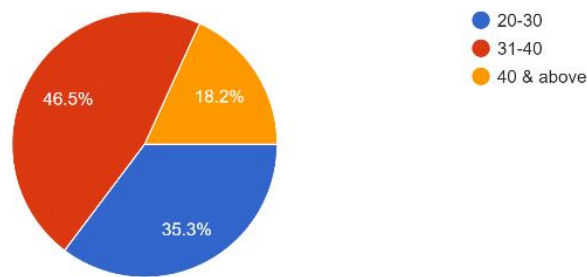
Focusing the topic of research study, a primary research was conducted by preparing a questionnaire on google forms and primary data was thus collected from sample respondents of age groups 20 and above who closely resemble the population using close ended question through Google forms. The random sampling technique was used and the sample size of this research was 200 odd respondents.

SIGNIFICANCE OF STUDY

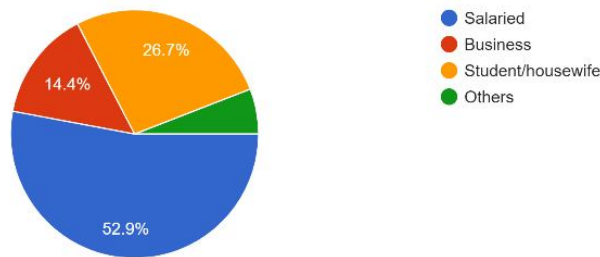
The significance of the study is to highlight the impact of COVID 19 pandemic on the mental health and wellbeing of people .This study will help us in understanding how this pandemic has evoked a sense of social and financial insecurity, helplessness and anxiety among people due to job loss and being cut off from social circle due to social distancing and safety norms and how people from all strata's are trying to cope up with their stress , fears , insecurities and anxieties .

RESULT AND ANALYSIS

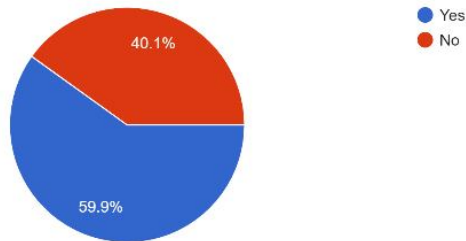
Age
187 responses



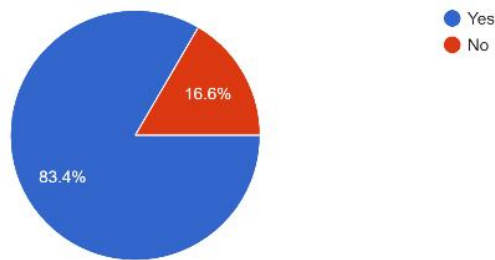
Occupation
187 responses



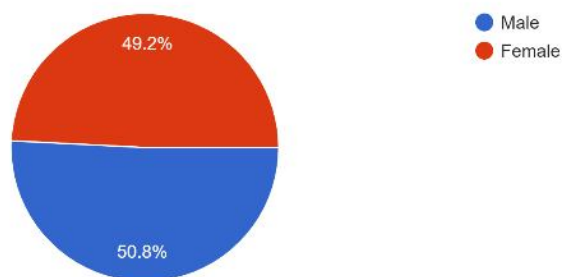
If "YES", have you experienced salary cut?
187 responses



Please indicate whether you are currently under state imposed curfew?
187 responses

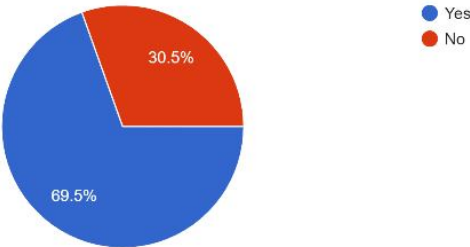


Gender
187 responses



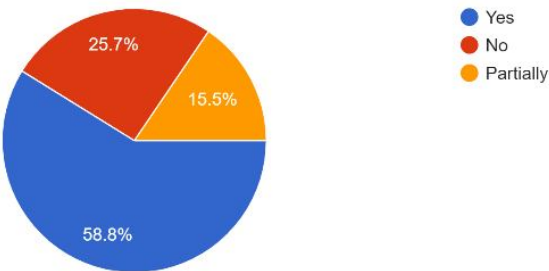
Are you currently employed

187 responses



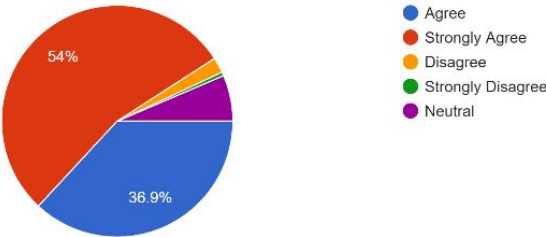
Are you Working from home currently ?

187 responses



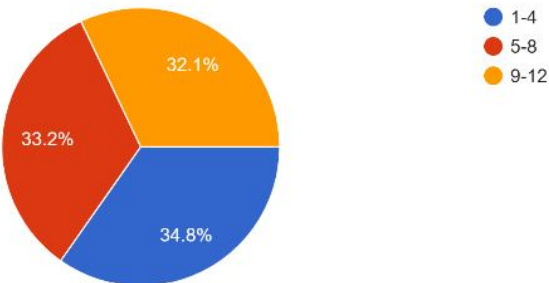
Has the pandemic ,the fear of contracting the virus, fear of death ,salary cut ,job insecurity . decreased social gatherings and isolation evoked stress ,anxiety and depression in you?

187 responses



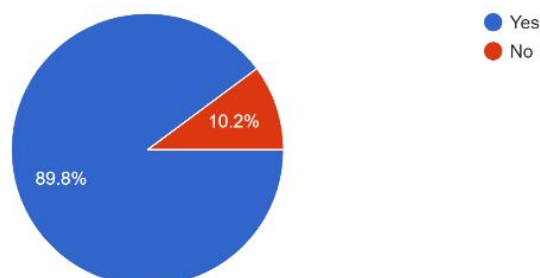
How many hours per day did you typically spend outside before lockdown

187 responses



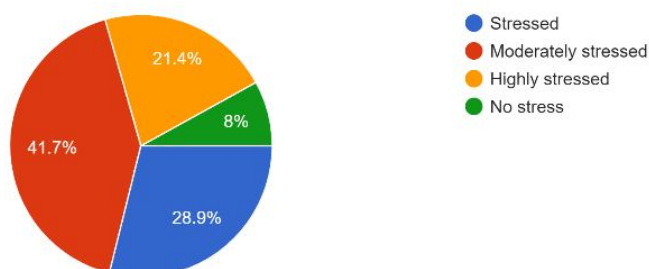
Has reduction of social gathering with friends and family effected on your mental well being of happiness

187 responses



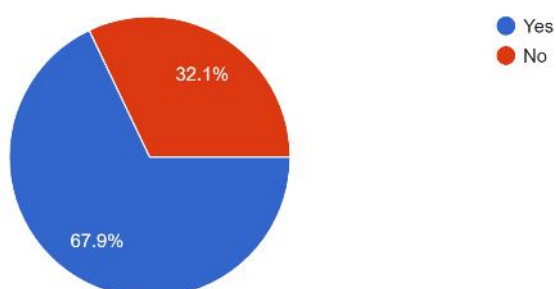
How stressed do you feel during the current Pandemic time?

187 responses



Do you have health Insurance ?If Yes, Please indicate if your health insurance has Covid 19 coverage?

187 responses



RESULT ANALYSIS –

A primary research was conducted from 187 respondents (both the genders)by sampling method who represented the population . The respondents were in the age group of 20 and above including senior citizens and included working people,students,housewives and senior citizens .

90% of the population also agreed that **not able to meet people** and go out has affected their mental wellbeing and happiness.

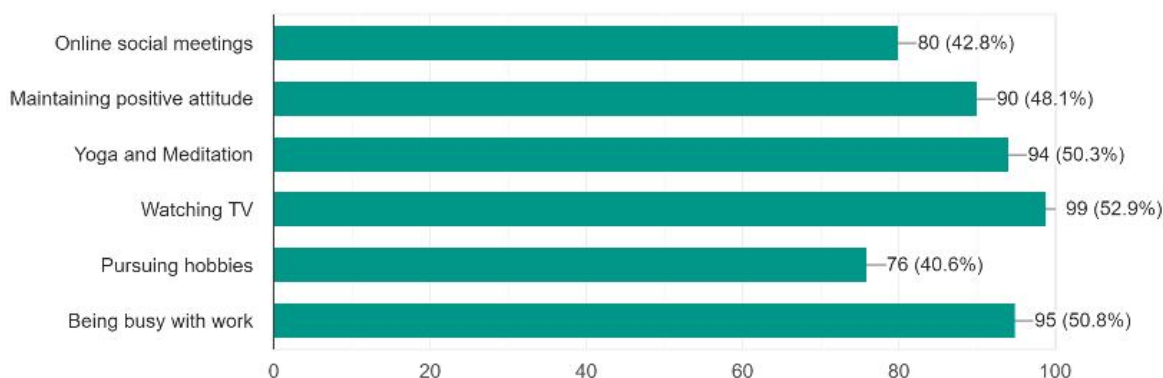
92% of the respondents said that the **pandemic** has got a lot of uncertainties, stress and anxiousness along with it due to financial instability and not able to socialize .

68% of them do not have a health cover with **Covid** coverage.

Below are the **various measures** that the respondents take to maintain mental wellbeing during this pandemic :

During lock down what measures are you taking to maintain mental well-being and bust your stress

187 responses



CONCLUSIONS AND SUGGESTIONS

This study indicated that majority of the respondents stated that this pandemic has caused high or moderate stress due to job loss, pay cut, not socializing and being isolated at home. The fear of contracting the virus and dodging death also spiked stress levels amongst people. Fear of being hospitalized and paying off huge medical and hospitalization bills freezes people with fear. Most of them do not have a health cover which includes cover for the pandemic which also results in anxiousness, insomnia, stress and adversely affects mental health.

From the primary research done by me which covers students, house wives, business men, salaried individuals and senior citizens it is clear that this pandemic has definitely made us more anxious, irritated, stressed and also feeling of helplessness does lead to mental agony.

Mitigation of the effect of this virus requires government intervention as well as individual efforts. The world is going to take time to recover from this virus and it is definitely going to take time to make things come back to normalcy like before. Till then people have to resort to yoga and meditation, pursue hobbies, keep themselves busy in work, keep trust in God and Nature, have a positive attitude and mind frame that this too shall pass away. We as a society have to fight this virus together. Not to forget to sanitize, keep safe distance, wear mask, help and cooperate with each other as a society and ward off this devilish Virus which in turn promote good health, mental balance and happiness.

Happiness is to see the world healthy, happy and glee

Happiness is the world being Covid Free.

REFERENCES:

- Impact of Covid 19 Pandemic on mental health in general population: Science Direct(2020)
- Impact of Covid 19 Pandemic on pre-existing mental problems -NCBI (2020)
- <https://www.who.int/campaigns/connecting-the-world-to-combat-coronavirus/healthyathome/healthyathome---mental-health>
- https://blog.ourbetterworld.org/blog/coping-with-covid-19-when-you-have-a-mental-health-condition/?gclid=CjwKCAjwhYOFBhBkEiwASF3KGUGntPyxdoyt7k6Dp4EgcIF12qxyZC69IKsa_7ZBMzfGUMI4T2QtNx0CKc0QAvD_BwE
- <https://www.euro.who.int/en/health-topics/Health-systems/health-workforce/publications/2021/supporting-the-mental-health-and-well-being-of-the-health-and-care-workforce-2021>
- <https://www.financialexpress.com/lifestyle/health/covid-19-and-its-impact-on-mental-health/2230534/>
- Thankyou

COVID-19 HARMING GOLDEN PHASE OF INDIA'S DEMOGRAPHIC DIVIDEND

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ABSTRACT

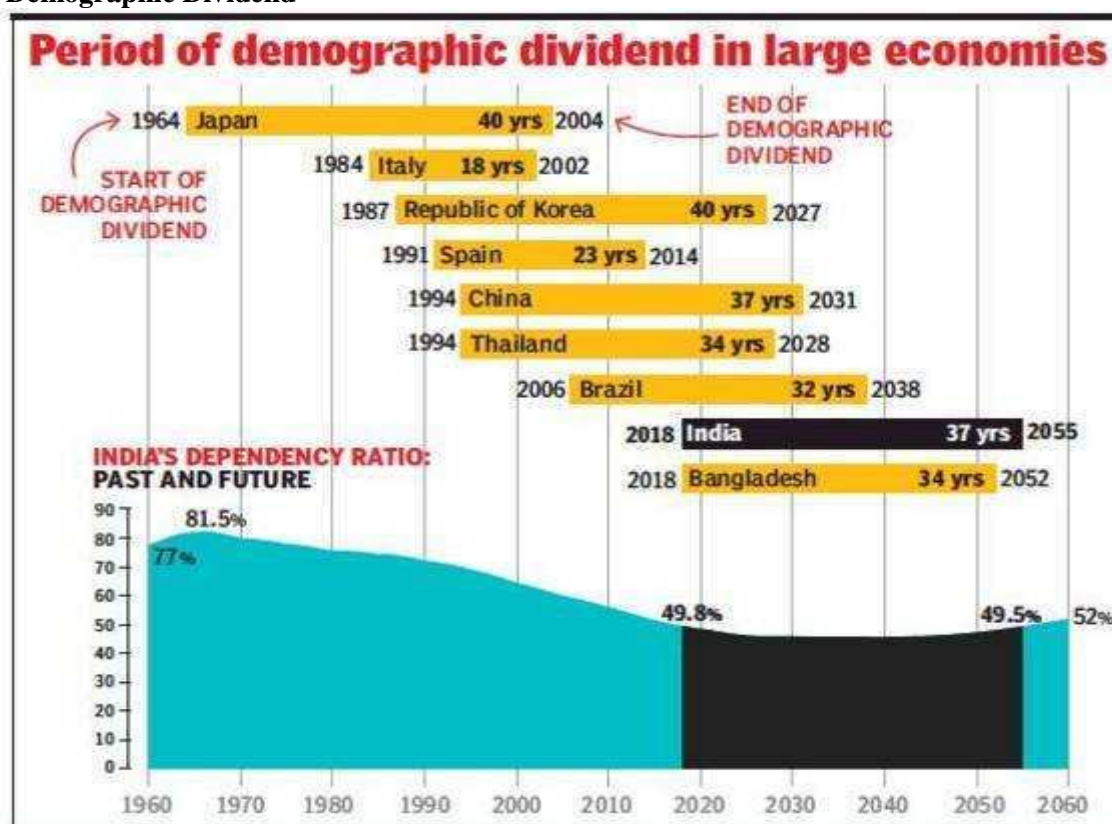
Demographic dividend indicates to an economy's growth resulting from a transition in the age structure of the population of a country. It leads to decrease in fertility and mortality rates contributes to the shift in age structure. India's Demographic Transition has been hot topic of discussion amongst many countries and economic forum, as India entered in Golden Phase of Demographic transition. India's increasing working population and low age dependency, resulting in more people moving to the workforce, has led to an immense focus on the consumption-driven and inward focussed factor to economic growth. India has youngest population in an ageing world. This create immense opportunity for India in order to increase socio – eco development by using young population in right manner. India has been facing difficulties in managing its human resources due to lack of skill development, weak labour market and inefficient policies to accommodate young India, on top of that recent COVID-19 crisis worsen the situation. This research paper focuses on impact of COVID-19 on demographic dividend and it also suggested ways to come out of this crisis in order to handle youth work force in an efficient manner.

Key Words :Demographic Dividend, Golden Phase, Young Work-force, COVID-19,Crisis

INTRODUCTION

Demographic dividends are phenomena in a world experiencing rapid economic growth as a result of decreasing levels of fertility and mortality. A country with low birth rates in conjunction with low death rates receives an economic dividend or benefits from the resulting increase in labour productivity. In other words, Demographic dividend takes place when the proportion of working people in the total population is high because this indicates that more people have the potential to be productive and contribute to growth of the economy. Due to the dividend between young and old, many debated that there is great potential for economic growth, which has been termed the “demographic gift”. In order to receive a demographic dividend, a nation needs to undergo a demographic transition from a largely rural agricultural economy with high fertility and mortality rates to an urban industrial society with low fertility and mortality rates.

India's Demographic Dividend



A study on demographic dividend in India by United Nations Population Fund (UNFPA) highlighted two interesting facts. One, the window of demographic dividend opportunity in India is available for five decades from 2005-06 to 2055-56, longer than any other country in the world. Second, and more interesting, is the fact that this demographic dividend window is available at different times in different states because of differential behaviour of the population parameters.

Since 2018, India's working-age population (people between 15 and 64 years of age) has grown larger than the dependant population — children aged 14 or below as well as people above 65 years of age. This bulge in the working-age population is going to last till 2055, or 37 years from its beginning. So, it's quite obvious that India is in Golden Phase of Demographic Dividend but to get benefit of rich dividend country needs proper utilization channels by providing good health, quality education and decent employment to its entire population. India was facing difficult time to handle its human resources, outburst of Coronavirus has worsen the situation. It throw India's opportunity to grow into darkness.

RESEARCH METHODOLOGY

Objectives

1. To understand importance of demographic dividend for the growth of India.
2. To analyse the impact of Corona Virus on India's demographic dividend.
3. To find out ways to utilise India's youth population for Nation building after Corona Virus.

Research Design

This paper is based on impact study. It shows the impact of COVID-19 on India's Demographic Dividend.

Data Collection

Research data is entirely based on secondary data. Data is collected from various published sources like research papers, journals, articles and News paper articles.

LITERATURE REVIEW

Kumar Varun, (21st July 2020), Harnessing demographic dividend amidst the covid 19 pandemic; India is witnessing demographic transition in which one third of India's population falls under young age group. India have an opportunity to get benefitted by its demographic dividend by providing education and skill sets to its young population. Covid – 19 posed a great challenge for generation of employment, level of unemployment is raising which in turn create huge toll on appropriate utilisation of demographic dividend for the growth of entire country. India will lose its demographic dividend due to pandemic if immediate steps are not taken.

Naidu Venkaiah, (21st January 2021), India's demographic dividend needs to be fully leveraged, Business Standards ; According to vice president M Venkaiah Naidu "India's biggest strength is its demographic dividend and people need to fully leverage it to fast track the country's progress in various sectors."

Mohamed Zeeshan, (4th March 2021), COVID-19 Threatens to Waste India's Demographic Dividend; This pandemic drastically impacted youth, it happens due to lack of social safety net and loop holes in social infrastructure. Pandemic leads to high number of dropouts amongst school going children and shutting down of many private school. The affect of pandemic will going to harm India's youth for years to come, reversing decades of growth on multiple areas.

Amit Kapoor and Chirag Yadav, (10 May 2021), View : India and the exclusive demographic dividend ; The link between Population and economic development. As Covid 19 second wave hits hard, India's chances to use its demographic dividend efficiently is blink. Indian economy is not in a condition to accommodate this pandemic generation into employment sector. With sharp fall in employment opportunities and adverse economic situation brings India under capacity trap.

INDIA'S DEMOGRAPHIC DIVIDEND AND COVID-19

India's young demographics were meant to take the country on the path to power and prosperity in the decades ahead. But recent shocking data shows that COVID-19 has thrown a huge blow in the works.

The latest report on the State of India's Environment, released by the Centre for Science and Environment, India is all set to witness a "pandemic generation" that is likely to suffer far beyond the pandemic itself. A whopping 375 million children may suffer long-lasting impacts due to the pandemic, the report said, including being underweight, suffering stunted growth, and coping losses in education and economic productivity. And while over 500 million children were forced out of school worldwide due to COVID-19, the report said that India accounted for more than half of that number.

For proper utilisation of demographic dividend India needs to work on some important parameters like increase in job opportunities, skill development, education, providing social safety infrastructure, strong labour market, by doing this India can manage its young human resources in an efficient manner but this pandemic hits India's intentions to develop its resources badly. Some of the major themes are discussed below :

JOB CRISIS

The COVID-19 pandemic has led to one of the worst jobs crisis since the Great Depression. There is a danger that the crisis will increase poverty and widen inequalities, with the impact felt for years to come. India's unemployment rate rose to nearly 8% with seven million job losses in April reported by Centre for Monitoring Indian Economy (CMIE).

The job losses are attributed to series of curbs, including lockdowns, being announced by state governments to contain the spread of the second wave of COVID-19 infections. As a result, a number of people working in different cities and towns have left for villages due to the closure of economic activity. Additionally, it has also dashed hopes of any recovery to the economic activity seen after a dip in infections towards the end of last year.

LACK OF SKILL DEVELOPMENT

A large number of young people in India lack the major skills needed to be employable, according to surveys. Upskilling the workforce could boost India's economy. The India Skills Report 2021 found that about 45.9% of young people would be considered employable. The number was about 46.2% in 2020 and 47.4% in 2019.

India's unemployment rate reached an all-time high in 2020. There were several factors responsible for this, including the coronavirus pandemic-induced lockdown. Most skill development programmes in the country follow a classroom-led delivery model.

THREAT TO EDUCATION

Over 1.5 million schools across India closed down due to the pandemic. A switch to large-scale digital education is not possible now. Only 24 per cent households have access to the internet, according to a 2019 government survey. In rural India, the numbers are far lower, with only 4 per cent households having access. The education ministry's budget for digital e-learning was slashed to Rs 469 crore in 2020-21—the year Covid struck—from Rs 604 crore the previous year.

LACK OF SOCIAL INFRASTRUCTURE

Pandemic unveils weakness of social infrastructure of India. India spends a total of 3.6 per cent of its GDP on healthcare which is very less as compared to other developing and developed countries.

India has an average availability of 0.55 hospital beds per 1,000 population. In terms of availability of physicians, India is at 0.8 doctors per 1,000 population and such a trend is not limited to the health sector alone. India ranks 102 out of 117 countries in the Global Hunger Index. More than 80 per cent of our workforce is in the unorganised sector. Close to 75 per cent of India's population is not covered by any form of life insurance. India's cities rank abysmally low in terms of air-quality. Most skill development programmes in the country follow a classroom-led delivery model.

CHALLENGES AHEAD

COVID-19 comes as a set back to India's Demographic Dividend, it has affected almost all areas of economy. It won't be easy to accommodate such a vast population and bring them on track. Proper policy and concrete planning can help to overcome from this phase. Jobs are declining at a faster pace, skill development has seen a major halt, young minds are restricted to take up physical education which in turn increases drop out rates in school and colleges, India also needs to work on its social infrastructural development which is further weakened by COVID-19. These all are big challenges imposed by Pandemic, India needs to come up with effective plans and policy, this is a tough time and India needs to work in an innovative manner by taking effective and creative steps to manage its work force.

SUGGESTIONS

- Building human capital
- Job creation
- Urbanisation
- Eradication of digital divide
- Minimum wage programme

-
- Incentives for unemployment
 - Social support

CONCLUSION

No doubt India's Demographic Dividend is an asset for the growth of economy but proper utilisation of this asset will create wonders. COVID-19 has affected all major areas of development, whatever works had done in past related to Human resource building all has been witnessing reverse trend. Effective plans and policies will help to come out from this crisis.

BIBLIOGRAPHY

- Kumar Varun, (21st July 2020), Harnessing demographic dividend amidst the covid 19 pandemic
- Naidu Venkaiah, (21st January 2021), India's demographic dividend needs to be fully leveraged, Business Standards
- Mohamed Zeeshan, (4th March 2021), COVID-19 Threatens to Waste India's Demographic Dividend
- Amit Kapoor and Chirag Yadav, (10 May 2021), View : India and the exclusive demographic dividend
- Vinayak Kishore/Ankur Sarin, Updated on May 22, 2020, Pandemic exposes the weakness of our social infrastructure, Times Hindu, Business line
- Unemployment rate shoots up to 8% in April; 7.35 million lose jobs: CMIE, BusinessToday.In | Wednesday, May 12, 2021

THE INVESTIGATORY STUDY ON COVID - 19 VACCINES

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Rajasthan

ABSTRACT

The whole world is shaken by the ongoing Global pandemic COVID -19. Though more than a year has passed, still the world is in the clutches of the pandemic. But now there is the Ray of hope coming forward in the form of a vaccine. On one hand there is a spread of optimistic approach among people but on other hand there are a lot of apprehensions regarding vaccines. People suspect the authenticity and effectiveness of the vaccines as it launched in a very short period. People are concerned about the expected long term adverse effects of the vaccine, it's capacity to deal with changing strains of virus etc. Therefore this investigatory study is conducted with an objective to collect authentic information from the Frontline health workers like doctors and nurses and also from medical researchers, pharmacists and chemists, so that the queries and doubts among common people can be cleared up.

This research study is divided into four parts. The first part introduces the Pandemic and the need for the invention of the medicines to protect mankind from this unprecedented situation. The second part deals with analysing various facts and myths about this most awaited vaccine. In the third part primary data analysis is done and finally, in the 4th part recommendations are given and conclusion is derived.

KEYWORDS: coronavirus, covid-19, pandemic, vaccine.

INTRODUCTION AND NEED OF THE STUDY:

The whole world is experiencing an unprecedented situation called COVID-19, a global pandemic. The root cause of this pandemic is coronavirus. In scientific language, it is called Severe Acute Respiratory Syndrome Coronavirus - 2 (SARS- CoV- 2). Towards the end of the year 2019, this virus was identified in Wuhan, China and within a few months it got spread all over the world. Initially the World Health Organisation (WHO) considered it as a health emergency of international level but on 11th March 2020 officially declared it as Pandemic. Though more than a year has passed, still the world is in the clutches of the pandemic. But now there is the Ray of hope coming forward in the form of a vaccine. On one hand there is a spread of optimistic approach among people but on other hand there are a lot of apprehensions regarding vaccines. Though a lot of information is being shared on social media about the authenticity and effectiveness of the vaccines, people have doubts as it was launched in a very short period. People are worried about the expected long term adverse effect of the vaccine, it's capacity to deal with changing strains of virus etc. There is utter confusion especially among the non-medico population. Therefore this investigatory study is conducted with an objective to collect authentic information from the medical experts so that the queries and doubts among common people can be cleared up.

OBJECTIVE:

The sole objective of the study is to share authentic information about the COVID-19 vaccines to the public so that various doubts and apprehensions can be sorted out.

HYPOTHESIS:

H0 : COVID-19 vaccines are not safe for public use.

H1: COVID-19 vaccines are safe for public use.

RESEARCH DESIGN:

This study is based on both, the primary and secondary data sources.

Primary data is collected from the frontline medical / health workers. A questionnaire containing around 30 questions was circulated among the doctors and nursing staff of the various hospitals of the city. Questions were focussed on the fact finding about COVID-19 vaccines

Secondary data is collected through various medical journals and government official sites established for the purpose of sharing information with the public

THE STUDY:

Covid-19 virus transmitted through small airborne droplets exhaled by an infected person. These particles if inhaled or reach to the mouth, nose or eyes of a healthy person directly or through touching with contaminated

hands results in transmission of virus. The chances of spreading infection is very high when people are without proper protection like PPE, face shield or at least mask. An infected person can spread the infection for upto 20 days. Spreading the virus is possible even by the asymptomatic infected person. During this unprecedented medical emergency medicines are not readily available to deal directly with the virus. The available medicines can treat only the symptoms like fever, body ache, weakness etc. Therefore prevention is the only available solution which can be done by maintaining physical distance, wearing face shield or face mask in public, hand washing with soap and water or sanitizing, disinfecting the surface and self-isolation, at individual level and measures like lockdown, work from home policy at country level needs to be adopted. But as a result of that another serious economic challenge has emerged in the form of a great social and economic destruction leading to the largest global recession in history. To overcome the situation some assured medical treatment is needed therefore the whole world has great expectations from the vaccine developers. Vaccine is considered as the key of the door which can open the lockdown and bring the world back to normal.

Vaccination is considered as a major preventive measure to reduce the chances of infection. Therefore people all over the world anxiously waited for the vaccine. The medical researchers and scientists worked restlessly towards innovation of vaccines and their hard work got paid. Phase III trials of vaccines have demonstrated efficacy up to 95% in preventing symptomatic COVID-19 infection. By April 2021 around 14 vaccines all over the world are authorised by regulatory authorities for public use.

INDIAN COVID-19 VACCINES

Even the Indian scientists were not behind. Indian Medical researchers have also developed two vaccines namely Covaxine and Covishield. Covaxine is developed by Bharat biotech. It has 24 years of experience in this field and has developed 16 vaccines which have been used in 123 countries of the world. The Covaxine contains a dead coronavirus. This dead virus cannot infect the person receiving the vaccine but is still able to instruct the human immune system to build a defensive reaction i.e. antibodies to fight the infection. It is the well established and time tested method in the field of vaccine technology. By using this inactivated vaccine technology, vaccines for various diseases like influenza, polio etc. have been successfully developed. This vaccine demonstrated 81% interim efficacy in preventing COVID-19 infection in those without prior infection after the second dose.

Covishield vaccine is manufactured by the Serum Institute of India. It contains weakened and modified common cold virus which looks like coronavirus extracted from chimpanzees. According to Government data Covishield vaccine has shown 70% efficacy after the second dose. The developers of the both the vaccines, Covaxin and Covishield have claimed that human immunity against infection of coronavirus increases by about 90% after vaccination. Covaxine can be applied only to people above 18 years of age whereas Covishield can be applied to people above 12 years of age.

THE FACTS ABOUT CORONA VIRUS AND VACCINATION

UV lights in the sunlight have the capacity to kill coronavirus.

Though the chances of spreading infection through excreta of a COVID-19 patient is very low, it is not zero. It is observed in few cases of corona infected patients suffering with diarrhoea, COVID-19 viral RNA fragments in the droppings.

Since the act of smoking involves frequent contact of fingers, lips and cigarette, it increases the possibility of transmission of virus from hand to mouth. Therefore smokers need to be very careful against the infection.

The gap between the two doses of vaccine is needed as the human body requires some time to overcome the mild side effects of the vaccine such as swelling, itching, pain, redness etc. at the site of injection. Occurrence of mild body pain, cold, fever, headache etc. is also very normal and should not be worried about as these issues last for a very short stretch of time. If required some medical assistance can also be taken.

It doesn't make any difference whether the vaccinated person gets any reaction or not. Even though these reactions indicate that the immune system is responding, absence of any reactions should not be concluded as ineffectiveness of the vaccine.

DATA ANALYSIS

The primary data is collected from frontline health workers and the majority of (57%) respondents are doctors. Out of total 43% respondents have work experience of above 20 years, 29% have work experience of 16 to 20 years.

71% of the respondents have received at least one dose of vaccination. 43% of the respondents were infected by COVID-19 before vaccination and 57% of the respondents have not been infected at all. 43% of the respondents' family members who are not frontline medical workers are vaccinated and rest are yet to receive the dose.

Majority of (71%) of the respondents feel that all people should take the vaccine. 57 % of the respondents feel vaccination of the entire population of India is possible in near future and remaining feel that we must try for it, though it is a herculean task. Maximum respondents (86%) are assured about the safety and efficiency of the vaccine though it has been developed in such a short period. 86% of the respondents are confident that the Indian vaccines are equally effective as compared to the ones introduced in other developed countries. 86% respondents are of the opinion that COVID-19 recovered people should take the vaccine. Majority of (71%) the respondents feel there are no long term adverse side effects of the vaccine. All (100%) of the respondents are of the opinion that maintenance of cold chain temperature is essential for the vaccine but 71% respondents feel that the cold chain temperature is properly maintained throughout the process of vaccination. Only 29% of the respondents feel the gap of 5 to 6 weeks between the two doses of vaccines is the danger zone for people with comorbidities while the majority of respondents feel that people with comorbidities are safe during the gap, if they take due care. All (100%) of the respondents have confirmed that it is necessary for a person to receive the same vaccine during the second dose, 71% of the respondents are assured about the maintenance of proper records about it at the vaccination centre. Out of the total 57% of the respondents are confident about the capacity of the vaccines to control new and changing strains of coronavirus. More than half (57%) of the respondents have suggested not to vaccinate when blood pressure and sugar level is not normal. 71% of the respondents feel it is safe to take a vaccine while other medical treatment is on, at the most the gap of 2 days before vaccination is sufficient. Majority of (86%) respondents are against taking vaccines during pregnancy and are also against the vaccination immediately after delivering a child. 71% respondents are of the opinion that it is safe for women to vaccinate during menstrual period.

CONCLUSION:

Vaccination can be considered as the most effective preventive measure against coronavirus infection. It can boost the human immune capacity. It is expected to train the immune system to recognise the virus and kill it.

Both Indian vaccines are safe and effective to fight against coronavirus. The only way to protect human life and bring it back to normal is mass vaccination. So all should be vaccinated without any further delay. Vaccination will help a person to protect himself, his / her family and the whole society against this deadly disease.

TESTING OF HYPOTHESES:

On the basis of the findings, the hypotheses H1: COVID-19 vaccines are safe for public use, is proved.

LIMITATIONS OF THE STUDY:

The study was based upon the opinion shared by the frontline health workers and has no first hand laboratory testing support.

REFERENCES:

- Barney S. Graham (2020), Rapid COVID-19 Vaccine development, Science, Vol.368, Issue 6494, pp 945-946
- Barton F. Haynes et. Al (2020), Prospects for a safe COVID-19 vaccine, Science Translational Medicine, Vol. 12, Issue 568, eabe0948
- https://www.mohfw.gov.in/covid_vaccination/vaccination/index.html
- <https://www.mpnrc.org/covishield-vaccine-registration/>
- <https://www.mpnrc.org/covaxin-vs-covishield/>
- https://www.seruminstitute.com/product_covishield.php

**CORPORATE SOCIAL RESPONSIBILITIES OF NON-BANKING FINANCIAL COMPANIES
PROVIDING HOUSING LOAN SERVICES**

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ABSTRACT

Corporate social responsibility generates a sense of humanity among corporate sectors. Companies Act 2013, provides a list of activities in its schedule VII to be undertaken by corporates under CSR. Various CSR activities undertaken by NBFCs (providing housing finance services) are explained in this paper and it also shows the correlation between revenue from operation and expenditure on CSR.

Key words: CSR, NBFCs

INTRODUCTION:

“Vahi Manushya hai jo Manushya ke liye Mare” a very famous poem of National Hindi poet Shri Maithalisharan Gupt, in which he mentioned that a true human being never thinks only for himself but he always tries to help to other with whatever resources he has. It is the responsibility of every person to help society as society plays a greater role in overall development of an individual. No one can think about their existence without the existence of society. If an individual is responsible for the society why not corporate sector. Corporates gets everything from society in the form of investors, managers, customers, workers etc. It is not wrong to say that growth and development of corporates are directly related with the growth and development of societies. Fulfillment of Corporate social responsibilities are helpful in enhancing the goodwill of a company which in turn have a positive effect on their sales and profit. It was a ethical and moral responsibility of corporates to help society in any manner without any compulsion but later on from 1st day of April 2014 it's become mandatory for every company to contribute for the welfare of society with introduction of Companies (Corporate Social Responsibility Policy) Rules 2014.

According to Media Research Users Council (MRUC) CSR is the process by which an organization thinks about and evolves its relationships with society for the common good and demonstrates its commitment by giving back to the society for the resources it used to flourish by adoption of appropriate business processes and strategies. CSR is an integration of economic, social and environmental objectives of companies with their operation and growth. According to the United Nations Industrial Developmental Organization (UNIDO) - “Corporate Social Responsibility is a management concept whereby companies integrate social and environmental concerns in their business operations and interactions with their stakeholders”. Carroll (1979) defined CSR as conducting business in such a manner that it is economically profitable, law abiding, ethical and socially supportive.

Concept of CSR was gaining its importance worldwide therefore Section 135 of Indian Companies Act 2013 made it mandatory for those companies whose net worth is five hundred crore or more, or companies' turnover is one thousand crore or more, or net profit is five hundred crore or more during any financial year shall constitute a Corporate Social Responsibility Committee of the Board consisting of three or more directors, out of which at least one director shall be an independent director. Section 135 of Indian Companies Act state that in every financial year, at least two per cent of the average net profits of the company made during the three immediately preceding financial years. Act also insists companies to give first preference to those areas where they operate for spending amount allotted for CSR. If any company fails to spend two percent of their net profit towards CSR then they have to specify the reason of the same. Schedule VII of the companies Act 2013 provided a list of the activities to be undertaken by the companies under CSR.

Activities which may be included by companies in their Corporate Social Responsibility Policies are activities relating to: —

- (i) eradicating extreme hunger and poverty;
- (ii) promotion of education;
- (iii) promoting gender equality and empowering women;
- (iv) reducing child mortality and improving maternal health;
- (v) combating human immunodeficiency virus, acquired immune deficiency syndrome, malaria and other diseases;

- (vi) ensuring environmental sustainability;
- (vii) employment enhancing vocational skills;
- (viii) social business projects;
- (ix) contribution to the Prime Minister's National Relief Fund or any other fund set up by the Central Government or the State Governments for socio-economic development and relief and funds for the welfare of the Scheduled Castes, the Scheduled Tribes, other backward classes, minorities and women; and
- (x) such other matters as may be prescribed. (Source: <https://www.mca.gov.in/SearchableActs/Schedule7.htm>)

OBJECTIVES:

- 1- To study the relation between interest earned by NBFCs and amount spent towards CSR.
- 2- To find out the ratio of CSR expenditure in different activities by NBFCs.
- 3- To find out difference between budgeted expenditure and actual expenditure of CSR by NBFCs.

LITERATURE REVIEW:

(**al, 2012**) through his research assessed the development of the fund allocated by bank for philanthropic purpose between 2005 to 2010, with emphasis on the period of financial crises. Funds contributed for philanthropic purpose were compared with economic performance of the selected bank and it was found that the financial crisis did not seriously affect the selected banking institutions.

Dutt & Grewal (2018) studied about CSR in banking industry with reference to SBI. In study researcher concluded that SBI plays an outstanding role in building relationship between organisation and society. Health, education and skill development are greater choice of banking sector for investing CSR funds. Skill development and livelihood creations are the major field where SBI contributes 50% of its CSR budget. Researcher also concluded that actual implementation of activities is less than media coverage.

Reena Shyam (2018) conducted an analysis of CSR in India and discussed about various CSR initiatives taken by different firms in India. Lack of community participants in CSR activities & lack of transparency are the major challenges before successful implementation of CSR activities in India. Researcher concluded that CSR is really about ensuring that the company can grow on a sustainable basis, while ensuring fairness to all stakeholders and It has successfully interwoven business with social inclusion and environment sustainability.

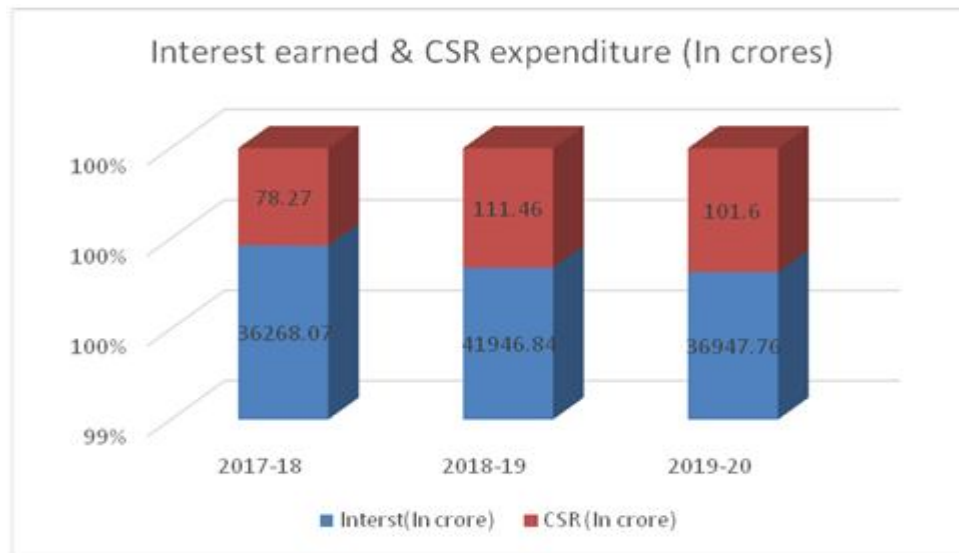
Saluja & Kapoor (2017) studied about various phases and legal framework of CSR in India. Researcher concluded that upliftment of social well being of society is not only the responsibility of government. Researchers also suggested that CSR-focused businesses should proactively promote the public interest by encouraging community growth and development, and voluntarily eliminating practices that harm the public, regardless of legality.

Kaushal (2019) reviewed various literature on CSR and mentioned about the burden faced by banking industries due to global financial crises. Researcher also concluded that Social responsibility does not mean that a company must abandon its primary economic mission, and socially responsible firms cannot be as profitable as other less responsible. Researchers also mentioned about various barriers of CSR such as lack of awareness, lack of standard norms for evaluating and spreading social practices, lack of motivational incentives, social accounting, reporting and lack of combined initiatives from governments.

Dr.M.Somasundaram (2018) in his research of CSR in NBFCs found that discloser made by companies regarding their expenditure towards CSR but it is not verified independently. More companies are playing a major part in providing relief and rehabilitation in the aftermath of natural disasters. CSR will create new business opportunities, synergies and private-public partnerships, and connects customers, suppliers, stakeholders and communities and will add more values to reputation and image of the company.

RESEARCH METHODOLOGY: This research is purely based on secondary data. Information related to CSR expenditure and interest earned by NBFCs is collected from the annual report of the companies. Leading NBFCs providing housing finance in Mumbai & Thane districts are selected as samples. Companies selected for study are Indiabulls housing finance, Deewan Housing Finance (DHFL) and L.I.C. Housing Finance. For study financial data of last three years (2017-18, 2018-19 & 2019-20) are used.

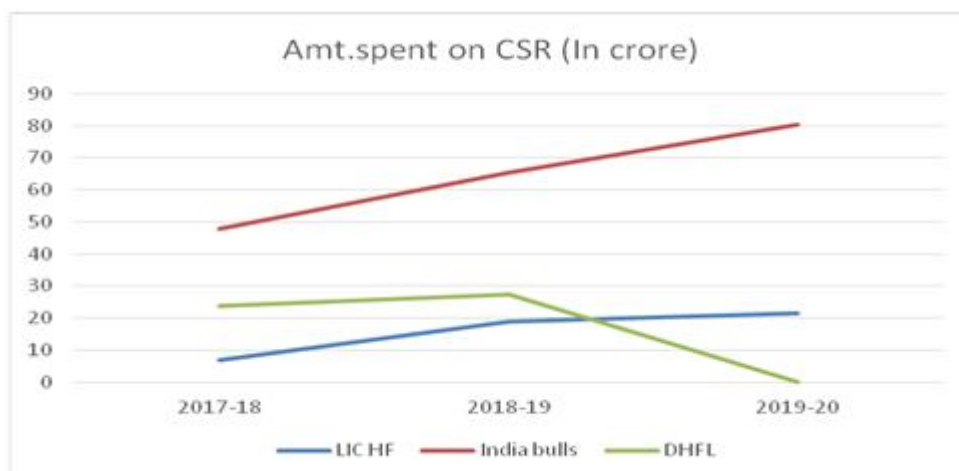
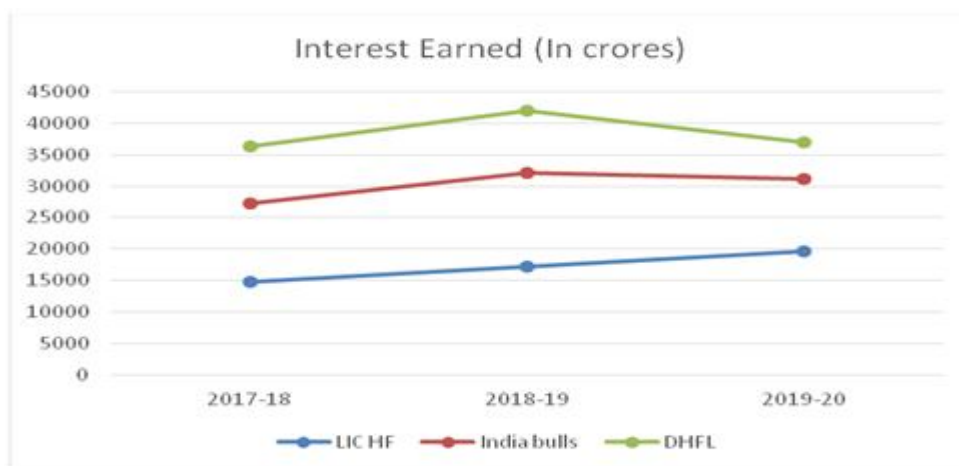
DATA ANALYSIS:

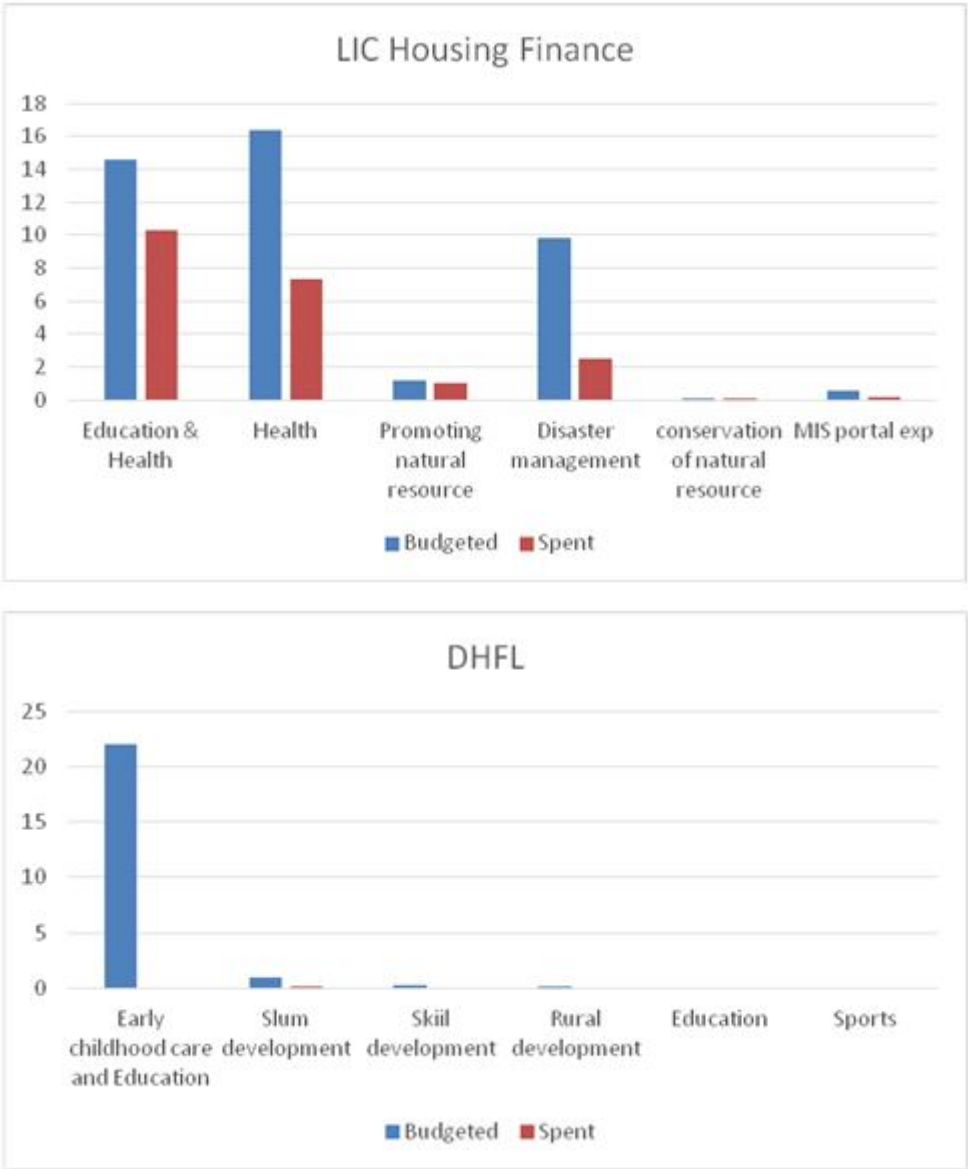


	Interst(In crore)	CSR (In crore)
2017-18	36268.07	78.27
2018-19	41946.84	111.46
2019-20	36947.76	101.6

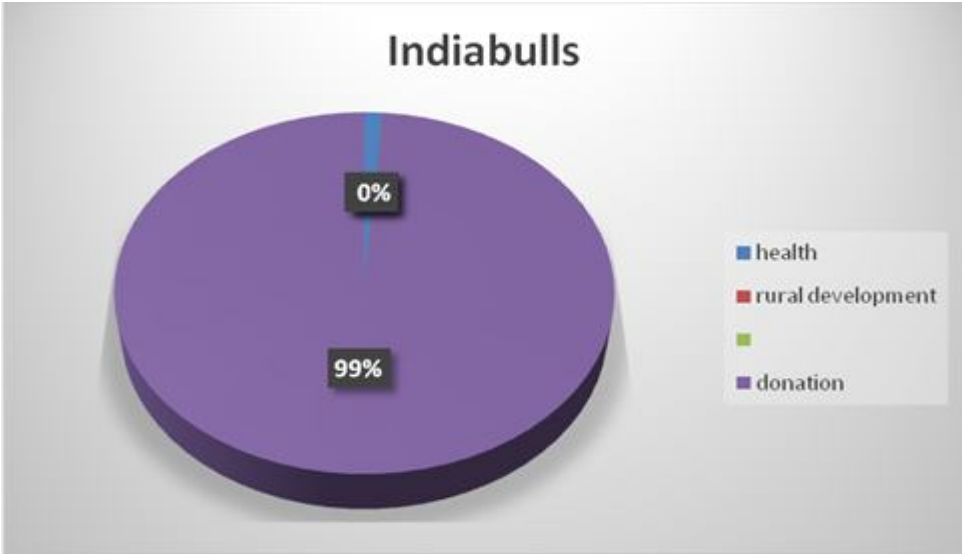
$$r = 0.799729$$

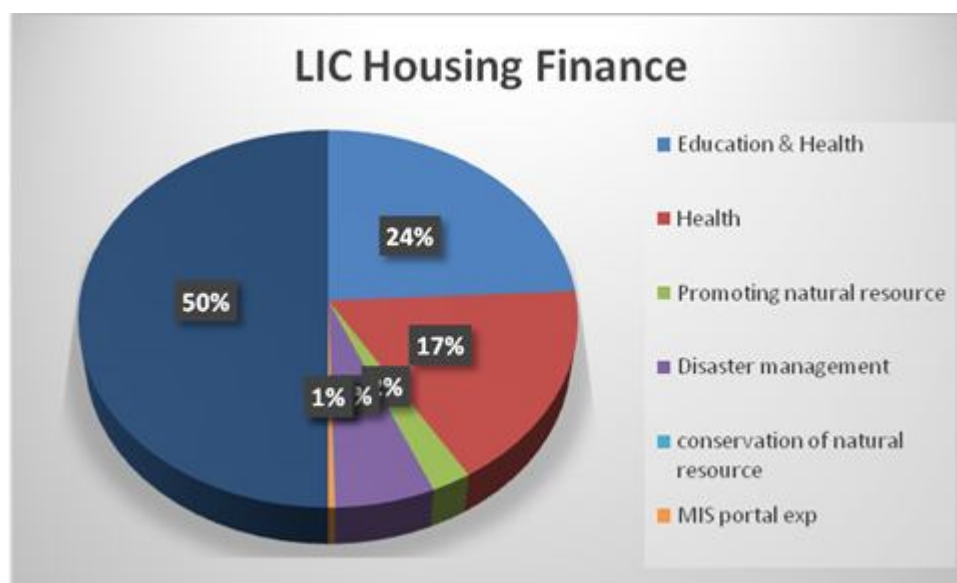
Coefficient of correlation (r) between Interest and CSR is 0.799 approximate 80% which indicates that both variables are highly positively related. Expenditure in CSR is increasing with an increase in interest earned and vice-versa.





The above two bar diagrams show the difference in budgeted amount of CSR and actual amount spent on CSR activities during financial year 2019-20. Difference is observed in budgeted amount and actual amount spent. During 2019-20 DHFL has spent only on slum development and not on any other activities. Only Indiabulls Housing finance spent its total budgeted amount on CSR, whatever amount is left after doing direct spending, it transfers to Indiabulls Foundation and Indiabulls housing finance conduct various CSR activities on its behalf.





Above pie diagram shows the ratio of amount spent by selected NBFCs on different activities under CSR during financial year 2019-20. Indiabulls Housing finance donates around 99% of their total spending to Indiabulls Foundation and very nominal amount around 1% of their total spending they spent directly.

LIC Housing finance spent approximately 50% of its spending amount on health and education and second priority is given to the conservation of natural resource by spending 24% of total CSR spending.

DHFL spent only for slum development during 2019-20.

CONCLUSION:

Mandatory contribution towards CSR is a good initiative taken by government for social well-being of society specially financially deprived people. Contribution towards CSR helps in enhancing the image of companies and have some positive impact on their revenue from operation. Amount spent on CSR and revenue from operation has strong positive correlation. Financial statements of above selected NBFCs shows good financial condition of companies except DHFL but due to pressure of financial crises they fail to spent the budgeted amount on CSR.

BIBLIOGRAPHY

- al, L. K. (2012, november). CORPORATE SOCIAL RESPONSIBILITY IN BANKING SECTOR. *ACTA UNIVERSITATIS AGRICULTURAE ET SILVICULTURAE MENDELIANAE BRUNENSIS*, LX, 157-164.
- (2017-18, 2018-19, 2019-20). *Annual Report of Indiabulls, DHFL, LIC Housing Finance*.
- Dr.M.Somasundaram. (2018, May). CORPORATE SOCIAL RESPONSIBILITY IN NON-BANKING FINANCIAL COMPANIES IN INDIA. *Asia Pacific Journal of Research*, 1(LXXXVIII), 131-133.
- Grewal, R. D. (2018). Corporate Social Responsibility (CSR) in Indian Banking Sector: An Empirical Study on State Bank of India Limited. *Amity Journal of Corporate Governance*, 3(1), 35-45.
- Kapoor, D. R. (2017). Corporate Social responsibility-Evolution. *International Research Journal of Management Sociology & Humanity (IRJMSH)*, 8(11), 158-167.
- KAUSHAL, S. M. (2019, April-June). CORPORATE SOCIAL RESPONSIBILITY IN BANKING SECTOR: A LITERATURE REVIEW. *INTERNATIONAL JOURNAL OF BUSINESS, MANAGEMENT AND ALLIED SCIENCES (IJBMAS)*, 6(2), 22-39.
- Lorena, A. (2018, August). The Relation between Corporate Social Responsibility and Bank Reputation: A Review and Roadmap. *European Journal of Economics and Business Studies*, 4(2), 7-19.
- Sarkar, J. S. (2015, August). Corporate Social Responsibility in India - An Effort to Bridge the welfare gap. 1-35. Retrieved from <http://www.igidr.ac.in/pdf/publication/WP-2015-023.pdf>
- Shyam, D. R. (2016, May). AN ANALYSIS OF CORPORATE SOCIAL RESPONSIBILITY IN INDIA. *International Journal of Research-Granthaalaya*, 4(5), 56-64. Retrieved from <Http://www.granthaalayah.com>

THE CHALLENGES FACING TRIBAL COMMUNITIES IN GLOBALISATION

Prof. Vishnu Sarjerao Jaybhaye

ABSTRACT

Katkari is a wild tribal community. These tribes have a vast historical and cultural background since 5000 to 6000 years of pre-independence. Adivasi means the primary and fundamental habitants colony. They are found in the districts of Maharashtra in Raigad, Thane, Ratnagiri, Pune and Nashik. There are five sub-castes in this community, Athawar, Hod, Sindhi, Son or Maratha and Varap. The above mentioned tribal community is living along with valleys and mountains for their shelter and food. They are also living in the forest area. The habitants of these people/ community is aloof from the developed society. Therefore, they are not developing their lifestyle.

Our Constitution has given equal benefits and authorities for all the citizens, but till today many tribes are aloof from the certain benefits and authorities, that are essential for each citizen for their daily needs in the society. Katkari community is known by many or different names like Kirodi, Kathodi, Katwadi, Kothadi. Communities are included in Scheduled Tribe and this community is economically and socially backward, therefore, it is necessary to study the Katkari Community, those who are aloof from developed community.

OBJECTIVES:

1. To study the challenges facing the tribal community.
2. Embracing the challenges facing by tribal communities.
3. To publish on the success of the schemes implemented at the government level.

WHO SHOULD SAY TRIBAL:

Anthropologists have found it wrong to call the backward secondary human group right in a tribal context. The life of the tribals is in the wild and their ethics, thoughts, social order, arts, culture are the main teachings of the society. Anthropologist have answered who to call a tribal by studying tribalism through a direct observation method.

ACCORDING TO DR.N. MUJUMDAR:

"A tribal group is a family or family group that adopts a systematic arrangement in order to create a common denominator, rules, and mutual responsibility for the same language, marriage, business, etc, living on the same terrain with the same name." The anthropologist have defined the criteria of tribal society, economic status, religious restrictions, education status, technical status. The representative definition gives relevant information in the tribal context.

THE SUPERIORITY OF THE TRIBALS:

As a human community, we study tribal tribes as their multidimensional and natural life.

Although the main society is advanced, there are many things to learn from this illiterate tribe in the forest. Although the main society has made progress on material principle, the superiority of the tribals is evident by many factors,

1. The principle of 'we for nature' of tribal tribes is inspired by modern society.
2. The cultural richness of the tribal people is recognized through dance, music, folk, literature, painting, social festival, celebrations, artistry. This cultural reserves need to be preserved.
3. The social unity, respect of elders, discipline and the preservation of moral values are the guide to the virtuous world.
4. In the main society, dowry practices are the cause of the exploitation and oppression of women, and barbaric practices of the tribals explain the status of women and the class.
5. The tribals who have knowledge of herbs in the forest are known as 'natural physician'. Modern medicine relies on these tribes.
6. Tribals are aware of the environment and their role in forest conservation is very important. Environmental awareness is evident through the worship of nature. He has faced many problems as main stream society consider nature to be his sacrifice. In view of all this the vision and awareness of the tribal people comes from the perspective of socialism and values. The main society is still stuck on social issues this has been

traditional accomplished by the tribals. We need to think of these tribes living in the jungle as 'wild or advanced'.

DEVELOPMENT OF TRIBALS:

While India is being recognised as the major economic power of the 21st century the identity of the tribal people who have failed to live as a 'man' remains unfortunately still to this day. The goal of sustainable development will not be achieved without the participation of the tribals. With this in mind, expectations from the neglected tribes of the government and the main community have increased. In the post independence period, the government has social function in tribal development and is considered an important contribution of Christian missionaries. The British exploited the tribal development instead. An example of this is the tribal women who fell prey to British hunt in the wild. Institutionalists and landlords exploited the aborigines in the shadow of the British. Acharya Bhise, Thakkar Bapa, Godaita Parulekar, Iravati Karve, Anutai

Wagh, Kakasaheb Barve, Shankarrao Thakkar have all sacrificed their lives for the exploitation of tribals and for their prosperity.

The tribal contribution of Balasaheb Kher, Karmaveer Bhausaheb Hire is notable. Pandit Nehru also took up the role of Thakkar Bapa's during the liberation of Dakshin. Godaita Parulekar received an acknowledgement of his work as the queen of Warli. Although the missionaries have undertaken tribal development for the main purpose of spreading religion, it is important to carry out such activities in residential areas, residential schools and clinics. Since the issue was a separate issue before the main community, no one was able to give importance to the development of the tribals.

Tribal development began with the participation of the government in the post independence period. Many anthropologists have opposed the development of modern principles, fearing that the tribal culture would be violated. Iravati Karve proposes the principle of tribal development through cultural protection to bring tribals to the mainstream. Against this backdrop, Pandit Nehru presented his view on tribal development. The tribal development process started at the country level from 1975 to 1976.

Tribal development came as a new form of integrated tribal development. Tribal planning Group along with the development, Kshatriya Vikas was the target. Independent tribal ministry, Non-Government Research and Training Institute tribal finance and development corporation, Tribal co-operative societies have also made significant contribution to tribal development. Although many activities like education, health, social development, agriculture and supplementary businesses have been implemented under tribal development, the picture of tribals has not changed much. Lack of unselfish and grassroots leadership, widespread tribal movement, flaws in the governing system, the limitations of the tribals, and the isolationist policy of the main community are the main reasons for the failure of tribal development. Although there has been awareness among the tribals, the struggle of the tribals to get recognition as a part of the society has not ended till now.

IMPORTANCE OF ECONOMIC AND SUSTAINABLE DEVELOPMENT OF TRIBALS:

Due to the unique importance of the knowledge, skills, equality and uniformity of nature of the tribal people in the economic and sustainable development of the country, the tribal will not be able to proceed without taking it. This has been proven by studies. In the current market world, tribal has become an important focal point of the overall development of the country. Natural knowledge of pharmaceuticals, specialization of forest produce, conservation of nature and tourism industry, tribal crafts, painting, folk art trade fair, knowledge of animal husbandry and importance of their research are the indicators of economic development as a tribal one. With environmental imbalances becoming a global problem sustainable development has gained importance today. India today faces the challenge of economic development as well as sustainable development. Awareness about sustainable development is evident through to

Vandhara Council held so far in the world. Considering the future generation of environmental equilibrium, the use of natural resources remotely, social benefits and their ideas are the key to sustainable development. Love of the tribal nature of India, awareness of environment, the philosophy we have for nature, the role of forest conservation and conservation is a major contribution to the tribals towards sustainable development. In short, the Tribes of Ravanna have the answers to the questions of development of the main community. To accommodate the tribals is the need of the main community rather than the tribal. The importance of their development is illustrated by the increased expectations of the main community tribal.

TRIBALISM IN GLOBALISATION:

Globalisation is part of the open economic policy adopted by India. The country is implementing globalisation on the basis of import image and hence the benefits are much higher than the gains. The main community's

relationship with recent tribes is selfish. Globalisation in India is beneficial for the rich and it is full of vulnerable such as the Dalits,tribals. Atrocities on tribal women and girls, malnutrition, torture of tribals, forest officers and police officers who died of starvation. The slaughter of tribals by the Ranveer Sena, the wandering fisherman carrying the stamp of crime, the brokers who carry loans in the name of the tribals, the tribal people in Orissa who used to crush the bark to extinguish the barking, are all examples of the tribal situation. The mention of 'Girijan' on tribals was a form of "Emotional blackmailing a discrimination". The tradition of neglect, which started from Shabari, Eklavya, continues to this day and has been added by globalisation. The struggle to live as a tribal man continues today and this is demonstrated through the exploitation of oppression.

CHALLENGES TO TRIBALISM IN GLOBALISATION:

The neo- liberal movement in the thirteen states that explains the extent of exploitation of tribal states in the culmination of this, The tribal tribes being drawn into this process have created challenges for them.

1. Globalization has added a new exploit of tribal 'Multinational companies '. In the business world,tribalism cannot compete with than at any level, as multinational companies have turned the jungle, on the one hand ,there is a fragmented picture of MNCs earning crores of rupees and on the other hand tribal people suffering poverty due to poor living.
2. Globalisation is the driving force for exploitation and the release of dalit tribes from exploitation is inexcusable. The financial panic of big companies and multinational companies in the country is confirming the means of exploitation financial rape sessions on tribal people are under the Dept burden of lenders contractors privatization that comes as a part of a new policy deprives the constitutional right of reservation this is the type of humanity of the lips and tribals who are pushing to get to the main board reservation is the cost out-of-town living and neglect of generations and the conspiracy to put it through the back door through privatisation continues even today win the scheduled tribes have not been able to reach the mainstream on the basis of education drop schedules the policy of improving the lives of the government is denying equal opportunities to the dalits and tribals.
4. Banks in India need to work for social obligation to get opportunities for the advancement of the weak. Privatization is leading to the introduction of Profit- focused private banks in the banking business. New private banks and foreign banks in the country are modern lenders. Privatisation has led to the question of social banking, which is exacerbating the problems of weak. Due to the importance of commercial banking, the banks could not reach the tribal people enough.
5. While the market for education is the picture of the society, the prime stage of the education in the tribal context is the lack of language education. The important question is how to adapt the tribal society to the needs of the basic market in the world of the market.
6. Dalits and tribals have to be mentioned as a double- factor of poverty. While the poverty of tribal people is not important to the media, it is a real part of professionalism. The daily life of the hungry, naked, tribal people is set in the market because of the lack of ability to identify the real world.

A WELL-ROUNDED APPROACH TO THE DEVELOPMENT OF TRIBALS:

Adivasi as a component of the community needs a positive outlook. The expectation of the tribals is sustained due to atrocities, exploitation, forestry, land mafia ,disregard of the main community and government. In the name of the tribal peoples,the fruits of development are lacking. The tribal development programme of the government could not reach the last point due to system flaws. The Naxalite movement is fraught with struggle for the existence of tribalism in the tide of globalisation. If China is spending billions of rupees for the 'Pandas' people in China and 'Vultures' and other wild animals in India, then the government must carry out its responsibility for this large numbers of people. Although globalisation cannot be avoided, it should be implemented within the patronage of the Dalits and tribals.

Globalisation is a double- edged weapon and it will not affect the tribal people, it will start a new way of tribal development if careful efforts are taken from various fronts.

1. In restructuring the tribal development program, priority should be given to hunger striving rather than one time hunger.
2. Selfless leadership is one of the main needs of the tribal welfare movement, and working- minded researchers, social workers, should co-operate with the government in that regard.
3. If India should adopt its natural system for the development of a 'Paradigm' then the problem of weakening with the country can be resolved.

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4. Given the importance of human investment in education, training, health in the tribal areas, it will transform the attitude of entrepreneurship that is needed to survive in the current business world.
 5. Tribal art skills are of vital importance in the professional world, and such efforts should be encouraged by tribal development programs and their respective organisations and individuals.
 6. By preserving the good traditions of the tribals, giving importance to tribal development can benefit the country and tribals.
 7. In the globalisation, the main societies can accommodate the tribals are in need of such a mind as the dependence of the main community on the tribal is also increasing day by day.

REFERENCES:

1. Tribal Research Journal: Tribal research and training institute Pune (HM)
2. Economic Development of tribes in India. H.V. Trivedi
3. A review of tribal research studies: Dr. Govind Gave
4. Economics of the Poor: Hemant Desai
5. Tribes Many questions one: Adv. Anil Budge
6. Tribals: Dr. Sh. Govt. Devgaonkar, Shailja Devgaonkar
7. Indian Tribal - Gurunath Nadgaude

STUDY OF COVID-19 VACCINE HESITANCY IN MUMBAI

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ABSTRACT

The COVID-19 pandemic continues to ravage the world, with India Particularly Mumbai being highly affected. A vaccine provides the best and permanent solution to controlling the pandemic. With COVID-19 vaccines being approved for use in different parts of the globe, the scale and complexity of their acceptance will be unprecedented. Vaccine must be accepted and used by a large majority of the population to put an end to this pandemic. Vaccine hesitancy has been defined by the World Health Organization as “the delay in the acceptance or refusal to vaccinate despite the availability of vaccine services.” The reason for hesitancy must be identified and mitigated by public institutions to help advance access to safe and effective COVID-19 vaccines by the population. Mumbai continued to bear the maximum brunt of the second wave of the COVID-19 pandemic while Delhi maintained the second spot in the list of worst-affected cities. However, the total number of daily infections in Mumbai far beats any other state or union territory. Despite the Brihanmumbai Municipal Corporation’s (BMC) move to increase vaccination centres across the city from ten – when the nationwide mass immunisation programme kicked off on January 16 – to 91 at present, inoculation has failed to gain the expected momentum. Therefore, this study aimed to investigate the acceptability of COVID-19 vaccines and its predictors in addition to the attitudes towards these vaccines among public in Mumbai specially. This study did a survey through google form during the period of March - April 2021, where data was collected from more than 200 individuals across Mumbai to determine potential acceptance rates and factors influencing acceptance of a COVID-19 vaccine. The findings reflect inadequate knowledge and negative attitudes towards COVID-19 vaccine among the general population in Mumbai. In order to improve knowledge, immediate health education programs need to be initiated before further mass vaccination schedule.

Keywords: COVID-19, pandemic, outbreak, vaccine hesitancy, knowledge, attitude, acceptance.

INTRODUCTION

The most recently discovered corona virus causes corona virus disease COVID-19. COVID-19 is the infectious disease caused by the most recently discovered corona virus. This new virus and disease were unknown before the outbreak began in Wuhan, China, in December 2019. The global reaction to the threat has generally increased the perception of the severity of the illness and the threat it poses to the peoples. However, there is a widespread lack of clarity on specifics related to the illness. The World Health Organization (WHO) declared the outbreak of a new coronavirus SARS-CoV-2 (COVID-19) a pandemic on 11 March 2020. Since then, the pandemic continues to rage, and morbidity and mortality rates continue to climb globally. Vaccines are a key strategy to stop the escalation of the COVID19 pandemic. A vaccine for COVID-19 should be viewed as a global public good. For this reason, public institutions should identify and address any potential gaps and barriers, such as hesitancy in taking vaccine by general public. To support public institutions in times of crisis, this research paper identifies potential reasons related to the hesitancy in taking of a COVID-19 vaccine and how these reasons may be mitigated.

A survey was done in Mumbai as Mumbai maintained its top position in the list of worst-affected cities in the country by reporting 9,327 new coronavirus cases and 50 deaths, taking the total number of cases in the city to 5,10,225 as of April 10, 2021. This survey was conducted using a semi-structured and self-reported questionnaire containing informed consent along with four sections (i.e., socio-demographics, knowledge, attitudes, and perceptions).

The BMC has started vaccination booths at private hospitals to boost the vaccination drive, but only 34.57 per cent beneficiaries have been vaccinated till date. According to the data, 1,046 of the 3,025 targeted beneficiaries have turned up in the month of February. Officials said there are many reasons for which fewer numbers have opted to take vaccines at private hospitals, which includes reluctance, as per their time and most of them considering to take later as it is in their hospitals. Suresh Kakani, Additional Municipal Commissioner, said there is no exact reason for the low turnout of HCWs for the vaccination drive as most of them are taking vaccine shots depending on the work schedule, while only some of them are reluctant. “There are HCWs who are still reluctant or hesitant in taking COVID vaccine as they have misconceptions related to vaccines and they feel it causes severe side effects.

OBJECTIVE OF THE RESEARCH PAPER

The objectives of this study were to evaluate the acceptance of the COVID-19 vaccines and examine the factors associated with the acceptance in Mumbai.

METHOD

In between March 26 to April 10, 2021, we conducted a web-based survey among the general population of Mumbai coinciding with the implementation of COVID-19 vaccinations programs in Mumbai. Thus, rather than being a hypothetical study of knowledge, attitudes and perceptions, my study aimed to capture real-world evidence to inform policy makers and practitioners in Mumbai in terms of how best to implement our vaccination program. A semi-structured questionnaire was designed and incorporated into the Google survey tool (Google Forms) and a shareable link was generated and disseminated publicly on various social media outlets (e.g., Facebook, WhatsApp, etc.). Likewise, the link was also shared personally to the contact lists of the researcher. For data collection, I used online approaches (as opposed to face-to-face data collection) because of maintaining spatial distancing and proper precaution during the pandemic. The respondent provided informed consent via e-survey. Of the total respondent 62.3% were male and 37.7% were female.

MEASURES

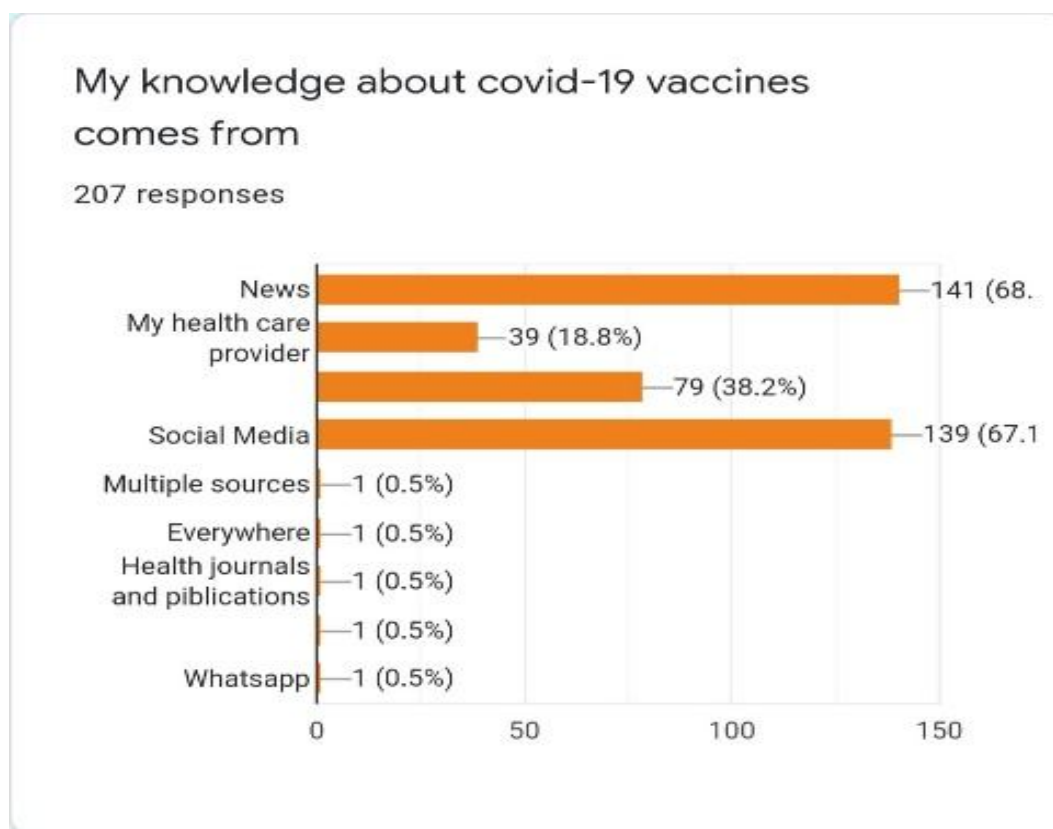
A semi-structured and self-reported questionnaire containing informed consent along with four sections (i.e., socio-demographics, knowledge, attitudes, and perceptions) was utilized during data collection. Some questions related to socio-demographics were asked during the survey including age, sex, marital status, educational level, occupation etc. In addition, another “yes/no” question was asked about their previous history of taking all the recommended vaccines (i.e., Have you received all the necessary vaccines in your lifetime?). To assess the level of knowledge, attitudes, and perceptions of the respondents, a total of 22 items structured questions were asked.

ETHICAL CONSIDERATION

Participants in the study were informed about the procedure and purpose of the study and confidentiality of information provided. All participants consented willingly to be a part of the study during the data collection periods. All data were collected anonymously and analyzed.

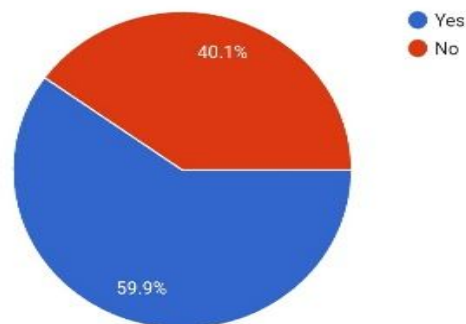
RESULT

- General profile of participants :-** The total respondent were 207 out of which 62.3% were males and 37.7% were females out of which 77.3% were unmarried and 47.3% had Bachelor's Degree Education level.



Does information from Social Media impact your decision regarding covid-19 vaccine.

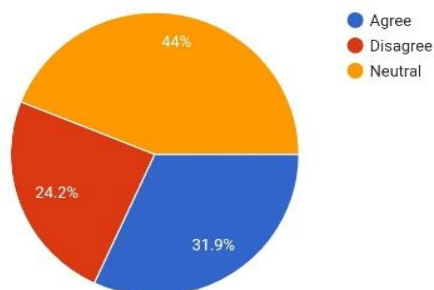
207 responses



Knowledge about the COVID-19 vaccine :- Participants' source of knowledge about the COVID-19 vaccine, which is mainly from mass media, social media and friends and family. Information from social media impact decision with regards to vaccine. 75.8 % think if everyone in society maintains the preventive measures than the pandemic can be eradicated without vaccination. 31.9 % participants thinks that vaccine is essential for us

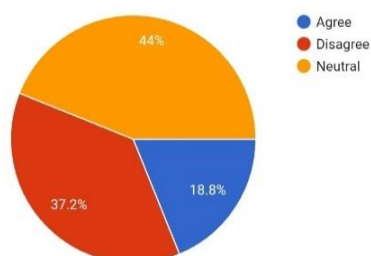
Covid-19 vaccine is essential for us

207 responses

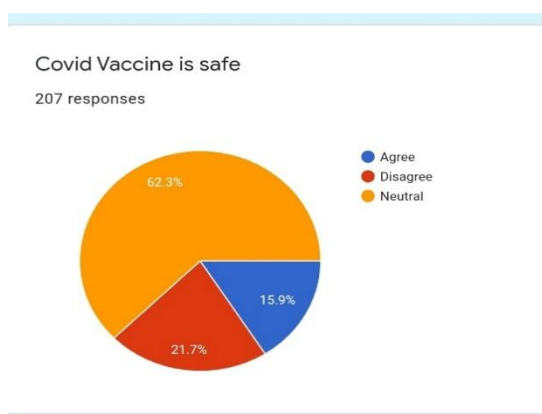


I will take covid-19 vaccine without hesitation

207 responses

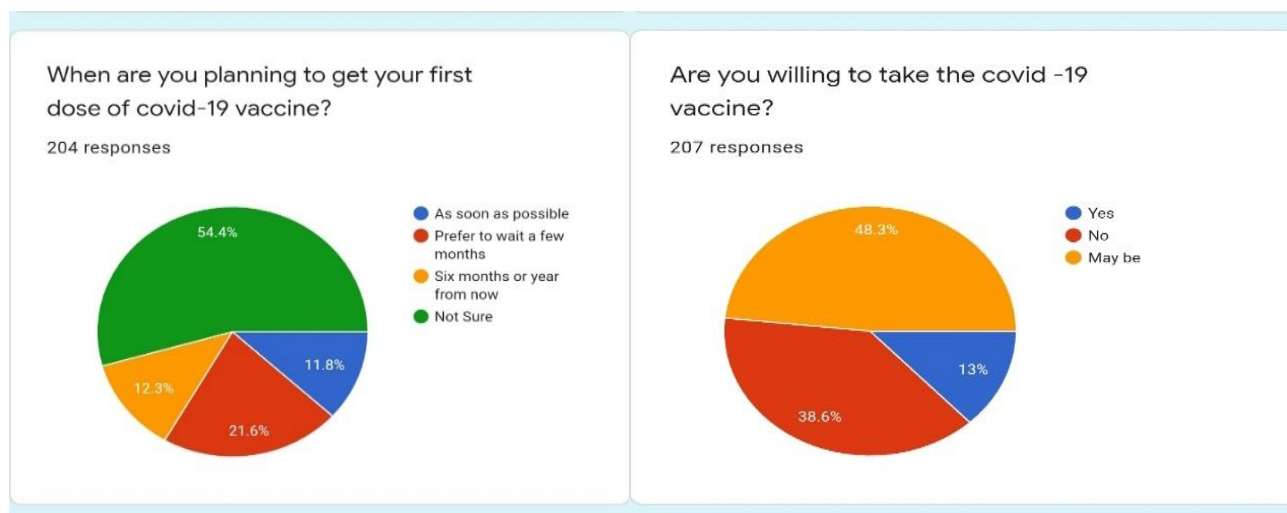


Attitudes towards the COVID-19 vaccine:- Particular interest is that only 15.9 % of participants regard the current COVID-19 vaccine in Mumbai as safe, almost 18.8 % would have the vaccine without hesitation and 27.5 % would encourage family or friends to have the vaccination. 53.6% are not sure about the efficiency of COVID-19 Vaccination available. Therefore, public health work is required to positively impact on attitudes to the COVID-19 vaccination.

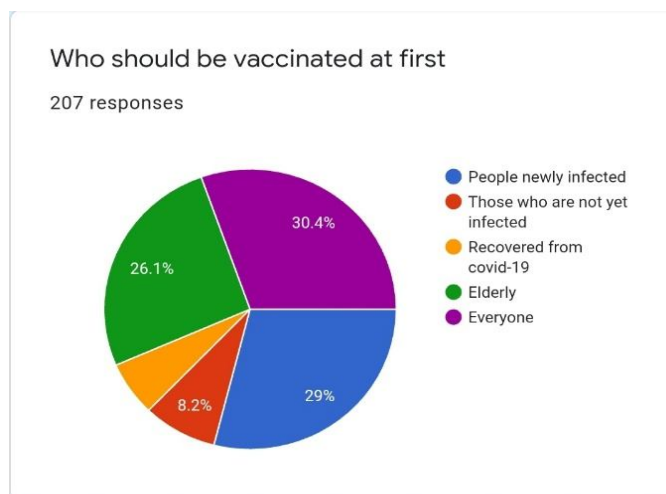


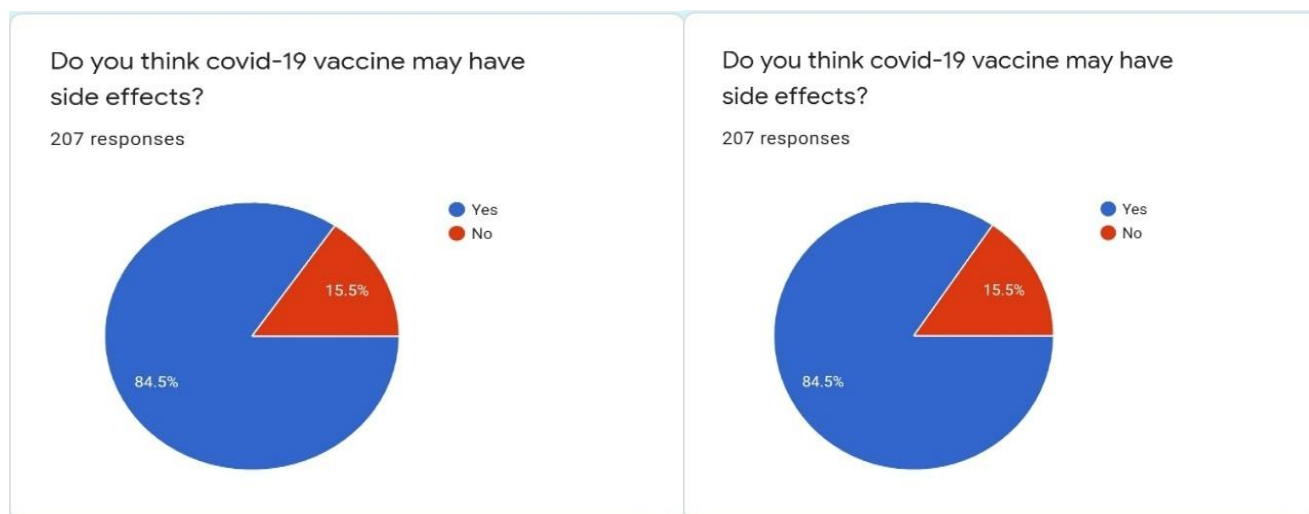
2. **Perceptions towards the COVID-19 vaccine :-** 13 % of the respondents were willing to accept/take the COVID-19 vaccine. Among the accepted group, only 11.18 % showed the willingness to take the COVID-19 vaccine immediately, while 21.6 % prefer to wait a few months and 12.3% would delay the vaccination until they are confirmed about the vaccine's efficacy and safety or COVID-19 become deadlier in Mumbai. The results showed age, gender, level of education, income, perceived risk of being infected with COVID-19 in the future, perceived severity of infection, having previous vaccination experience after age 18, having higher knowledge about COVID-19 and vaccination were significantly associated with the acceptance of COVID-19 vaccines.

Also the survey reveals of potential COVID-19 vaccine acceptance shows that 54.4 % of their study population were confused about the COVID-19 vaccinations and remained unsure about whether they would have the vaccination.



Our study found that over quarter (30.4 %) of the participants thought that everyone should get COVID-19 vaccine in Mumbai. Furthermore, 29% participants thought people newly infected should get the vaccine first.





In our study, 84.5 % of participants assumed that the recently discovered COVID-19 vaccine (the vaccine currently being used in Mumbai) could have some side-effect. In addition, 75.8% participants believed that if everyone in the society maintains the preventive measures, the COVID-19 pandemic can be eradicated without vaccination and about more than half (50.2 %) responded would prefer the vaccine provided free of charge by the government.

DISCUSSIONS

In order to halt the ongoing pandemic, the COVID-19 vaccine has been framed as the ideal solution. Although there are numerous vaccination services in Mumbai with BKC Jumbo vaccination Centre, the complete newness of the COVID-19 vaccination roll-out poses questions about the distribution and acceptance of vaccines in this country. It also poses questions about the general population's knowledge, attitudes and perceptions towards the COVID-19 vaccine and vaccination rollout. This paper presents findings from a novel study conducted to assess the knowledge, attitudes and perceptions towards COVID-19 vaccinations in Mumbai. The findings reflect a large number of factors influencing knowledge, attitudes and perceptions towards COVID-19 vaccinations and therefore our findings will be crucial in developing COVID-19 vaccination related awareness and health education programs. The knowledge regarding COVID-19 vaccinations was low among more than half of the population. In this study, knowledge was significantly associated with education and previous vaccine uptake experience. Also attitudes were significantly associated with only sex and earlier vaccine administration experience. Importantly, the majority of participants showed negative attitude towards COVID-19 vaccine. Knowledge regarding COVID-19 vaccinations was not significant in terms of participants' sex. These discrepancies of knowledge found in our study on COVID-19 vaccinations are possibly due to limited government exposures to information or publicity on COVID-19 vaccinations since the vaccine rollout started.

LIMITATIONS

There are certain limitations that should be addressed in the interpretation of the findings from this study. Firstly, the study was cross-sectional. In this respect, a longitudinal study is important. Secondly, the study used an online self-reporting method that may be exposed to social acceptability and memory biases. However, the survey was performed during to the mass vaccination period in Mumbai, and its findings may vary after the vaccination program has been implemented completely. Nevertheless, this is the first study of community perceptions about COVID-19 vaccinations in Mumbai and will be crucial for health policy makers and planners who are aiming to vaccinate the highest proportion of the population possible in order to mitigate the impacts of the pandemic

CONCLUSION

The research reported a high prevalence of COVID-19 vaccine refusal and hesitancy in Mumbai. To diminish the vaccine hesitancy and increase the uptake, the policymakers need to design a well-researched immunization strategy to remove the vaccination barriers. To improve vaccine acceptance among people, false rumors and misconceptions about the COVID-19 vaccines must be dispelled (especially on the internet) and people must be exposed to the actual scientific facts.

REFERENCES

1. Betsch C, Schmid P, Heinemeier D, Korn L, Holtmann C, Böhm R (2018) Beyond confidence: Development of a measure assessing the 5C psychological antecedents of vaccination. PLoS ONE 13(12): e0208601. [https://doi.org/ 10.1371/journal.pone.0208601](https://doi.org/10.1371/journal.pone.0208601)
2. Reinhart, RJ More Americans Now Willing to Get COVID-19 Vaccine, Gallup, November 17, 2020. <https://news.gallup.com/poll/325208/americans-willing-covid-vaccine.aspx> Strategic Advisory Group of Experts (SAGE) on Immunization. Report of the Working Group on Vaccine Hesitancy. October 1, 2014. https://www.who.int/immunization/sage/meetings/2014/october/1_Report_WORKING_GROUP_vaccine_hesitancy_final.pdf
3. Succi, RC deM. Vaccine refusal – what we need to know, Jornal de Pediatria, Volume 94, Is-sue 6, 2018, Pages 574-581, ISSN 0021-7557, <https://doi.org/10.1016/j.jped.2018.01.008>.(<http://www.sciencedirect.com/science/article/pii/S0021755717310045>)
4. <https://www.google.com/amp/s/m.businesstoday.in/lite/story/covid-19-vaccination-halts-in-mumbai-bkc-centre-75-other-sites-due-to-jabs-shortage/1/436193.html>
5. https://m.timesofindia.com/city/mumbai/mumbai-vaccine-turnout-drops-to-a-3rd-to-just-11000-on-holi/amp_articleshow/81749076.cms.

COVID-19 CRISIS AND VIRTUAL LEARNING: IMPACTS AND RECOMMENDATIONS FOR FUTURE ADVANCEMENT IN INDIAN SCENARIO

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ABSTRACT

Education is an instrument to change one's life and is considering as a lifelong process that ends with death, but suddenly the process is stopping due the outburst of pandemic COVID-19 in and around the globe. In India, approximately 37.4 million students' enrolled nationwide (AISHE report- 2019-20) stopped to move schools and colleges and all educational activities in India ceased. The Pandemic COVID- 19 gave us the lesson that nothing is permanent, even the methods and techniques of teaching and learning which are considered as the backbone of any learned society. It has opened the new door and platform for the educational institution to survive and grow with the technologies which were not been used earlier. This paper highlights both positive and negative impacts of COVID-19 crisis on education and educational sector and some profitable ideas are also pointed to carry out educational activities during this global pandemic situation.

Keywords: Education, COVID-19, Education sector, pandemic online education.

INTRODUCTION:

The impact of the COVID-19 pandemic is receiving attention in every sector of the world, including the education sector. The closure of schools, Colleges and other learning institutions have an astonishing effect on teachers and learners alike. Due to complete lockdown, social distancing and restrictive movement guidelines have significantly injured traditional educational practices. The outburst of the COVID-19 pandemic has spread globally, disturbing almost all nations and regions. The COVID-19 explosion was acknowledged for the first time in Wuhan, China in December, 2019 gradually began to fly its wings in every corner of the world. Every nation around the globe warns its citizens to take utmost care of themselves and their families, because this is something new and no specific vaccine or medicines has been developed for it. National level, state level and district level bodies started working round the clock to keep the public inside of their home and issued the public care strategies, which included frequent washing of hands, sanitization, wearing face masks, physical distancing, and avoiding public gathering and meetings. On March 24, 2020, under the leadership of the Prime Minister (Shri Narendra Modi), the Indian government imposed a three-week lockdown on the entire country, which is the final response to the COVID-19 pandemic in India.

OBJECTIVES OF THE STUDY:

- To emphasize some positive effects of COVID-19 crisis on education.
- To document the negative impact of COVID-19 crisis on education.
- To provide some suggestions for continuing education during the COVID-19 crisis.

POSITIVE IMPACT OF COVID-19 CRISIS ON EDUCATION:

- Adoption of technology: COVID-19 has enhanced the acceptance of digital technologies in education. Innovative ways of teaching, learning, and assessments have unlocked vast opportunities for revolution in the area of curriculum development and teaching pedagogy.
- Less dependency on hard copy learning material: Since March 2020, most of the institutions as well as students are referring soft copy material for their learning, assignments, exams and for other curricular and co-curricular activities and thus it's not only saving a lot of expenditure from students side but also it's saving the time and energy of the faculties who are now becoming familiar with the new methods.
- Expansion in collective work: Collaborative teaching and learning is now touching new heights where the expert faculty of any particular area from any corner of the world can be hired for the benefit of the students. Even faculties from different colleges can exchange their classes/ courses to get new experiences.
- Growth of virtual assemblies: The COVID-19 pandemic has considerably increased the opportunities for teleconferencing, virtual meetings, webinars and e-conferences. Now almost everyone can participate and learn new things without having to travel long distances and disturb their schedules.
- Rise in Digital Literacy: "Nature is the best teacher" since last so many years government is emphasizing on digital literacy and adoption of modern teaching pedagogy but the rate of acceptance was quite slow but

since last one year almost all the educational institutions are becoming used too with the digital teaching method, which has given a rise to digital literacy.

- Quick Sharing of information and study material: Learning materials/ study materials can be easily transferred among the learners and teachers, and related issues and problems can be solved by e-mail, or different digital platforms.
- Global opportunities: Taking admission in foreign universities was not everybody's cup of tea because of heavy cost but due to online teaching and learning method, students are now finding it easy to take admission in a foreign university as they have to study from their home only.
- Energetic environment: The learning process has become more energetic because COVID-19 pandemic has restricted our movements from home to the educational institution or the teaching and learning purpose which ultimately saves our time as well as energy which can be positively utilized for the betterment of the learners.
- Strong bonding: The image / repo of the teacher may rise in the future due to their efforts to not compromise the quality of education in this challenging situation. It may give birth to a personal bonding between the teachers and learners due to the online mode of education and that positive bonding may increase the learning experience of the learners when the normal classes will start in near future after pandemics.
- More research and content development opportunity: Due to restrictions on movements, teachers as well as learners are getting much extra time and energy, which they can utilize for the purpose of research and content development which will not only increase their knowledge but it will also be beneficial in many other ways including their promotion or appraisals.
- Up-gradation or use of new technologies in an educational institution: Digital learning is not possible in a true sense without using advanced technologies. This has brought a demand for better, affordable technology, which gives the opportunity to the tech developers to create a more and more enhanced version of teaching learning platform, which could be helpful for providing uninterrupted and quality education.
- Anytime, anywhere delivery of education: The new educational model generated by online learning is removing the limitation of time and place, because teachers and learners are now able to interact with each other at any suitable time in the day through different digital apps like Zoom, Google Classroom etc.
- A rise in the use of digital resources: Moodle and other digital platforms, which were not utilized accurately before COVID-19 became important and broadly used during this particular period. It can be said freely that the digital resources which were already in place and were nominally used before COVID-19 by a majority of the teachers and learners, proved to be an extremely helpful and useful tool during this crisis.

NEGATIVE IMPACT OF COVID-19 CRISIS ON EDUCATION:

- Deficiency of practical training for the students: The learners with practical coursework that requires the use of laboratories, practical exercises or fieldwork are suffering comparatively more because of the current situation and virtual learning.
- No proper guidance at home: Those learners whose parents are educated, they are able to get guidance from them but the learners whose parents are not educated or a first-generation learner are facing a lot of issues in online learning as they may not be getting proper guidance or attention what they were getting in their institutions.
- The rising gap between rich and poor because of access to digital education: Students from middle class or upper class can easily manage for digital learning devices like smartphones, computer or laptop that gives them easy access to online learning, but those students from a lower class, or the learners from poor family can't manage all the things easily. At the same time, the issue of the network is also a matter in remote areas. Consequently, the online teaching and learning system during pandemic COVID-19 may increase the gap between the rich and poor and rural or urban population, which is not at all for the benefit of our society.
- Internet speed: The Teachers/ learners of developed nations like USA, Japan or Germany are managing digital learning easily because of their developed internet infrastructure and fastest internet speed.

However, due to the poor internet speed, learners in underdeveloped/ developing countries cannot enjoy the same convenience, which will create many obstacles in the teaching and learning process.

- Unstable power supply: Contrasting the advanced nations, India is still facing the problem of stable power supply especially in a rural and remote areas. Frequent power cuts during the teaching learning process affect both teachers as well as learners.
- Slow and lengthy work: Because of power cuts and internet issues, not only teachers are unable to stand with their schedule but learners are also not able to complete their task/ assignment on time, due to which the work is becoming lengthy and tedious.
- Rising malpractices during examination: As per the instruction of the University and government, online examination of UG and PG courses were conducted by the colleges and universities which were based on MCQ type of question. Needless to say, most teachers accept that learners are indulging more in malpractices, because of no possibility of direct supervision in the online examination.
- Reluctant to accept new learning methodology: Many teachers and learners who are habituated to offline method of teaching find the new system hectic and troublesome. At the same time, I also noticed that some learners became offensive and disrespectful of teachers due to the mental stress of online education.
- Lack of attentiveness: Most of the students are finding it difficult to focus completely during online teaching because of a massive distraction from the family side as in cities it's difficult to have separate study rooms for the students.
- Physical and psychological health challenges: The sudden shift of teaching learning methodology from offline to online is also creating fear and nervousness among those learners who are finding it challenging to manage with it, which is creating physical and mental health issues because of depression and anxiety.
- The measurable decline of quality in education: The forceful digital learning is somehow declining the quality of education as it's not truly possible to complete the entire syllabus from the teacher's side, especially in the case of practical subjects. The learners are anyhow just struggling for grades or achieving a positive result, but in the end, they do not get the quality education that can be obtained by face to face learning.

RECOMMENDATION / SUGGESTION:

- Parents are the most reliable mentor for their ward. Hence, parents must play an active role in the learning process of their ward as it's a little difficult for the learners to understand things completely in online learning without any support.
- Within the scope of Corporate Social Responsibility, companies should arrange online learning equipment for learners with poor socio-economic backgrounds to keep them in touch with online education.
- Educational Institutions must develop the infrastructure required for an appropriate online learning process, which can give the feel of regular classes because schools and teachers play a crucial role in the overall development of learners.
- Governments and Internet service providers must pay attention to remote areas or areas with inappropriate services.
- Appropriate training programs for the digital skills of the teachers and learners must be organizing frequently by the institutions as well as by the local government to make them feel comfortable with the new model of teaching and learning.
- "Need is the mother of all inventions" keeping this in a mind, now the education department can introduce a dual mode of learning which includes face to face learning 5 days a week and online learning once a week to make the students familiar with an online system from the beginning to avoid any such situation in the future.
- Once the regular classes will begin after the COVID-19 pandemic is over, educational institutions should continue investing in online education to enhance the learning experience. They should wisely analyze the problems encountered during the sudden transition to online learning and prepare for any future situations.
- According to the current situation, if possible, alternative evaluation methods can be introduced to obtain the benefits and positive outcomes of online learning. The assessments can be in the form of virtual presentations, debate/ discussion, oral presentations, creative projects or plays etc.

- An education taskforce needs to be established under the leadership of the education departments and committees of the states to explore various possibilities, propose immediate and short-term measures, and enable teachers to make up compensation for losses.

CONCLUSION:

Based on the above discussion, it can be concluded that although COVID-19 has brought many challenges, it has had a huge impact on the education sector in India, but it has also increased many opportunities. Now, it's the right time to use digital technology to create a favorable position for millions of young students in India. Therefore, the Indian government should propose an innovative strategy to ensure that all learners must continue to learn throughout the COVID-19 crisis. At the same time, it is recommended that educational institutions strengthen the Information Technology infrastructure to prepare for situations similar to COVID-19.

REFERENCES:

- Upoalkpajor, J.-L. N., & Upoalkpajor, C. B. (2020). The Impact of COVID-19 on Education in Ghana. *Asian Journal of Education and Social Studies*, 9(1), 23-33. <https://doi.org/10.9734/ajess/2020/v9i130238>
- Nasir M. Impact of the 2019-20 coronavirus pandemic on education. *International Journal of Health Preferences Research*; 2020.
- World Health Organisation; 2020. Available:https://www.who.int/health-topics/coronavirus#tab=tab_1
- The Evolution of Online Learning and Online Academic Programs. (n.d.). Retrieved April 21, 2020, from onlineeducation.com website: <https://www.onlineeducation.com/>
- Masters, G. N., Taylor-Guy, P., Fraillon, J., & Chase, A. (2020). Ministerial Briefing Paper on Evidence of the Likely Impact on Educational Outcomes of Vulnerable Children Learning at Home during COVID-19. Australian Government Department of Education, Skills and Employment. https://research.acer.edu.au/learning_processes/24
- Mohamed bhai, G. (2020). OVID-19: What consequences for higher education? *University World News, Africa Edition*. Available at :<https://www.universityworldnews.com/post.php?story=20200407064850279>
- IAU (2020). The impact of COVID-19 on higher education worldwide Resources for Higher Education Institutions. International Association of Universities. Retrieved from: https://www.iauiau.net/IMG/pdf/COVID-19_and_he_resources.pdf
- Jena, P.K. 2020. Impact of pandemic COVID-19 on Education in India. *International Journal of Current Research*, 12(7): 12582-12586
- Dhawan, S. (2020). Online learning: A panacea in the time of COVID-19 crises. *Journal of Educational Technology*, 49(1), 5–22. <https://doi.org/10.1177/0047239520934018>
- "Covid-19's Impact on Students' Academic and Mental Well-Being". *Edutopia*. Retrieved 10 December 2020.
- "COVID-19 Educational Disruption and Response". *UNESCO*. 4 March 2020. Retrieved 24 May 2020.
- "The Impact of Covid-19 on High School Students". *www.childandadolescent.org. Child & Adolescent Behavioral Health*. Retrieved 19 November 2020.
- <http://aishe.nic.in/aishe/reports>

INDIA POST: A SERVICE OF HOPE DURING COVID-19 LOCKDOWN**Dr. Zahid Husain Ibne Hasan Ansari**

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ABSTRACT:

Since its inception, India Post (previously known as the postal department) has been an important part of our country, and it has helped the country participate in exchanges and socio-economic development. From ups and downs, endlessly, it has successfully touched the lives of countless people across the country, from distributing mail to accepting deposits and providing different postal services. Currently, India Post is one of the best postal service providers in the country. Even though, due to rising messaging apps and other innovations in digital technologies in the past few years, it's becoming a loss making public sector unit, but still numerous people rely on it to meet their various needs, because the postal service does not only provide letters and parcels. It's also a bank, a pension fund and a primary savings tool for millions of Indians. With the passage of time, the Indian Postal Service and its employees have shown their dedication and efficiency in serving the country in every critical period. In the present study, the researcher has made an attempt to highlight the different initiatives taken by the Department of Post during the COVID-19 crisis to serve the needy and marginalized peoples in every corner of the country, besides their normal duty on a humanitarian ground. Present research paper is descriptive in nature and is based on secondary data.

Key words: India post, COVID-19, postal service, post office, department of post.

INTRODUCTION:

Since the beginning, the Department of Posts has been the strong pillar of the country's communication network and has constantly played a vital role in its socio-economic growth. Typical red postal vans are quite popular in India, which make thousands of journeys every day, crossing the nation's wide-ranging network of post offices in around 6,00,000 villages. The industry is fully involved in the supply chain, which has become an important part of consumers and the industry. The lower cost of delivering materials on time indicates its efficiency. Innovation and technological changes in the postal sector may make it an important tool for future economic, social and cultural development. 24th March 2020, the day when India went into nationwide lockdown in trying to control the spread of the coronavirus, all industries, except essential services were closed and people were told to be inside the four walls, which created havoc all around including hospitals, pharmaceutical companies and labs at the forefront of the fight against Covid-19. In this vital movement, the postal department and its full-time personnel entered the battlefield to ensure that the supply of all essential items was not affected, including medical needs. In addition, the Ministry of Posts also acts as a mediator for the Indian government and provides citizens with other important services, such as the Mahatma Gandhi National Rural Employment Guarantee Program, wage distribution and pensions. As the COVID-19 pandemic spreads rapidly around the world, India Post continues to provide impressive services for the benefit of the entire country.

POSTAL NETWORK IN INDIA:

India has the biggest postal structure in the world. As of March 31, 2020, the country has 1,56,721 post offices, of which 1,41,018 are in rural areas and 15,703 are in urban areas. On average, the post office has a working area of 20.98 square kilometers and a population of 8,605. The Postal Department has 1,70,942 departmental personnel and about 2,45,141 Gramin Dak Sewaks. India has been distributed into 23 postal circles, each of which is led by the Director of the General Post Office. The Postal Staff College in Ghaziabad (Uttar Pradesh), India is the ultimate training institution that can meet the training and development needs of Indian postal service personnel and other gazette personnel.

MILESTONES AT A GLANCE:

1727	First Post Office was opened in Culcutta (now Kolkata) by the East India Company
1766	“Robert Clive” sets up a regular Postal system
1774	Setting up of G.P.O. in Culcutta (now Kolkata) by “Warren Hastings” on 31-03-1774
1850	Post office Commission Appointed.
1854	Post Office Act XVII introduced. / Culcutta (now Kolkata), Mumbai and Madras G.P.O.s brought under one Director General.
1854	Railway Mail Service and Sea Mail Service Started.
1860	Postal manual published

1873	Embossed envelopes are put on sale
1877	V.P.P. service started.
1879	Introduction of Post card.
1880	Introduction of Money Order service
1884	Postal Life Insurance (PLI) was announced on 01-02-1884
1897	First Philatelic Society in India was founded on 06-03-1897
1898	Post Office Act VI introduced on 01-07-1898
1911	Introduction of Airmail
1935	Indian Postal order was started.
1947	Three Independence Postage Stamps issued
1972	Postal Index Number (PIN Code) was introduced on 15 th August 1972
1972	Army Postal Service was formed into a separate group.
1985	Postal and Telephone Departments were divided.
1986	Speed Post Service introduced on 01-08-1986
1991	Multipurpose counter machine with computers introduced in 1991
1994	Express parcel / VSAT money order service introduced
1995	Rural Postal Insurance was started on 24 th March 1995
2001	Electronic Fund Transfer Service was started.
2003	Meghdoot Software introduced
2004	Beginning of E-Postal Service
2004	150th year of Postal Department celebrated.
2006	E-Payment service introduced on 25-06-2006
2008	Modernization of post office- Project Arrow was launched in 01-04-2008
2012	IT modernization project-2012 introduced
2013	Electronic Indian Postal Order was launched
2018	India Post Payment Bank was inaugurated on 01-09-2018

(Source: Annual reports of India post)

RATIONALE OF THE STUDY:

Although the postal sector is serving the country in this pandemic crisis, the level of service is unparalleled, but compared with doctors, nurses, and police forces, few people are talking about these services. Hence, the researcher has conducted this study to highlight the initiatives of the postal department and its employees during the COVID-19 crisis for the benefit of society. This research may change people's perceptions of the postal sector and will benefit the postal sector's stakeholders.

OBJECTIVES OF THE STUDY:

- To highlight the changing face of the postal sector since its establishment.
- Highlighting various initiatives of the postal sector during the COVID-19 crisis for the benefit of the people.

RESEARCH METHODOLOGY:

This research paper is based on secondary data collected from annual reports, journals, newspaper articles and the Internet.

INITIATIVES TAKEN DURING THE LOCKDOWN DUE TO COVID-19 CRISIS:

Essential service: During the lockdown period starting on March 24, 2020, the postal service was declared one of the basic services. The Department of Posts used its huge network of more than 1.57 lakh post offices and 4,00,000 postal staffs on the ground for the delivery of essential services to the societies at their doorsteps even in the innermost corners of the country.

Supply of COVID-19 related stuff: India Post utilizes cargo flights, parcel trains and its own typical red postal truck fleet to transfer and deliver important items such as medicines, medical equipment, PPE kits, temperature-sensitive COVID-19 test kits, and masks etc. to almost every corner of the nation. In order to remove the obstacles to the transportation of COVID-19 material due to the railway suspension, the department launched its nationwide road transportation network on April 24, 2020, which connects 75 major cities and travels more than 25,000 kilometers per day.

Delivery of Ventilators in hospitals: Through its extensive road network, India Post ensures the supply of ventilators to destinations over 2,000 kilometers in the shortest time. For hospitals and testing laboratories, the typical red van is transformed into a saving grace during the crisis.

Launch of Mobile application: For providing essential services at the doorstep, “Post Info” mobile application was made for receiving the service request from the customers who couldn’t come to post office due to the lockdown. More than 55,000 requests from customers have been received, and these requests have been completed by post offices in the relevant regions.

Performance of Post Office saving Bank (POSB): During the lockdown, more than 255.6 million transactions worth more than 5 trillion rupees were conducted through Post Office Saving Bank account (POSB), and about 5.37 million ATM transactions worth more than 18 billion rupees have been conducted. In order to ensure that citizens can use local financial services, ATMs of other banks are allowed to be widely used on postal ATMs.

Service for Retired and marginalized peoples: To serve for the marginalized and retired peoples throughout the nation at their doorstep, distribution of pension amount and other beneficial schemes, the central and state governments, through “Aadhaar Enabled Payment System” was one more focus area of work during the lockdown. In this area, India Post Payment Bank (IPPB) has played a pivotal role

Post office on wheels: In order to provide customers with basic postal and financial services at their doorsteps, “Post Office on Wheel” was introduced in several parts of the country. Withdrawals, deposits, postal life insurance premiums, and mail retention/delivery (such as express mail and registered mail) are certain services that can be accessed through it.

Battle against hunger: In partnership with various NGOs and religious institutions, the devoted workforce of the department of posts distributed more than 60 lakh food packets/ dry ration packets and other provisions to the poor and needy people during the lockdown through their voluntary contribution.

The Naari shakti: The Central Postal Ladies Organization (CPLO) also came out from their comfort zones during the crisis by arranging and distributing a month’s dry ration of food packets for 500 migrant families and cooked food for 30,000 migrants. CPLO also made 50,000 masks to distribute among the frontline staff of the post office.

COVID-19 grievances: To address and monitor grievances of the public with respect to their postal requirements during the pandemic, a special category for ‘COVID-19’ grievances were generated on the online portal (CPGRAMS). In a short span of 3 days only, 1,360 grievances were settled. In addition, during this period, the department's call center received more than 2.5 million calls. More than 1.80 lakh grievances were received and satisfactorily resolved on the Twitter handle of the India Post by providing instant relief to the citizens and remedying their worries in booking and delivery of medicines and for arranging financial dealings in Post Offices.

CONCLUSION:

After analyzing the performance of India post and its dedicated workforce during COVID-19 crisis, it can be concluded that the vigorous India Post has turned into a lifesaver, working round the clock, delivering COVID-19 testing kits, ventilators, mask and medicines to remote places. At the same time, it focuses on the supply chain and last-minute delivery of basic services, while acknowledging the complete safety of employees. India Post has set an example that timely decision-making and mutual working environment can be used as a tool to transform any form of challenge into opportunity. Even though, due to rising competition, India post is turned into a loss making public sector unit with the financial angle but from the humanitarian angle, it’s a huge profit making unit of Indian government.

REFERENCES:

- V. Ranganathan Economic and Political Weekly Vol. 40, No. 38 (Sep. 17-23, 2005), pp. 4121-4125 (5 pages)
Published By: Economic and Political Weekly
- <https://www.indiapost.gov.in/VAS/Pages/AboutUs/AnnualReport2020-21.aspx>
- <https://www.indiapost.gov.in/Financial/Pages/Content/Post-Office-Saving-Schemes.aspx>
- <https://www.wsj.com/articles/amid-coronavirus-lockdown-india-post-still-deliversbecause-nobody-else-can-11588528535>
- <https://www.bbc.com/news/world-asia-india-52268601>

-
- <https://www.livemint.com/news/india/from-delivering-mails-to-covid-19-kits-india-post-turns-lifesaver-11587118109701.html>
 - <https://www.upu.int/en/News/2021/1/India-Post-offers-snapshot-on-confronting-COVID-19>
 - https://www.indiapost.gov.in/VAS/Pages/News/Indiapost_meets_Covid19_Challenge_1.pdf
 - ANAND.M.B, D L, S., & RAMESH, H. H. (2013). PERFORMANCES OF INDIAN POSTAL
 - <https://web.archive.org/web/20030508233650/http://thehindu.com/thehindu/mp/2003/01/29/stories/2003012900300300.htm>
 - SERVICES. Innovare Journal of Business Management, 1(2), 5-10. Retrieved from <https://innovareacademics.in/journals/index.php/ijbm/article/view/250>
 - "Union Budget (2018-19) - Department of Posts" (PDF). *Open Budgets India*. Retrieved 5 April 2019.

FIRE DETECTION FOR REMOTE AND FOREST AREAS USING IMAGE PROCESSING**Prof. Gokul Dhanraj Choudhary**

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ABSTRACT

Fire detection is a technique through which fire or flame can be detected by alarm in crucial situation. Fire should be detected at real time and required action supposed to be taken immediately. Fire can be detected either by physical sensors or image processing. Some, remote area like forest requires real time detection but physical sensor cannot be placed at well that image processing is more powerful in such areas. Most of the image based recognition technique is processed through flame color detection. Flame color possesses yellow, red and orange that belongs to RGB and CMY color models. Here the proposed system focuses on flame luminance enhancement that increases the color intensity of flame through which fire can be detected with high level of accuracy. Proposed system uses HSL and CMY color models along with chromaticity technique that allows increasing particular color intensity for higher true acceptance rate that reduces true rejection rate.

Keywords— Fire Detection, Fire Detection Techniques, Flame Luminance, Chromaticity, HSL, RGB and CMY color models

I. INTRODUCTION

Fire Detection is a process of confirming phenomena related to fire; that can be detected either by a physical sensor or image processing. It can be detected through –

- Smoke
- Heat
- Infrared or Ultraviolet light radiation or Gas
- Color luminance

**Figure 1.** Fire Detection Sensors [1]



Figure 2. Image Processing based Fire Detection [2]



Figure 3. Forest or Remote Area Hazards [3]

Physical sensors are not suitable for remote areas like forest, because the area is bit larger to cover and alarm system require so many sensors over there that cannot be easily manageable from control room. For this image processing approach is far better than fire detectors. It can cover large area and only few cameras are required to get alarm at real time that can be managed easily as compare to the physical sensors.

II. RELATED WORK

Angelo Gonzalez et al. proposed a method by inducing Convolutional Neural Network to detect fire in the shown images. The approach used was SFewAN-SD (Simple Feature Extraction with FCN AlexNet, Single Deconvolution). The system which has been proposed is a fraction of Unmanned Autonomous Vehicle (UAV) system which was used to detect and examine wildfire [4]. Shruti Gupta et al. proposed a system to detect any calamity by exploiting the functionality of WSN i.e. wireless sensor networks. The system further have used an algorithm of LEACH i.e. Low Energy Adaptive Clustering Hierarchy to sustain the communication among the defined nodes [5]. Kuang-Pen Chou et al. developed a system which exploited feature extraction method which is based on blocks to examine the local data of assorted regions to reduce computational data. System relied on the concept to extract the features obtained from a fire block including its color, source immobility and its disorder [6]. Rubayat Ahmed Khan et al. proposed a system base on the technique of videoprocessing. System extracted various features like color and spatiotemporal characteristics to recognize the area of fire [7]. Teng Wang et al. proposed a system for indoor detection of fire by incorporated the characteristics of flame

kinematics which was induced on the consecutively extracted video frames. Resemblances obtained from acquired video frames were also integrated in the system which has been proposed [8]. Nurul Shakira Bakri et al. proposed a system which exploited the technique of image processing to classify the pixels of color. Technique which has been proposed in the system considered fire images as an input [9]. Oxy Giandi et al. developed a technique in a system called fire predictor and fire appearance detector. In the system which has been proposed, fuzzy system technique was employed on fire detector and fire predictor illustrated the concentration of gas leak & generates an alarm on emergency [10]. Khan Muhammad et al. proposed a system based on images to detect fire by exploiting the technique of CNN (convolutional neural networks). The system which has been proposed in the paper relied on the basic idea of Google Net architecture. System utilized the deep learning architecture to detect flames as early as possible [11]. But color based detection can be affected by light or bright luminance that increases the rate of true rejection as well as false acceptance. Conversion rate is bit lower as it required.

$$\begin{bmatrix} Y \\ Cb \\ Cr \end{bmatrix} = \begin{bmatrix} 0.2568 & 0.5401 & 0.0979 \\ -0.1482 & -0.2910 & 0.4392 \\ 0.4392 & -0.3678 & -0.0714 \end{bmatrix} \begin{bmatrix} R \\ G \\ B \end{bmatrix} \div \begin{bmatrix} 16 \\ 128 \\ 128 \end{bmatrix}$$

Formula for RGB to YCbCr colour space conversion. Accuracy is enhanced up to 90%.



Figure 4. Original Image that later enhanced with previously proposed system [4]



Figure 5. Contrasted Enhanced Image by previously proposed system [4] The enhancement level is poor and not effective for real time fire detection. It does not increase the fire color intensity through which it can be detected with high level of accuracy.

III. PROPOSED WORD & METHODOLOGY

Proposed work is able to detect fire with high level of accuracy. System can enhance flame luminance using Chromaticity Pigmentation. System changes the intensity of flame color to its peak level where it can be classified easily with minimal false alarm rate. System uses three color models for enhancement i.e. RGB (Red Green Blue), CMY (Cyan Magenta Yellow) and HSL (Hue Saturation Lightness).



Figure 6. Color Model of Flame

System converts RGB (Red Green Blue) color model to HSL (Hue Saturation Lightness) for brighten flame luminance and later to CMY color model that enhances yellow intensity.

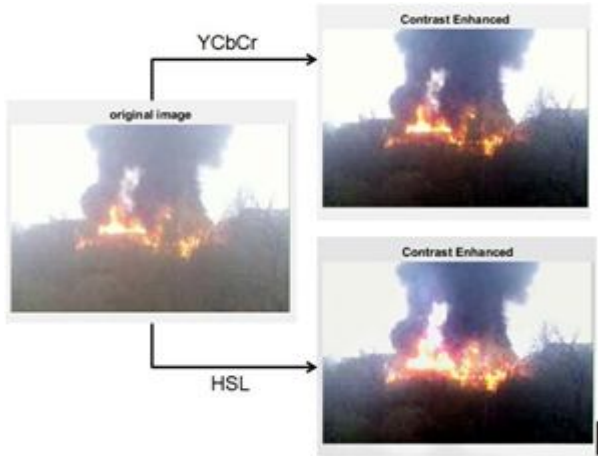


Figure 7. YCbCr v/s HSL Color model

If flame is intended to increased by chromaticity pigmentation that enhances the probability of true recognition instead of true rejection or true negative, but false recognition may rises because of high flame intensity but it does not any cost. Fire detection is required at any how because it may increases the causalities.



Figure 8. Original Image that possess low flame intensity

In fig 8, flame intensity is low which may traverse truerejection or true negative. But proposed system is able to enhance the flame color intensity that increases the accuracy rate and fire can be detected with high level of accuracy.



Figure 9. High Flame Intensity

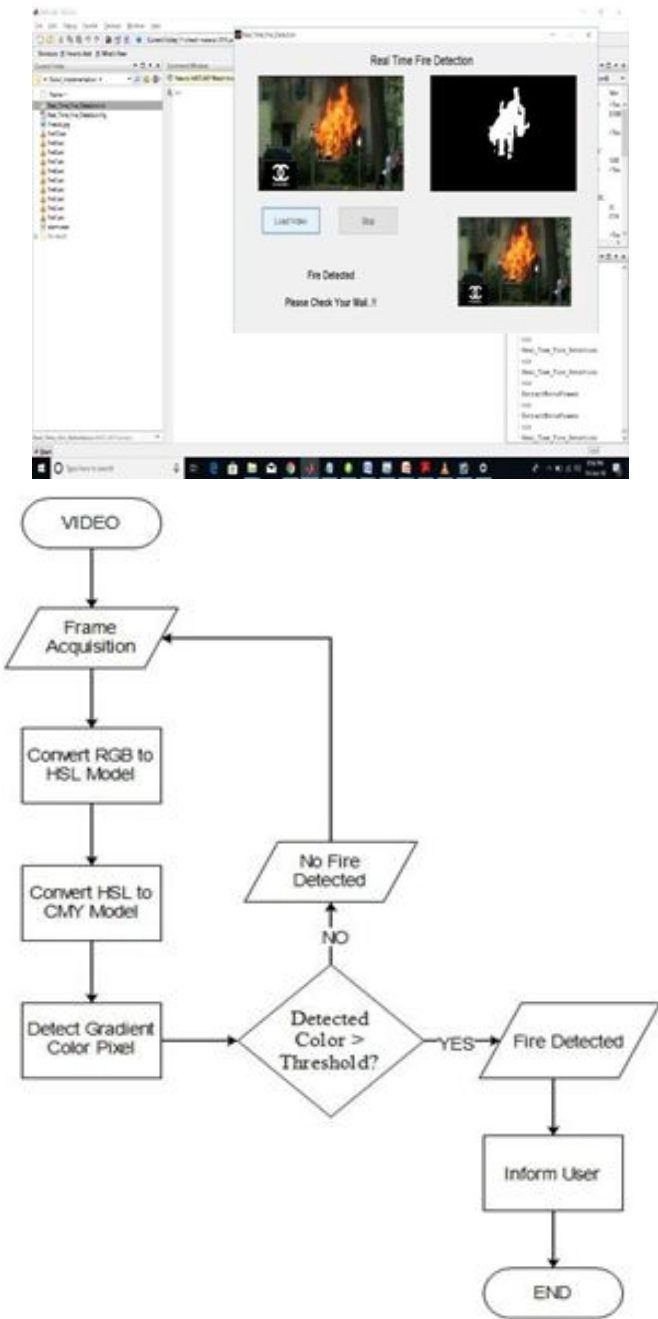


Figure 10. Flow Chart

As per the flow chart, first of all a frame is acquired from video for further processing, once it has been acquired; color model has been applied i.e. RGB to HSL which increases the lightness of the flame and certain high intensity values, then again HSL to CMY which increases the yellowness of the flame that definitely enhances the accuracy level. Once the conversion has been done, a gradient color has been visible to the image and it will further validate with threshold value, if it is greater than threshold value, it means that there is fire and it should be detected and indeed it acquired else it will again acquire another frame from video and a loop process proceed with all steps.

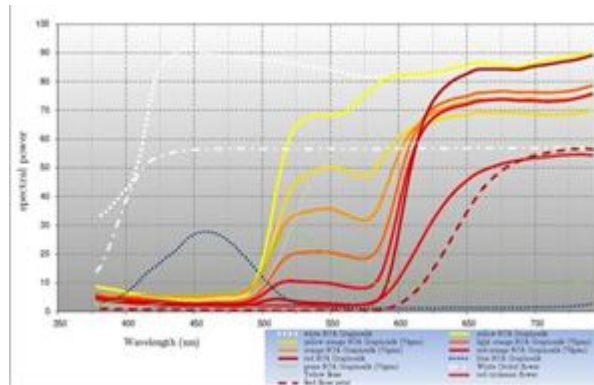


Figure 11. Fire Color Model

Figure 12. Proposed Work

Here, the system is based on chromaticity pigmentation that allows increasing particular color intensity for better recognition rate. As a human can easily recognizes color and its shade or fire, similarly chromaticity pigmentation enhances color level to human visibility. Proposed system is based on mainly two color models i.e. HSL (Hue Saturation Lightness) and CMY (Cyan Magenta Yellow).

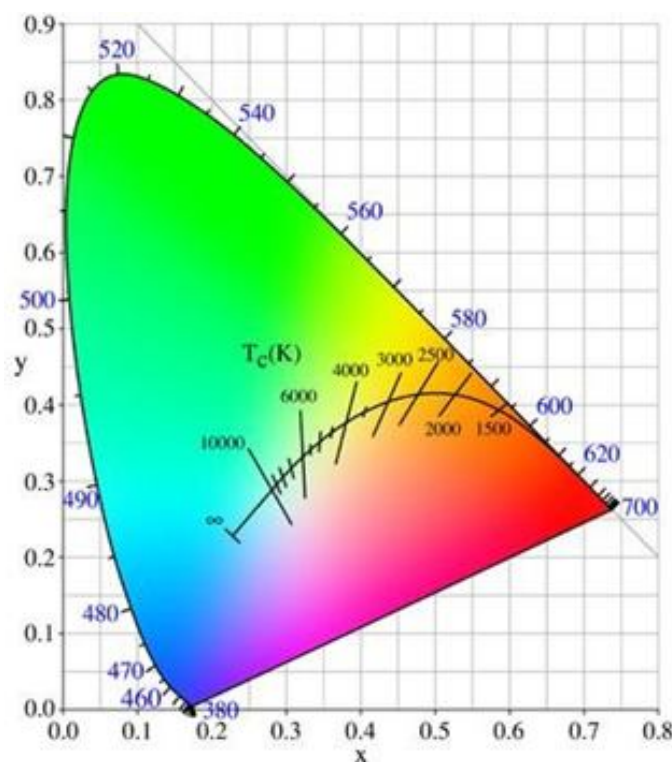


Figure 13. Chromaticity Pigmentation

Step 4: While $I \neq N$ **do**

If $I_2 > \Delta T$ **then** Threshold value relies Yellow & Orange HEX color

Fire Detected;

else

No Fire Detected;

end else end if end while

Step 5: End

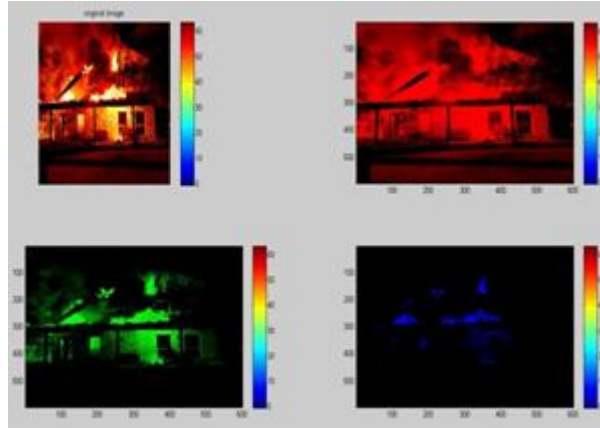


Figure 14. RGB Color Model



Figure 15. HSV & CMY Color Model

Flame Chromaticity Pigmentation (FCP) Algorithm - Require: Input frame I, Threshold Value ΔT , Acquired ColorModel M, HSL Color Model C_1 , CMY Color Model C_2 , and Last Frame N.

Input: Current Frame I

Output: Color Detected Frame R

Step 1: Acquire Current Frame I

Step 2: Apply RGB to HSL color model

$$\begin{bmatrix} H \\ S \\ L \end{bmatrix} = \begin{bmatrix} 0.3958 & 0.6911 & 0.0485 \\ -0.1971 & -0.3239 & 0.4480 \\ 0.3728 & -0.2989 & -0.0985 \end{bmatrix} \begin{bmatrix} R \\ G \\ B \end{bmatrix} + \begin{bmatrix} 0.299 \\ 0.587 \\ 0.114 \end{bmatrix}$$

Write new frame [I_1]

Step 3: Apply HSL to CMY color model

$$\begin{bmatrix} C \\ M \\ Y \end{bmatrix} = \begin{bmatrix} 0.2568 & 0.5401 & 0.0979 \\ -0.1482 & -0.2910 & 0.4392 \\ 0.4392 & -0.3678 & -0.0714 \end{bmatrix} \begin{bmatrix} H \\ S \\ L \end{bmatrix} + \begin{bmatrix} 165 \\ 45 \\ 90 \end{bmatrix}$$

Write new frame [I₂]

IV. RESULTS AND DISCUSSION

Table 1 Result Analysis

S.No.	File Name	Frame No. that Fire Exist	Frame No. that Fire Detected	Result
1	Fire1.avi	1	1	Fire Detected
2	Fire2.avi	93	93	Fire Detected
3	Fire3.avi	1	1	Fire Detected
4	Fire4.avi	1	1	Fire Detected
5	Fire5.avi	1	1	Fire Detected
6	Fire6.avi	35	35	Fire Detected
7	Fire7.avi	12	12	Fire Detected
8	Fire8.avi	118	118	Fire Detected
9	Fire9.avi	1	1	Fire Detected
10	Fire10.avi	2	2	Fire Detected

* Options

	id	file_name	frame_no_fire_exist	frame_no_fire_detected	fire_detected
<input type="checkbox"/>	4	fire3.avi	1	1	yes
<input type="checkbox"/>	5	fire6.avi	35	35	yes
<input type="checkbox"/>	7	fire1.avi	1	1	yes
<input type="checkbox"/>	8	fire4.avi	1	1	yes
<input type="checkbox"/>	9	fire2.avi	93	93	yes
<input type="checkbox"/>	10	fire1.avi	1	1	yes
<input type="checkbox"/>	12	fire5.avi	1	1	yes
<input type="checkbox"/>	13	fire5.avi	25	25	yes
<input type="checkbox"/>	14	fire10.avi	2	2	yes
<input type="checkbox"/>	15	fire9.avi	1	1	yes

Check All / Uncheck All With selected

Figure 16. Result SimulationTable 2 Result Comparison

SCHEME	PRESENT	PROPOSED
No. of frames tested	10	10
No. of frames that contains flame	10	10
No. of frames where flame detected	9	10
No. of frames where flame not detected	1	0
True Positive	9	10
True Negative	1	0
False Positive	0	0
Overall Accuracy	90%	100% (Over 10 Frames)
		95% (Over 2 Frames)

$$\text{Accuracy} = \frac{\text{Total no. of Frames} - (\text{True Negative} + \text{False Positive})}{\text{Total no. of Frames}} * 100 \%$$

$$\text{Accuracy} = \frac{20 - (0 + 1)}{20} * 100 \%$$

$$\text{Accuracy} = \frac{19}{20} * 100 \%$$

$$\text{Accuracy} = 95 \%$$

Result calculation is based over 20 frames where 0 true negative and 1 false positive have been recognized. So, overall accuracy is 95 %

V. CONCLUSION AND FUTURE SCOPE

The current proposed system is able to enhance flame luminance using chromaticity that also enhances the accuracy or true acceptance rate. It increases the specific color pixel that relies flame intensity which provides better level of accuracy. The current proposed concept of enhancing flame luminance using chromaticity pigmentation can be implemented for detection of fire based calamities which would be effective for remote areas as well as indoor hazardous accidents.

REFERENCES

- [1] firesafetynation.com, "Fire Detection and Alarm System", <http://firesafetynation.com/fire-detection-alarm-system/>, 2018.
- [2] Chaiwut Maneechot, "Fire Detection C++", <https://www.youtube.com/watch?v=bbOCYUbN2UQ>, 2018.
- [3] U.S. Forest Service, "Contrasting Effects of Invasive Insects and Fire on Forest Carbon Dynamics", https://www.fs.fed.us/research/highlights/highlights_display.php?i_n_high_id=647, 2018.
- [4] Nurul Shakira Bakri, Ramli Adnan, Abd Manan Samad, Fazlina Ahmat Ruslan, "A Methodology for Fire Detection Using Colour Pixel Classification", In proceeding to the 2018 IEEE International Colloquium on Signal Processing & its Applications, Batu Feringghi, Malaysia, 2018.
- [5] Angelo Gonzalez, Marcos D. Zuniga, Christopher Nikuli, "Accurate Fire Detection through Fully Convolutional Network", IET Digital Library, 2017.
- [6] Shruti Gupta, Lekha Doshi, "An Acknowledgement based System for Forest Fire Detection via Leach Algorithm", In proceeding to the 2017 3rd International Conference on Computational Intelligence and Networks (CINE), Odisha, India, 2017.
- [7] Kuang-Pen Chou, Mukesh Prasad, Deepak Gupta, "Block-based Feature Extraction Model for Early Fire Detection", In proceeding to the 2017 IEEE Symposium Series on Computational Intelligence (SSCI), Honolulu, HI, USA, 2017.
- [8] Rubayat Ahmed Khan, Jia Uddin, Sonia Corraya, "Real-Time Fire Detection Using Enhanced Color Segmentation and Novel Foreground Extraction", In proceeding to the 2017 4th International Conference on Advances in Electrical Engineering (ICAEE), Dhaka, Bangladesh, 2017.
- [9] Teng Wang, Lei Shi, Peng Yuan, Leping Bu, Xinguo Hou, "A New Fire Detection Method Based on Flame Color Dispersion and Similarity in Consecutive Frames", In proceeding to the 2017 Chinese Automation Congress (CAC), Jinan, China, 2017.
- [10] Oxsy Giandi and Riyanarto Sarno, "Prototype of Fire Symptom Detection System", In proceeding to the 2018 International Conference on Information and Communications Technology (ICOIACT), Yogyakarta, Indonesia, 2018.
- [11] Khan Muhammad1, Irfan Mehmood, "Convolutional Neural Networks based Fire Detection in Surveillance Videos", IEEE Access (Volume: 6), 10.1109/ACCESS.2018.2812835, 2018.

COVID-19: CHALLENGES, CONCERNS & ROAD AHEAD, CORONAVIRUS RESEARCH: RESOURCES, UTILITIES, AND ANALYTIC STUDIES

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ABSTRACT

Coronavirus disease 2019 (COVID-19) caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is an ongoing global health emergency. Here we highlight the most important research questions concerning virus transmission, asymptomatic and presymptomatic virus shedding, diagnosis, treatment, vaccine development, the origin of the virus, and viral pathogenesis. This pandemic has forced us to rethink our structural policies and has shed a light on the problems that were slowing the growth of the solar industry in the country. If we act on time and focus on building a green and sustainable recovery plan, the sector can potentially bounce back stronger, setting a precedent for other economies to move towards sustainable power sources for economic and environmental growth. In response to the rapidly increasing number of publications on the emerging disease, this article attempts to provide a timely and comprehensive review of the swiftly developing research subject.

Keywords— Covid-19, Nationwide lockdown, Quarantine

I. INTRODUCTION

The World Health Organisation (WHO) has declared the coronavirus disease 2019 (COVID-19) a pandemic. A global coordinated effort is needed to stop the further spread of the virus. A pandemic is defined as “occurring over a wide geographic area and affecting an exceptionally high proportion of the population.” The last pandemic reported in the world was the H1N1 flu pandemic in 2009.

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II. RELATED WORK**A. How COVID-19 started?**

COVID-19 can be transmitted through direct exposure to infected animals, human-to-human, and environmental contamination. Firstly, the initial cases of COVID-19 are associated with direct contact with infected animals and this was experienced at the seafood marketplace in Wuhan, China. Moreover, the virus can spread from one person to another, and this is considered to be the main form of transmission. It is that the interaction with those with the disease can lead to getting the ailment as spreading happens from the release of respiratory droplets, mainly through coughing. Therefore, close contact with individuals with COVID-19 can result in transmission. In some instances, there is a possible spreading in closed areas because of raised aerosol concentrations. Several studies support that the COVID-19 virus has a development period of two to fourteen days. Equally important, the virus can spread through touching contaminated surfaces. This happens when it touches these surfaces and then transfer the virus to mucous membranes in the upper parts of the body, especially the mouth, eyes, or nose. It implies that the virus remains active on surfaces that individuals are likely to touch daily. Environmental contamination is more likely to be a possible source of infection in environments where there is heavy viral contamination, mainly in an infected person's household. As research is done in Singapore reveals that viral RNA is detected on nearly all surfaces, such as handles, light switches, toilet bowl, and bed and handrails. Necessarily, COVID-19 can persist in surfaces as it has been tested and confirmed that this virus may persist on inorganic surfaces for up to six to nine days without disinfection. Hence, COVID-19 can be transmitted in different ways, and this calls for the need for individuals to be aware of its transmission to keep themselves safe all the time.

Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), which causes coronavirus disease (COVID-19), was first identified in December 2019 in Wuhan city, China, and later spread to many provinces in China. As of May 8th, 2020, the World Health Organization (WHO) had documented 3,759,967 positive COVID-19 cases, and the death toll attributed to COVID-19 had reached 259,474 worldwide.

This pandemic has forced us to rethink our structural policies and has shed a light on the problems that were slowing the growth of the solar industry in the country. If we act on time and focus on building a green and

sustainable recovery plan, the sector can potentially bounce back stronger, setting a precedent for other economies to move towards sustainable power sources for economic and environmental growth.

We will cover the basics of epidemiology, etiology, virology, diagnosis, treatment, prognosis, and prevention of the disease. During the lockdown period, there were two mass events reported in India. One was related to the exodus of the laborers to their respective states in India and the other was a religious event that happened in New Delhi at a mass level. There are around 25% of citizens living below the poverty line and have to depend on the daily wages to feed their families. Once the lockdown was announced, the fate of these 1.3 billion people was under the scanner and that is why even the government of India came up with a package of more than 22 billion USD to help these workers and laborers. All the respective state governments also came up with a different infrastructural setup for providing food and money to the needy citizens. Some agencies reported that in providing food security, India and the neighboring nations depending on India may fall short of food while the others reported a loss of millions of jobs during the lockdown due to such mass exodus. However, the number of infected cases was not impacted much by this mass movement as the majority of workers were not carrying any infection with them during their movements from workplaces to their native places.

III. STUDIES AND FINDINGS

A. Challenges?

The government of India and the World Health Organization, together have strengthened to overcome the COVID-19 challenges. Despite all these efforts, India is facing shortages in medical supplies in terms of the health care system and thus unable to control the spread of COVID-19 as appropriate. As the number of cases is rising in the country every day, India's health care system needs to struggle and proper training should be given to the health care workers to treat the patients. This COVID-19 has significantly disrupted the education sector, which is the economic future of the country. A large number of Indian students prefer to study in universities abroad; if this pandemic situation persists it may lead to a decline in the demand for international education. The biggest concern in mind is the effect of disease on the employment rate. Recent graduates fear the withdrawal of job offers from corporate in India during a pandemic. Immediate measures need to be taken to proceed with online education in schools and universities in India. Students need to learn basic management software such as the zoom app for online classes and much more open-source digital learning solutions should be implemented for promoting online education in India. Immediate measures are required to mitigate the effects of the COVID-19 on internship programs including job offers and research projects. Moreover, Lockdown with some relaxations needs to remain in India for a longer duration to beat this COVID-19 pandemic. Due to this coronavirus lockdown the factories, industries, and workplaces remain shut lead to many daily wage earner and many migrant workers, mediocre suffering food shortages and uncertainty about their future, with no work and no money hundreds and thousands of workers are bicycling and walking hundreds of kilometers to go back to their native home, village(town).

B. Solutions?

1. Wash your hands with soap and water for at least 20 seconds after any activity. This includes blowing your nose, coughing, etc. Always wash your hands before eating or cooking.
2. Wear a mask or cloth face covering. A cloth face covering may not protect the wearer, but it may keep the wearer from spreading the virus to others. To reduce the spread of COVID-19, CDC recommends that people wear cloth face coverings in public settings when around people outside of their household, especially when other social distancing measures are difficult to maintain. Learn how to make one at home (no sewing needed!).
3. Maintain social distancing. Work from home if possible and avoid large gatherings, public spaces, and public transportation. Keep three to six feet distance between yourself and others. Avoid social touching, this includes shaking hands, hugging, instead try a hand wave or a smile.
4. Avoid touching your eyes, nose, and mouth. Be mindful to keep your hands away from any location on your face where a virus could enter your body.
5. Clean "high-touch" surfaces regularly. It's still unknown if COVID-19 can spread from hard surfaces to people or how long it may live outside the human body. Take extra caution and clean high-touch surfaces like tables, doorknobs, light switches, desks, toilets, faucets, and sinks with household disinfectants that are appropriate for the surface.
6. Stop sharing. Even though you may usually steal a bite from your kid's plate or share a dessert with a friend or spouse, now is the time to be selfish with your food. Don't share any common kitchen objects

such as dishes, drinking glasses, utensils, cups, and, of course, food with anyone—even the people in your home. Also be sure to wash any kitchen items thoroughly after use with hot water and soap, or put them in the dishwasher.

7. If you think you have symptoms of COVID-19: People who are mildly ill with COVID-19 can recover at home. Do not leave, except to get medical care.
8. Avoid any unnecessary travel. While you may be tempted to visit your grandkids or family, don't travel during this time because it may expose you to someone who may be infected.
9. Prepare for your needs in case you'll need to stay home for an extended period. Make sure you have enough groceries, household items, and medications (including over-the-counter medicines) on hand, and that you know how to order more either online or by making a phone call.
10. Have a plan if you get sick. Talk to friends and family about who can help you if you get sick. Plan who could cook and deliver meals, run errands, and even take care of you.

IV. ANALYSIS

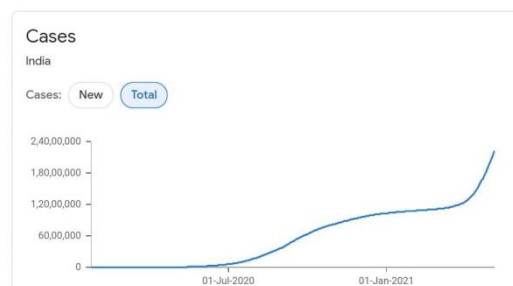


Fig. 1. Arise in cases.

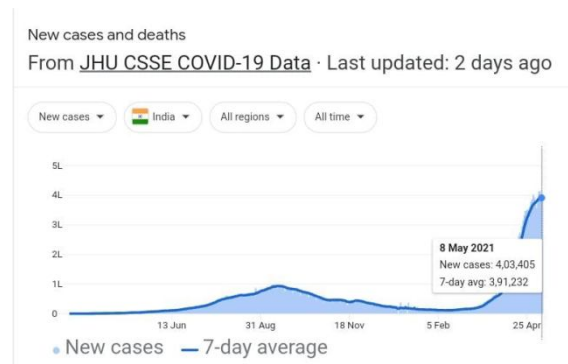


Fig. 2. Current cases in India.

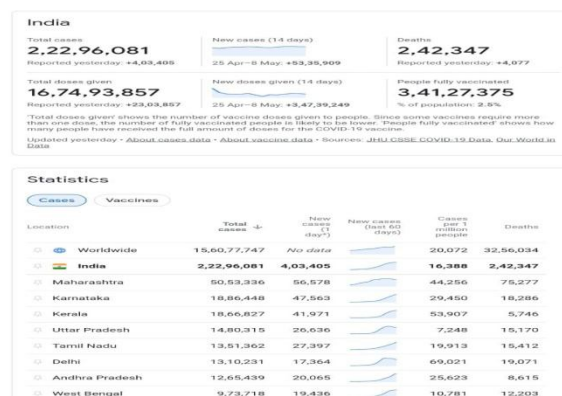


Fig. 3. Overview of world.

A. Prevention?

Prevention is critical. In the first place, isolation of the suspected cases with the minor disease at home is suggested [24]. Again, proper ventilation with good sunlight to destroy the virus is recommended at home. Further, individuals suspected to have the disease should be asked to wear a surgical mask and to rehearse good hygiene. Primarily, healthcare workers should wear a surgical mask when in the same area as a client and

utilize hand hygiene every 15 minutes. This is because the most significant risk of the disease is transmitted to healthcare professionals as they are the ones dealing with patients daily. Hence, it is accurate to state that prevention of COVID-19 includes isolation, proper ventilation, hand hygiene, and use of personal protective equipment, especially as surgical masks, eye protection, gloves, and gowns.

B. Treatment?

The initial step in treating those suspected to have COVID-19 is adequate isolation to prevent spread to other contacts, clients, and healthcare providers. The mild disease should be administered at home through staying hydrated, proper nutrition, monitoring fever and cough. Besides, the repetitive usage of antibiotics and antivirals, mainly oseltamivir, should be evaded among those with COVID-19 symptoms. This portrays that there is no specific treatment for this ailment.

V. CONCLUSION

India is presently witnessing a rapid surge in the number of COVID-19 cases. Although the nationwide lockdown has been able to decelerate the spread, the country's ever-increasing population, remarkably high population density, and poor socioeconomic conditions are major barriers in India's battle against COVID-19. However, the overall low case-fatality rate is reassuring. The Government of India and the health care providers have been relentless in their efforts. The citizens must also help support the fight against the pandemic by adhering to government advisories of containment and social distancing.

REFERENCES

- <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7350042/#!po=70.0000>
- https://www.researchgate.net/publication/341286302_The_Rise_and_impact_of_COVID-19_in_India
- [https://intermountainhealthcare.org/blogs/topics/live-well/2020/01/what-is-coronavirus-\(covid-19\)-and-how-can-i-prepare,-q-/](https://intermountainhealthcare.org/blogs/topics/live-well/2020/01/what-is-coronavirus-(covid-19)-and-how-can-i-prepare,-q-/)
- <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7350042/#!po=70.0000>
- <https://news.google.com/covid19/map?hl=en-IN&mid=/m/055vr&gl=IN&ceid=IN:en>
- For Graph & statics:
- <https://news.google.com/covid19/map?hl=en-IN&mid=%2Fm%2F055vr&gl=IN&ceid=IN%3Aen>

MARINE LIFE DISTURBANCE DUE TO ABANDONED GEARS

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ABSTRACT

The present study describes the problems created by fisherman's activities and their effects on aquatic life disturbance. Visit to various beaches has proven that fishermen usually throw their derelict nets and gears in marine waters. It not only leads to pollution of the marine environment but also disturbs aquatic life. Sharp tools of fishery injure many aquatic animals. Derelict nets thrown by fishermen, trap crabs and other aquatic animals. Such animals lose their body parts or even die. Derelict nets also intertwine mangroove trees and sometimes root out complete plant due to pressure. Heavy gears get settled to the bottom and disturb the beneath aquatic system.

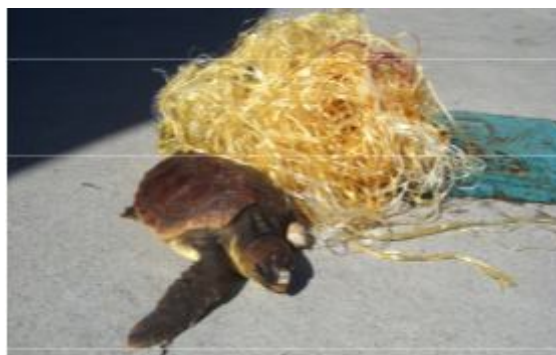
Keywords: Fisherman, aquatic life disturbance, derelict gears, Marine pollution.

INTRODUCTION

Derelict fishing gear is accidentally lost or intentionally discarded or abandoned. These include fishing lines, nets, pots, traps, or other gear associated with commercial or recreational fishing. ⁽¹⁾ It is observed that most of the time fishermen dump such derelict fishing gears into the water bodies. Review on various research has manifested that fishing gear is a major component of the marine debris problem worldwide and has been identified as one of the most biologically threatening types of marine debris. ⁽²⁾ Derelict gear damages the marine ecosystem in different ways, directly and indirectly. ⁽¹⁾ Approximately 10% of marine debris is fishing gear. ⁽³⁾ Some sharp fishing gears injure marine animals, amputate their body parts and sometimes even kill them. Many of these types of equipment are made of synthetic materials ⁽¹⁾. Plastic in the seas is a dramatically increasing problem and has been described as a serious pollution aspect that also includes nylon debris coming from either discarded or lost fishing gear. ⁽⁴⁾ The root cause of the issue is the increased use of plastic and nylon fishing gear that when left in the marine environment persists for decades. ⁽³⁾ Fishing gears made of persistent synthetic material, can impact marine fauna such as sea birds, turtles, seals or cetaceans through entanglement or ingestion. These nets entangle marine animals and plants in them. Entanglement is generally considered far more likely a cause of mortality than ingestion. The high accumulation potential suggests that microplastics could be a potential source of toxic chemicals in the marine environment. ⁽⁵⁾ Some of the most affected animals include cetaceans, pinnipeds, seabirds and marine turtles and certainly fish. ⁽⁶⁾



A specimen of *Caretta caretta* found on 13 September 2004 in Terceira Island, Azores. With a piece of nylon long line that caused a necrotic process. ⁽⁷⁾



A specimen of *Caretta caretta* found on 2 April 2008 in Terceira Island, Azores, entangled in a bowl of plastic lines and with its left forelimb already amputated and cicatrized. Photos by JPB.⁽⁷⁾

Derelict nets artificially modify seafloor and rocky reefs, altering the natural rugosity and/or hardness of a reef, obstructing crevices, enshrouding ledges, causing abnormal scouring of the seabed, and entrapping fine sediment that suffocates plants and animals thereby affecting the complexity of microhabitats available for the diversity of animal, plant and algal communities living on the seafloor. Boat propellers catch ropes attached to lost traps and pots or discarded monofilament line and abandoned gear clutters fishing grounds, impeding fishermen's ability to safely and efficiently deploy their gear and in some cases causing more gear loss. ⁽⁸⁾ Fish dying in nets may also attract scavengers that are then caught in the nets, resulting in cyclical catching by the fishing gear.

Observations:

For this study various beaches in Mumbai, India has been surveyed. Few relevant photos are added to this study.



Ghost net entangled many organisms



We are trying to rescue stuck crab



Derelict net has completely derooted an aquatic plant.



Plastic has covered most of the branches of Mangroove plant.



Decorator worm has taken plastic on the body instead of the shell for camouflage.

DISCUSSION:

Derelict fishing gear is not only disturbing the marine ecosystem but also it is interfering with the lives of marine organisms. It can severely affect marine life if any action against it is not taken. Marine capture can be affected and sunken gears disrupt benthos which is responsible for nutrient up whelming. Plastic materials break down and convert into microplastic it may become part of the organic food chain and can cause biomagnifications. Serious injury due to derelict gears can reduce the number of marine organisms. Not only has this plastic coating to photosynthetic organisms affected primary producers of the food chain.

CONCLUSIONS:

Cleaning of beaches must be taken into action. There must be some strict law against throwing derelict gears or any waste product into water bodies. Fishermen must be educated, on how their carelessness can affect the fish count. Government must take waste derelict gears in their custody for recycling.

REFERENCES:

- Dayton, P. K., Thrush, S. F., Agardy, M. T., & Hofman, R. J. (1995). Environmental effects of marine fishing. *Aquatic conservation: marine and freshwater ecosystems*, 5(3), 205-232.
- Ryan, P. G., & Moloney, C. L. (1993). Marine litter keeps increasing. *Nature*, 361(6407), 23-23.
- Macfadyen, G., Huntington, T., & Cappell, R. (2009). Abandoned, lost or otherwise discarded fishing gear.p115
- Butterworth, A., Clegg, I., & Bass, C. (2012). Untangled–Marine debris: a global picture of the impact on animal welfare and of animal-focused solutions. *World Society for the Protection of Animals*, London.
- Macfadyen, G., Huntington, T., & Cappell, R. (2009). Abandoned, lost or otherwise discarded fishing gear.pxvi
- Barreiros, J. P., & Guerreiro, O. (2014). Notes on a plastic debris collar on a juvenile *Pagellus acarne* (Perciformes: Sparidae) from Terceira Island, Azores, NE Atlantic. *Bothalia–Pretoria*, 44, 2-5.
- Barreiros, J. P., & Raykov, V. S. (2014). Lethal lesions and amputation caused by plastic debris and fishing gear on the loggerhead turtle *Caretta caretta* (Linnaeus, 1758).
- Gilardi, K. V., Carlson-Bremer, D., June, J. A., Antonelis, K., Broadhurst, G., & Cowan, T. (2010). Marine species mortality in derelict fishing nets in Puget Sound, WA and the cost/benefits of derelict net removal. *Marine pollution bulletin*, 60(3), 376-382. ACKNOWLEDGEMENT: We are extremely thankful to United Ways Mumbai for organizing field visits for this study

EDUCATION, HEALTH AND NUTRITION STATUS OF CHILDREN IN BIHAR

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ABSTRACT

Bihar stands at second place in terms of child population in the age group of 0-14 years. All round development of children has a direct impact on the overall development of any country. This study analyses the status of children in Bihar primarily on the basis of National Family Health Surveys (NFHS)- 2005-06, 2015-16 and 2019-20, District Information System for Education (DISE) and several other relevant secondary sources.

Key Words- Bihar, Children, Education, Health.

INTRODUCTION

With 1040 lakhs people, Bihar is the third most populous state in India and second most populous state in terms of child population of 470 lakhs children. Proportion wise almost half (46%) of Bihar's population is children in the age group of 0-14 years which is highest among all the Indian states. Children are the future human capital, and their overall development is extremely critical for the development of a nation. So, understanding the status of children is extremely important. Survival and Health; Childcare and Nutrition; Development and Education; Protection; and Participation are some of the areas which are critical in evaluating the status of children. According to UNICEF, children in Bihar live in many deprivations due to prevalent poverty, deep-rooted socio-cultural and gender inequalities, caste structure, poor infrastructure, lack of basic services and periodic natural disasters. Rana (2016) stated that Bihar is still condemned for its high infant and child mortality rates, and malnutrition among children.

OBJECTIVES

This study endeavours to get an insight into the status of children in Bihar by analysing the child health, nutrition, child survival, early childhood, and education. For this purpose, data largely from the following sources have been analysed- National Family Health Surveys- 2005-06, 2015-16, 2019-20; DISE, State Report Cards- 2005-06, 2010-11, 2015-16

FINDINGS AND DISCUSSION

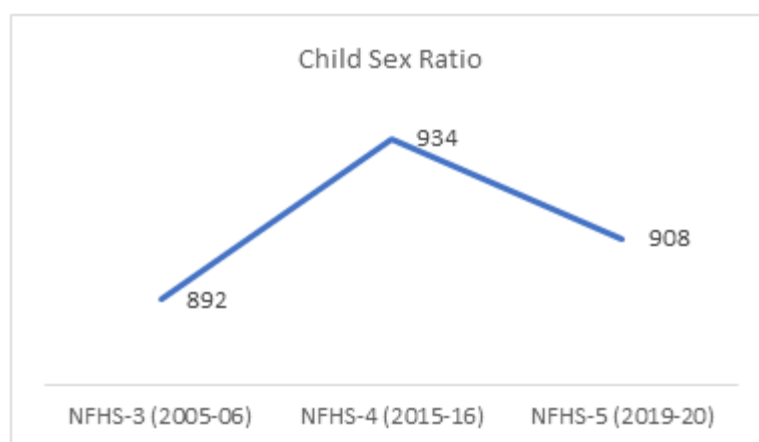
Following sections presents the findings of the study.

Child Population Indicators in Bihar

Sex Ratio at Birth (SRB)

SRB shows the number of female live births to 1000 male live births. It is a useful indicator to analyse the sex differential at the beginning of the life of children and reveals the preference for son vis a vis daughter. Bihar posted an improvement of 42 points in SRB in NFHS-4 but in the recent data, it is among the eight states which reported decline in SRB. According to WHO, natural SRB is 950 female births per 1000 male births but in Bihar value of SRB at 908 in NFHS-5 is strongly biased against the girl child. There is a decline of 26 points in SRB, which is alarming signal for gender parity goals in Bihar and the prevalence of sex-selective abortions and the practice of female foeticide and infanticide cannot be denied.

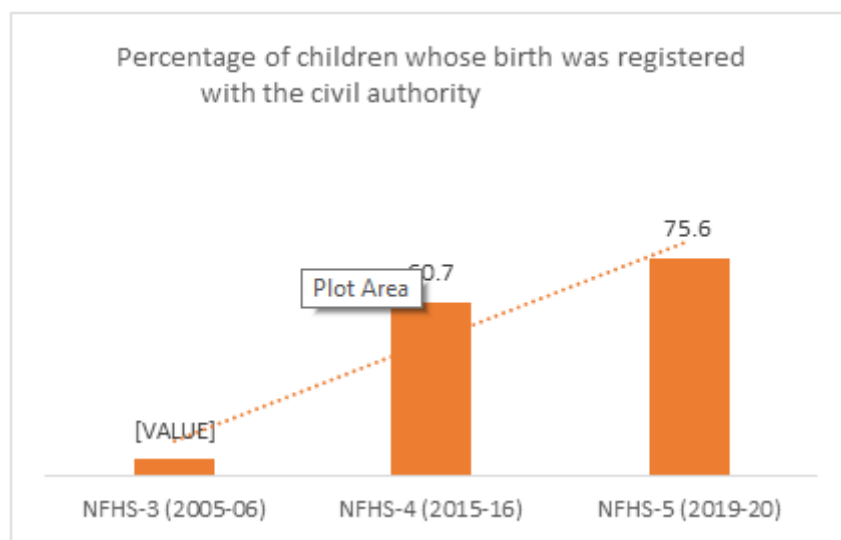
Chart 1



Birth Registration Coverage

First step towards establishing the legal identity of a child is birth registration. It is also required for effective implementation of various public schemes and programmes. At the same time, in the present context of preparation of National Population Register and National Register of Citizens, registration of births assumes even more significance. From a mere 5.8 percent in 2005, proportion of registered births in 2019 has reached to 75.6 percent out of the total children under five years. It is still far below than the national average of 84.9 percent. There are certain myths associated with birth registration. Furnishing the name of the new-born within 21 days is must to have the birth of the child registered but, in many communities, there is a custom of giving the name of the child only in child naming ceremony. For augmenting the birth registration process, role of district and sub-district functionaries need to be further strengthened.

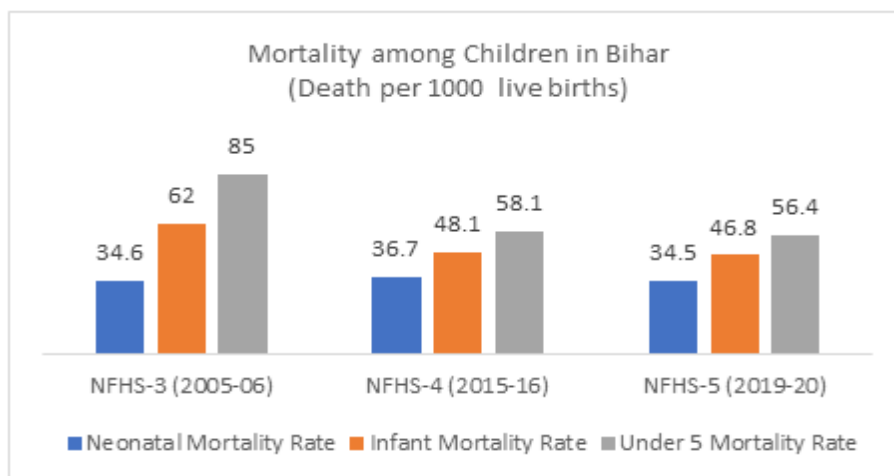
Chart-2



Mortality among Children

Various mortality indicators for children in Bihar reflects the extent of threat to their health. In spite of improvement in infant mortality rate and under five mortality rate (U5MR) during four year period, Bihar still has high mortality rates for children. Neonatal Mortality is defined as the death during the first month of life. Figures show no significant improvement in the neonatal mortality rate in Bihar. Infant mortality is the death of children under the age of one. Infant mortality rate in Bihar is showing a downward trend. In NFHS-5 it is estimated at 46.8 which is down from the NFHS-3 estimate of 48.1. U5MR is the mortality of children under the age of five. U5MR has decreased continuously, and it was registered at 56.4 in NFHS-5. It is worrying to note that among all the 22 states and UTs surveyed in NFHS-5, Bihar has the highest prevalence of all the above three mortality rates.

Chart- 3



Health and Nutrition Status of Children in Bihar

Undernutrition is particularly harmful in childhood. Along with maternal nutrition, child malnutrition is a major determinant for the child mortalities and should be accorded highest priority for corrective action.

Stunting (height-for-age)

Stunting is when child has a low height for their age. Children whose height-for-age Z-score is below minus two standard deviations (-2 SD) from the median of the reference population are considered stunted. According to WHO, inadequate nutrition, repeated infections, and chronic diseases are the direct causes of stunting. In Bihar, NFHS-5 (2019-20) estimates 42.9 percent of children under five years of age as stunted which signify chronic under nutrition. Though, all the other states and UTs surveyed in NFHS-5 have not shown any significant improvement since 2015, decline in Bihar is nominal but highest. But at the same time Bihar is the second state where the prevalence of stunting is highest.

Wasting (weight-for-height)

Wasting means low weight for height. It is a strong predictor of mortality among children under five and is usually the result of acute significant food shortage and/or disease. As per NFHS-5, 22.9 percent of children under five years of age in Bihar are wasted and the prevalence of wasting increased since 2015-16 to 2019-20.

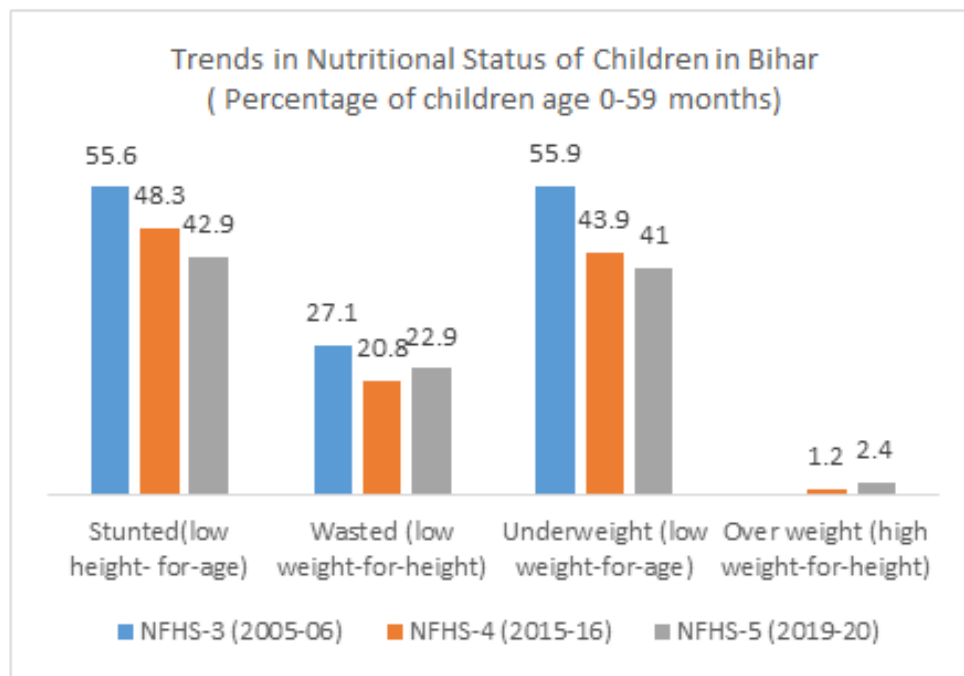
Under weight (weight-for-age)

Children whose weight-for-age Z-score is below minus two standard deviations (-2 SD) from the median of the reference population are classified as underweight. NFHS-5 figures reveal 41 percent of children under five years of age are underweight in Bihar. This figure is highest among all the 22 surveyed states and UTs.

Overweight

Though the proportion of overweight children in Bihar has slightly increase in 2019-20, it is the best performer with lowest proportion of overweight children.

Chart-4



Breastfeeding

Children are recommended to be exclusively breastfed in the first six months after birth because it is an uncontaminated nutritional source containing all the nutrients needed by children in the first six months of life. Suitable diets with healthy feeding practices play a significant role in building stronger immunity in children.

Early breastfeeding

Early initiation of breastfeeding is important for child as well as mother. Percentage of children who are breastfed within one hour of birth is very low in Bihar. Figures reveal a decline in this percentage from 34.9 percent in NFHS-4 to 31.1 percent in NFHS-5.

Exclusive breastfeeding

Exclusive breastfeeding in first 6 months of life is essential to lay down the foundation stone of infants for future years. Only 59 percent of the children under six months in Bihar are exclusively breastfed. Exclusive breastfeeding shows an improvement from 53.4 percent to 58.9 percent in Bihar.

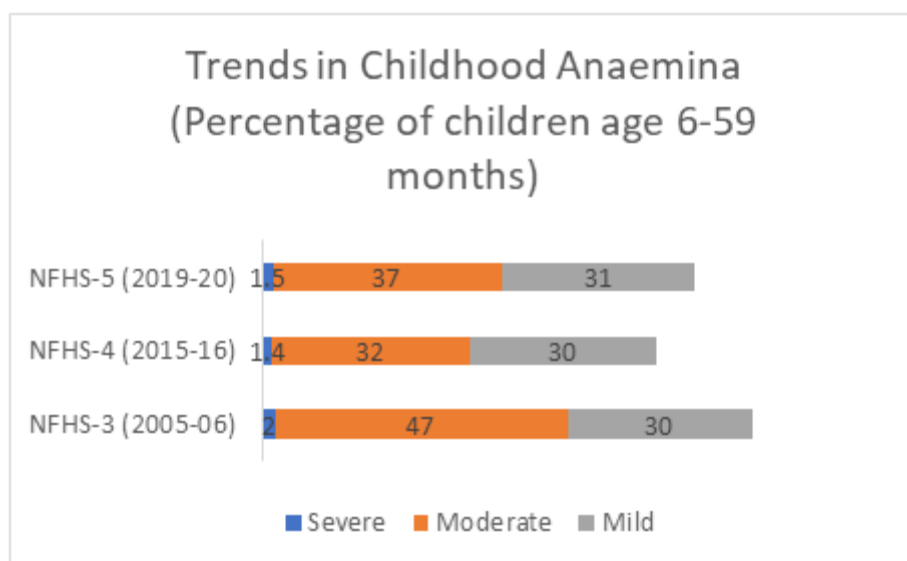
Complimentary breastfeeding

After the first six months, breastmilk is no longer enough to meet the nutritional needs of the infant; therefore, to meet the nutrients requirements it is recommended to add appropriate complementary foods to the diet of the child. The NFHS-5 figures reveal that only 10.8 percent age 6-23 months out of total breastfeeding children age 6-23 months in Bihar received adequate diet which includes- breastmilk, milk, or milk products (2+ times).

Anaemia Prevalence in Children

Anaemia is a condition that is marked by low levels of haemoglobin in the blood. Proportion of anaemic children in Bihar has increased from 63.5 percent in 2015-16 to 69.4 percent in 2019-20. Out of them, proportion of children with mild, moderate, and severe anaemia also increased. Rise in prevalence of anaemia is a cause of worry because it can impair cognitive development, stunt growth, and increase morbidity from infectious diseases. Ajmer (2020) found that the children with lower educated mothers, poor household wealth status, higher birth order, and female sex have a significantly higher risk of anaemia in children in Bihar.

Chart-5



Education in Bihar

The most powerful tool which can lead to encouraging changes in- economic development, health conditions and better environment, etc. is education. Foundation stone for the future of child is school education. Assessment of the level of education is important while examining the status of children anywhere. In the budget for fiscal year 2021-22, Bihar government has made an allocation of Rs 38035.93 crores (21.94 percent of the total budget of 2.18 lakh crores) to education which is the highest allocation among all the sectors¹ and indicates the government priority in education sector but the overall situation of education in Bihar is grim.

Schools

Sufficient number of schools is essential for the wellbeing of children. As per the latest data available from Unified District Information System for Education (UDISE), the number of schools has shown an overall increasing trend from 2005-06 to 2015-16 in Bihar. But the growth in number of schools has not resulted in educational growth. According to the School Education Quality Index (2019) of NITI Aayog, Bihar stood second lowest in terms of the School Education Quality Index (SEQI)².

Table 1: Performance of Bihar along School Education Quality Index

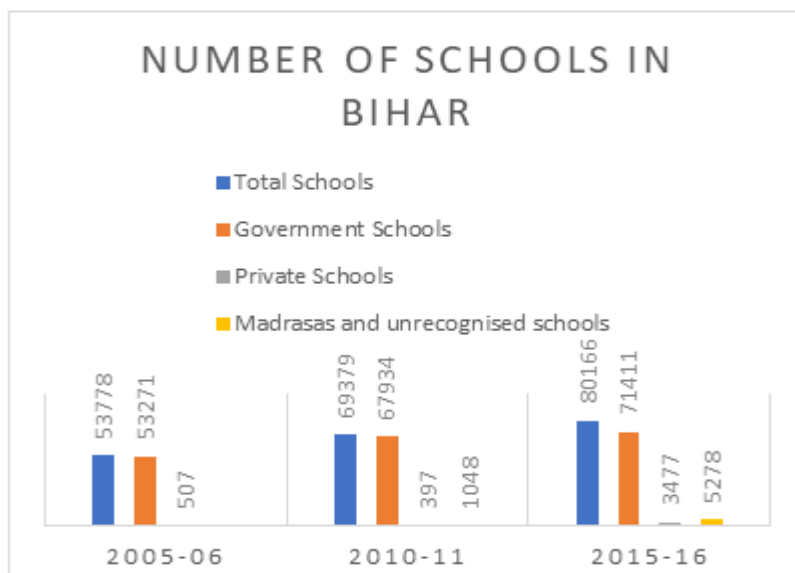
¹ <http://www.businessworld.in/article/Education-dept-gets-highest-allocation-in-over-Rs-2-18-lakh-cr-Bihar-budget/22-02-2021-380527/>

² SEQI provide insights and data-based feedback on the success of school education across the States and Union Territories of India

Parameters	Percentage
Overall Performance	46%
Governance Processes Aiding Outcomes Category	37.1%
Outcomes Category	43%

Source: School Education Quality Index, 2019, NITI Aayog

Chart-6



Source: DISE, State Report Cards

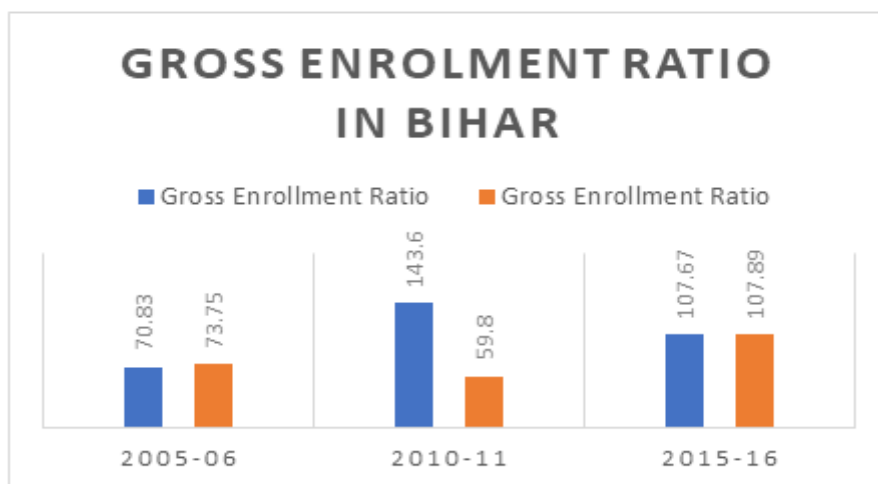
School Enrolment

According to the latest figures, out of school children in Bihar in 2014-15 were 3.80 lakh, while in 18-19 it was 1.43 lakh and had further reduced to 1.11 lakh in 2020-21¹.

Gross Enrolment Ratio (GER)

GER shows the number of children who are actually enrolled in a particular level of education per the number of children who are of the corresponding enrolment age. Latest DISE figures reveal that GER recorded at primary level has reduced from 143.6 in 2010-11 to 107.67 in 2015-16 but in the same time period it increased from 59.8 to 107.89 for upper primary.

Chart-7

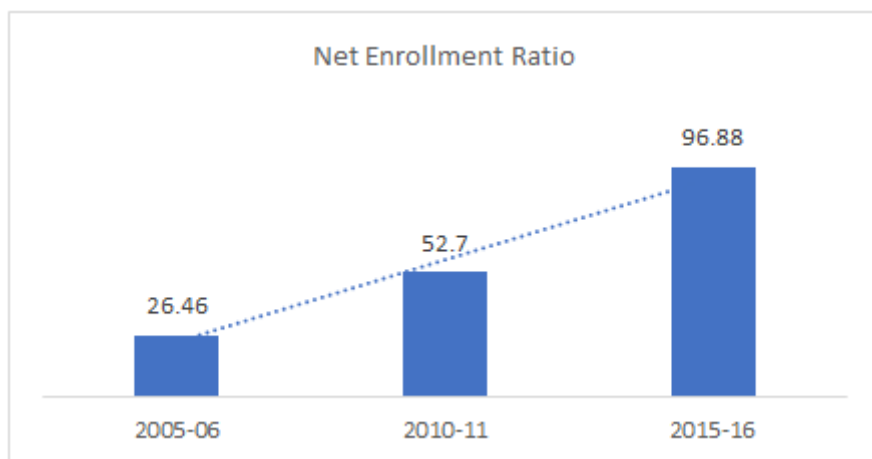


Source: DISE, State Report Cards

¹ <https://www.hindustantimes.com/education/admissions/bihar-govt-admits-dip-in-enrolment-in-schools-says-decline-in-dropouts-101614695374640.html>

Net Enrolment Ratio (NER)

NER is the number of children of the age of a particular level of education that are **enrolled** in that level of education, expressed as a percentage of the total population in that age group. NER has shown an upward trend in Bihar. from 2005-06 to 2019-20. Still, the gap between the GER and NER at all levels of school education is still very broad.

Chart-8

Source: DISE, State Report Cards

Dropout Rates

Dropout is an ever-enrolled student discontinued education before completing a specific level. After North Eastern states which have very high drop out rates in primary and secondary education; in the rest of India, it is Bihar along with Uttar Pradesh which continues to have high dropout rates at both levels during 2014 to 2019. Dropout percentage in Bihar is 30.5 percent. Rise in dropout rates, particularly in government schools in Bihar is a matter of concern. As per the 2018-19 data of education department, there were 24,03,526 children enrolled in class I but it reduced to 15,37,628 in class X and further to 6,31,379 in class XII. Several studies (Kotwal et al, 2007, Jayachandran 2007, Gouda and Sekhar, 2014) reveal that primary reasons for dropout are engagement in economic activities, domestic activities, disinterest, and financial constraints.

Number of Females enrolled per hundred males

The number of females enrolled per hundred males is increasing over the years in at primary as well as upper primary levels of education in Bihar. Schemes like Mukhamantri Balika Cycle Yojana, Balika Poshak Yojana have been bearing fruit in changing the minds of the poor and financially stressed families towards girl education.

Table:2 Number of females per hundred Male Enrolled by Stages of Education

Level/ Year	I-V Primary	VI-VIII Upper Primary
2005-06	44	39
2010-11	48	48
2015-16	49	51

Source: DISE, State Report Cards

CONCLUSION

For sustainable development, ensuring healthy lives and promoting the well-being of children is critical. MDG era is already completed six years ago and the SDGs target to minimize U5MR to 25 per thousand live births by the year 2030, which looks a herculean task for Bihar. More focused efforts are essential to address many persistent and emerging health issues of children. Providing quality education is the key to improving humans' lives and their development. In Bihar, though good progress has been made towards enhancing access to education at all levels and improving enrolment rates in schools particularly for girls but still there is much more to be achieved regarding quality of education and its coverage.

REFERENCES

1. Rana, S. S. (2016). Basic Amenities, Health and Nutrition in the BIMARU Economies of Bihar and Madhya Pradesh. *Indian Journal of Economics and Development*, 4, 9.
2. Ajmer, S. (2020). Childhood Anemia in Bihar, India: Patterns and Determinants. *IJASSH*, 01-09.
3. Kotwal, N., Kotwal, N., & Rani, S. (2007). Causes of school dropouts among rural girls in Kathua District. *Journal of Human Ecology*, 22(1), 57-59.
4. Jayachandran, U. (2007). How High Are Dropout Rates in India? *Economic and political weekly*, 42(11), 982.
5. Gouda, S., & Sekher, T. V. (2014). Factors leading to school dropouts in India: An analysis of national family health survey-3 data. *IOSR Journal of Research & Method in Education*, 4(6), 75-83.

Web Sources

1. <https://www.unicef.org/india/where-we-work/bihar#:~:text=Bihar%20is%20the%20third%20most,per%20cent%20of%20India's%20population>
2. NFHS-3,4,5: State fact Sheets for key Indicators accessed from <http://rchiips.org/nfhs/>
3. <https://science.thewire.in/health/nfhs-5-male-child-preference-bihar-women-double-inequality/>
4. <https://timesofindia.indiatimes.com/city/patna/all-births-deaths-not-registered-in-bihar-study/articleshow/74583165.cms>
5. <https://thewire.in/rights/lockdown-bihar-is-perilously-ignoring-the-consequences-of-undernutrition-on-children>
6. https://www.education.gov.in/sites/upload_files/mhrd/files/statistics-new/ESAG-2018.pdf
7. https://niti.gov.in/sites/default/files/2019-09/seqi_document.pdf
8. <https://www.thehindu.com/news/national/average-dropout-rate-of-girls-recorded-at-173-at-secondary-level-in-2018-19-wcd-ministry/article33761098.ece>
9. <https://timesofindia.indiatimes.com/city/patna/govt-schemes-lead-to-rise-in-girls-enrolment-in-schools-academics/articleshow/81517431.cms>
10. <http://edudbt.bih.nic.in/>
11. <https://sdgs.un.org/goals>

PEST INSECTS MANAGEMENT OF HERBARIUM SHEET

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Near Bharat Gear Factory, Mumbra, Thane

ABSTRACT

The project is basically about the pest insect which are responsible for damage of herbaria collection and storage. The herbarium pest infestations are the greatest threat for herbaria other than aging of paper used for herbarium labels, sheets, cover and envelopes and aging of written matter.

Specimen sample of herbarium sheets showed presence of Booklice on the basis of their morphological characters. Booklice is mostly seen in specimens which may be due to poor preparation, preservation, treatment or storage conditions of herbarium specimens and also lacks of management when left unchecked.

Pest infestation of herbarium sheets is seen due to the poor storage conditions and also some time due to preparation, preservation, treatment. The only reasonable contemporary solution to protect herbarium specimens and herbarium paper against insects mostly lies in regulation of the microclimate in herbarium rooms. Hence proper temperature and humidity conditions is recommended for storage of herbaria to minimise the risk of pest infestation.

Key words: Pest, Insects, Herbarium Sheet

INTRODUCTION

Herbarium specimens are useful as references for plant identification and for the determination of plant locations and ranges, abundance, habitat and flowering and fruiting periods. They are used for studies in which the differences between plant species are evaluated and described (monographs) or in which the species growing in a region are reported (floras). They are used for wide range taxonomic, floristic, biogeography and ecological research. There is various environmental factor which are threat to herbaria; include moisture, dust, fungi, insects etc.

The destruction of specimens by insects is one of the greatest threats to the collections. When left unchecked, insects can quietly destroy vast amounts of herbarium specimens.

MATERIAL AND METHOD**Collection of Herbarium sheets:**

The Herbarium sheets for the present work were collected from R. D. & S. H. National college, Bandra (West), Mumbai- 400050.

Identification of Insects:

Insect specimen was collected from the damaged herbarium specimen sheets and transferred to petri plates. Pest insects collected in petri plate was observed under the 10X macro lens and identified on the basis of their morphological characters.

DISCUSSION

There are various types of pest insects which attack on herbarium specimen. Some of common pest insect of herbarium specimen and sheets are Biscuit beetles or drug-store beetle (*Stegobium paniceum*), Cigarette beetle or tobacco beetle (*Lasioderma serricornis*), Booklice, Silverfish (*Lepisma* sp.). Biscuit beetles only eat wood and paper and development can be rapid at high temperatures of 30°C with generation times as short as five weeks. Cigarette beetle tends to be a more serious pest than *Stegobium paniceum* in hotter climates. Booklice is one of the most common insects which feed on paper, cardboard, book bindings and can tolerate drier conditions and will develop when the relative humidity is as low as 60%. Silverfish are always associated with damp conditions and they generally require localized humidity above 75—80% to breed and multiply.

Pest identification:

Identification of the species of pest causing the problems is the cornerstone and the initial part of an IPM programme. Incorrect identification may result in large amounts of time and resources being wasted in controlling the wrong pest. Some pests are general feeders whereas others will attack only a limited range of materials. There are also major differences in pest importance and status depending upon the type of the collection and the local climate. Some pests are easily recognized by the damage that they have caused.

Herbaria Pest Infestation:

The most common pests attacking dried plant material are insects and fungi, though rodents and other large animals can cause damage in poor storage conditions.

Common herbarium pests include are:

- Biscuit beetles or drug-store beetle (*Stegobium panicum*)
- Cigarette beetle or tobacco beetle (*Lasioderma serricorne*)
- Booklice
- Silverfish (*Lepisma* sp.)

Integrated Pest Management (IPM):

IPM principles use the understanding of pest biology and the museum environment to keep pests away from the collections and facilities and to prevent them becoming established. In today's society, an increasing emphasis is being placed on environmental sensitivity and the reduction in use of traditional pesticides. Worker and public safety are also becoming a greater concern with the increasing likelihood of lawsuits and litigation over past exposures to potentially hazardous materials (Linnie, 1990).

The key stages in an IPM programme are as follows:

- Recognizing and identifying priorities for action.
- Identifying responsible staff.
- Taking action on the high priorities.
- Establishing procedures for forward.
- Planning, financing and review.

List of the IPM principles that are employed in a typical programme.

- Knowledge of the pests
- Surveys and inspections
- Exclusion
- Cleaning/ sanitation
- Vegetation removal
- Pest monitoring
- Environmental modification and manipulation
- Education/ training
- Record keeping
- Treatment.

CONCLUSION

Herbarium specimens showed presence of Booklice which is one of the most common pests on paper and cardboard materials. Presence of this insect shows there may be lack in preparation, preservation, treatment or storage of herbarium specimens.

ACKNOWLEDGMENT

I would like to express my special thanks of gratitude to Dr. Suchandra Dutta, Department of Botany, R. D. & S. H. National College for her excellent guidance, inspiration, efforts in completing of this document. I would also like to extend my gratitude to the Principal, Dr. Vibha Mehra, Head of Department of Botany, R. D. & S. H. National College and Principal, Dr. Z. P. Bhathena, Bhavan's College for constantly supporting and providing the infrastructure and facilities.

REFERENCES

1. Bedford, D. J. (1999). Vascular plants. In: Carter, D. & Walker, A. (eds). (1999). Chapter 3: Care and Conservation of Natural History Collections. Oxford: Butterworth Heinemann, pp. 76 - 77.

2. D. B. & Harmon, J. D. (1999). Pest management, prevention and control. In: Carter, D. & Walker, A. (eds). (1999). Chapter 8: Care and Conservation of Natural History Collections. Oxford: Butterworth Heinemann, pp. 152 - 158.
3. <https://www.rbg.vic.gov.au/science/herbarium-and-resources/national-herbarium-of-victoria/protecting-the-collection>
4. Jacek Drobnik (2016), Modern techniques of herbarium protection. Environmental changes and biological assessment IV. SCRIPRA Scripra facultatis rerum naturalium universitatis ostraviensis, 186, 2008.

PHOTOPLATE

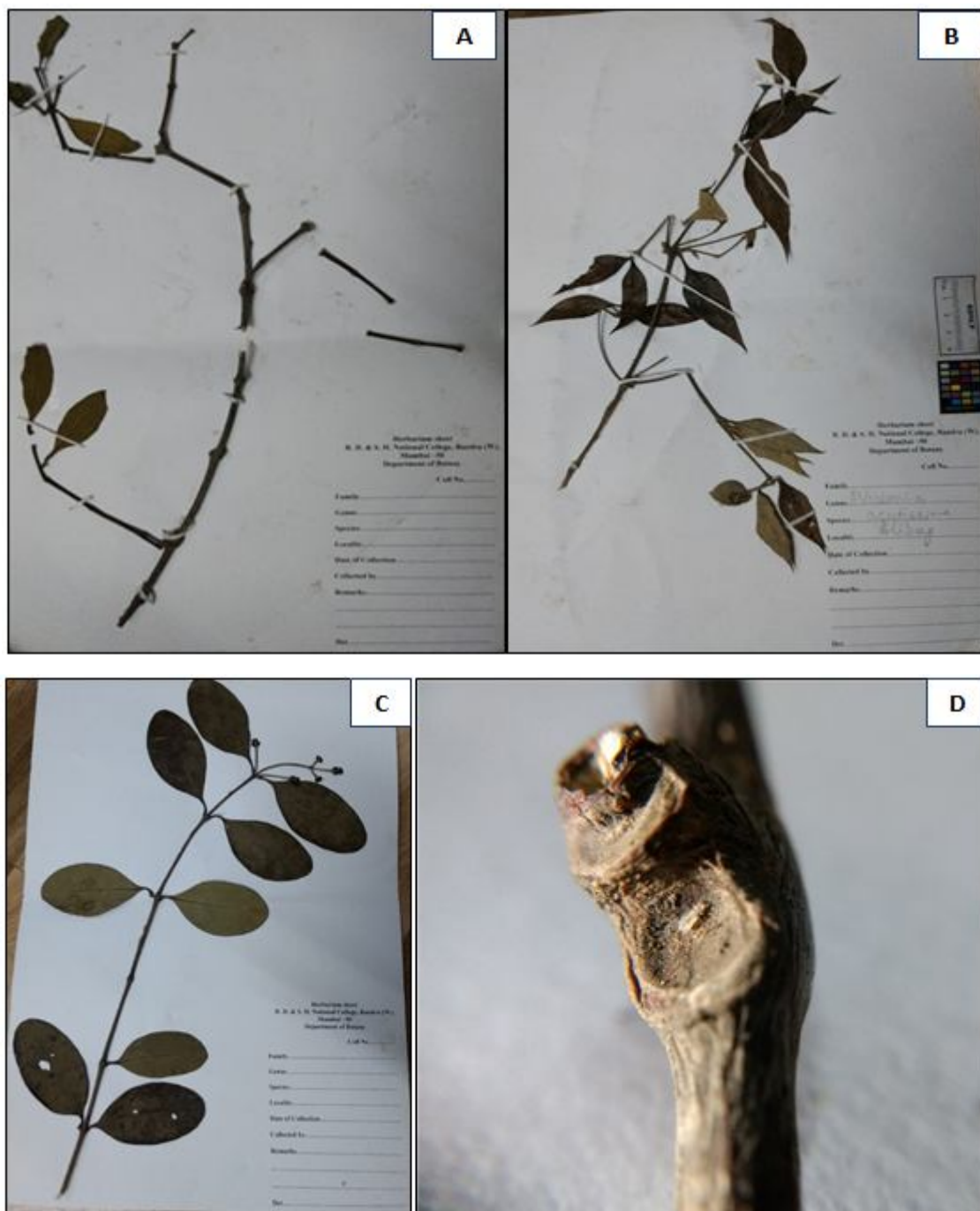


Fig.: (A), (B) & (C): Herbarium sheets, (D): Booklice

MANUSCRIPT SUBMISSION

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2. Book review must contain the name of the author and the book reviewed, the place of publication and publisher, date of publication, number of pages and price.
3. Manuscripts should be typed in 12 font-size, Times New Roman, single spaced with 1” margin on a standard A4 size paper. Manuscripts should be organized in the following order: title, name(s) of author(s) and his/her (their) complete affiliation(s) including zip code(s), Abstract (not exceeding 350 words), Introduction, Main body of paper, Conclusion and References.
4. The title of the paper should be in capital letters, bold, size 16” and centered at the top of the first page. The author(s) and affiliations(s) should be centered, bold, size 14” and single-spaced, beginning from the second line below the title.

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All references must be arranged first alphabetically and then it may be further sorted chronologically also.

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Fox, S. (1984). Empowerment as a catalyst for change: an example for the food industry. *Supply Chain Management*, 2(3), 29–33.

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• Multiple author journal article:

Khan, M. R., Islam, A. F. M. M., & Das, D. (1886). A Factor Analytic Study on the Validity of a Union Commitment Scale. *Journal of Applied Psychology*, 12(1), 129-136.

Liu, W.B, Wongcha A, & Peng, K.C. (2012), “Adopting Super-Efficiency And Tobit Model On Analyzing the Efficiency of Teacher’s Colleges In Thailand”, *International Journal on New Trends In Education and Their Implications*, Vol.3.3, 108 – 114.

- **Text Book:**

Simchi-Levi, D., Kaminsky, P., & Simchi-Levi, E. (2007). *Designing and Managing the Supply Chain: Concepts, Strategies and Case Studies* (3rd ed.). New York: McGraw-Hill.

S. Neelamegham," Marketing in India, Cases and Reading, Vikas Publishing House Pvt. Ltd, III Edition, 2000.

- **Edited book having one editor:**

Raine, A. (Ed.). (2006). *Crime and schizophrenia: Causes and cures*. New York: Nova Science.

- **Edited book having more than one editor:**

Greenspan, E. L., & Rosenberg, M. (Eds.). (2009). *Martin's annual criminal code: Student edition 2010*. Aurora, ON: Canada Law Book.

- **Chapter in edited book having one editor:**

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- **Chapter in edited book having more than one editor:**

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- **Electronic sources should include the URL of the website at which they may be found, as shown:**

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- **Unpublished dissertation/ paper:**

Uddin, K. (2000). A Study of Corporate Governance in a Developing Country: A Case of Bangladesh (Unpublished Dissertation). Lingnan University, Hong Kong.

- **Article in newspaper:**

Yunus, M. (2005, March 23). Micro Credit and Poverty Alleviation in Bangladesh. *The Bangladesh Observer*, p. 9.

- **Article in magazine:**

Holloway, M. (2005, August 6). When extinct isn't. *Scientific American*, 293, 22-23.

- **Website of any institution:**

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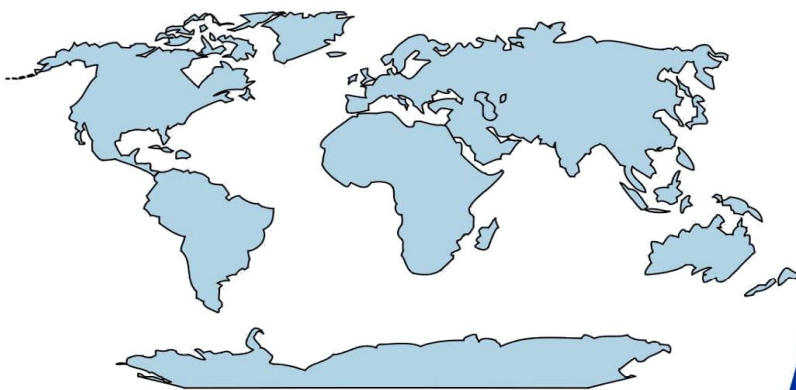
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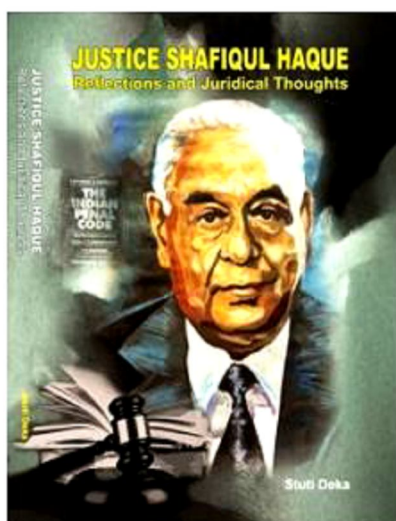


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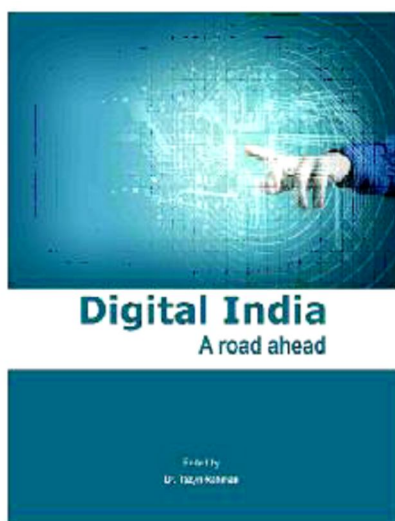
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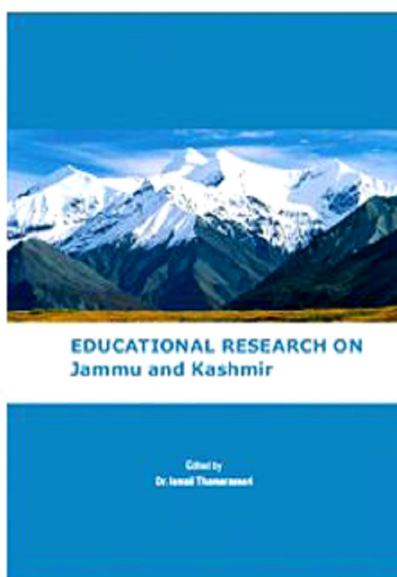
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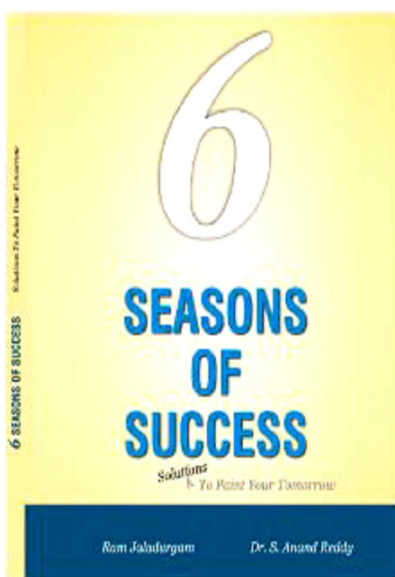
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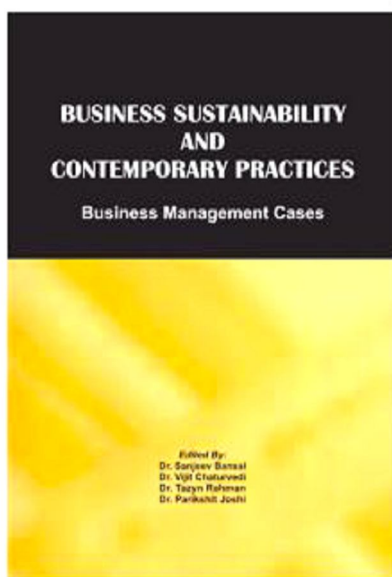
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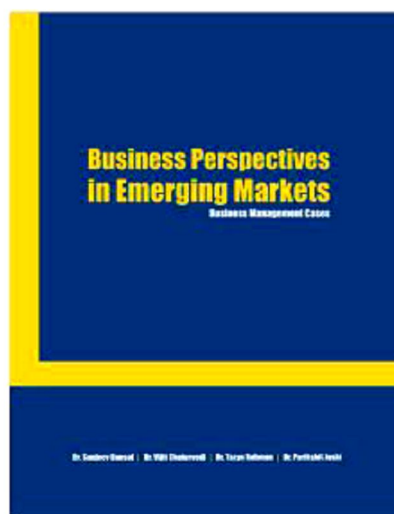
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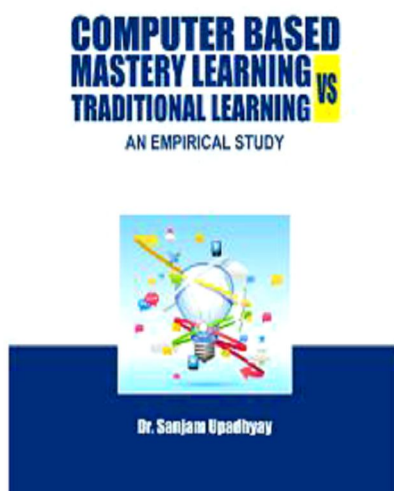
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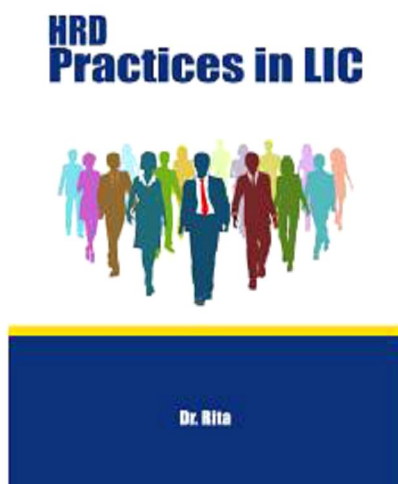
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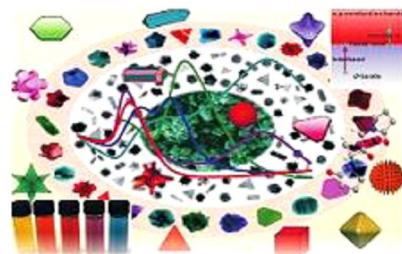
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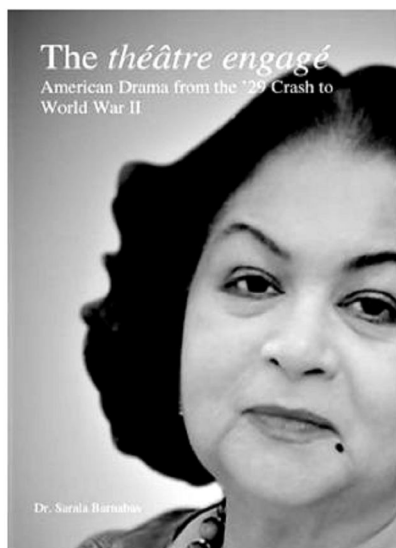
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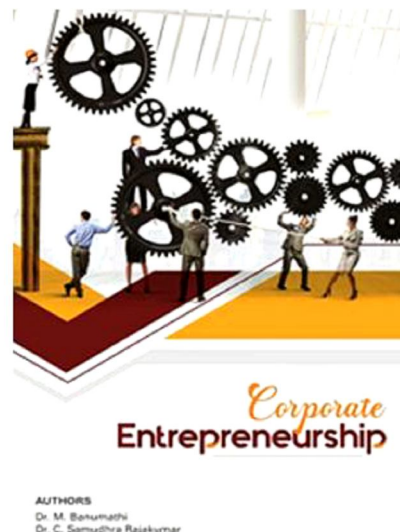
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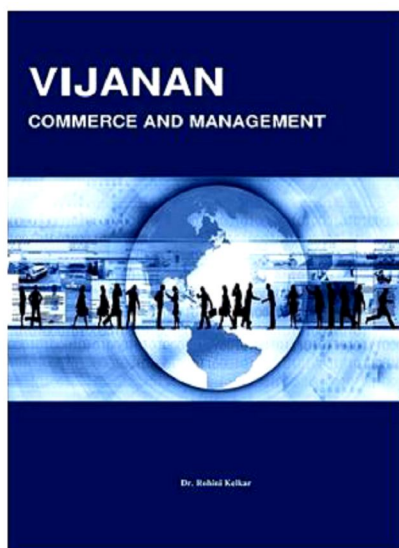
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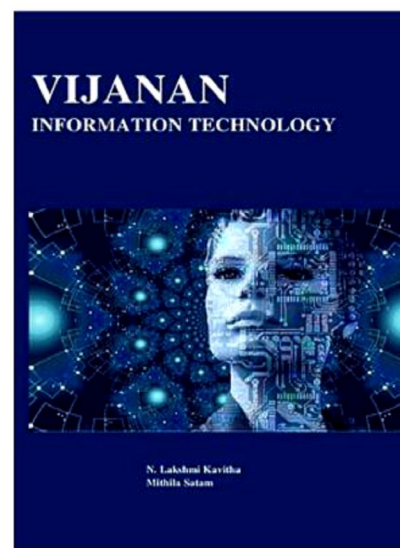
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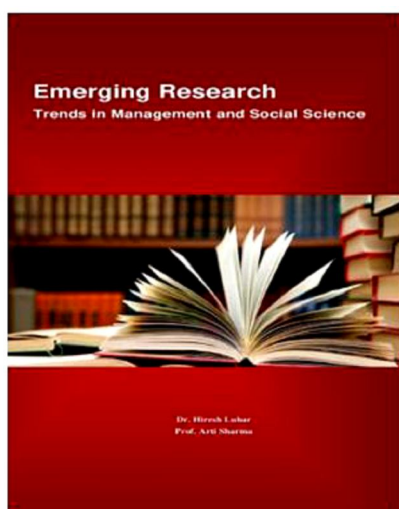
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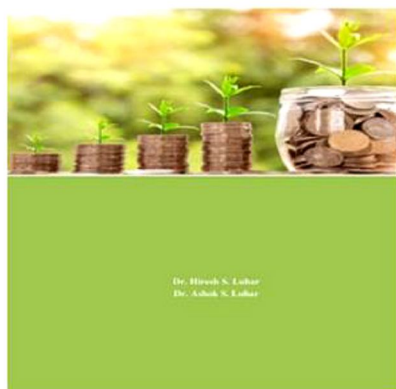


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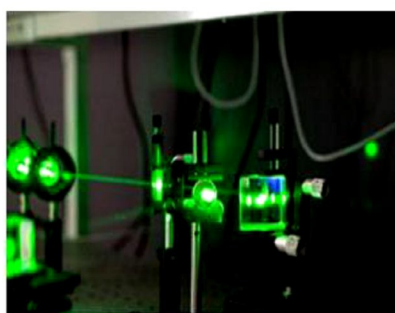


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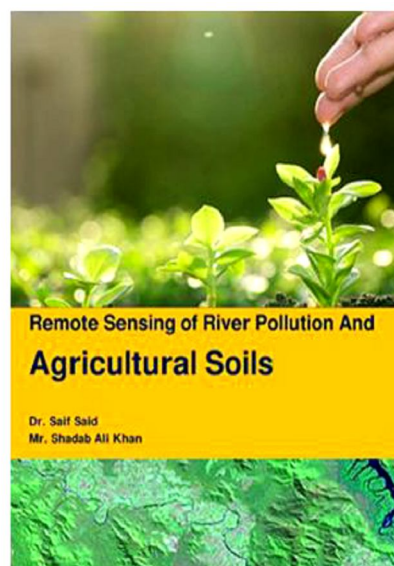
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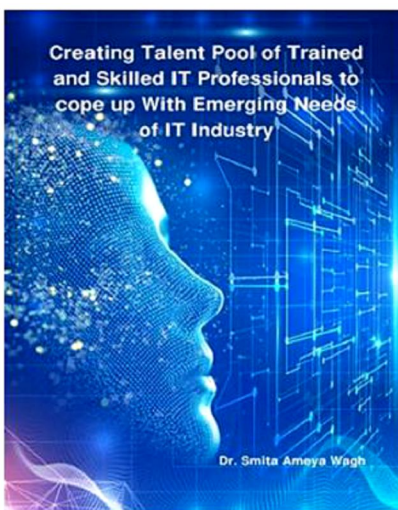
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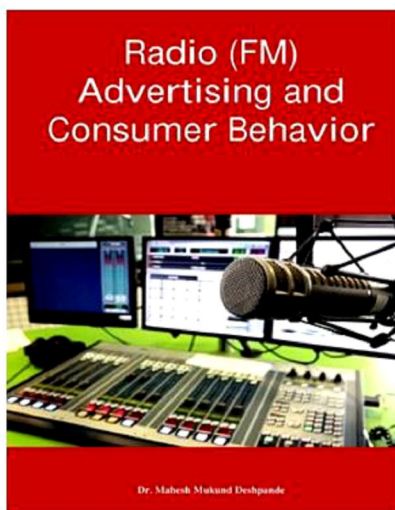
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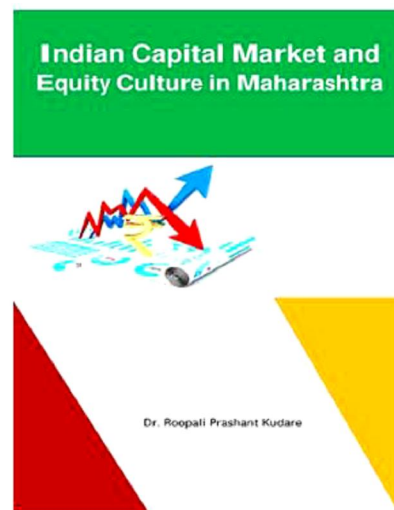
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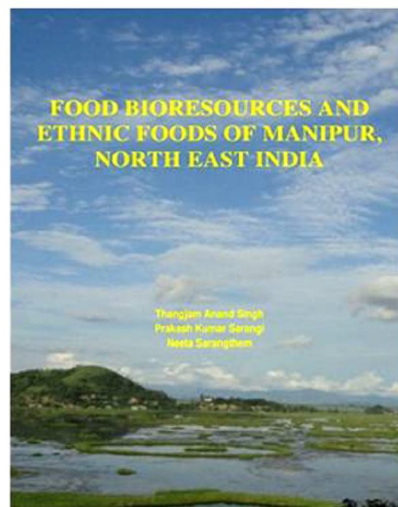
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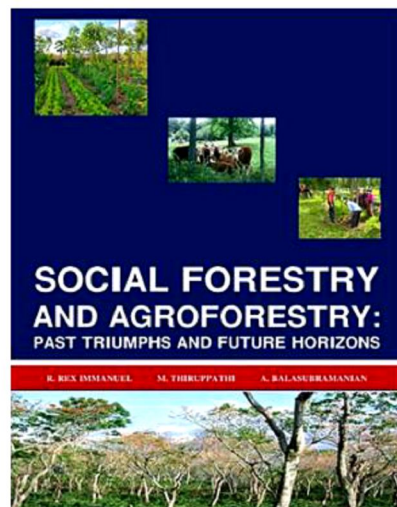
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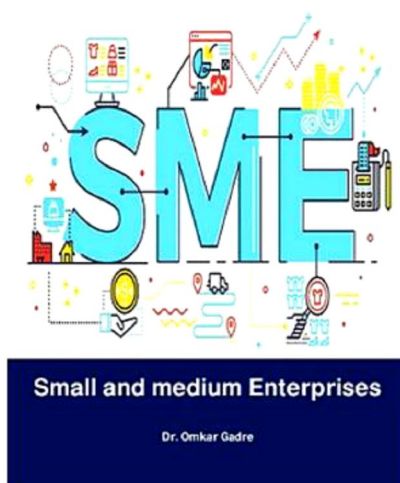
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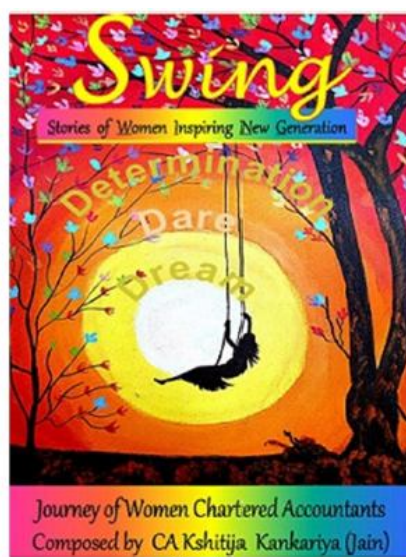
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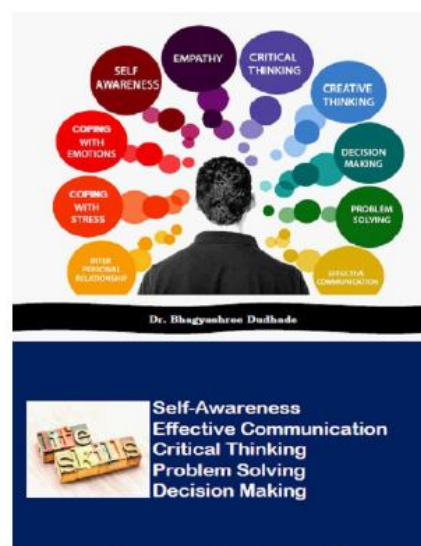


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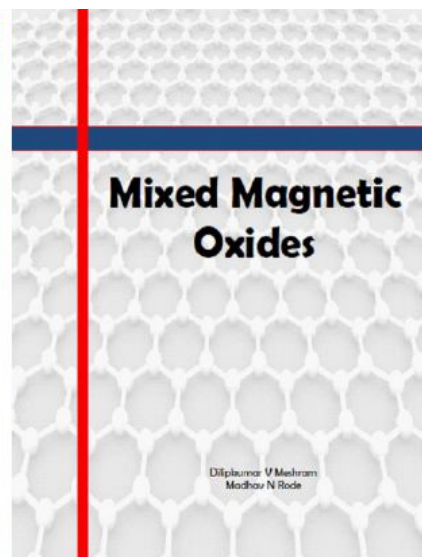
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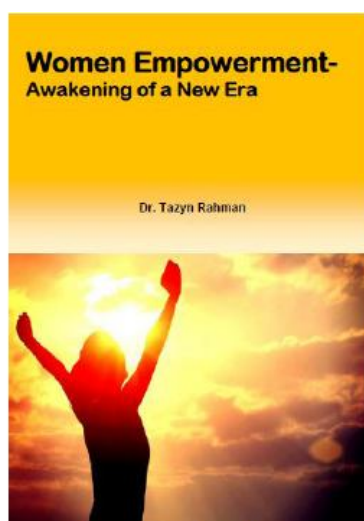


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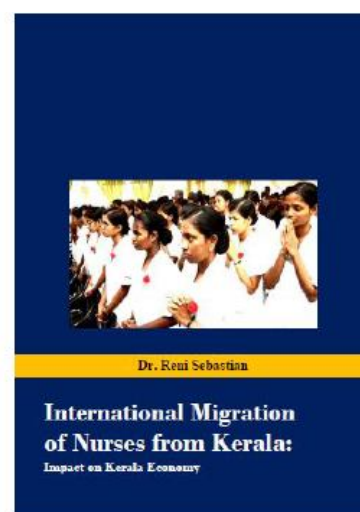


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