COMBATING INDUSTRIAL CHALLENGES DURING COVID 19

Editors

Dr. Sourabh Jain
Prof. (Dr.) Ashok Gupta
Dr. Priyadarshini Agnihotri
Prof. Ajay Jain
Dr. A. K. Singh
Dr. Parul Sharda

RFI Publication
International Book Publications

First Edition 2020
ISBN – **"978-93-89522-70-9"**
Price: **650 INR**
Size: A4

Bibliographic Information:
Title:

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Publisher

RFI
Year - 2020

RFI Publication
International Book Publications

Publisher:

Publisher & Editor in Chief, RFI (registered under the government of India book Publication acts) India.

www.publication.rfiindia.com

Printing & Publisher Address:

RO-K185, Ground Floor Sarita Vihar, New Delhi 110076

HO-207, Jai Prakash Nagar, RFI Tower, JBP 482002

Acknowledgement

*We would like to express my sincere gratitude to all the authors, researchers and reviewers, who provided their detail research and views for "**COMBATING INDUSTRIAL CHALLENGES DURING COVID 19**". We would like to thank my Teacher family, who supported and encouraged me in spite of all the time it took me away from them. This book could see the light of day due to generous support from the **Research Foundation of India Publication**. This volume is wholly a collective venture. This cause would not have been possible without the great efforts paid by all the authors and we are sure their valuable contributions increased the significance of the book. The readers and beneficiaries vary from academicians, professional engineers and scientists, to undergraduate and graduate students from all over the country.*

Editors

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STRUCTURAL STUDIES OF TETRA - DENTATE: SCHIFF BASE, TETRA DENTATE LIGANDS, POLYDENTATE & AMBIDENTATE LIGANDS

Sudhanshu Shekhar
Research Scholar, J P U, Chapra
Dr. Pushpa Kumari
Head; Department of Chemistry L.M.V. College, Hafizpur, Jai Prakash University, Chapra - 841301

Abstract - In this paper we mainly study on Structural Studies of Tetra - Dentate: Schiff Base, Tetra Dentate Ligands, Polydentate & Ambidentate Ligands. Which give extension some known results in the literature listed in the references?
Keywords: Structural Studies, Tetra Dentate, Ligands, Interaction.

1 INTRODUCTION & CORE AREAS

Structural Studies: The three dimensional arrangement of atoms in the molecule providing a definite pattern is called structure. The Studies to understand the structure, function & interaction of the atoms in structural studies.

Chelates : There are so many polydentate ligands with have two or more than two doner atoms for the same metal ion simultaneously and thus these produce one or more rings are called chelate or the chetating ligands. This process of formation or ring is called chelation and the complex obtained due to this chelaltion process is called chelates.

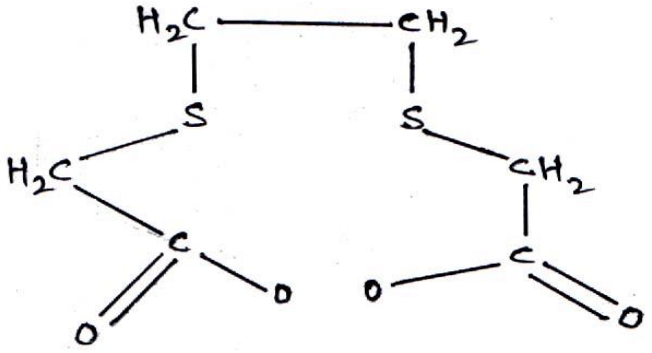
Schiff base: The Schiff base derived due to the condensation reaction of a compound containing carbonyle group and a primary amine.

$$> C = O + \mathrm{H_2}\ \ddot{\mathrm{N}} \qquad > C = \ddot{\mathrm{N}} - + \mathrm{H_2O}$$

Tetra Dentate Ligands: Schiff bases act as ligand and due to this capacity, the schiff bases have very impartant and wide range in the field of coordination chemistry. There are

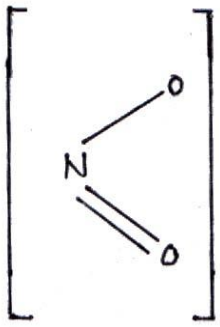
ligands having four potential donor atome which can simultaneously function as donors are called tetradentate ligands. Examples are triethylenetetramine (1), ethylenebisthiogiycolllc acid (2) etc.

H2N-CH2-CH2-NH-CH2-CH2-NH-CH2-CH2-NH2



Fiexidentate character of Polydentate Ligands: Polydentate ligands have may not necessarily use all its donor atoms to get coordinated to the metalion, e.g. ethylene diamine tetra acetic acid which generally acta as a hexadentate ligand functions as pentadentate ligand in $[Cr^{111}$ (OH) HEDTA$]^{2-}$ and $[Co^{111}$ (Br) HEDTA$]^{2-}$ and acts as a tetradentate ligand in pd^{11} $(H_2EDTA)^0$. In $[Co^{111}$ (NH_3) $So_1]^+$ and $[Co^{111}$ $(en)_2So_4]^+$ sulphate group acts as monodentate and bidentate ligand respectively. This has been confirmed by infrared spectroscopy.

Ambidentte ligands: There are several ligands which have two or more donor atoms but in forming complexes only one doner atom is coordinated to the metalion at a given time. Such ligands are called ambidnetate ligands. Some examples of such type of ligands are given below :



nitro ion

Nitro ($M-NO_2$)
Nitrito (M-ON = O)

CN^- ion

Cyano (M-CN)
Isocyano (M-NC)

NCS^- ion

Thiocyanate (M-SCN)
Isothiocynate (M-NCS)

In our present investigation, bidentate ligands have been taken into consideration for the formation of complexes with the metal ions since bidentate ligands are common and form very stable complexes with the divalent metal ions of 3d- transition series.

2 CONCLUSION

In the above study it has been tried to furnish the important in this area and further scope for the study in future.

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PATANJALI AYURVEDA DOES HAND HOLDING OF BANKRUPT RUCHI SOYA

Dr. Rachna Kaul
Assistant Professor, Amity Global Business School Page

1 INTRODUCTION

Over the years Ruchi Soya emerged as India's one of the largest makers of edible oil in India. The modest oil seeds proved to be its major boon. In the 1980s in Indore from an unostentatious commencement, Ruchi Soya paved the way on to grow soya chunks brand Nutrela into a household name. Among the top 250 consumer products companies Ruchi Soya bagged 175th rank in the "Global Powers of the Consumer Products Industry 2012", according to a report published by Deloitte Touche Tohmatsu (Deloitte). From end to end in India Ruchi Soya Industries Limited and its subsidiaries, occupy the production and trade of edible oils. They are market leaders with offerings from vanaspati, fats, and soya products. Along with soya chunks, granules, soya flour and soya bean processing by products are also key business areas. Ruchi group is also into exports of Agri-Commodities like raw cotton. It sources raw material directly from its close business allies, located at different locations throughout India. Ruchi group exports agri-commodities to various buyers, mills, and trading companies across the world. The company runs its seed business by extracting numerous varieties of seed. The company deals in other products like textured soy protein, soya flour, fruit juice, soya milk to name a few. The group also has plant & machinery (equipment), grains and FMCG products like gram, wheat, rice, maize, shorgum, seeds, coffee, soap, fresh fruit bunch, seedling. In the year 2010, Ruchi group made Ruchi Industries Pvt. Ltd which is a wholly subsidiary. It also has a Singapore unit which engages in plantations and processing businesses and also acquisitions & investments in plantation companies etc.

Ruchi group was beaming with success on all fronts till they stepped into castor seed business. Castor oil extraction business resulted into the biggest tormentor. Though soyabean and palm oils constitute majority of Ruchi Soya's edible oil business and castor seed was a less significant portion of the pie. What made such a big edifice fall like pack of cards. This case tries to get into crux of the reasons for Ruchi soya to touch the ground. There is also an important player Patanjali whose role as a saviour comes into play.

2 OVERVIEW OF THE COMPANY'S FALL

An unprecedented bump came into the way of burgeoning Ruchi group. The spoil sport was played by global prices, in 2016 January, sudden and sharp dip in global prices of the castor plant seed which almost hit the ground by Rs 3,051 per quintal from a high of Rs 5,100 in January 2015. This further combined with tumbling revenues in the oil business gave a incapacitate blow to the agri-food business of Ruchi. Since the time of inception of Ruchi in 1986, first time it slid into the red spot in the March 2016. In March 2016 it recorded a loss of Rs 878.7 crore. From Rs 2,568.05 crore in 2014 debt was blown up to Rs 4,513.8 crore. This swelled debt made lenders to hound the company to retrieve their dues, which as per reports went up to Rs 10,000 crore.

These developments made IDFC Bank in July 2016 finally file a winding-up petition against Ruchi Soya. This petition was filed with respect to failure of the company to pay back its short term credit. Later in 2017 February, an unsecured lender presented Ruchi Soya an insolvency and bankruptcy notice. This notice looked out for repayment of Rs 9.63 crore. At the stock exchange, trading came to Rs 25.05 in mid-April 2017 after a drop from Rs 93.30 in May 2012.

3 CASTOR SHADOW: SET BACK FOR RUCHI SOYA

The hardest blow that Ruchi Soya had was the fall in global price castor seed in 2016 January. This compelled the National Commodities and Derivatives Exchange (NCDEX) to

barred Ruchi Soya's future tradings. In 2016 May, Ruchi Soya's troubles got gruelling when SEBI alleged it for fraudulent and manipulative trading in castor seeds on the NCDEX and this resulted into prohibition of Ruchi Soya Industries from the securities market.

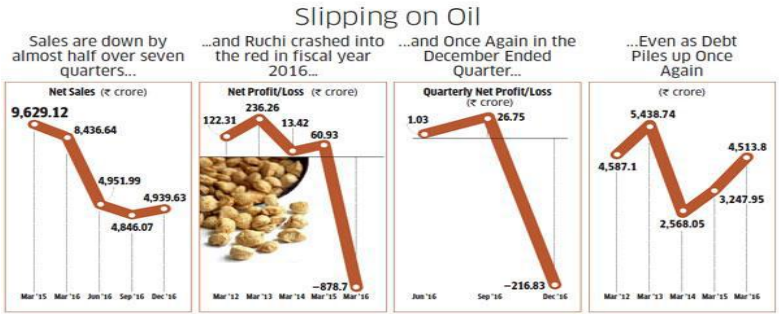
Amid this entire crisis SEBI's decision was knock out for Rochi Soya. This was something disastrous and was putting company under pressure of declaring themselves as bankrupt. With the erosion of major chunk of their net worth the company lost hundreds of crore in open positions. Post getting debarred, Ruchi Soya was stuck in a massive financial burden since no liquidation of its positions in the castor seeds market could happen. Despite the fact that castor trading was choking Ruchi Soya already, a concurrent weakening of sales through seed extraction and seed crushing and oil business were incurring weight on balance sheet. Dearth of working capital and adequate resources due to back-breaking loss inflicted by commodity trading had put them in difficult spot. The company could not focus on food division business because of loss of essentials of business. Ruchi's bright spot in all this menace was the food division only. Ruchi realized it was in a very tight spot and bringing down the debt, clearing the loan and growing business were strenuous.

Guar gum export was an opportunity which Ruchi Soya wanted to encash and therefore invested huge amount in processing units. But as the luck would have it there was sudden decline in global crude oil prices. During late 2014 global crude oil prices went down by as much as 60%. This gave Ruchi soya's growth plans such a big dent that it could not recover.

4 PROBLEM CROP UP

Dinesh Shahra is the man who is founder & Managing Director of Ruchi Soya Industries Ltd, the strategic business expert and his leadership made it rise to this level. He has been the key person in taking all the major business decisions. Though, this has been a tough front for Shahra to

fight on. He admits that company's turbulent times started from 2012. There were environmental factors during that time like excessive rainfall in one year and later on two droughts successively affected soyabean production. After environment hit Ruchi Soya then the government policies kicked off further the organization towards the debt stricken edge. Countries like Indonesia, Malasiya started importing oil in India in surplus thus core refining business was slipped by almost half over seven quarters: from Rs 9,629.12 crore in the March 2015 to Rs 4,939.63 crore in the December affecting Ruchi group's fortunes further. Finally the decision which Ruchi Soya was trying to escape from came in. and the decision was in December 2017, Ruchi Soya Industries came in into the Corporate Insolvency Resolution Process because it reached the threshold of total debt of about Rs 12,000 crore.



Source:https://economictimes.indiatimes.com/industry/consproducts/food/how-indias-largestedible-oil-maker-is-trying-to-revive-its fortunes/articleshow/58197902.cms?from=mdr, Economic Times, April 16,2017. Retrieved on 26July2020

5 TURNAROUND PLANS

The ray of hope for Ruchi soya started coming in with the first sigh of relief from Bombay HC which rejected winding up petition. This decision endorsed that company really wanted to repay its lenders and was not trying to shy away from making payments. Still company was grappling with the revival plan as a major influx of funds was needed to revive the company. Corporate Insolvency Resolution Process made company look out for funds. Adaniwilmar was front runner to

acquire Ruchi Soya to expand its portfolio but due to delay in processes. Pantajali came into forefront once Adani group exited and rest is history. Patanjali acquired Ruchi Soya in a good amount with an objective to diversify Patanjali's portfolio and ultimately take on HUL in terms of market share and profits. Since then Ruchi Soya has gained some oxygen and is on the path of recovery.

Source:

https://economictimes.indiatimes.com/industry/cons-products/food/how-indias-largestedible-oil-maker-is-trying-to-revive-its-fortunes/articleshow/58197902.cms?from=mdr, Economic Times, April 16, 2017. Retrieved on 26July2020

6 PATANJALI RESCUED RUCHI SOYA

In December, 2019, Ruchi Soya for 4350 crore was acquired by Patanjali Ayurveda. Ruchi Soya Industries which is now owned by Baba Ramdev and Acharya Balkrishan, have appointed Sanjeev Asthana its CEO. From July 6, 2020, Sanjeev Asthana will hold the office of Chief Executive Officer. Patanjali Ayurveda Limited is turning out to be Indian Cult Consumer company. It has become a name synonym to Ayurveda and consumers are picking up products with complete loyalty towards the brand. Haridwar,Uttrakhand provides Patanajali's manufacturing units and headquarters in the industrial area. Patanjali has

registered office at Delhi. The company is on the footsteps to become giant of FMCG products while taking over MNCs in India. The company has currently manufacturing capacity of 35,000 crore approx and is working towards pushing to a capacity of 60,000 crore. Patanjali led by baba Ramdev produces more than 2,500 products inclusive of 45 varieties of cosmetic products and 30 variants of food products. 27 January 2020, Ruchi Soya was relisted after acquisition, under the provisions in the Insolvency and Bankruptcy Code. Since then share prices are going up which are showing signs of Ruchi Soya resurrection.

7 CONCLUSION

Yoga guru Baba Ramdev's Patanjali Ayurveda completed its first big acquisition when it paid 4,350 crore to take over soya food brand Nutrela-maker Ruchi Soya through an insolvency process. Ruchi Soya is the second big insolvency case to be completed in December 2019. In Nutrela, Patanjali is planning to bring new products that will have a potential to increase its turnover in crores. Patanjali has planned Nutrela Gold refined oil to compete with Marico Ltd.'s Saffola Gold in the premium edible oil market. Ramdev has a big plan in mind for expansion of Patanjali and want to foray in food segment in a very big way. Over next two years the plans are quite extensive and will give other organizations a new learning.

Since Patanjali has acquired a debt ridden company so it will be interesting to see what strategies they have in their mind to take over HUL. Patanjali wants to tap those areas in which it is still nascent. Established brands of Ruchi soya like Mahakosh oil have good market share but to reestablish these brands which are fading away due to other competitors performing very well. What road Patanjali takes ahead to overtake HUL that is the major challenge to look for. A profit making company buying an insolvent company to takeover FMCG giant like HUL for tapping newer segments. Patanjali has not yet shown any strategic move to fulfill this ambition. Though markets on speculations, restructuring had shown

some improvement in share prices but they are falling now as Patanjali has yet to make a move. Ruchi soya is losing its market share and share prices are steeply falling. Since the acquisition nothing has improved for Ruchi Soya and the way it is performing at stock markets that all the more alarming. Now the current situation shows few things clearly that Patanjali has acquired Ruchi Soya but without any plan or post acquisition they have started realizing that they are stuck in wrong territory or they are new in the game of acquisition so yet to understand the rules of the game. There are lot many questions which are cropping up among the stakeholders and Patanjali is yet to give any answers.

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#####

CHARACTERIZATION OF SILICON SOLAR CELL

Dr. Sudhanshu Shekhar
M.Phil, Ph.D., Department of Physics, Jai Prakash University,
Chapra : 841301

Abstract- In this paper we mainly concerned with the study on characterization of silicon solar cell. We also observe that its physical properties.
Keywords: Commodities, Alternate Source, Strides, Incident, Conversion.
Literature Survey: A brief survey of the published literature relevant to the present work has been described.

Stefan Bengston and Old Engstrom gave produced measurement methods for characterizing the electrical of directly bonded Si/Si - n type/ n type or p type /p type interfaces. The density of the interface states in the band gap of the semiconductor and density of the interface charge at the bonded interface are determined from measurement of current and capacitance applied voltage. The density of interface charge is thus obtained from two different measurements, the two measurement methods are compared and the limitations of the methods are discussed.

Shun-Ichi Ischihara et al. have fabricated microcrystalline Silicon thin films exhibiting high crystallinity and high quality from the fluorinated precursor SiH_n F_m (n + m < 3) by repeating the deposition of very thin layers 10 nm thick and by treatment with atomic hydrogen.

Hideloshi shin et al. '5 18 in their studies achieved high fluidity deposition of Silicon thin films on fine patterned surfaces at a substrate temperature of 110^0c from a Si_2H_6 plasma or a high partial pressure SiH_4 discharge by using a conventional diode type reactor. It is shown that the polymerization reaction forming higher silane radicals proceeds on the surface, which suffers ion irradiation.

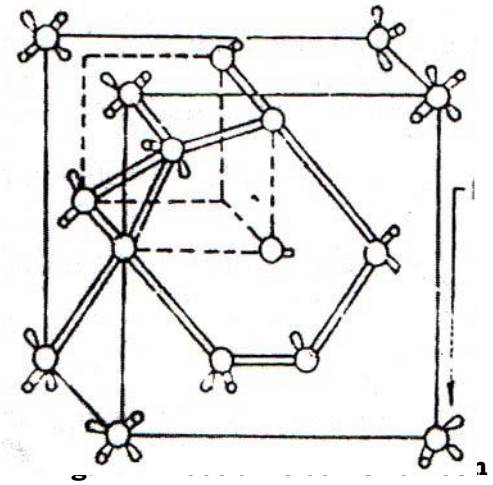
M.V. Fishetti et al. 22 have proposed an explanation for the dependence of the electron mobility in n-type silicon of the doping element. They point out that their model presents some questionable aspects: The macroscopic dielectric constant is used even inside the impurity core. The screening by valence electron is double counted, and the distribution of the valence electrons around the impurity is assumed to be isotropic. They modified the model and found that the dependence on the doping element becomes too weak to explain the experimental results.

S. Hazra and S.Ray have developed Nanomorph Silicon thin films from the SiH_1/H_2plasnia in the high plasma power regime of plasma enhanced chemical vapour deposition (PECVD). Dark and photoconductivity of Nanomorph silicon are of the order of 10^{-12} s. cm^{-1} and 10^{-6} s. cm^{-1} this nanomorph silicon thin film may be a good alternative to common wind bandgap a-SiC:H which is an active layer of the top cell of multi junction solar cells.

1 INTRODUCTION & CORE AREAS :

Silicon has been one of the most useful materials for fabricating solar cell. It is used as a substrate material. Silicon is an elemental semiconductor and the preparation and properties of extremely pure silicon are better known than any other material in the periodic table. So Silicon surface can be easily passivated and it is easy to grow Silicon dioxide (SiO_2) layer by the oxidation of the Silicon surface.

Physical Properties: Silicon belongs to column IV of the periodic table and its atomic number is 14. In crystalline form, Silicon is found with fact centered cubic (F.C.C) structure. Its unit cell consists of two interpenetrating F.C.C. lattices along their body diagonal as shown in Fig.1.



Represents one electron out of four electrons in the valence band of the silicon.

2 SINGLE CRYSTAL SILICON:

For single crystal silicon, an efficiency value as high as 24.7 percent has been obtained in a cell under laboratory conditions. However for commercially available modules, the efficiency ranges between 12 and 16 percent. The highest value reported is 22.7 percent.

The usual source of silicon is silica (silicon dioxide). In order to produce silicon, silica is melted and a measured amount of carbon is added. As a result, carbon dioxide is formed and silica is reduced to relatively pure silicon called metallurgical grade (MG) silicon. This grade contains about 1 percent impurities and is fairly inexpensive. However, this grade of silicon is not suitable for making solar cells. It has to be converted by a purification process to a much purer grade called semiconductor grade (SeG) silicon. The process is to treat MG-Si with hydrochloric acid to get richlorosilane gas, which is condensed and fractionally distilled to yield SeG-silicon. This is obtained in multicrystalline form. The above method for converting MG-Si to single crystal SeG-Si is expensive and increases the cost of the silicon by a factor of about one hundred.

The single crystal silicon has been obtained in the form of a long cylindrical block, 6 to 15 cm in diameter. This block is sliced into number of wafers (about 250.. thick) by sawing. The standard process has been to use very thin saws so as to reduce the loss of material associated with the sawing

process. A new type of a saw, called the multi - wire saw has been developed to reduce the sawing losses further. The p-type wafers are then passed through a furnace containing phosphorus vapour so that phosphorus atoms diffuse a short distance through one face of the wafers, thereby forming n-type silicon up to a depth of a micron or so. After this metal contacts are fixed too both faces of the wafer and an anti-reflection coating laid. Finally the wafer is encapsulated in a weather resistant transparent coating.

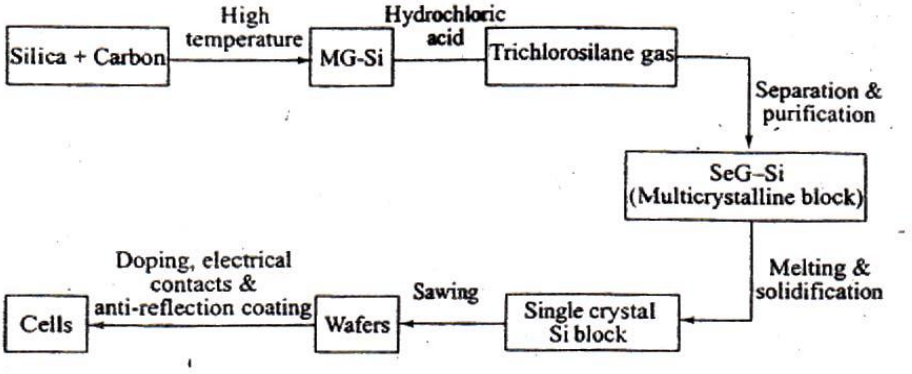


Fig. 2 Block diagram showing manufacturing process for a single crystal silicon solar cell

3 SOLAR CELL CHARACTERISTICS :

Solar cell is essentially a diode with larger surface area. Fig. 3 shows the lowes + voltage (v) curve of such adiode. When light is incident on the solar cell, the hole pairs are created at constant rate providing an electric current slow across the junction. The net current is thus the difference between the normal mode current and light generated I_{SC} . The maximum

solar cell efficiency is achieved at the working point.

($P_{max} = V_{mp} \times I_{mp}$)

The I-V curve of the irradiated solar cell cuts the X-axis at the point V_{OC}, the open circuit voltage. The maximum possible current from the solar cell is possible by short circuiting and is represented by the point I_{sc} . The ratio of P_{max} to the product of I_{sc} and V_{oc} known as fill factor i.e.

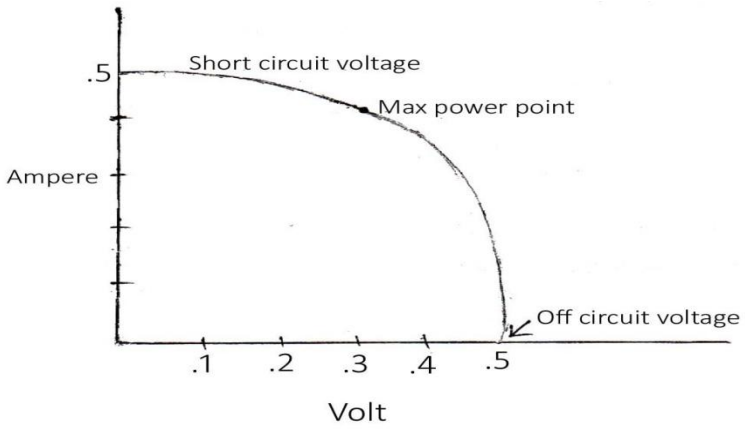


Fig. 3 Volt-ampere of 25 square cm P-n silion solar cell

i. e. $$F.F = \frac{V_{mp} \times I_{mp}}{V_{oc} \times I_{sc}}$$

When V_{mp} = Photo voltage at the maximum power point.

I_{mp} = Photocurrent at the maximum power point.

The accepted value of the solar radiation is 0.136 watt per square centimeter. Approximately one third of this energy is scattered when passing through the earth is atmosphere. At noon time on a clear day about 0.100 watt per square centimeter arrives at the surface of the earth.
This power conversion efficiency is calculated from

$$\eta = \frac{F.F \times V_{OC} \times I_{sc}}{P_{imput} \text{ X area of the solar cell}} \times 100$$

In the present study a solar cell of sumfall area 25 square centimeter deliver in full sum and at room temperature a power at 0.2 watt at 0.45 volt.
V_{mp} = 0.45 volt

$P_{max} = V_{mp} \times I_{mp}$

I_{mp} = 0.2 – 10.45 = 200/45 = 0.44

$$F.F = \frac{0.45 \times 0.44}{0.5 \times 0.5} \times 100$$

$$\eta = \frac{0.79 \times 0.5 \times 0.5}{0.20 \times 25} \times 100 = 3.95\%$$

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A COMPARATIVE STUDY OF ONLINE LEARNING AND CLASSROOM LEARNING IN THE ERA OF COVID-19

Ms. Sunanda Narang
Assistant Professor, Indore Management Institute & Research Centre
Dr. Parul Sharda
Associate Professor, Indore Management Institute & Research Centre

Abstract: India is fighting against the pandemic, covid-19. These pandemics affect the first health crisis and the country's economy. The spread of corona virus across the world has also affected the education sectors like the other prominent sectors of the country. The pandemic has made nationwide lockdown due to this all the school, colleges, institutions, universities and educational systems are closed. This pandemic has created the dicey situation for all educational stakeholders. To rid off the problem or to overcome the challenges all the institutions decide to adopt the new method of teaching i.e. online teaching. Hence through this research work, the researchers have tried to analyze the comparative difference between traditional teaching and online teaching in the perspective of all stakeholders and would find out the answer that does this pandemic (Covid_19) has a serious impact on education and learning? To conduct this study, total 248 responses were collected through self designed structured questionnaire and with the help of SPSS 16.0 independent t test and One Way Anova is used to analyze the student's preference among online and classroom teaching.
Keywords: Online Teaching, Classroom Teaching, covid_19, pandemic.

1 INTRODUCTION

Due to country-wide lockdown, the education sector has entered into a new phase of continuing the education by conducting online teaching. This has given an indirect boost

to IT sector, because online education can only be possible with the help of IT sector. Now the schools and colleges are closed in physical form but still they are commencing their classes through virtual mode. IT sector is like Best creation of human brain, which made the people connected virtually. Online teaching happens through various online platforms, various online tools and applications are introduced in the market to avail the opportunities like ZOOM, GOOGLE MEET, BIJUS, KHAN ACADEMY, UNACADEMY, GRADEUP, VIDHYAKELL, DOUBNUT, SIMPLYEARN, VEEDANTU etc. and for kids DUDIGO, CLASSDOJO, SCIENCE 360, QUICK MATHS, AMAZON KINDLE etc. are available which help the education sector to run the institutions for better interaction between the teachers and the students.

1.1 Online Learning

Technology plays an important role in educating the future generation. Even the pandemic won't stop us from educating ourselves. Technology is rapidly changing the environment where we live. For future growth, where everything is available digitally, it is important for everyone to adopt the new technology and it is necessary for education sector too. Education is something that can change the world in a positive way, and which must not stop even in the era of pandemic.

Online education in India is becoming very popular in the Covid era, being the ease of learning even at the remote location. The rapid use of technology majorly smart phones, laptops, Internet became the basic necessity now.

The classes and tuitions are started and conducted through Virtual classes. Now every town, villages, cities all are well acquainted in internet connectivity and they all are digitally connected for better interaction between the teachers and the students.

Faculty has to change their pedagogy teaching methods and adopt the new technology centered teaching. For that facilities also have to aware this E-learning with their pros corns for that they have to attain certain Basic

programs, FDPs that how to conduct, manage teaching online and do research and research publications and gain experience skills in online teaching.

Innovative models, apps were introduce to help in online teaching, universities and educational institutions offer various online webinars, FDPs, Conference courses for the students and faculties which helps in self developing in their specific area of interest.

According to Credible reports from KPMG and Google study, it is predicted that online education in India is likely to be 2 Billion USD industry by 2021 centers.

The education institutes have to update themselves, the strength of the institution is depending on the faculty members. Faculty have to change their pedagogy teaching methods and adopt the new methods and make the technology – centered teaching.

People hold out against change without knowing the need and importance of it and when the situation comes across due to covid-19, all should adopt the change willingly and unwillingly. Various higher education institutes used various techniques for innovation development and engagement of students by providing various online training programs, certificate courses etc.

Education and its Importance- Education is the process of imparting, learning or acquiring knowledge, skills, values, beliefs and habits.

One of the important ways to become successful and intellectual is Education. In this competitive world where we have to face a lot of challenges and difficulties in every filed. To cope up with all the challenges, threats and difficulties there is one major solution is Education. Education helps us in every dynamic situation; It is the reasons of root cause of occurrence of problem. Everyone have to impart education. The more educated you are more you get higher jobs.

Educated persons not only help to produce moral values but also impart respect for ethics and spirituality. It create discipline, the believe that time is equal to money. It is

a ray of light in the darkness. E-learning helps us in social distancing; it is not possible in this situation to take physical class study.

In all the countries government take various steps for youth to imparting more and more education and to reduce the literacy rate of the country. (Das Raj 2009)

1.2 Online teaching v/s Traditional Teaching-

These days there is a debate all over the world between the online and traditional class, which is extremely popular. Due to social distancing the new generation took a great step in online education but despite of popularity in E-learning there are various groups which are still away from such online activities, because of various reasons like not affordable, health issues, misconnection, internet issues etc. are the major reasons.

Every aspects have their positive and negative side, here the online teaching V/s Traditional Teaching have their own advantages and disadvantages.

Due to covid-19, this creates social distancing and now the online teaching is become popular and now everyone is using it.

Online teaching is very flexible, and altogether a live experience.

The first important difference is in traditional classroom is a physical classroom where the teachers are free to move here and there. The teacher physical presence helps to easily interact with the students and get the easily feedback which is quite tough in the online class.

In practical subjects, the teachers face several problems. In online teaching lack of proper feedback is a common challenge faced by the facilities.

Online learning or E-Learning classes helpful in professional learning courses, many employees get professional degree and diploma, they don't want to attend the regular class, they can get the class through online lectures which are more convenient for them, it saves valuable time and traveling distance. The travelling cost comes to zero no

charges for petrol, diesel, transport it there. It is very convenient and helpful to attend the classes in every manner at every place.

Even in busy schedule they can get some spare time to attend the sessions as well.

In traditional learning method, the learner gets easily interact with the instructor and also same for the learner. Direct response from the students is the missing factor in online classes. However there are various alternatives available for this problem like chat rooms, online fourms, e-mails etc.

Traditional/ face to face classes are more suitable for mature and dedicated learners in comparison to teenagers. Regular attendance, face to face lectures helps them to interact with each other of their own age and enjoy the life with full pleasure. The cultural events, activities, games, induction, convocation, tours etc. are not possible in online classes. There is a proper interaction between the teacher and the students, which helps teacher to easily evaluate the student's strength and the weakness and better work as mentor and guide the students in their career growth, which is very needful for the today's generation, which is only possible in classroom teaching.

The most important thing that is present in online lectures is computer, Smartphone. Some people might be comfortable and may be handy for them but peoples who are new to it, what about them? And they don't understand the modern way approach for education.

In online class the number of hours on screen is increases, students start using more mobile phones which damage the eyes retina and the sitting hours is also increases which causes various health issues, bad health, backbone problems etc.

An online classroom are user friendly, whenever you are, you can connect easily and get through this.

1.3 Research Questions

This study focuses on following survey question:

1. Is there any difference between online teaching and face to face teaching?
2. Are the Students satisfied through online teaching or they prefer classroom teaching?

1.4 Objective of the Study

1. To identify if there is any difference between online teaching and classroom teaching.
2. To examine the students preference between online teaching and classroom teaching.

1.5 Hypotheses of the Study

1. **H01:** There is no significant difference among online teaching and classroom teaching.
2. **H02:** There is no significant difference in gender among online teaching and classroom teaching.
3. **H03:** There is no significant difference in qualification among online teaching and classroom teaching.
4. **H04:** There is no significant difference in age among online teaching and classroom teaching.

2 REVIEW OF LITERATURE

Barindra De (2018) revealed the difference between traditional learning Vs Online learning. There are many factors consider which affect the individual in learning. These days there is a debate all over the world between the online and traditional class, which is extremely popular. Due to social distancing the new generation took a great step in online education but despite of popularity in E-learning there are various groups which are still away from such online activities, because of various reasons like affordability, health issues, poor network connection, internet issues etc. are the major reasons. ET Telecom.com from Economic times, identified that due to online learning classes the usage of Whats App increases by 40% and the 313% increase the usage of online meetings through various platforms.

Online Platform Livemint.com, Abhijit Abhaskar 19/05/2020 clarifies that the sale of all electronic items

suddenly increases after relaxation in lockdown, the demand just increases because of online education and work. In India around 12 to 13 million smart phones and accessories sold in every month, but in April during lockdown there was no sale. According to Faisal Kawoosa 4 to 5 million people searching for smart phones during lockdown.

According to world economic forum, 29 April 2020, worldwide there are around 1.2 billion children in 186 countries are affected by covid-19.

There is an high investment in education system in different education technology and the global edtech investment reaching out in US$18.66 billion in 2019 and estimated the online education investment $350 billion by 2025 in different languages app, video conferencing, online learning software apps etc,

3 RESEARCH METHODOLOGY

This research work is an analytical study done to identify whether there is any difference between student's preference among online classes and face to face classes i.e online teaching. In this study quantitative instrument is used in which structured questionnaire of 28 items has been prepared to collect the primary data, however various online articles and news readings has been considered in framing the research work.

- **Sampling Technique**: Purposive sampling has been used so that students who are easily approachable have been considered to collect the data.
- **Sampling Unit:** All students who are attending online classes in Covid scenario are considered as respondent for the study.
- **Sample size:** The complete and corrected questionnaire responses recorded are 248, although the questionnaire is circulated through emails and Whats App to various student categories which are approximately 500 in number.
- **Tool for data collection**: Primary survey has been conducted with the help of a self-designed structured

questionnaire as an instrument with 28 questions on likert scale, was used to collect the data from various students attending online classes. Dependability of the scale has been tried by utilizing Cronbach's alpha. Further SPSS 16.0 has been utilized to investigate and run the factor examination test, where Independent T-Test and One Way Anova are the technique that is used which is an inferential factual test that decides if there is a measurably noteworthy contrast between the methods in two disconnected gatherings, and the single direction examination of change (ANOVA) is utilized to decide if there are any measurably huge contrasts between the methods for at least two autonomous (irrelevant) gatherings.

4 RESULT ANALYSIS & INTERPRETATION

Reliability of the scale has been tested by using Cronbach's alpha (Table 1), value stands .**925,** which stands excellent to continue the research study.

Table-1-Reliability Statistics

Cronbach's Alpha	N of Items
.925	28

4.1 Independent T-Test

To understand the mean difference between the two groups of students i.e. One Group of Online Preference Learners and Other group is Classroom preference learners. The assumptions that the data is normally distributed and homogeneity of variance has been met. Below Table-2 indicates that the value is greater than .05 i.e. p=2.081 which means that null hypotheses is accepted and there is no significant difference between online teaching and classroom teaching for the students, who wants to learn and grow. It minimizes the time wastage of commutation and other activities in which students are not interested. This

ultimately saves time and energy of students whereby improves the study time and broadens the learning curve. Online teaching also has open up the new avenues of learn at home in flexible environment.

Table-2 -Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Score	Equal variances assumed	3.801	.052	2.081	246	.038	.23333	.11212	.01250	.45417
	Equal variances not assumed			1.764	60.702	.083	.23333	.13230	-.03124	.49791

Table-3 indicates the p value greater than .05 which accepts the null hypotheses that there is no significant difference in gender while the students learn either through online mode or classroom mode. Whether male or female the students wish to learn in flexible environment.

Table-3-Independent Samples Test for Gender

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Score	Equal variances assumed	.023	.880	.776	246	.439	07405	.09547	-.26209	.11400
	Equal variances not assumed			.775	155.120	.440	.07405	.09556	-.26281	.11472

Qualification has been considered between High School, Higher Secondary , UG and PG, hence One way anova is applied and for which the results in Table -4 indicates that p value is less than .05 i.e p=.000 which

means that null hypotheses rejected and it infers that qualification has a significant impact on the learning whether online or classroom, i.e once the student gets mature, crosses teenage and enters in the last year of graduation or in post graduation he becomes more serious to studies looking to make his/her career in coming years.

Table-4-ANOVA table for Qualification

Score					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	13.306	3	4.435	9.974	.000
Within Groups	108.508	244	.445		
Total	121.814	247			

As the age group were considered between 15-20, 20-25 and 25-30 , hence One way anova is applied and for which the results in Table -5 indicates that p =.017 which shows that p<.05 and hence the null hypotheses rejected which means that age is having significant impact on mode of learning. The adolescents and teenagers are not quite serious about studies while it is online mode due to lack of face to face interaction and classroom discipline. while as the age grows the students learn and understand the importance of education, and hence in our literature review by Barindra De (2018) also mentions that, in this pandemic scenario the college students have earned many online certificate courses from various online education portals like SWAYAM, MOOCs, Coursera, Udemy etc. and have increased their online presence to learn and grow while sitting at home during countrywide lockdown.

Table-5-ANOVA Table for Age

Score					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.982	2	1.991	4.140	.017
Within Groups	117.832	245	.481		
Total	121.814	247			

4.2 Findings of the Study

The impact of pandemic can be seen in all the sectors including education. And who else apart from parents & teachers know the importance of continuity in education. Even a gap of one day can hamper the studies, and now the countrywide lockdown has crossed 5 months since March 2020. Does the education stopped? The answer is No. Why? Because the teachers and students know and understand that it is the need of hour to come out of comfort zones, so that learning can be continued even in lockdown due to covid_19. It is the time when we can explore the new things at online platforms and the result is in front of us. The Zoom classes, Google classroom, Google Meet Cisco WebEx etc. are few platforms which came up with new features and add-on facilities for making an interactive teaching learning platform.

This Research Study analyses and finds that the students have whole heartedly accepted the new normal and explored the new avenues of learning online. It doesn't matters to most of the students whether online teaching or classroom teaching for the students who wants to learn and grow. It minimizes the time wastage of commutation and other activities in which students are not interested. This ultimately saves time and energy of students whereby improves the study time and broadens the learning curve. Online teaching also has open up the new avenues of learn at home in flexible environment.

This Research also explores that there is a significant impact of age and qualification on mode of learning, as

adolescents and teenagers are not quite serious about studies while it is online mode due to lack of face to face interaction and classroom discipline, as the age grows, the students learn and understand the importance of education. It also mentions that once the student gets mature, crosses teenage and enters in the last year of graduation or in post graduation he becomes more serious towards studies looking to make his/her professional career in their forth coming future life.

5 CONCLUSION

"*In order to create an engaging learning experience, the role of instructor is optional, but the role of learner is essential.*" - **Bernard Bull**"

This quote clearly signifies that it is not only the mode of teaching but an active participation from the learner is equally required for making an exemplary learning experience. Through this research study we can conclude that the students who gain a sense of maturity doesn't bothers about the classroom teaching or online teaching , what they want is the extensive and fruitful learning experience. This pandemic has opened up new avenues and platforms to continue education even when the whole economy is facing complete lockdown, we can call this covid_19 as blessing in disguise.

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STUDY ON MUNICIPAL SOLID WASTE MANAGEMENT

Dr. N. Srivastava, New Delhi

Abstract - Municipal solid waste management (MSWM) is one of the most critical environmental problems in Indian villages. Effective municipal solid waste management (MSW) poses a risk to residents. Various reports indicate that nearly 80% of MSW is inclined to irrationally in open puts and waste fields, causing safety and environmental issues. In the present analysis, the distinctiveness, production, compilation or transport, discarding, or action technologies of MSWs applied in the country have been thoroughly assessed. The MSWM research for Indian cities was conducted to determine the present situation and recognize significant issues. Various adopted MSW treatment techniques and their benefits and drawbacks are objectively investigated. The report is completed by a few fruitful recommendations that may help motivate the competent authorities/researchers to try to develop this program further.

1. INTRODUCTION

The MSWM analysis has been carried out for Indian cities to recognize the present situation and significant problems. Different implemented MSW treatment methods and their advantages and limitations are critically discussed. The study ends with several positive suggestions that will help inspire competent authorities/researchers to improve this project.

MSW is usually disposed of without any safeguards or operating controls in low-lying areas. Therefore, MSWM is one of the Indian megacities' main environmental issues. It includes the generation, storage, collection, distribution, and transportation of solid waste, recycling, and disposal. However, in most cities, there are only four operations within the MSWM system, i.e., waste invention, storage, transport, or discarding.

2. QUALITATIVE AND QUANTITATIVE ANALYSIS OF MSW

MSWs are classified into several types, including agricultural waste, refuse, agricultural waste, municipal waste, street comprehensive waste, construction waste, building, or destruction waste or hygiene waste. MSW includes recyclable (paper, bottles, glass, chemicals, etc.), hazardous products (paints, poisons, batteries, and medicines), agricultural compostables (fruit and vegetables, animal waste), or soil waste.

The amount of MSWM produced is based on various features, for example, food patterns, living conditions, and the level of industry or seasons. Quantity variance data and generation data are helpful in storage and disposal systems planning. Indian towns produce eight times more municipal solid waste management than they did in 1948, with growing urbanization and evolving lifestyles. Currently, 80 million tons of solid waste is produced per year as by-products for chemical, manufacturing, residential, agricultural, or other procedures. The per capita amount of municipal solid waste management delivered is expected to grow at 1–1.33 percent per year.

Table 1 MSW generation rates in dissimilar states in India

S. No.	Name of the state	No. of cities	Municipal population	Municipal solid waste (t/day)	Per capita generated (kg/day)
1	Andhra pradesh	32	10,845,907	3943	0.364
2	Assam	4	878,310	196	0.223
3	Bihar	17	5,278,361	1479	0.280
4	Gujrat	21	8,443,962	3805	0.451
5	Haryana	12	2,254,353	623	0.276
6	Himachal pradesh	1	82,054	35	0.427
7	Karnatka	21	8,283,498	3118	0.376
8	Kerala	146	3,107,358	1220	0.393
9	Madhya Pradesh	23	7,225,833	2286	0.316
10	Maharashtra	27	22,727,186	8589	0.378
11	Manipur	1	198,535	40	0.201
12	Meghalaya	1	223,366	35	0.157
13	Mizoram	1	155,240	46	0.296
14	Orissa	7	1,766,021	646	0.366
15	Punjab	10	3,209,903	1001	0.312
16	Rajasthan	14	4,979,301	1768	0.355
17	Tamil Nadu	25	10,745,773	5021	0.467
18	Tripura	1	157,358	33	0.210
19	Uttar Pradesh	41	14,480,479	5515	0.381
20	West Bengal	23	13,943,445	4475	0.321
21	Chandigarh	1	504,094	200	0.397
22	Delhi	1	8,419,084	4000	0.475
23	Pondichery	1	203,065	60	0.295
		299	128,113,865	48,134	0.376

Source: Status of MSW generation, collection, treatment, and disposal in class-I cities (CPCB, 2000).

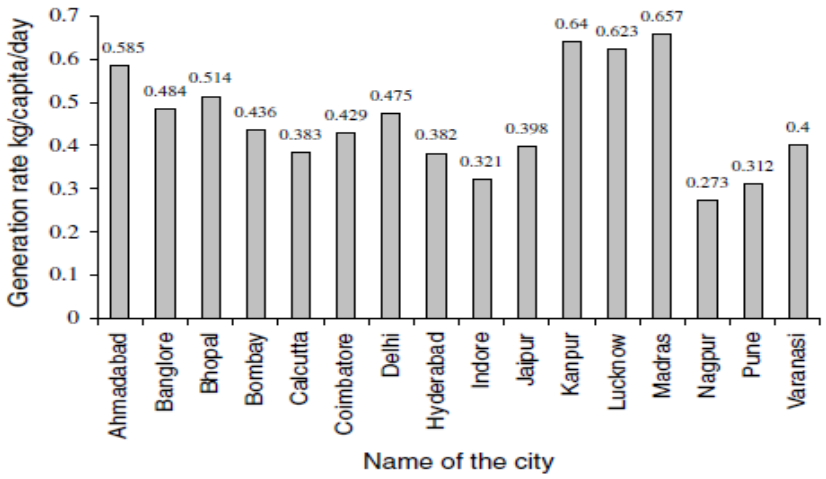

Fig. 1. Per capita generation rate of MSW for Indian cities (CPCB, 2004).

3. TRANSFER AND TRANSPORT OF MSW

Transference stations are not used (apart from in certain situations, such as Madras, Mumbai, Delhi, Ahmadabad, or Calcutta) and are transferred to the recycling or disposal site by the same vehicle gathering refuse of individual soot-bearings (Colon and Fawcett 2007; Khan 1995). The municipal solid waste obtained from the dustbins is carried on various vehicles to the manufacturing or disposal sites. The bullock carts, tractor trucks, tricycles, etc. are utilized primarily to transport the municipal solid waste in smaller (rural) cities. Light motor vehicles or Lorries are typically used to carry MSW in significant towns or villages. The vehicles used for transporting municipal solid waste management are generally of an open body kind. They are typically left uncapped, and the waste continues to spill on the ground during transport, contributing to unhygienic conditions.

Processing and distribution operations comprise roughly 80–95% of MSWM's overall budget; thus, they are crucial in the economic calculation of the whole municipal reliable waste management program. Municipal authorities have their own MSW cars, while they are contracted to private companies in many cities (Ghose et al., 2007;

Siddiqui et al., 2007; Nema, 2005; Bhide and Shekdar, 1999).

4. MSWM RULES IN INDIA

In 2000, India's Ministry of Environment and Forest (MOEF) administration released municipal definite waste rules for scientific MSWM, ensuring the proper storage, sorting, distribution, refining, OR discarding of municipal solid waste and improvements to available facilities to tackle groundwater and soil pollution. The law has appointed the CPCB to control the application of these regulations. It would allow municipalities to send regular reports on MSW's condition in their regions to the CPCB. Such guidelines apply to any Indian municipal authority responsible for MSWM. Also, the Uttar Pradesh Municipal Corporation Act 1958, the Municipal Corporation Act 1958, and the Karnataka Municipal Corporation Act 1977 are in force. Such laws also tackle environmental contamination caused by the inadequate disposal of MSW, including Delhi plastic bags (manufacturing, selling or practice) or the non-biodegradable garbage (control) law 2001, to avoid contaminating foodstuffs held in used synthetic bags, restrict the utilize of plastic bags, dump or dispose of non-ecological waste in community exhaust, roads or sites MSWM is also seen as a lousy infrastructure by local councils when opposed to further public services since municipal solid waste management is unable to get better running costs. Nevertheless, mainly municipalities cannot have the required degree of environmental resources. Owing to a variety of challenges, they were not very successful concerning SWM facilities.

5. CONCLUDING REMARKS

It seems better to allow the public to divide municipal solid waste or sell it directly to the informal network. MSWM could increase its productivity by engaging citizens and the private sector through NGOs. General consciousness among the public will be generated to indoctrinate the wellbeing implications of waste. MSW littering in villages, cities, or

industrial regions advised by the State administration will be forbidden. Also, the house-to-house MSW set will be managed with strategies such as routine pre-informed selection or preparation. The collection bins should be adequately built by characteristics as reduce errors metal containers and be able to handle 20 percent more than the planned waste production in the field, mechanical loading and unloading system, positions, etc. Municipal agencies should manage storage facilities so that unhygienic and unhealthy conditions are not generated.

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शिक्षक एवं व्यावसायिक नैतिकता
TEACHER & PROFESSIONAL ETHICS

Dr. Sudhanshu Shekhar
(Research Scholar), Department of Education, Magadh University; Bodhgaya

सारांश– नियम एवं सिद्धान्त होने से व्यवसाय को एक आधार प्राप्त होता है जिस पर चलकर वह अपना विकास करता है। नियम एवं सिद्धांत सभी व्यावसायिक कार्यो में एक रूपता लाने में सक्षम होते हैं। यह व्यवसाय की प्रकृति भी एक सीमा को नियंत्रित करते हैं। अतः किसी भी व्यवसाय में नियमों एवं सिद्धान्तों का बहुत महत्व होता है।

शिक्षक के व्यवसाय में मूल्य एवं विश्वास के लिये सिद्धान्तों की आवश्यकता हाती हैं। इन सिद्धान्तों का वर्णन अग्र प्रकार किया जा रहा है–

(i) बालकों में बौद्धिक एवं चरित्र निर्माण के विकास के लिए प्रेरणा प्रदान करनी चाहिए।

(ii) स्वयं को उन नियमों एवं आदर्शो में स्थापित करना चाहिए कि विद्यार्थी उन्हें आदर्श मानें।

(iii) शिक्षण कौशलों एवं ज्ञान जो कि उसके विषय के अनुरूप होने का सम्पूर्ण ज्ञान होना चाहिए।

(iv) वह शिक्षण कार्य की गुणवत्ता का पालन करने वाला है एव उसकी गुणवत्ता बनाये रखने के लिए प्रतिबद्ध होना चाहिए।

(v) शिक्षक न सिर्फ अपने संस्थान बल्कि समाज के लिए उत्तरदायी होना चाहिए।

(vi) विद्यार्थियों के सर्वागीण विकास के लिए प्रेरित करना उसका लक्ष्य होना चाहिए।

उपर्युक्त के बाद हम भली प्रकार से यह कह सकते हैं कि शिक्षण एक व्यवसाय है और सभी व्यवसायों में आदर्श स्थान रखता है। क्योंकि यह समाज के निर्माण तथा उसके विकास से प्रत्यक्ष रूप से जुड़ा हुआ है।

''शिक्षण एक ऐसा व्यवसाय है, जो सभी व्यवसायों की नींव रखने में सक्षम होता है।'' इसी कारण शिक्षक को भविष्य तथा राष्ट्र का निर्माता कहा जाता है''

शिक्षक को मनुष्यों का निर्माता, राष्ट्र–निर्माता तथा शिक्षा पद्धति की आधारशिला माना जाता है। प्राचीनकाल से शिक्षक ब्रह्मा, विष्णु महेश सदृश पूज्य रहा है परन्तु इस भौतिकवादी युग में उसकी प्रतिष्ठा में कमी आयी है। फिर वर्तमान समय में

शिक्षक को अपने अतीत से प्रेरणा लेते हुए कार्य करना चाहिए। वर्तमान शैक्षिक प्रक्रिया में शिक्षक, शिक्षार्थी एवं पाठ्यक्रम तीन ध्रुव हैं इनमें शिक्षक का स्थान सर्वोपरि है, जो अन्य दोनों को प्रभावित करता है। ''शिक्षक ही विद्यालय तथा शिक्षा–पद्धति की वास्तवित गत्यात्मक शक्ति है'' यह सत्य है कि पाठ्यक्रम पाठ्य–सहगामी क्रियाएँ, पाठ्य–पुस्तकें आदि सभी शैक्षिक कार्यक्रम में बहुत महत्वपूर्ण स्थान रखती हैं परन्तु जब तक उनमें अच्छे शिक्षकों द्वारा जीवन–शक्ति प्रदान नहीं की जाती तब तक वे सब निरर्थक हैं। शिक्षक को यह शक्ति उसके व्यावसायिक आचार नीति के पालन एवं आचरण से प्राप्त होती है। अन्य व्यवसायों की भाँति शिक्षण व्यवसाय की अपनी व्यावसायिक आचार नीति तथा विशिष्ट आचरण होता है, जिसकी अपेक्षा प्रत्येक शिक्षकों से की जाती है। शिक्षण व्यवसाय समाज द्वारा विशिष्ट व्यक्तियों को दिया गया विशिष्ट कार्य है। शिक्षक का सम्पूर्ण व्यक्तित्व विद्यार्थियों के जीवन को प्रत्येक पक्ष से प्रभावित करता है। अतः इस व्यवसाय में व्यवसायगत मूल्य तथा उनके अनुरूप आचरण एक शिक्षक के लिए परम आवश्यक हो जाता है।

शिक्षकों की व्यावसायिक आचार नीति यह बताती है कि ''यदि अध्यापक के पास सच्चा आदर्श प्राप्त नहीं है, तो उसे शीघ्र ही दुकानदार बन जाना चाहिए, वहाँ उसे अपनी योग्यता के अनुसार निस्सन्देह आदर्श प्राप्त होगा।

शिक्षक को अपने व्यवसाय के महत्व को समझना चाहिए। इस व्यवसाय के महत्व के कारण ही शिक्षक को राष्ट्र निर्माता कहा जाता है। वह अपने व्यवसाय के प्रति अन्याय तथा विश्वासघात करता है यदि वह एक बार इस वृति को अपनाकर दूसरे कार्यो में व्यस्त रहता है। अपने व्यवसाय के प्रति निश्ठावान हुए बिना वह अपने विद्यार्थियों को वास्तविक एवं उचित मार्ग दर्शन कदापि नहीं कर सकता। अपने विद्यार्थियों का मार्ग–दर्शन करने एवं उन्हें विकासोन्मुख बनाने के लिए शिक्षक को आव''यकता है कि वह अपने व्यवसाय से सम्बन्धित मानदण्डो, मूल्यों को अपने में विकसित कर उसका पालन करें।

शिक्षण व्यवसाय/वृत्ति से सम्बन्धित मूल्य/आचार

शिक्षण व्यवसाय/वृत्ति को प्रभाव''ाली बनाने के लिए शिक्षक से निम्नलिखित मूल्यों की अपेक्षा की जाती है।

(i) **मानवीय मूल्य**– शिक्षण कार्य व्यक्ति निर्माण का कार्य है। शिक्षक सम्पूर्ण शिक्षण प्रक्रिया की गत्यात्मक शक्ति है। विद्यार्थियों के उच्च मानवीय मूल्यों के विकास के लिए आवश्यक है कि शिक्षक में सत्यनिष्ठा, ईमानदारी, नैतिकता, आदर्शवादिता, सहानुभूति आदि मानवीय मूल्य विद्यमान हो।

(ii) **मानवाधिकार**– शिक्षक को शिक्षा के माध्यम से विद्यार्थियों को बाल्यावस्था में ही मानवाधिकारों से अवगत करा देना चाहिए। ऐसे में शिक्षक को स्वयं मानवाधिकारों को पर्याप्त ज्ञान होना चाहिए।

(iii) **कर्त्तव्यपरायणता**– शिक्षण का कार्य एक विशिष्ट कार्य है, जिसे शिक्षक की कर्त्तव्य परायणता से अधिक प्रभावी बनाया जा सकता है।

(iv) **निजता का सम्मान**– शिक्षक को अपने शिक्षण कार्य के दौरान विद्यार्थियों के साथ अच्छे पारस्परिक सम्बन्ध विकसित करने के लिए आवश्यक है कि वह विद्यार्थियों की निजता का सम्मान करें तथा विद्यार्थियों को ऐसा विश्वास भी कराने में सक्षम हो।

(v) **समयनिष्ठता**– अपने छात्र–छात्राओं में समय निश्ठता का विकास करने के लिए शिक्षक को अपने कार्यो में इसे समाहित कर प्रदर्शित करना होगा। जो उसके विद्यार्थियों को प्रत्यक्ष रूप से प्रभावित करता है।

(vi) **समानता**– शिक्षक को अपने शैक्षिक जीवन में सभी विद्यार्थियों के साथ समान व्यवहार करना चाहिए। उसका व्यवहार सभी के प्रति पक्षपात रहित होना चाहिए।

(vii) **सम्मान एवं आत्मसम्मान**– शिक्षक को आत्मसम्मान से परिपूर्ण होना चाहिए ताकि वह विद्यार्थियों में आत्म–सम्मान का भाव विकसित कर सके। साथ ही वह दूसरे के प्रति भी सम्मान का भाव रखें।

(viii) **परानुभूति एवं शिक्षण कुशलता**– शिक्षक में अपने कक्ष के विद्यार्थियों के संवेगों को ठीक से समझने और नियंत्रित करने के लिए परानुभूति होना आवश्यक है। शिक्षक को शिक्षण कौशलों में कुशल होने पर अपने शिक्षण को प्रभावी बनाने में सहायता मिलती है।

शिक्षक के उत्तरदायित्व

इस सच्चाई से इंकार नहीं किया जा सकता कि शिक्षा की किसी भी योजना के क्रियान्वयन में शिक्षकों की ही निर्णायक भूमिका रहनी है। यदि किसी भी देश के भाग्य के निर्माण में उसके बालकों की दी जानी शिक्षा का हाथ माना जाता है तो इस भाग्य का निर्माता कोई और नहीं बल्कि उस देश के शिक्षक ही होते हैं। बच्चों को सामाजिक प्राणी के रूप में रहना सिखाने तथा अच्छे नागरिक के रूप में अपना, अपने देश और सारी मानवता का कल्याण करने में योगदान देने की बात शिक्षकों के प्रयासों का ही प्रतिफल होता हैं।

कुशल और प्रभावशील शिक्षक अपनी योग्यताओं, क्षमताओं तथा गुणों के कारण जहाँ विद्यार्थियों के व्यक्तित्व का सर्वांगीण विकास करने की दिशा में वरदान सिद्ध हो सकते हैं वही अक्षम एवं अयोग्य अध्यापक द्वारा विद्यार्थियों पर प्रत्यक्ष रूप से प्रतिकूल प्रभाव पड़ता है। अतः एक शिक्षक से उम्मीद की जाती है कि वह अपने कर्त्तव्यों एवं उत्तरदायित्यों का निर्वहन भली–भाँती करें क्योंकि शिक्षक का प्रभाव उसके विद्यार्थियों पर प्रत्यक्ष रूप से पड़ता है अतः उससे समाज को विभिन्न उम्मीदें होती हैं।

शिक्षक पूरे शिक्षण तंत्र की नींव होता है, जिस प्रकार एक भवन को स्थिर एवं दृढ़/मजबूत बनाए रखने की जिम्मेदारी नींव की होती है, ठीक उसी प्रकार किसी देश की अखण्डता और विकास की जिम्मेदारी शिक्षक के कंधों पर होती है उस देश का भविष्य शिक्षक पर निर्भर करता है। जिस कारण एक शिक्षक से समाज के विभिन्न वर्गों की आशाएँ बंधी होती हैं। फलतः देश अथवा समाज के प्रति उसकी जिम्मेदारियाँ भी बढ़ जाती हैं।

शिक्षक न केवल अपने शिक्षण कार्य के प्रति वरन् कई अन्य पक्षों के प्रति भी जिम्मेदार होता है। इन जिम्मेदारियों का विवरण निम्नवत् प्रस्तुत है–

पेशेवर जिम्मेदारियाँ–एक शिक्षक की अपने पेशे के प्रति भी कुछ जिम्मेदारियाँ होती हैं, जो निम्नलिखित हैं–

(i) छात्रों के प्रति अपने कर्त्तव्यों और जिम्मेदारियों का पालन करना।

(ii) स्कूल योजनाओं, नीतियों और कार्यक्रमों के विकास में सहयोग करना।

(III) वसीयत, दस्तावेज, शिक्षण और सिखने के कार्यक्रमों का विकास करना उचित मूल्यांकन तंत्र के लागू करना।

(iv) विकलांग या अन्य विशेष जरूरतों वाले छात्रों सहित सभी छात्रों के साथ न्याय संगत व्यवहार करना, उनके उपचार की आव''यकता के प्रति सचेत होना।

(v) छात्रों की व्यक्तिगत सीख को अधिकतम करने के लिए प्रत्येक छात्र की सहायता करना।

शिक्षक के व्यावसायिक विकास में दक्षताओं की आव''यकता होती है जिससे शिक्षक को विकास के अवसर प्राप्त होते हैं। ये दक्षताएँ निम्न प्रकार हैं–

(i) **विषयवस्तु सम्बन्धी दक्षताएँ**– किसी भी अध्यापक को अपने पढ़ाये जाने वाले विषय में पूरा अधिकार हो। यही नहीं, उसे सम्बन्धित विषयों का भी ज्ञान हो। सामान्य ज्ञान तो होना ही चाहिए। अध्यापक जितना ही विशय पर अधिकार रखता होगा वह छात्रों के लिए उतना ही प्रिय बन जाता है। विषय में मास्टरी रखने वाला व्यक्ति ही अधिगम कराने में सक्षम होगा। यह क्रिया उसके लिए आनन्द की क्रिया हो जाती है। इस हेतु अध्यापक को एक अच्छा पाठक एक अच्छा अधिगमकर्त्ता होना चाहिए। पाठ्य–योजना बनाते समय भी छात्रध्यापकों/छात्रध्यापिकाओं को सन्दर्भ पुस्तकों का उल्लेख करने से आधुनिक एवं परिवर्द्धित ज्ञान का विकास होता है।

(ii) सम्प्रेषण सम्बन्धी दक्षता– शिक्षक कार्य के लिए सबसे मुख्य कार्य जो अध्यापक को करना होता है वह है विषयवस्तु (ज्ञान) का सम्प्रेषण करना अर्थात् ज्ञान को छात्रों तक पहुँचाना, जिससे वे ज्ञान को आत्मसात् कर सकें। तभी अधिगम (सिखना) का स्तर भी बढ़ता है। ज्ञान स्मृति–पटल से चिन्तन–पटल तक

ले जाता है, जहाँ सम्प्रेषण विधियों का भी ज्ञान होना जरूरी है। उसे अपनी योग्यता, क्षमता के अलावा स्वयं में मनोवैज्ञानिक विधियों का भी होना जरूरी है। उसे अपनी योग्यता, क्षमता के अलावा छात्र की रूचि, योग्यता, पूर्वज्ञान एवं उन परिस्थितियों का जानना भी आवश्यक होता है, जो सम्प्रशण को बढ़ाती हैं।

अध्यापक का सम्प्रेशण उसकी प्रभावशीलता के द्वारा परखा जा सकता है। कक्षा में यही अवयवों पर निर्भर करता है, जैसे–अधिगमर्त्ता का प्रति–उत्तर, व्यक्तिगत विकास एवं बालक की मनःस्थिति, रूचि, वातावरण, ध्यान इत्यादि।

(iii) अन्य शैक्षिक क्रियात्मक दक्षताएँ– विषयवस्तु का सम्प्रेषण करने के लिए पाठ्येत्तर क्रियाओं की आवश्यकता होती है। हाथों द्वारा बनाये गये उपकरण, इधर–उधर फैले संसाधनों का उपयोग, वैज्ञानिक विधियों का उपयोग, सामाजिक पर्वो का आयोजन, जिससे हम भ्रमण, श्रमदान, सहयोग, विचार–चिन्तन, आपसी भाईचारा सीखते हैं, वहीं छात्राध्यापक/छात्राध्यापिकाएँ अन्य गुणों को भी सीखते हैं जो भावनात्मक प्रशिक्षण के रूप में उपयोगी होता है।

(iv) शिक्षण– अधिगम सामग्री निर्माण में दक्षताएँ–अधिगम के सम्प्रेषण के लिए आवश्यक है कि छात्राध्यापक/छात्राध्यापिकाएँ ऐसे उपकरण बनाने में दक्ष हों, जिससे बालक विषयवस्तु को शीघ्रता से सीखें, जैसेः घड़ी न होने पर नाड़ी की धड़कन से समय का मापन करना।

शास्मिक एवं अम्लीय मूलकों का गुणात्मक परीक्षण हेतु कीप एवं उपकरण की आवश्यकता होती है। प्रायः एक ही कक्षा के लिए एक उपकरण में इतनी भीड़ हो जाती है कि अनावश्यक स्तर इन्तजार में ही लग जाता है। अतः उपकरण ऐसा हो जिसे प्रत्येक सीट पर रखा जा सके। वह पूरी तरह तरह कार्य करे। कार्य के पश्चात् वह स्वतः ही बंद हो जाये।

हस्त निर्मित सौर ऊर्जा सेल, विद्युतीय उपकरण, वाटर हीटर (जो पानी गर्म करता है) तथा होटर आदि देखे जा सकते हैं।

एक दक्ष अध्यक्ष अपने छात्रों को हाथ से बनाये गये अनेक उपकरण बनाने की प्रेरणा दे सकता है। घरेलू सामग्री से मोटर आदि के मॉडल बनाये जा सकते हैं। जल विश्लेषण या जल–अपघटन का उपकरण आसानी से बन सकता है।

ग्रामीण क्षेत्रों में सब्जिया, फलों एवं खाद्य को सुरक्षित रखने के लिए देशी कुलन बनाये गये हैं जो बिना विद्युत के आवश्यक ठण्डक देकर खाद्य पदार्थो को सुरक्षित रखते हैं।

अध्यापन के समय बाजार निर्मित उपकरणों की जगह पर अध्यापक या छात्रों द्वारा स्वनिर्मित उपकरण अधिक प्रभावी रहते हैं।

लैंस पर आधारित दूरबीन, सौर ऊर्जा के उपयोग सम्बन्धी उपकरण, गुरूत्वाकर्षण सम्बन्धी खिलौने छात्रों को प्रेरणा द्वारा बनवाये जा सकते हैं। छात्र निर्मित विज्ञान कॉर्नर में छात्र निर्मित उपकरणों, सारणी एवं संगृहीत वस्तुओं को रख सकते हैं।

विद्यालय में विज्ञान मेले का आयोजन, विज्ञान प्रदर्शनी एवं संग्रहालयों का अवलोकनार्थ भ्रमण वैज्ञानिक सोच उत्पन्न करने हेतु लाभदायक होता है।

(v) सन्दर्भगत दक्षताएँ– सभी विषय परन्तु विशेष रूप से विज्ञान जैसे विषयों को पढ़ाते समय मूलभूत या आधारभूत प्रत्यय स्पष्ट करने हेतु सन्दर्भगता दक्षता प्राप्त करना आवश्यक है।

यह दक्षता विषयों को पढ़ाते समय मूलभूत या आधारभूत प्रत्यय स्पष्ट करने हेतु सन्दर्भगता दक्षता प्राप्त करना आवश्यक है।

यह दक्षता इस बात पर जोर देती है कि हम जब तक पाठ्यवस्तु के सन्दर्भ बिन्दुओं को समझ नहीं लेते, तब तक विषय वस्तु भी समझ में नही आती। किसी घटना को तब ही हम भली–भाँति समझ सकते हैं जब हम उस सन्दर्भ की परिस्थितियों (आर्थिक, सामाजिक या सांस्कृतिक) को समझ लेते हैं, जैसे वैदिक काल में अध्यापक ब्राह्मण ही हुआ करते थे। अब हर जाति और धर्म के व्यक्ति अध्यापकीय कार्य में लगे हुए हैं। लोकतंत्र में सभी को अध्यापकीय व्यवसाय में आने का हक है। देश, काल, पात्र आदि के परिवर्तन से तथ्य एवं अर्थ भी बदल सकते हैं।

अध्यापकीय शिक्षा समाज से सम्बन्धित होती है, जिसका काम समाज के उच्चतर मूल्यों को स्थापित करना है इसलिए समाज के मूल्य, सामाजिक–आर्थिक स्थिाति एवं सांस्कृतिक मूल्यों का जानना जरूरी है।

विज्ञान के मामले में भी ऐसा ही है। लेखक ने कुछ विज्ञान के छात्राध्यापकों से प्रश्न किया कि शक्कर पानी में घुल जाती है, रेत क्यों नहीं ? इसका उत्तर केवल घुलनशील एवं अघुलनशील मात्र कहने से पूरा नहीं हो जाता। घुलनशील स सम्बन्धित निहित बिन्दुओं का जानना जरूरी है। हाइड्रोजन बॉण्ड से सम्बन्धित कर उत्तर की पूर्ति होती है न कि केवल घुलन'ीील कह देने से। प्रश्न का उत्तर कक्षा 11 की विज्ञान की पुस्तकों में मिल जाएगा। तात्पर्य यह है कि अध्यापक को पाठ्यवस्तु के बिन्दुओं को समझना जरूरी है।

आजादी प्राप्ति के समय हमारे देश में जो शिक्षा पद्धति चल रही थी वह अभी भी चल रही है। वैज्ञानिक प्रगति के साथ नये–नये विषय आ रहे हैं, मूल्य भी बदल रहे हैं। एक अध्यापक को नवीनतम जानकारी तथा मूल भावना से परिचित होना चाहिए। आधुनिक काल में कम्प्यूटर विषय के सम्बन्ध में जानकारी होना हमारी आवश्यकता हो गयी है।

इसलिए सम्दर्भगत दक्षता प्राप्त करना प्रत्येक अच्छे एवं सफल अध्यापक/अध्यापिका को जानना जरूरी है। वैश्वीकरण, उदारीकरण, ज्ञान के प्रसंग तथा परिवर्तन सम्बन्धी चुनौतियों के बारें में अपने अध्यापक को जानना जरूरी है। सफल अध्यापक वही है जो लगातार अध्ययनरत रहता है और अपने ज्ञान की क्षुधा को भाांत करने में लग जाता है।

(vi) संकल्पना को स्पष्ट करने की दक्षता– अध्यापक के लिए आवश्यक है कि उसमें जटिल संकल्पनाओं को सरल ढ़ंग से स्पष्ट करने की दक्षता होनी चाहिए।

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"CHALLENGE'S AND OPPORTUNITIES OF LEGAL EDUCATION IN INDIA DURING COVID-19"

Urvashi Sharma
Assistant Professor, S & S Law College, Indore

Abstract: This article offer insights of legal education system in republic India by locating it among a wider context of type and ways that of legal education in country and analyzing that 'Is school of law a decent investment?' and what opportunities we've got during this field. The article makes some observations regarding history, gift and scope of legal education in Bharat. Asian country and explores the aims and objectives of legal education in India. The article then turns to technique of teaching and examinations and qualifications needed at every level during this field. Then it's within the gap between study and follow and therefore the attainable changes needed to be created within the existing course of study so as to enhance the legal education system and to form it additional relevant and meaningful during this globalized world. The article then considers the role of the Bar Council of Republic of India within the field of legal education like the ever-changing desires of the society the task of the lawyers is very technical and there's an important ought to have competent lawyers United Nations agency would be trained within the right culture of legal education. The article concludes with some reflection on the career opportunities and therefore the challenges that the system faces and therefore the attainable reforms within the Indian legal education system.

It has been two month ago of this global pandemic covid19 after which every educational institutions of the world are currently off. This is a national emergency time. Exams are getting postpone students are not able to come college and not able to continue studies ,but every students not possible to online classes can provide will to no help to some studies are the students who are studding law are

some of the worst affected . As the law degree is one of the most important and professional degree in India.

Keywords: Legal education, Covid 19, ADR, Educational Institutions, Constitution of India.

1 INTRODUCTION

Legal education means acquiring knowledge of the subject of law as one of the subject of law the most academic discipline job, job in India law degree is professional degree of this field, law includes both professional and liberal education law education establish rule of law in the society to impart of justice does not receive serious priority though one can easily study the lawyers and judges are social engineers who gave leadership to nation. it is due to reason that they intent with society at large and have knowledge of law that how one should find loopholes in law and apply it to do good for society by safeguard their right from arbitral power .legal education is not only provide justice but create awareness among society that what is wrong and what is right and we differentiate right and wrong.

Legal education system provide morals, values, ethics, rights, duties and awareness among individuals legal education work not only social education but create cultural education, fundamental rights, duties among the peoples.

Laws for the regular and professional legal education in India are made by the parliament of India with reference list one the' Constitution of India' which includes two regulatory bodies

1) The bar council of India (BCI) is the highest body of the legal person
2) The universal grants commission organized for all institution on higher education

Today is India many national law universities and many state universities and many private universities provide legal education which is provided after 12th standard as an alternative to three year course so that law aspirants can directly enrolled in universities to avail B.A. LL.B, B.Com LL.B, B.B.A. LL.B, B.Sc. LL.B. It is an integrated course

means Bachelor's degree is given with the law degree in which student studies subjects of both the degrees simultaneously at the college and at the end one degree is given which is combination of both bachelor's and law degree.

2 IMPACT OF LEGAL EDUCATION DURING COVID_19

It has been duration of pandemic Covid 19 every educational institute of the world shut down and the law colleges provide classes online mode At the same time, the law degree requires a law school to give more practical exposure to the students than more bookish knowledge, as the students who are studying law currently will be in courtrooms as soon as they graduate. However, in the present times when most of the courts in India are functioning with limited capacity allowing hearings only for the cases of most importance, it becomes extremely difficult for a law student to gain the practical exposure. In India, legal education is governed by the rules framed by the Bar Council of India and uniformly followed throughout all over the India. When the law colleges were forced to close along with other colleges during to COVID-19 pandemic the Bar Council of India have set up guidelines for the colleges to start taking online classes for both clinical activities and normal classes so that loss of academic activities could be recovered.

Keeping in line with these guidelines much of the prominent law school in India and most of the National Law Universities have started conducting their classes' online mode E learning program with proper teaching material to conduct their classes online. Colleges are provide to faculty high speed internet services Also, the students who are studying in these law school might some student are not to be economically capable to bear the cost to online education as online education applications require a high-speed Internet connection which might not be available in those small towns and cities and can be very costly considering the number of online classes which a student needs to attend every day. Currently, there might be not a single country is

not affected by the Pandemic Covid-19, and almost every country and college around the world is affected by the Pandemic. Putting many of student's face an uncertain future. In response to .E learning program has many advantages in itself like E learning has no physical boundaries, it has more learning engagement experience rather than the traditional learning, it is also cost-effective and students get to learn in the confines of their comfort zone.

Due to this pandemic Covid 19 with so many different ways to define e-learning and the educational approaches that can be taken in this learning environment:-

1. Many colleges started classes for application zoom and Google meet
2. many colleges started extra curriculum activities
3. many colleges conducting webinar and certification courses
4. many colleges conducting online conferences
5. Many colleges given students online internship opportunities
6. Many colleges conducting Moot court exercise online
7. All colleges' admission process is online mode.

This pandemic impact day to day life of the individual persons like students, teachers, lawyers Impact in the Education centres, Research houses, Markets, Courts, Colleges, Universities create virtual platform a virtual world.

The full bench of the Supreme Court of India and high courts has, in its application by E video order digital proceedings dated 23 March 2020, extended the restriction to petitions, applications, appeals and all other proceedings in the context of further decisions before all courts, tribunals and administrative bodies in the country with effect from 15 March 2020. Limited operations were adopted by national courts. Different courts, along with a limited number of judges, have given orders restricting the operation of courts to matters of urgency.

3 ADR IN INDIA

ADR mechanisms prescribed by the Civil Procedure Code under Sec. 89(1) and (2) include arbitration, mediation, conciliation, judicial settlement, judicial settlement through lok adalat. The concept of Conflict Management through Alternative Dispute Resolution (ADR) has introduced a new mechanism of dispute resolution that is non adversarial. A dispute is basically 'inter parties' and the justice dispensation system in India has found an alternative to Adversarial litigation in the form of ADR Mechanism. This is a new method dispute resolution ADR facility is deal with parties underline issues in dispute in a more cost effective and with increased efficiency.

The system of given justice in parties has come under great stress for many reasons because of the many pendency of cases in court. The number of cases filed in the courts has shown a tremendous increase in recent years resulting in pendency and delays underlining the need for alternative dispute resolution methods.

3.1 Impact in coved 19 IN ADR

The situation of complete lockdown in the country prevents the physical conduct of arbitral proceedings. Non-conduction of proceedings gives rise to its own set of problems. Section 29A which was inserted by the Arbitration and Conciliation fixes the time-period for passing the arbitral award at twelve months from the date of reference to the arbitral tribunal. And is extendable by another six months with the consent of the parties. Any further extensions can only be granted by the concerned court, either prior to or after the expiry of the time period, failing which the mandate of the arbitral tribunal shall terminate. The legal system of India is no exception including the Alternate Dispute Resolution Mechanism, which has also been adversely affected .during the complete lockdown in the country some arbitral proceedings, which are of urgent nature, may be conducted virtually. While the Arbitration & Conciliation Act, 1996 is

silent on the conduct of arbitration proceedings through video conferencing, Section 19 certainly empowers the Arbitral Tribunal to allow. The Arbitral Tribunal can direct the parties to the arbitration proceedings to file pleadings through electronic mail and conduct proceedings through the means of video conferences aiding social distancing with loss of productivity.

4 CONCLUSION

Legal education in India during coved 19 is going through a very exiting phases. The legal education in to consider the globalization and its suggestions on legal field at national levels. The Bar Council of India, the State Bar Councils, the State Governments, the University Grants Commission and the Universities have an extraordinary part to play for enhancing the standard of legal education in the nation. During the situation many reputed law Schools in India such as the are constantly providing free webinars and E learning classes for law students. While the Bar Council of India High is also providing some high-quality webinars for both young lawyers and law student free of cost. Thus, these interactions between student's, senior Advocates, Judges and other industry professionals can help both the students and young lawyers to learn the tricks and challenges which they might require to face after the completion of their law degree.

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SOCIAL SECURITY POLICIES AND PRACTICES FOLLOWED IN LIC OF INDIA WITH SPECIAL REFERENCE TO INDORE CITY

[1]Mrs. Ranjita Das Soni
[1]Assistant Professor, IMIRC, Indore
[2]Dr. Sanjay Sharma
[2]Associate Professor, IIMRC, Indore

Abstract: In todays competitive world and modern life style of the people Social security is seems to be a universal need. It is fundamental human right as recognised by every individual, and it is also one of the important pillars in the Constitutions of the International Labour Organisation. In the General Comment no 19 (2007) on the Right to Social Security the UN Committee on Economic, Social and Cultural Rights clarified that the right to social security as "There is a right to every individual to gain and have social benefits, may be in cash or any kind, with no discrimination for the security against loss of work related income done by sickness, disability, maternity, injury at the time of employment, unemployment, old age, or death of a family member, unaffordable access to health care, and limited family support, specially for children and adult dependants. Many countries acknowledged and executed this concept, it was experienced that there is a need of instruments for social existence in the world wide. It is considered as one of the most important instrument for each and every individual safety and stability. It is one of the investments for an individual in long run instead of burden. It is one of the main function of HRM to examine and analyse the role, scope and benefits of social security measures, if the organization wants to increase its efficiency. To get the all clear images questionnaire and interview method was done, so that all the indicators like awareness, implementations, obstacles related to social security and consequences on effectiveness of organization, relationship between employee and employer relations should be determined. The present study is

determined about the measures of social security in human resources (diverse employees) and its role and benefits provided by the LIC of India with special reference to Indore city.

1 INTRODUCTION

Every forward organization always has interest in upgrading its employee's schemes/benefits, as it is one of the important motivational instruments for all employees. The present study focuses on the social security which is governed by the Central Government with other different schemes and rules associated with it, to gain social security by the employees of the Life Insurance Corporation of India. Role and benefits of social security of LIC of India is discussed and analysed in this paper. The social security legislations in India derive their strength and spirit from the Directive Principles of the State Policy as contained in the Constitution of India.

Social security is the fundamental right of every employee is still to be recognise by the constitution of India and the State also should encourage well being of every individual with the way of gaining and covering with the impact of effectiveness, there should be an social order in which every civil rights, profitable and governmental issues shall enlighten to overall institution of National Life. There should be conservative measures for encouraging the bodily and mental well being of every individual by the way of ensuring those services and social security. Keeping observation with all the statutory code and rules, because of social call it is observed that there is always furnishing of social security in every formal sector with the assist of Legislations. One of the important purposes of any social security system is to provide sufficient and impartial retiral conservation plan on a continual base.

2 SOCIAL SECURITY BENEFITS

As human being solely can't not safeguard themselves from any incident or occurrence, so Social security benefits are granted for the same. By the way of social assurance and

social aid all the shelter is provided from the same. As there is continuous change in standard of living of every individual and the way of living, in that case every families or an individual gains reliance or dependence with the help of social security instruments. These instruments are not only filling gap of individuals need but also averting any type of probability and there is always a way to get out from inescapable situation. Social assurance and social aid are always there to give advantages and facility.

2.1 Social Insurance

All the funding of most of the social insurance schemes are done by the employees, employer and the state all jointly on a specific time interval. Under the regulation of government, all the monetary decisions in social insurance are done in longer period and managed under control of government (Rao 2002).All the individual who are under insurance policy will gain advantage or benefits as it is their right but only they can gain it after fulfilling all the criteria which are approved.

2.2 Social Assistance

Social security is the most aged and oldest shape of instrument. As social aid is one of the facility or plan that issue satisfaction to the individual may be less or more means but in fair or accurate sum, that always assure at least possible need as described by ILO. State provide fund for this scheme. At the time of monetary struggling of every person all these programmes are helpful to them. When all the order is completed the fair return is provided to the individual and it is not contributory.

Two of the advantages are differ in its procedure and perspective. For distribution both have the same pattern. They both are supportive and additional to them. Like one coin having the two sides and for a country they play a vital role for monetary development of the country.

Well, those individual who has no reach to social insurance, the gain the benefits by the way of social assistance security programs that is given by non-

contributory, it is designed to fulfil the needs of these type of individuals and Social security schemes benefits assures social insurance program, these are the earning advantages to the employees and their families.

If any organization needs to enhance its efficiency, they had urgent need for research based analysis of the advantages and title role of social security measures, it is one of the needy function of HRM.

2.3 LIC of India: A historical background

As like humanity the tale of insurance is also very remote. Late after the age of industry, the conception of insurance is started. In 1818, from England life insurance came into existence in India. One of the first life insurance company was developed in India is Oriental Life Insurance commenced by the Europeans. At that time Indian employees are not covered under insurance, it was given preference and advantages to the European community, as it was commenced by this purpose only. Late after some time foreign life insurance companies were commenced, so that Indian community get insured with all additional premiums charges.

In the year 1870, at nominal rates insurance cover are provided to the Indians by the Bombay Mutual Life Assurance Society. At the same time many new insurance companies commenced there. Up to 1912, there was no law making rule so that business of insurance could be regulate. The Life Insurance Companies Act and Provident Fund Act were enacted in the year 1912. All the rates of premium should be made accurately and the companies should have certified period accurately. After all this all the Indian companies were at problem because they differentiated the foreign and Indian companies.

In India all the insurance companies per capita income was low that is Rs.7.00 in 1944. (Rs.3, 000 in UK and Rs.500 in US) alongside most of the companies were practicing malpractices and lot of companies indulge in liquidation.

The insurance Act 1938 was the primary legislation governing not solely insurance however additionally non-life insurance. With the legislature, there is a change in insurance act 1938 in the year 1944. In 19th January the insurance business was nationalised by the govt of India. In 1956, (LIC) Insurance Corporation of India was commenced with 250 insurance corporations. Dated 19th June 1956, insurance corporation act was passed by the Parliament of India and also on the Gregorian calendar first month the insurance corporation of India was created in 1956 by keeping in mind that in the area of agriculture there should be knowledge of insurance to every individual with the desire that all the persons of the country should read and get insured, providing them ample money cowl at an affordable value (IRDA).

Being remarkable development of LIC of India, in the 80's, it was found that mass public and govt were not delight about that. R. N. Malhotra (Ex-governor of RBI) was appointment by the govt committee to look for the feature of insurance business in India. In the forty years of LIC, the committee out busted that twenty two portion of the total population was insured by the LIC only, the explanation could also be the shortage of competition. Further, the monopoly has resulted in lack of sensitivity to the policy holders.LIC of India should be restore suggested by the committee, GIC of India and its four subsidiaries. To jointly work in India with an partens outside insurance corporation also suggested. Eventually, Insurance restrictive and Development Authority Act, 1999, was sanctioned by the Lok Sabha. In terms of the act, Insurance restrictive and Development Authority is established to set up framework and control and grow the business of insurance by filling gap with the personal sector. At present, in a partnership with paid in capital maximizes the capital within the venture up to 26 by foreign insurance corporations after entering into the insurance sector in India with AN Indian partner.

The Authority has the ability to border rules beneath Section 114A of the Insurance Act, 1938 and has from 2000

forager framed varied rules starting from registration of corporations for carrying on insurance business to safeguard of policyholders' interests.

3 REVIEW OF LITERATURE

If any organization wants to get its main aim completed, it has to be associated with people, receiving their services, growing their skills, motivating them to high levels of performance and ensuring maintenance their commitment are all important activities of the organisation. All these activities comes under the domain of HRM. All the activities like acquisition, development, compensation, maintenance and integration are all comes in the execution of HRM plans and procedure. Human resource maintenance function is related to Social security, health, safety and welfare of employees usually lead to fulfilment with laws. (Rao 2002). The world development report of 1997 states that social security is an essential ingredient in the protection, development and full utilisation of human resources and therefore development. (Sharma, 2006).

As per the "World Social Security Report (2010-2011) "Providing coverage in times of crisis and beyond" – It also finds that most of world's working age population and their families lack effective access to comprehensive social protection system. Saxena and Tiwari (2009) studied the HRM Practices implemented by leading Companies such as TATA, Infosys and Wipro in India and developed the three TIER framework of HRM practices and recognised Training and Development, Relationship between Employer-Employee , awarding rewards for Recognition, Building of culture, Development of career, Compensation and Benefits to the employees as important HRM Practices.

3.1 Rationale of the Study

The main objective of selecting LIC of India for the study as the organisation by the very magnitude of its size, volume of the work and has acquired a persona of its own as distinguished from any other organisation. They offer such

reward, security and other perquisites which produce confident and committed employees. This research work focused on how social security measures helps in achieving HRM goals like organizational effectiveness, and improve the employee employer relations.

3.2 Objective of the Study

1. To analyse Social Security Plans and Policy executed in LIC of India.
2. To study the employees degree of knowledge about present Social Security Policies and Practices in LIC of India.
3. To analyse the role & benefits of Social Security Measures in Human Resource Management.

4 RESEARCH METHODOLOGY

The present study is descriptive research in nature. It includes all the study, analysis, interpretation, and suggestions for every solution of the HRM department. The paper contains primary data as well as secondary. Data collected using questionnaire, schedules and interviews are comes under primary data. Data taken from journals, books, articles, websites, thesis, and dissertations all comes under secondary data. For data analysis and interpretation quality statistical techniques are used. It has been the endeavour of the researcher to frame only such questions which could be easily answered by the respondents. In the questionnaire framed, all the aspects related to implementation of Social Security measures, HRM goals have been covered.

During the survey employees were asked to fill up questionnaire. All the questions asked were open and close ended. Questions were asked also for the appropriate study and to make the thesis more worth. The researcher contacted employees in above mentioned divisional office. They were appraised about the purpose of the study and request was made to them to fill up the questionnaire with correct and unbiased information. The researcher was able to collect the filled 56 questionnaires. Some of the questionnaires have

been rejected for reasons like errors, incompleteness and inadequate information. The duly filled in questionnaires were edited by the researcher and in accordance with the requirements of the objectives and hypothesis. A question wise interpretation of the result of analysis is incorporated in the sequence of question asked, through questionnaire. The responses of the questions were collected and simple percentage method was used to represent the interpretation of data. In addition the Pie charts and bar charts are used to show the responses of each option received from the participants (employees).

4.1 Findings of the study

As we know, all the employees are aware of the facilities of social security like gratuity, pension, medical care, sickness and provident fund and the facilities in which awareness is very low is the maternity provision, dependent, and disablement provision. For low awareness level, the reason found out that new employees are not having knowledge and till now the need for awareness has not arrived as the service time of employees were not too long. Later, the next question is about the social security benefits which were provided to the employees are as follows, 70% of employees enjoy some benefits and 30% have not availed any of them. The services include medical care and Provident fund was enjoyed by 76% and25% of employees respectively. PF is contributory benefits there off in terms of advances of loans on CPF were availed by 21 % only. All the Medical care and sickness benefits are very much known to employees. Only 65% of the respondents revealed that their organization is providing outstanding services to the employees and 27% answered as very good and 08% good.

All the services provided to the employees are as follows 56% of employees give a rating of 10 on a 10 point scale, 30% of them rated 9, and 14% of employee rated between 7 - 4. But always it shows a path for improvement and there are challenges to execute new change. It is seen that if the real benefits are given to the employees of social

security, the relation between employers and employee is getting better day to day on a scale of very high, high, low, very low were 62% of employees give a replied as very high, 35% of them replied as high and 3 % of employee answered as low. The result shows that 100% of individuals accept that social security polices helps in building employee employer relationship. It shows that with the help of social security every individual can self abserb themselves by their Morale, Level of satisfaction, Motivation, Integrity. 72% of employees answered that such measure increases their morale as very high, 78% of employees answered that such measure increases their motivation as very high, 79% of employees answered that such measure increases their integrity as very high and 88% employees were agreeing impact of availed social security measures over the relationship.

It is good for organisational health.79% employee rated about the existing Social Security schemes as excellent. 17% of employees faced problems. Has organisation taken feedback and suggestion from employees to improved implementation measure of Social Security? Because they will improve employee's satisfaction. Plug loop hols in implementation. They were strengthening the employee employer relation, Organisational Effectiveness and enhance achievement of HR goals. 76% of employees answered that S.S helps in employee's retention which is an important function of HR. Only 6% of employees have answered about low retention and 8% don't have any relevance. 83% of employees were agreeing about the fertility treatment and benefit. 79% of employees answered that S.S measures have achieved people acceptance. Hence it is an important part and integral part of Human Resources Functions. 92% have answered the organisation reimburse the amount of medical treatment.

5 CONCLUSION AND SUGGESTIONS

The paper discloses the employee employer relationship in the organization and organization efficacy and also focuses on the analysis of social security measures in LIC. Many

indexes were there which are disregarded till now. After this research, there is a need of more research in this area. In common, this research came up with individual perception which is linked with HR area. By this research one can know about the benefits of in-house PF so that employee can meet their contingencies of life, they need not to go to other or outside agency. HR can improve their relationship without wasting their time, money and resources.

If the organization needs effective environment, there should be one single desk between employers and employee to communicate about all the benefits, operations and awareness. To develop welfare to the employees and their families and the society as a whole, there should be provided all types of benefits, social security, policies at highest priority to the individual. If all these actions are done by the organization, the company will enhances its productivity and will supports economic development. Eventually, the main is to get suitable benefits and social outcomes, the entire individual has access to some measures of social security and benefits and protection earned by it and also it improves their financial and economic development.

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THE FUTURE OF MACHINE LEARNING IN EDUCATION

Prof. Ranjana Dalwani Arora
Indore Management Institute and Research Center

Abstract: Nowadays, Machine Learning (ML) is during a one among standalone in every of" one among the foremost promising application areas in a field of data Technology where its application scope is nearly unlimited. The appliance of machine learning in an education area is currently very interesting to researchers and scientists, and it's the most focus of our study. The machine-learning framework entails capturing and maintaining an upscale set of data and reworking it into a structured knowledge domain for various uses in various fields. Within the field of education, teachers can save time in their non-classroom activities by adopting machine learning. For instance, teachers can use virtual assistants who work remotely from the house for his or her students. This type of assistance helps to reinforce students' learning experience and may improve progression and student achievement. The aim of this paper is to gauge the possibilities of applying and using machine learning within the education area. This paper identifies and analyses suitable literature, research papers and articles so as to work out their categorization within the field of education, to work out the current trends of using machine learning in education, and to work out its current and future applications.

Keyword: machine learning; education; student performance; student retention.

1 INTRODUCTION

According to Arthur Samuel, Machine Learning algorithms enable the computers to find out from data, and even improve themselves, without being explicitly programmed. Machine learning (ML) may be a category of an algorithm that permits software applications to become more accurate in predicting outcomes without being explicitly programmed.

The essential premise of machine learning is to create algorithms which will receive input file and use statistical analysis to predict an output while updating outputs as new data becomes available.

Machine learning may be a technology that permits computers to find out directly from examples and knowledge within the sort of data. Traditional approaches to programming believe hardcoded rules, which began the way to solve a drag, step-by-step. In contrast, machine learning systems are set a task and given an outsized amount of knowledge to use as samples of how this task are often achieved or from which to detect patterns. The system then learns how best to realize the specified output. It is often thought of as narrow AI: machine learning supports intelligent systems, which are ready to learn a specific function, given a selected set of knowledge to find out from. Machine learning may be a subfield of AI (AI). The goal of machine learning generally is to know the structure of knowledge and fit that data into models which will be understood and utilized by people.

Although machine learning may be a field within computing, it differs from traditional computational approaches. In traditional computing, algorithms are sets of explicitly programmed instructions employed by computers to calculate or problem solve. Machine learning algorithms instead leave computers to coach on data inputs and use statistical analysis so as to output values that fall within a selected range. Due to this, machine learning facilitates computers in building models from sample data so as to automate decision-making processes supported data inputs.

Within the sector of knowledge analytics, machine learning is employed to plan complex models and algorithms that lend themselves to prediction; in commercial use, this is often referred to as predictive analytics. These analytical models allow researchers, data scientists, engineers, and analysts to “produce reliable, repeatable decisions and results” and uncover “hidden insights” through learning from

historical relationships and trends within the data set (input).

2 APPLICATION OF MACHINE LEARNING IN EDUCATION

2.1 Prediction

"Prediction" refers to the output of an algorithm after it's been trained on a historical dataset and applied to new data when forecasting the likelihood of a specific outcome, like whether or not a customer will churn in 30 days. The algorithm will generate probable values for an unknown variable for every record within the new data, allowing the model builder to spot what that value will presumably be. The word "prediction" are often misleading. In some cases, it really does mean that you simply are predicting a future outcome, like when you're using machine learning to work out subsequent best action during a marketing campaign. Other times, though, the "prediction" has got to do with, for instance, whether or not a transaction that already occurred was fraudulent. Therein case, the transaction already happened, but you're making an informed guess about whether or not it had been legitimate, allowing you to require the acceptable action.

2.2 Process efficiency

Scheduling, grading, organization Elsewhere, several Machine Learning for Education ICML (international machine learning conference) workshops have explored novel machine learning applications designed to profit the education community, such as:

Learning analytics that build statistical models of student knowledge to supply computerized and personalized feedback on learning the students' progress and their instructors Content analytics that organize and optimize content items like assessments, textbook sections, lecture videos, etc. Scheduling algorithms that look for an optimal and adapted teaching policy that helps students learn more efficiently Grading systems that assess and score student responses to assessments and computer assignments at

large scale, either automatically or via peer grading. Cognitive psychology, where data processing is becoming a strong tool to validate the theories developed in science and facilitate the event of latest theories to enhance the training process and knowledge. Retention Active learning and experimental design, which adaptively select assessments and other learning resources for every student individually to reinforce learning efficiency.

2.3 Existing Platforms

Recently, digital education speculator Tom Vander Ark shared 8 different areas where leading-edge platforms are already leveraging machine learning in education:

1. Content analytics that organize and optimize content modules:
    a. Gooru, IBM Watson Content Analytics
2. Learning analytics that track student knowledge and recommend next steps:
    a. Adaptive learning systems: DreamBox, ALEKS, Reasoning Mind, Knewton
    b. Game-based learning: ST Math, Mangahigh
3. Dynamic scheduling matches students that require help with teachers that have time:
    a. New Classrooms uses learning analytics to schedule personalized math learning experiences.
4. Grading systems that assess and score student responses to assessments and computer assignments at large scale, either automatically or via peer grading:
    a. Pearson's WriteToLearn and Turnitin's Lightside can score essays and detect plagiarism.
5. Process intelligence tools analyze large amounts of structured and unstructured data, visualize workflows and identifying new opportunities:
    a. BrightBytes Clarity reviews research and best practices, creates evidence-based frameworks, and provides a strength gap analysis.

b. Enterprise Resource Planning (ERP) systems like Jenzabar and IBM SPSS helps HigherEd institutions predict enrollment, improve aid, boost retention, and enhancing campus security.

6. Matching teachers and schools:
    a. MyEdMatch and TeacherMatch are eHarmony for schools.
7. Predictive analytics and data processing to find out from expertise to:
    a. Map patterns of expert teachers
    b. Improve learning, retention, and application.
8. Many back office stuff:
    a. EDULOG does bus scheduling b. Evolution, DietMaster.

2.4 Reflection

As the modern classroom becomes more and more digitized, we are ready to gather myriad sets of knowledge. The trick is, of course, having the ability to purpose it. The prize at bottom of machine learning is knowledge discovery, the method of parsing through the deluge of massive Data, identifying meaningful patterns within it, and reworking it into a structured knowledge domain for future use. During this article, we've seen examples utilizing machine learning within the education sector for prediction, scheduling, grading, and organization. We've also listed existing education-related platforms that use a machine learning component.

The above-mentioned research questions were extracted once we studied the aims of this research. To answer these research questions, we performed a literature study. We decided to use the SLR method to gather the relevant primary studies and followed the rules given by. For the SLR, we decided to try to an electronic search. The databases used were IEEE Xplore Digital Library (IEEE), Scopus database, Web of Science database (WoS), ScienceDirect, et al. (Google Scholar and similar). The search term was ("Machine Learning" AND "Education") OR

("Machine Learning" AND "Educational"). The targeted amount of related studies was between fifty and 100, because this amount would give us enough information for categorization and research trends. In the next phase, we created four categories and classified the papers into those. The rationale for this classification was that the majority of the papers published were relatively distinctive in terms of the research objective, methodology, and application. To be simplest as possible, we created four categories of studies without ignoring the variations of themes. This way, we examined the research papers that fell under an equivalent. The ultimate number of papers collected was 67. Some studies was included in additional than simply one category.

The research categories and therefore the total number of selected studies are as follows:

- Grading students (12 studies)
- Improving student retention (17 studies)
- Predicting student performance (42 studies)
- Testing students (6 studies)

Letters A, B, C and D are just used as tags and function a mark for further referencing within the remainder of this study.

3 RESULTS

This section describes the most characteristics of every category. We present all four main categories in subsections, supported with relevant papers.

3.1. Grading students

Machine learning can grade students by removing human biases. Some recent examples are use of the supervised Machine Learning for text classification to predict students' final course grades in some course and exhibited the potential of using ML classified messages to spot students in danger in fact failure additionally , there are aims to enhance the assessment of problem solving in education by employing language technologies and computational-statistical machine learning methods to grade students' tongue responses

automatically Great example of use machine learning for grading students is by comparing their actions to a model of expert behavior.

3.2. Improving student retention

As we said before, by identifying “at risk” students early, schools can detect and get in touch with those students and help them to be more successful. Student retention is an important a part of many enrolment systems. It affects most segments of university or school metrics: reputation, financials, ranking. Specially, student retention has become one among the foremost important things for managers in education institutions. There are few studies, which developed models to predict and to introduce the explanations behind student’s number decreasing.

3.3. Predicting student performance

Probably a serious advantage of machine learning (regarding number of studies in scientific databases) is its ability to predict student performance. By “learning” about each student, the technology can identify weaknesses and suggests ways to improve, like additional practice tests. This seems to be extremely popular research trend; there are lot of studies in recent years during this area, as we said before. For instance, study employs the machine learning approach called the Recursive Clustering technique to group the scholars of the programming course into groups supported their performance within the prerequisite courses, co-requisite and current course work result.

Students present within the lower groups are going to be taken into consideration since they're highly susceptible to fail. In another interesting study during this category, authors have proposed a new model to categorize students into three categories to work out their learning capabilities and to assist them to enhance their studying techniques. they need chosen the state of the art of machine learning approach to classify student's nature of study by selecting prominent features of their activity in their academic field.

they need chosen a knowledge driven approach where key factors that determines the bottom of student and classify them into high, medium and low ranks yet one more study during this category, but from other perspective brings.

3.4 Testing students

The machine learning-based assessment provides constant feedback to teachers, students and fogeys about how the scholar learns, the support they have and therefore the progress they're making towards their learning goals. Authors within the study. Introduced a system for training of students' ability to construct correct proofs in propositional or predicate logic. Additionally, to common techniques, including presentations supported by slides and exercises they used animations, which were supported carefully selected demonstrative examples and their step-by step solutions. So as to check students' knowledge, they prepared a questionnaire that captured the whole process of a logic proof construction. A student constructed a symbol then answered questions from the questionnaire. They described the planning of the questionnaire and discussed its dis/advantages. At the top, they then applied frequent subgraph mining alongside supervised machine learning algorithms to perform an automatic evaluation of the correctness of the proofs.

4 CONCLUSION

The aim of this study was to gauge the present state of the art within the application of machine learning in education area. The quantity of studies (papers and articles) was large, so just some of studies, which we found nearly as good representatives, were mentioned in results this study. This study shows that there are significant alternative ways to profit from machine learning application in education area. As we stated in introduction section, one among our goals was attempt to classify studies within the field of machine learning application in education area. Supported our survey, the papers reviewed under category marked as a

search a ways how machine learning can grade students by removing human biases (fairly grading)

Reviewing studies under category marked as B, showed how machine-learning algorithms can help schools or faculties to succeed in bent students and obtain them the assistance they have to achieve success as early as possible. Student retention is an important a part of many enrolment management systems. It affects university rankings, school reputation, and financial wellbeing. Student retention has become one among the foremost important priorities for decision makers in education institutions, so there are lot of studies therein category.

Reviewing studies under category marked as C, showed us how major advantage of machine learning (regarding number of studies in scientific databases) is its ability to predict student performance. By “learning” about each student, the technology can identify weaknesses and suggests ways to enhance. Consistent with our survey, this is often most interesting area of machine learning application to researchers. There are lot of studies in recent years therein category, and lot of machine learning models were provided to predict student performance on different parameters. We might say that this category is certainly the trend.

Reviewing studies under category marked as D, showed some models how machine learning can help move away from standardized testing. Machine learning based assessment provides constant feedback to teachers, students and obeys about how the scholar learns, the support they have and therefore the progress they're making towards their learning goals. As we've found earlier, research has been remodeled several relevant databases, but in fact, not all were involved, so this will be considered as limitation of study.

Additionally, there's an opportunity that a number of the relevant studies could also be skipped accidentally. within the future, we decide to implement own machine learning model for suggesting potential student to enroll or to not enroll on University College algebra, Study of Software

Engineering, supported different parameters. As we've rich database with lot of data of scholars on previous years, we believe that study would be of help to support our admission office as help in student enrolment process.

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A STUDY ON NON PERFORMING ASSETS (NPA) RECOVERY THROUGH LEGAL TOOLS POST COVID-19

Abhiraj Singh Chauhan
Asst. Professor, S & S Law College

Abstract: Banks plays a very crucial role within the economic development of any nation. Banks are the growth-drivers for any country and therefore the banking business is exposed to varied risk, like credit risk, liquidity risk, interest risk, market risk, operational risk and management risk. Apart from these risks the vital risk is recovery of the loans. The sound financial position of a bank depends upon the recovery of loans or its level of Non-performing assets (NPAs). Reduced NPAs generally gives the impression that banks have strengthened their credit appraisal processes over the years and growth in NPAs involves the need of provisions, which bring down the overall profitability of banks. The Indian banking sector is facing a significant problem of NPA. The Corona virus that emerged in Wuhan (China) has negatively affected all the countries and their economies whether big or small. Hence the impact can be felt all over and because of it the risk of recoveries for financial institutions has tremendously gone high. The legal tools which are available for recoveries are limited and it would be a more difficult now to recover due to this pandemic situation. This article analyze the recovery mechanism of NPAs with its three important wings i.e. recovery through Lok Adalat, DRTs and SARFASEI and its impact especially after the post covid-19 situation. The study is purely based on Secondary data collected from RBI data warehouse. The study finds that overall recovery mechanism in banking industry is very poor. Among the three wings recovery through DRTs is better than other two.

Keywords: NPA, Banking Sector, Lok Adalat, DRTs and SARFASEI.

1 INTRODUCTION

An asset, including a leased asset, becomes non-performing when it ceases to urge in-come for the bank and is then termed as Non-Performing Asset (NPA). RBI has defined NPA as a credit facility in respect of which the interest and / or installment of principal has remained 'past due' for a specified period of some time as stipulated by RBI. At present that stipulated time is 90 days from the sanctioning date of loan. NPA can be de- fined as 'An asset, including a leased asset, non performing when it ceases to generate income for the bank.'1 (RBI, 2020) NPA may be a crucial parameter within the analysis of monetary performance of a bank because it results in higher provisioning requirements and thus decreasing margin.

It affects liquidity and profitability, additionally to posing threat on quality of asset and survival of banks. It points out the credit risk of the banks. It emerged about 25 years ago in our banking sector, sending disappointing signals on the sustainability of affected banks. At this, Public Sector Undertaking Banks (PSU) faces more problems than Private Sector Banks (PRSB). A mounting level of NPAs within the banking sector can severely affect the economy in some ways. If NPAs aren't properly managed, it can cause financial and economic degradation which successively signals an adverse investment climate.

Recovery mechanism may be a process of planning, testing, implementing the recovery procedures and standards required to revive financial assets within the event of failure of the firm. We all know NPAs ceased to get income, require provision, increase cost, affect morale of the worker, and erase capital. In this context recovery of NPAs plays an important role to sustain the banking system. Mainly recovery is completed through three major tools as are discussed below.

2 LOK ADALAT

Lok Adalat (People's Court) is one of the Alternative dispute resolution mechanism in India, it is a forum where cases

pending on panchayat or at pre litigation stage in a court of law are settled. They have been given statutory status under the Legal Services Authorities Act, 1987. Under this Act, the award (decision) made by the Lok Adalats is deemed to be a case of a civil court and is final and binding on all parties and no appeal against such an award lies before any court of law.

If the parties are not satisfied with the award of the Lok Adalat (though there is no provision for an appeal against such an award), they are free to initiate litigation by approaching the court of appropriate juris-diction. Lok Adalat has developed in India by Legal Services Authorities Act, 1987. Otherwise it is called as "People's court", Encouraged by Justice P.N. Bhagwati, a former Chief Justice of India. Lok Adalat is a non-adversarial system, whereby mock courts (called Lok Adalats) are held by the State Authority, District Authority, Supreme Court Legal Ser-vices Committee, High Court Local Services Committee, or Taluk Legal Services Com-mittee.

The first Lok Adalat was held on March 14, 1982 in Gujarat. Lok Adalat's help banks to settle the loans by way of compromising between bankers and defaulters of the bad loans through Lok Adalat. Debt Recovery tribunals have been authorized to form the Lok Adalat to decide on cases of NPAs of Rs. 10 lakhs and more. The systems seemed to be more effective for recovery of loans by immediate judgement on the cases referred.

Lok Adalat have been useful for mostly recovery on smaller loans. Mobile Lok Adalats are also organized in various parts of the country which travel from one location to another to resolve disputes in order to facilitate the resolution of disputes through this mechanism. As on 30.09.2015, more than 15.14 lakhs Lok Adalats have been organized in the country since its inception. More than 8.25 Crore cases have been settled by this mechanism so far.

3 DEBT RECOVERY TRIBUNALS (DRTs)

The Debts Recovery Tribunals (DRT) and Debts Recovery Appellate Tribunals (DRAT) were constituted under the provisions of the DRT Act for establishment of Tribunals for expeditious adjudication and recovery of debts due to Banks and Financial Institutions and for matters connected therewith. DRT has also been given the facility to adjudicate the applications filed by the Borrower/Mortgagor against the action of the Secured Creditor initiated under the Securitization Act.

The Debt Recovery Tribunals are established in India under an Act of Parliament (act 51 of 1993) for quick swift recovery of debts thanks to banks and financial institution's by GOI. The debt recovery tribunal is additionally the appellate authority for appeals filed against the proceedings initiated by secured creditors under SARFAESI Act 2002. At present there are 33 DRTs and 5 DARTs working at various parts of the country. In 2014, the govt has created six new DRTs to hurry up loan related dispute settlement.

The leading issue related with debt recovery through DRTs is that the slow process of resolution (setting debts and finding end to defaults). Like several other debt recovery mechanisms, the DRTs are slow to work out on pending disputes. Nearly 93000 cases are pending ahead of DRTs within the country at the top of 2016. The World Bank estimated that it took 4.3 years on a mean in India to re-solve insolvency under the old laws, quite twice as long as China. This is one among the worst among the similar economics.

3.1 Sarfaesi Act

The law did little until it discovered the magnitude of NPA's impact on the profitability of the bank. SARFAESI ACT was formed in Dec' 2002 supported recommendations of a) Committee on Banking Sector reforms (Narasimham Committee Report II) and b) Restructuring of Weak Public sector Banks (Verma Committee). This Act aims at speedy recovery of defaulting loans and to scale back the mounting

levels of Non-performing Assets of banks and financial institutions.

The provisions of the Act enable the banks and financial institutions to understand long-term assets, manage problems of liquidity and asset liability disparities and to enhance recovery by exercising powers to require possession of securities, sell them and reduce non-performing assets by adopting measures for recovery or reconstruction. The Act provides three alternative methods for recovery of non-performing assets, viz;

- Securitization
- Asset Reconstruction
- Enforcement of Security without intervention of the court

3.2 Securitization

Securitization implies the difficulty of security receipt by raising of funds or receipts by SCs / ARCs. The Securitization company or Reconstruction company raises from the Qualified Institutional Borrowers (QIBs) by way of schemes to accumulate funds. They have to maintain proper book of accounts separately for everyand each acquiring asset on the investments made by QIBs. Qualified Institutional Buyers are those that have expertise and sound knowledge to guage and make their investments in the Capital markets.

3.3 Assets Reconstruction

- Assets Reconstruction companies buy the NPAs from Banks and take measures to recover the bad loans amount from the borrowers and also empower with,
- Proper Management of the borrower business
- Change of management within the business
- Take Over
- Sale or lease,
- Restructuring the business of the borrower,
- Rescheduling of the repayments of debts payable by the borrower,

- Possession of Secured assets.
- RBI permitted ARCs to convert the debt /outstanding loans of borrowers in to “Equities” as a functional process of restructurings the loan amount of NPAs.
- Shareholding shall not exceed 26% of the post converted Debt Equity as a reconstruction.

The companies under equity reconstruction, as a part of Enforcement of interest , the permission given by Secured Creditors holding should not be but 60% of the quantity outstanding to a borrower as against 75% as on date. The amount recovered through this process will used by ARCs, to reconstruct the company’s management. Enforcement of Security Assets the Act provides not withstanding anything contained within the Registration Act 1908, for the enforcement of interest without Court Intervention.

1) Any security receipt issued by SC / ARC, under sec 7 of the Act, and not creating, declaring, assigning, any right, or title or in-terest to property except in thus far because it entitles the holder of the registered instrument, or
2) Any transfer of security receipts, shall not require compulsory registration. At the present, there are 19 ARCs in India. But collectively, their capital base is additionally insufficient to tackle the countries nearly 8 lakh crore NPAs.

The main problems within the sector are: low capital base of ARCs, low fund with ARCs, valuation mismatch of bad assets between banks and ARCs etc. Several steps were taken by the RBI and the Government to bring life into the asset reconstruction activities. In one such step, the govt raised FDI within the sector to 100% similarly the ARCs may get an important role for assets restructuring under the new insolvency and bankruptcy code. In 2016 the RBI amended the SARFAESI act to offer the ARCs more power and efficiency.

4 BANKRUPTCY CODE

Currently, four different forums—High Courts, Company Law Board (CLB), Board for Industrial and Financial Reconstruction (BIFR) and Debt Recovery Tribunal (DRT)—have overlapping jurisdiction, which gives rise to systemic delays and complexities in the process. The bankruptcy code overcomes these challenges and would reduce the burden on the courts as all litigation will be filed under the code before the National Company Law Tribunal (NCLT) for corporate insolvency and insolvency of LLPs, and before DRT for individual insolvency and insolvency of unlimited partnership firms.

As the code attempts to create a formal insolvency resolution process (IRP) for businesses, either by coming up with a viable survival mechanism or by ensuring speedy liquidation, it will attempt to curb the number of long-pending cases substantially. The code envisages a new regulator—the Insolvency and Bankruptcy Board of India—while introducing professionals who will handle insolvency cases and insolvency professional agencies to oversee the overall supervision of the Insolvency Board. The code also proposes information utilities that would collect, collate, authenticate and disseminate financial information from listed companies and financial and operational creditors of companies.

This will help make the IRP smoother by maintaining a range of financial information about companies. The IRP could be initiated by a corporate debtor who has defaulted on dues or by creditors, whether financial or operational. When the IRP is on, creditors' claims are going to be frozen for 180 days, during which time they will hear pro-posals for revival and decide on the future course of action. Within those 180 days, 75% of monetary creditors must comply with a revival plan. If this minimum threshold is not met, the firm automatically goes into liquidation.

If three-fourths of the financial creditors consider the case complex and feel it can't be addressed within 180 days, the adjudicator could grant a one-time ex-tension of up to 90

days on the method .The code could ensure quicker resolution of NPA problems, especially in PSU banks. In fact, the Financial Stability Report issued by RBI in 2015 indicates that corporate sector vulnerabilities and the impact of their weak balance sheets on the financial system needs closer monitoring. The time bound insolvency resolution process would definitely help the financial services industry function better.

5 COVID 19 IMPACT ON BANK NPA'S

The gross non-performing assets (GNPA) of scheduled commercial banks (SCBs) may escalate to 14.7% by the top of this fiscal year, if the adverse economic impact of the COVID-19 pandemic is 'very severe', predicts the Federal Reserve Bank of India in its financial stability report released on Friday, July 24. "Macro stress tests for credit risk indicate that the GNPA ratio of all SCBs may increase from 8.5% in March 2020 to 12.5% by March 2021 under the baseline scenario. If the macroeconomic environment worsens further, the ratio may escalate to 14.7% under very severe stress," noted the RBI.

The financial institution revealed that the GNPA and net non-performing asset (NNPA) ratios of all SCBs have come right down to 8.5% and 3.0% from 9.3% and 3.7% in September 2019. This decline in NPA levels covers the impacts of the loan moratorium that came into effect from March 1, announced by the RBI under its COVID-19 relief measures. consistent with the financial institution , nearly half the purchasers accounting for around half outstanding bank loans opted to avail the advantage of the moratorium.

The financial stability report acknowledged that the NPA formations are rising among small category borrowers whereas, large borrowers (who has aggregate exposure of Rs 5 Crore and above) of banks accounted for 51.3% of the mixture loan portfolio and 78.3% GNPAs, in March 2020. The report also noted that both these shares have declined since March 2018 implying that, on an incremental basis, credit

and NPA accretions are occurring within the small borrower category within the recent period.

6 SYSTEMATIC RISK SURVEY

According to the RBI's systemic risk survey, all major risk groups, such as global risks, risk perceptions on macroeconomic conditions, financial market risks and institutional positions were perceived as 'high', affecting the financial system. The regulator conducted the survey during April-May 2020 to capture the perceptions of experts, including market participants, on the major risks faced by the financial system amid the pandemic.

The survey stated that among macroeconomic risks, risks to domestic growth and fiscal housekeeping were perceived to be 'very high', while risks on account of reversal/slowdown in capital flows, corporate sector vulnerabilities, real estate prices and household savings were perceived to be 'high'. The effects of COVID-19 are likely to remain for 3-5 years, opined the participants of the survey, and may impact the quality of credit in the books of banks, the general risk taking ability of entrepreneurs, investments in capital markets and real estate, and the saving pattern of households. All these could have an impact on domestic financial stability.

7 USING LEGAL TOOLS FOR RECOVERY

The reports of Systematic Risk Survey along with various other institutions clearly state that this Covid-19 situation has adversely affected a large number of persons and the situation is definitely going to give rise in the number of NPA's. The recovery through legal tools is the last resort available with the banks but that also is a big challenge as all the procedures are complicated in itself. The genuine defaulters will plead to the authorities for any sort of relief to be granted and similarly the social political factors will make it more difficult for the Banks to put pressure for the purpose of recovery.

8 CONCLUSION

The origin of the problem of growing NPA's lies in the system of credit risk management by the banks. Banks are required to have adequate preventive measures in fixing pre-sanctioning appraisal responsibility and an effective post-disbursement supervision. Banks should continuously monitor loans to identify accounts that have potential to become non-performing. Banks have to exercise powers of inspection to ensure end utilization of fund. Banks may also be given powers to recover loans from the guarantor of the borrower.

If we analyze the existing legal tools, the current pandemic situation and the pre-diction of NPA status by the RBI then it is clearly evident that the current recovery tools are insufficient and a major gap is existing. If we go by SARFAESI and DRT then yes, the recovery of secured loans still looks possible to some extent by otherwise the unsecured types are going to be the most complex recoveries. To some extent Lok Adalat and other Alternate dispute resolution methods can be used effectively and best settlements are possible through them.

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IMPORTANCE OF E-LEARNING COURSES – A CONCEPTUAL STUDY

[1]Dr. Sanjay Sharma
[1]Associate Professor, Indore Management Institute and Research Centre, Indore
[2]Dr. Priyanka Sharma
[2]Faculty, Department of Management Studies GACC, Indore

Abstract: Electronic learning or e-learning has become popular and actively used at the Schools/Institute/universities. It is an approach for any educational institutions such as universities, colleges and institute which can provides benefits to both students and lecturers. Students and lecturers should be exposure to e-learning so that they will be able to apply and integrate e-learning in their teaching and learning activities. Hence, adequate training in educational technology is important and much needed so that they can apply their knowledge and skills in the future.
Keywords: E-Learning, Courses, India.

1 INTRODUCTION

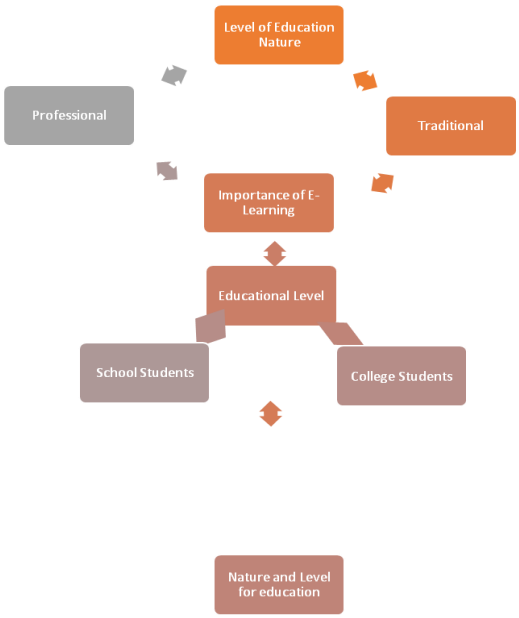
In recent years, e-learning has become a popular learning method in the institutions of higher learning due to the increment of resource allocation and student's enrolment for such courses. E-learning degree programs are increasingly growing in higher education. The rationale of the development of these programs is the changing demographics and geographic barriers. E-learning programs have actually created new challenge for students who were once bound to local universities or colleges. However, the quality of an e-learning program is undoubtedly the most important aspect in today's market. The term 'e-learning' has only been in existence since 1999.

When the word was first utilized, other terms - such as 'online learning' and 'virtual learning' - also began to spring up in search of an accurate description of exactly was e-

learning was. However, the principles behind e-learning have been well documented throughout history, and there is even evidence that suggests that early forms of e-learning existed as far back as the 19th century. Studies show that students enrolled in online courses are more likely to drop out than students taught in traditional classes, and further studies have shown this dropout rate is directly related to students' satisfaction with their online learning experience.

1.1 E- Learning

The e-Learning method is implemented in the education institutions to get rid of the complications and weaknesses of the traditional mode of education. This autonomous learning environment offers an excellent learning tool for the learners facing time and socio-economic constraints **(Vaughan, 2007; Appana, 2008)** and permits them to access learning material at any time and from anywhere. The e-Learning method improves the quality of education process by using exceptionally effective methods **(Dawes, 2001).**



1.2 Types of E-learning

Some educational scientists have identified types of e-learning according to learning tools, while others have chosen to focus on different metrics such as synchronicity

and learning content. In this article, we will filter down all these findings into 10 easily distinguishable types of e-learning.
These are the 10 different types of e-learning:-

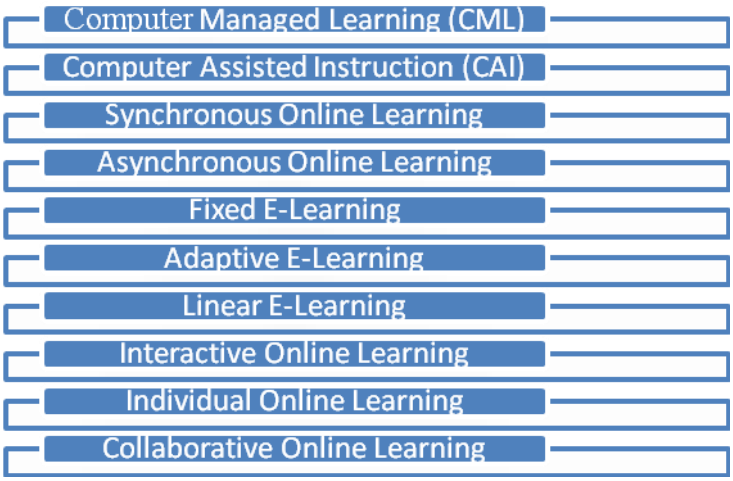


Figure 1- Types of E-Learning

Alternatively, some educational scientists have chosen to classify e-learning types more simply. They identify just two primary types of e-learning: **computer-based e-learning** and **internet-based e-learning**. This method of classification could be seen as more accurate because it differentiates e-learning from online learning, the two of which are often incorrectly used interchangeably. Some forms of e-learning such as CML and CAL are not required to take place online, but they are considered types of e-learning nonetheless.

2 ADVANTAGES AND DISADVANTAGES OF E-LEARNING COURSES

2.1 Advantages

1. Self-paced learning modules allow students to work at their own pace
2. Students may have the option to select study materials that congregate their level of information and awareness.

3. Class work can be planned without compromising on work and family
4. Reduces travel time and travel costs for off-campus students
5. Students can study according to their freewill wherever and whenever they have a computer and Internet connection
6. Ease to attend debate in the bulletin board threaded discussion areas at any hour, or visit with classmates and instructors remotely in chat rooms
7. Instructors and students both report E-learning fosters more interaction among students and instructors than in large lecture courses
8. E-learning can accommodate different learning styles and make possible learning through a variety of activities
9. Develops knowledge of the Internet and computers skills that will help learners throughout their lives and careers
10. Successful completion of online or computer-based courses boosts confidence and encourages students to take responsibility.
11. Students can test and concentrate on learning new skills

2.2 Disadvantages

1. Learners with no self discipline or bad organizational skill may lag behind
2. Students may feel lonely with no instructor and classmates
3. Teacher or professor may not be available when students have any query.
4. Poor internet connections or old computers may make accessing course materials frustrating
5. Without any schedules of a traditional classroom, students may end up getting lost or confused about course activities and time limit.

6. Organizing computer files and online learning software can be complex for learners with entry-level computer skills
7. Practical or lab work is difficult to be carried out in a virtual classroom

3 FACTOR AFFECTING SATISFACTION TOWARDS E-LEARNING COURSES

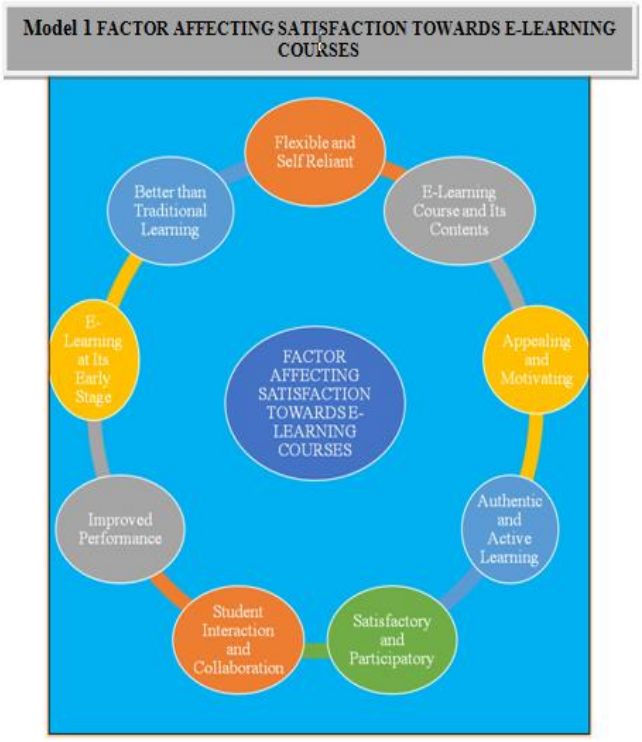
To identify the factors affecting the e-Learning courses from one of our studies **"FACTORS AFFECTING THE E-LEARNING COURSES IN INDORE CITY" we find the following factors:** Really online atmosphere is treasure of knowledge however it's not organized properly and thence utility is additionally lacking and cause for the repetitions of the activity. There has been so a paradigm shifts in education in India. The new breed have to be compelled to be economical to tackle issues from cross practical, cultural and moral views and equipped with skills to bench mark for world leadership positions.

There has been a crying have to be compelled to commence a high quality movement and to benchmark identical with world standards. We've got created an effort to support our framework by analyzing one in every of the e learning tools that was enforced in India's take a look at every schools and institutes. In the present study through factor analysis Rotated component matrix reveals that out of total 27 variables six variables load highly onto one factor, five on second factor and remaining sixteen variables load on two or more factors. The entire rotation process has been converged in twelve iterations and has resulted into nine factors. These factors may be summarized as follows:-

- **Factor 1:** Flexible and Self Reliant: It comprises of 6 variables viz., learner should be having access to the internet at home, online courses can fit easily into a busy schedule, one learns well by watching videos, online learning is as good as face-to-face learning, Attention span of learner is more in e-learning and learners become more self-reliant in e-Learning.

- **Factor 2:** E-Learning Course and Its Contents: It includes 6 variables viz., An E-Learning course provides contemporary material that is relevant to the times, the contents (audio and video) generally play well, the E-Learning course material is useful, the contents of e-Learning course are easy to comprehend, the available online contents are rich and E-Learning course can be used to review concepts.
- **Factor 3:** Appealing and Motivating: It includes 4 variables namely E-Learning course is appealing, E-Learning course can increase motivation for learning, E-Learning course allows the user to learn at his/her pace and E-Learning course provides timely feedback.
- **Factor 4:** Authentic and Active Learning: It comprises of 2 variables viz., E-Learning course helps in developing soft skills and E-Learning course can enhance the practical and theoretical part of the subject.
- **Factor 5:** Satisfactory and Participatory: It comprises of 3 variables viz., E-Learning course provides a satisfactory learning experience, E-Learning course results in greater student participation and engagement and the objectives and span of e-Learning lessons are clearly defined.
- **Factor 6:** Student Interaction and Collaboration: It comprises of 3 variables viz., E-Learning course promotes learner-learner interaction, E-Learning course makes the user feel connected to other users and E-Learning course provides an opportunity for face-to face interaction with peers.
- **Factor 7:** Improved Performance: It comprises of 1 variables viz. E-Learning courses allow the user to improve his/her performance.
- **Factor 8:** E-Learning at Its Early Stage: It comprises of 1 variables viz. E-Learning course is still in infancy stage.

- **Factor 9:** Better than Traditional Learning: It comprises of 1 variables viz. Online learning is better than learning from books.



4 CONCLUSION

The Internet and the World Wide Web have significantly changed the teaching and learning practices globally. Schools and colleges have started seeking the benefits of Information Communication and Technology in teaching-learning process with a vision to improve the quality, availability and cost effectiveness of education. To meet the transnational standards, the courses, subjects and finally delivery of content need to be properly scheduled. To satisfy these requirements e-Learning courses needs to be promoted and infrastructure also has to be standardized, so that it fulfils the elementary needs of every learner.

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"COVID - 19 AND EDUCATION SECTORS IN INDIA- CHALLENGES AND OPPORTUNITY"

Aditya Narayan Mishra
Assistant Professor, S & S Law College, Indore

Abstract: The spread of pandemic Covid-19 has radically disrupted each part of human life including education. It has created an unprecedented test on education. In various educational institutions around the world, campuses are closed and teaching-learning has moved online. Everyone has the Right to Education as a basic Human Right. It is necessary for the development of a human. It is an obligation on the government to provide education to all citizens. It is included in the Right to Life which is provided under Article 21 of the Indian Constitution. No individual can be assured of human dignity unless his personality is developed and the only way to do that is to educate him. **The 42ndConstitutional Amendment Act, 1976** included the subject **"Education"** in the Concurrent List of the Indian Constitution. There are lots of challenges in India to access free and compulsory education. This Paper point out the challenges in providing education to all. In this Paper, we will also discusses the constitutional provision to Right to Education and this article also highlights on major impacts of Covid-19 on Education Institutions in India.

Keywords: Covid-19, Right to Education; Free and Compulsory Education; Constitution; Combating Challenges, Fundamental Right.

1 INTRODUCTION

The Education is a Process which have many different persons- Firstly those one who gives education i.e. the teachers, the parent etc. Secondly, persons who receive the Education i.e. the student, the Pupil. Thirdly, those who is legally responsible for the person who receives the education." With the advent of the British Empire the formal education system started gaining its root in India. This was

the period when the demand for free and compulsory education system also started and there were many political thinkers like Gopal Krishna Gokhale, Vithalbhai Patel who have also supported the demand for Education for all.

The Right to Education has got the recognition at the national as well as international level. There are various International Conventions which emphatically states about the free and compulsory education. The COVID-19 has affected educational systems globally, leading to the near-total closures of schools, universities and colleges. According to the UNESCO report, Covid-19 has affected nearly 68% of total world's student population.

Out break of Covid-19 has impacted about 1.2 billion students and youths across the globe by school and university closures. Several other countries have also implemented localized closures impacting millions of additional learners. In India, more than 32 crores of students have been affected by the various restrictions and the nationwide lockdown for Covid-19.

1.1 Objectives

This paper is focused on the Following Objectives-

- Concept of Right to Education under Indian Constitution.
- Impact of Covid-19 on Education Sector.
- Enlightening of various emerging approaches of Education sector in India.
- Enlisting of post Covid-19 trends of Educational Institutions.

2 METHODOLOGY

Various reports on Covid-19 pandemic are searched to collect data for current study. As it is not possible to go outside for data collection due to lockdown, so, data is collected from different authentic websites, journals and e-contents relating to Right to Education in India and impact of Covid-19 on educational system in India.

3 INTERNATIONAL LEGAL BASIS OF RIGHT TO EDUCATION

Right to Education (RTE) is provided in the Universal Declaration of Human Rights (UDHR). According to Article 263 of the UDHR: Everyone has the right to education. Education shall be free, at least in the elementary and fundamental stages. Elementary education shall be compulsory. The International Community also mentioned the right to education at the World Education Forum (WEF) in 20004. The UNESCO has, therefore, place the right to education at the forefront of its activities and the Education for All 1990 is high on its agenda. The Dakar Forum5 agreed on six goals, which were considered to be essential, attainable and affordable, given strong international commitment and resolved.

4 RIGHT TO EDUCATION UNDER THE INDIAN CONSTITUTION

Under **Article 21A6** of the Indian Constitution, the State shall provide free and compulsory education to all Citizens of the age of six to fourteen years". **The Constitutional (86th Amendment) Act, 2002**7 inserted Article 21A in the Part-III of the Constitution. This Amendment Act, 2002, made some specific provisions in the Constitution to provide free and compulsory education to children between the age of six and 14 years as a fundamental right.

While adding Article 21A and slightly modifying Article 45, it also added Fundamental Duties in Part IV-A (**Article 51A (k)**8), and it stated that the Parent or Guardian is responsible for providing opportunities for education to their children between six to 14 years. **Article 45**9 of the Constitution provides that the State shall provide early childhood care and provide compulsory education for all children until they complete the age of six years".

5 JUDICIAL CONTRIBUTION

The Indian Constitution accepted education as the main essence of social transformation, which can be seen by its

education specific Articles. The Right to Education(RTE) to the age of six to fourteen years has been raised by the decision of the Supreme Court in the **Unni Krishnan case.10** In this case Supreme Court held that the right to education for the children of the age of 6 to 14 is a fundamental right.

In the case of **Mohini Jain v. State of Karnataka,** 11 Supreme Court held that the right to education is a fundamental right guaranteed under Article 21 of the Constitution. In the case of "**Islamic Academy v. State of Karnataka,**"12 the Supreme Court held that the State can fix the quota for admission to the educational Institutions, but States cannot fix fee and also admissions can be done on the basis of common admission test and on the basis of merit.

6 IMPACT OF COVID- 19 ON EDUCATION SECTORS IN INDIA

Covid-19 Pandemic has affected the educational system of India severely as well as the globe but most impacted areas are-

- **Destabilized all educational activities:** Covid-19 has forced lockdown in every sector including Education. The institutions got closed with cease of educational activities. So, many activities like admission, entrance tests examinations, various competitive examinations are postponed. The only solution for the institutions was to depend online teaching learning.
- **Mixed impact on Academic research & Professional Development:** Covid-19 has both negative and positive impacts on research. If we take the negative side, it has made impossible for researchers to travel and work together with others nationally and internationally. Some joint research work or project work are made complicated to complete. Some scientific laboratory testing/research work could not be conducted. If we look at the positive side, academicians got much time to improve their theoretical research work. Academicians got acquainted with technological

methods and improved their research. Webinars and e-conferences became normal methods for sharing expertise among students and academicians around the globe with similar issues.

- **Severely affected the educational assessment system:** Most of the external examinations have been postponed and almost all the internal assessments have been cancelled. The cancellation of assessments has negative impact on students' learning. Many institutions have been managing the internal assessments through online mode using different digital tools but the postponement of the external assessments, has a direct impact on the educational and occupational future of students' life. This uncertainty has created anxiety among students.
- **Reduced employment opportunities:** Many entrance tests job recruitments got cancelled which created negative impact with a great challenge in the life of a student of higher education. The Indians who have been doing their jobs abroad became upset of their job withdrawal also. In India, there is no recruitment in Govt. sector and fresh graduates are in pressure of fearing withdrawal of job offers from corporate sectors because of the pandemic situation. Many students may lose their jobs from India and overseas. The pass out students may not get their job outside India due to various restrictions caused by Covid-19. All these facts imply towards increase of unemployment rate due to this pandemic.

7 CHALLENGES FOR EDUCATION SECTOR IN INDIA DURING COVID-19

Many challenges are created by Covid-19. The Educational Institutional have responded positively and adopted various strategies to face the crisis during the pandemic. The Government of India has also taken number of preventive measures to prevent spread of pandemic Covid-19. The

MHRD and University Grants Commission (UGC) have made several arrangements by lunching of many virtual platforms. Some of the digital initiatives of UGC & MHRD during COVID-19 are pointed as below:-

- e-GyanKosh
- Gyandarshan
- Gyandhara
- Swayam
- e-Adhyayan
- e-Pathya
- National Digital Library of India (NDLI)
- e-Yantra
- FOSSEE
- Virtual Labs
- e-ShodhSindhu
- Shodhganga
- VIDWAN
- National Educational Alliance for Technology (NEAT)
- SAKSHAT

8 POST COVID-19 TRENDS OF HIGHER EDUCATION

Change is inevitable which has been forced upon the society due to Covid-19. The opportunities created by the pandemic Covid-19 will lead towards a better tomorrow. Tomorrow will be a new morning which will entirely be in our own hands. New technologies will certainly challenge the traditional paradigms such as classroom lectures, modes of learning and modes of assessment. The new trends will allow the education sector to imagine new ways of teaching learning and some trends may be pointed as below.

1. May encourage personalised learning
2. Student Attendance may slow down
3. National and International student mobility for higher study may be reduced
4. Learning with social distancing may continue.
5. Educational institutions may run with different shifts per day.

6. May raise the gap between privileged and unprivileged students Learners
7. Teaching learning may run with technology.
8. Assessment system may be changed to new shape.
9. Demand for Open and Distance Learning (ODL) and online learning may grow.
10. Blended learning may take the leading role.
11. Student debt crisis may rise.
12. Unemployment rate is expected to be increased.

9 SUGGESTIONS

1. Educators and learners should be trained to utilise online teaching learning process using technology. Policy should be adopted by Government/educational institutions to provide free internet and free digital gadgets to all learners in order to encourage online learning.
2. Immediate measures are required to lessen the effects of the pandemic on job offers, internship programs, and research projects.
3. Many online learning platforms offer multiple programmes on the same subjects with different levels of certifications, methodology and assessment parameters.
4. If the pandemic Covid-19 continues, new approaches for academic assessment should be adopted by educational institutions.
5. Government should support Education Institutions to strengthen their resources to run virtual educational activities.
6. WHO has recently pointed out that the Covid-19 may never be eradicated and people will have to live with it. With reference to this statement, many countries are now planning to continue education through distance or virtual mode and India should plan for the same also.
7. Across the globe, Indian traditional knowledge is well known for its scientific innovations, values and

benefits to develop sustainable technologies and medicines.

10 CONCLUSIONS

This study has outlined diverse impacts of Covid-19 pandemic on Education in India. It created an opportunity for change in pedagogical methods and introduction of online education in all fields of education. In Present, we do not know that how long this pandemic situation will continue, so, a gradual move towards the virtual/online education is the demand of the current situation.

MHRD and UGC have started many online platforms. This would involve upgrading the service platform to enable it to meet the required mass of educational demands of students. Online education is the most preferred mode of education at this time of crisis due to the outbreak of this Pandemic. The post Covid-19 education seems to be an education with widely accepted virtual/online education which may be a parallel system of education.

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MARKING & MEASUREMENT OF LONG JUMP

Dr. Sudhanshu Shekhar
M.Sc. B.P.Ed. M.P.Ed. Ph.D.
Department of Physical Education, Mohanlal Sukhadia University, Udaipur, Rajasthan

1. INTRODUCTION

Standing Long Jump Test (Broad Jump)

The Standing long jump, also called the Broad Jump, is a common and easy to administer test to explosive leg power. It is one of the fitness tests in the NFL Combine. The standing long jump was also once an event at the Olympic Games, and is also an event in Sports Hall competitions in the UK and part of the power quadrathlon and jumps decathlon assessment.

2. EQUIPMENT REQUIRED

Tape measure to measure distance jumped, non-slip floor for takeoff, and soft landing area preferred. Commercial Long Jump Landing Masts are also available.

2.1 Pre-Test

Explain the test procedures to the subject. Perform screening of health risks and obtain informed consent. Prepare forms and record basic information such as age, height, body weight, gender and test conditions. Check and calibrate equipment if required. Perform a standard warm-up. The

take off line should be clearly marked. See more details of pre-test procedures.

2.2 Procedure

The athlets stands behind a line marked on the ground with feet slightly apart. A two foot take-off and landing is used, with swinging of the arms and bending of the knees to provide forward drive. The subject attempts to jump as far as possible, landing on both feet without falling backwards. Three attempts are allowed. See some long jump video examples.

2.3 Scoring

The measurement is taken from take-off line to the nearest point of contact on the landing.

3. HOW TO MEASURE LONG JUMP

The long jump is a track-and-field competition that measures the distance of an athlete's horizontal jump. A standard setup includes a runway, a takeoff board close to the end of the runway and a sand-filled pit. Jumpers' scores are measured in meters and it is extremely easy to mark down this information.

Inspecting the Run Up to the Takeoff Board

3.1 Stand or sit directly in line with the takeoff boand

The long jump is a fast moving even that requires the people measuring to have a watchful eye. To make things as easy as possible, place yourself as close to the board as you can.

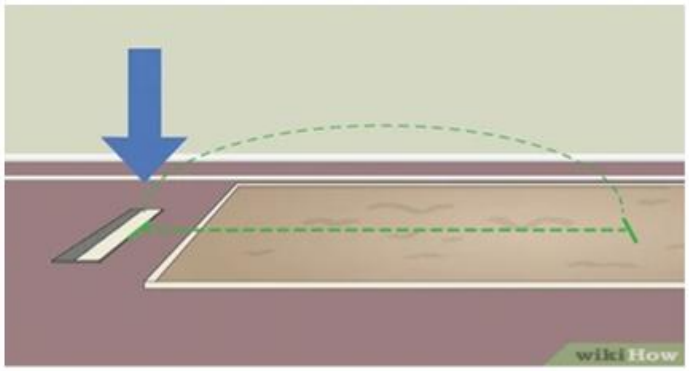
Don’t get too close, however, as this can affect the athlete’s focus.

- Since there are usually a lot of athletes competing at once, it is best to get a chair and set it up a few feet from the takeoff line. This will help you stay focused on the jumpers.

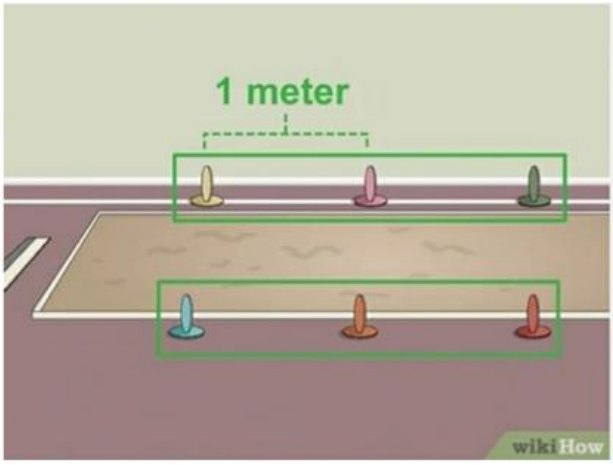
3.2 Watch for the athlete’s foot placement

A competitor’s score is disqualified if they place board.

- If a competitor touches the ground with any body part beyond the takeoff line. It is counted as an attempt.
- If an athlete takes more than a minute to attempt a jump or walks back through the sand pit after a jump, it is considered a foul and the attempt doesn’t count.



Tracking the Jumper's Landing



3.3 Place markers around the sand pit to make measuring easier

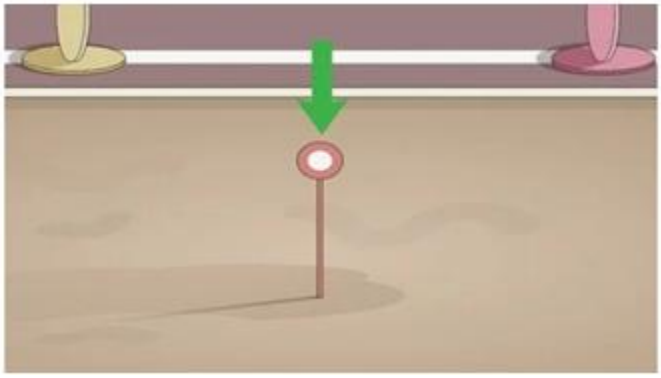
In addition to having multiple judges lined up alongside the landing zone, put distance markers next to the pit for a more efficient measuring system. Place these markers every one meter until you reach the end of the landing zone.

- These markers are never allowed in the sand pit itself, as this can put the athlete in harm's way.

3.4 Check to see which body part hits the sand first

Athletes are looking to land with their feet together and in front of the rest of their body. Normally, the feet hit the sand first and where they hit is where the jump gets marked. However, if a different body part, such as a hand or an elbow, hits the sand before the feet, the measurement must be calculated from where that body part hit.

- Sometimes, athletes' bottoms will hit the sand right before the feet. If this happens, mark the landing point here, not where the feet hit.



3.5 Mark the landing spot with a spike

Take a tape measure and place the zero and directly above the spike. Then walk in a straight line toward the takeoff board and place the other end of the tape measure right at the edge of the board. The number shown on the tape measure is the athlete's score.

- Due to the scores being measured in meters, you have a tape measure with that unit on it.

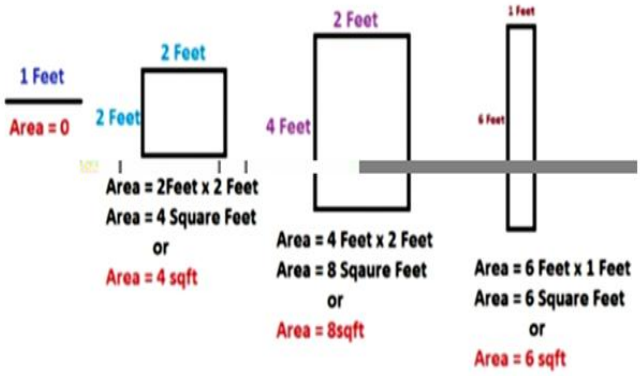
3.6 Reset the sand-filled landing zone for the next jumper

Make sure to rake the sand pit to smooth it out and give the next competitor the same surface as the previous jumpers. Doing this also makes it easier for the judges to see where the next athlete lands.

Standing Long Jump Test (Broad Jump)

Rating	(cm)	(feet, inches)
Very Good	241-250	6'3" – 6' 6.5'
Above Average	231-240	5' 11.5" – 6' 2.5"
Average	221-230	5' 7.5" – 5' 11"
Below Average	211-220	5' 3.5" – 5' 7"

A. To find the Area/Square Feet of a Plot



B. Feet

- Feet is equivalent to 12 inches.
- Feet is equivalent to 30 CMS.

C. Square Foot

- Square foot is defined as the area of a square with sides 1 foot.

- 1 Square foot is equivalent to 144 Square Inches.
- 1 Square foot is equivalent to 1/9 Square Yard.

D. Square Yard

- 1 Square Yard is equivalent to 9 Square Feet.

E. Gajam

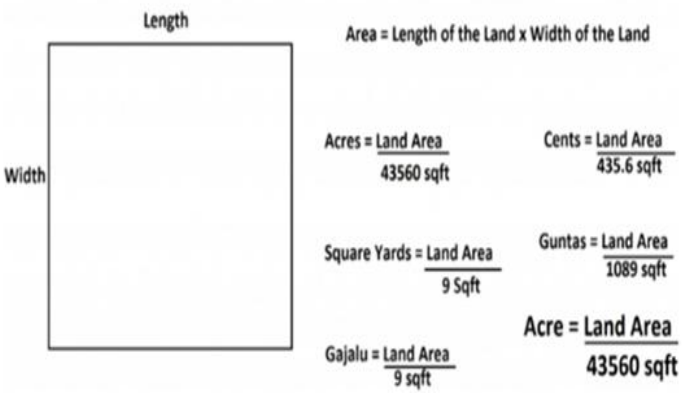
- Oka Gajam is equalent to 9 Square Feet.

F. Gunta/Pit

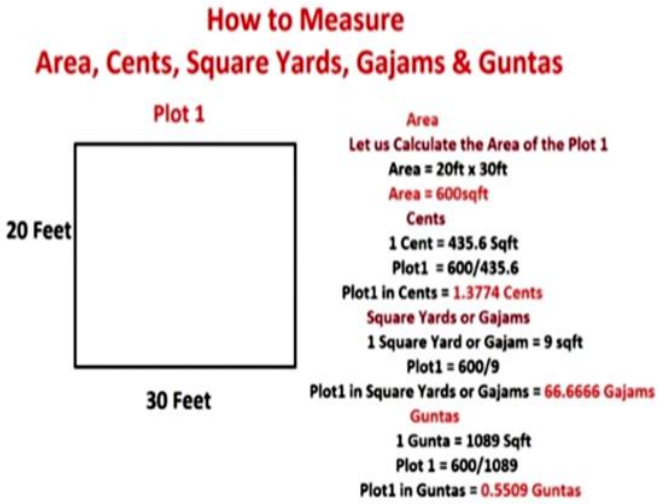
- Gunta/pit is equivalent to 1089 Sqft.

G. Acre

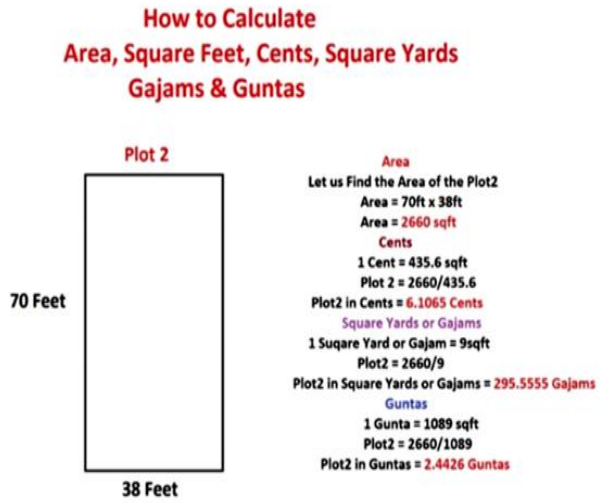
- 1 Acre is equivalent to 43560 Sqft.



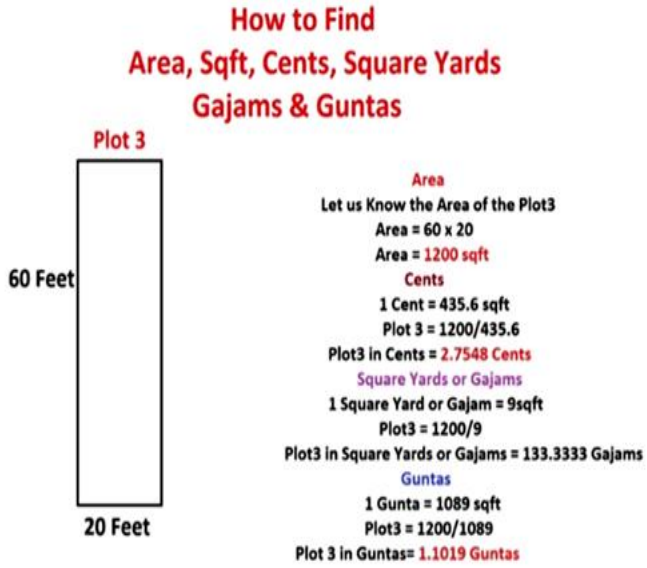
Example 1:



Example 2:



Example 3:



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WOMEN EMPOWERMENT AND EDUCATION: IMPACT, ISSUES AND OBSTACLES

Dr. Shobhana Jain
Assistant Professor and Head of Commerce Department,
Shree Cloth Market Institute of Professional Studies, Indore

Abstract: Education is the milestones of women empowerment, as only educated women can play a dominant role in the overall development of a country. Education is considered as basic requirement and a fundamental right for the citizen of any nation. It can give people the ability to become independent. Women who come across discrimination in many spheres have a particular need for education. It enables them to face the challenges to confront their traditional role and changed their life and position in the society and family. Still large women folk of our country are illiterate, backward and exploited. Education also reduces inequalities, vulnerability and functions as a means of improving their status within the family. India can become a developed nation only if women contributed to the best of their capacity and ability which is possible when she is educated and empowered. Thus education is the key factor for women empowerment, prosperity, development and welfare.

Keywords: Education, Women Empowerment.

1. INTRODUCTION

Education is the key to unlock the golden door of freedom for development. 'Empowerment' refers to the ability of a person from which he gets this ability in which he can take all the decisions related to his life. In women empowerment too, we are talking about the same ability where women are free from all the shackles of family and society and are the creators of their decisions.

Increasing access to education notwithstanding, gender discrimination still persists in India and lot more needs to be done in the field of women's education in India.

The major component of the global society i.e. women are left outside the purview of the fruits of development and planning, we cannot achieve the desired goal of a "developed status" of an economy, whether it is developed or developing.

Today, the female literacy levels according to the Literacy Rate 2011 census are 65.46% where the male literacy rate is over 80%. Even beyond literacy there is much that education can do for women's rights, dignity and security. In the words of **Swami Vivekananda "There is no chance for the welfare of the world unless the condition of women is improved. It is not possible for a bird to fly only on one wing**."

In India, in order to empower women, it is first necessary to kill all those monstrous thoughts that kill their rights and values in society, such as dowry, illiteracy, sexual violence, inequality, feticide, domestic violence towards women.

The real meaning of women empowerment will be understood when they are given good education in India and they will be able to make independent decisions in every field of life.

Women's empowerment means improving the social and economic status of women, so that they can get equal opportunities for employment, education, economic growth, to achieve social freedom and progress. This is the way by which women too can fulfill their aspirations like men.

2. LITERATURE REVIEW

Education of women is the most powerful tool to change of women's position in the society. It also brings a reduction in inequalities and function as a means of improving their status within the family and society. For this purpose the government is providing a package of concession in the form of providing free books, uniforms, boarding lodgings, clothing. For the hostilities midday meals scholarships, free circles and so on. The gender gap in literacy is gradually getting reduced. The higher rate of illiteracy of women is undoubtedly attributing for women dependence on men and

their subordinating role. (M. Suguna, 2011), women education in India has been a need of the hour as education is a Foundation stone for the empowerment of women play an imperative role in making a nation progressive and guide it towards the development to encourage the education of women at all levels and for dilution of gender bias in providing knowledge and education (Roof Ahmad Bhat 2015), the number of women in the corporate world has been steadily increasing in the 24 century when women are coming out in each field empowering them is truly essential (Ritu Ajbani, 2019).

M Shuvmuga, M. Sekar, A. Subburaj, 2014, study is carried out in Tamil Nadu Madurai concluded that overall empowerment and other empowerment are relative Lee e influenced by educational qualification this study helps to create awareness about empowering women among 13 reserve blocks of Madurai is study suggested that in rural area there is a big need of awareness among women for education technology and different vocational courses women reservation policy should strictly be maintained in all aspects like appointment in government and semi government offices education Institutions participating in policies etc.

Education of women is the most powerful tool to change the position of women in society it reduces the inequality and increase the status of women motivate guide train them in all level of improving and enhancing her qualities (Sonali Channannavar, 2016), Empowerment of women and it is striving towards acquiring higher literacy level and education better health care for women and their children equal ownership of productive resources increased participation in economic and commercial sectors Awareness of there rides improved standard of living and to achieve self Reliance self confidence and self respect among women like Beti Bachao beti padhao scheme Sach scheme should be implemented nationwide to bring the desired changes (Sowjanya Shetty**,** V. Basil Hans, 2015)

2.1 objectives of the study

Present study is based on secondary data with the objectives of finding problems, issues and impacts of education on women empowerment. It is also aimed to find out the steps taken from the government to empower women and suggestions made for it.

2.2 Research Methodology

This study is based on secondary data received from various published and unpublished records, reports, journals, research papers, newspapers, websites etc.

2.3 limitations of the study

The main limitation of the study is that it is totally based on the review of literatures and secondary data collected through various research papers, journals, websites, published reports, etc.

3. ISSUES IN WOMEN EMPOWERMENT

1. In the modern era, many Indian women hold many important political and administrative positions, yet ordinary rural women are still obliged to live in their homes and do not have facilities like general health facilities and education.
2. The education rate of men in India is 81.3 percent, while the education rate of women is only 60.6 percent.
3. Women in rural areas of India are less employable than women in urban areas,
4. Inequality in payments is also another main reason for the need for women empowerment in India. A study has revealed that despite equal experience and qualifications, women in India are paid 20 percent less than men.
5. About 50 percent of India's population is women only, meaning half of this population is needed for the development of the whole country which is still not strong and is bound by many social restrictions. In such a situation we cannot say that in future our

country will develop without strengthening half our population.

6. The need for women empowerment came because India had the gender inequality and a male dominant society since ancient times, Women were pressurized by their own families and Society for various reasons and they were subjected to many forms of violence and discrimination.
7. In Indian society, it is a tradition to worship women goddesses as mother, sister, daughter, wife to honor women, but today it is only hypocrisy.
8. In the last few years, many constitutional and legal rights have been created and enforced by the government to remove gender inequality and evil practices against women. However, there is a need for constant support of everyone including women to solve such a big problem.

4. OBSTACLES IN THE PATH OF WOMEN EMPOWERMENT

Indian society is a society which includes many customs, beliefs and traditions. Some of these old beliefs and traditions are such that prove to be a hindrance for women empowerment in India. Some of the same barriers are as follows:-

1. Due to old and orthodox ideologies areas of India prohibit women from leaving their homes in such areas women do not have the freedom to go out of the house for education or employment.
2. Due to living in an environment of old and orthodox ideologies, women find themselves inferior to men and fail to change their current social and economic condition.
3. Exploitation in the workplace is also a major obstacle in women empowerment. Private sectors such as service industries, software industries, educational institutions and hospitals are most affected by this problem.

4. Problems for women arise due to the dominance of male prominence in society. In the past few years, there has been a rapid increase in harassment of women in the field of work and there has been an increase of about 70 percent in the last few decades.
5. In India, women are still discriminated against at the gender level in workplaces. In many areas, women are not even allowed to go out for education and employment. At the same time they do not have the freedom to work independently or take decisions related to family and they are always considered less than men in every task.
6. Women are paid less than men even when they do the same work for the same amount of time, and such work shows the power disparity between women and men. Women working in the organized and unorganized sector are paid less than men, despite having the same experience and qualifications as their male counterparts.
7. Problems like illiteracy among women and dropping out of education also very big obstacles in women empowerment although in urban areas girls are equal to boys in education but in rural areas they are far behind.
8. Although child marriage in India has been reduced to a great extent by effective decisions taken by the government in the last few decades, but most of girls are married before the age of 18, Due to early marriage, the development of women stops and they are not physically and mentally adults.
9. Serious crimes like dowry, honour killing and smuggling are seen against Indian women with many domestic violence. However it is quite strange that women in urban areas are more victims of a criminal attacks then women in rural areas.
10. Working women also do not use public transport late in the night due to their safety. In the true sense, women empowerment can be achieved only when the

safety of women can be ensured and like men, they can come freely without any fear.

11. Female feticide or abortion on the basis of gender is one of the biggest obstacles in the way of women empowerment in India. Female feticide refers to feticide on the basis of gender, under which female feticide is aborted without the consent of the mother.

5. IMPACT OF EDUCATION ON WOMEN EMPOWERMENT

Education liberalized the thinking, mind thoughts, imagination power, principally in various field of life for easy to survive and achieve knowledge. Through education, empowerment of women drinks equal status to opportunity, freedom and development. Education stay away from hurdles. It gives equal rights to women in social political and cultural environment. Mainly education allows to take decisions whether it is related to life style, life partner, job career, fitting styles, sexuality extra. Education teaches what is wrong and right. It is garnishing women to defence against crime, social devil, sexual harassment, marital rape and mental stress of Society.

Educated, qualified and empowered women contribute to the development of economy, get rid of problems like India's high maternal mortality rate, high rates of gender violence and other crime against women, child sex abuse, female feticide, implement family planning and other schemes. (Sharma 2016). Education in hands is the quality of women and maximum strategies to grow upward to clear the entire education system to play positive interventionist role in the empowerment of women.

6. ROLE OF GOVERNMENT FOR WOMEN EMPOWERMENT IN INDIA

The Indian Government has launched series of schemes and programs which cover welfare and support services, gender sensitization and awareness generation. These efforts are directed to make women socially and economically empowered so that they can take equal and active part in

national development along with men. These schemes have been formed keeping in view the situation of Indian women so as to increase their participation in the society.

The following schemes are being run by the Ministry of Women and Child Development:-

1) **Beti Bachao Beti Padhao Scheme:** This scheme is designed keeping in mind female feticide and girl education. Under this, efforts are being made to change the thinking of the misconception spread in their family by planning for the betterment of girls and giving them financial assistance.
2) **Women's Helpline Scheme:** Welfare and Government of India for the empowerment of Indian women with the hope that one day women in Indian society will get the benefit of every opportunity like men. Under this scheme, women are provided 24-hour emergency support service, women can complain of any kind of violence or crime against them on the number prescribed under the scheme. Under this scheme, women can register their complaints by dialing 181 number across the country.
3) **Ujjwala Scheme:** The scheme has been launched to protect women from trafficking and sexual exploitation. Along with this, work is also done for their rehabilitation and welfare.
4) **Support to training and employment program for women (STEP):** Under the STEP scheme, the skill of women is enhanced to provide employment to them or they can start their own employment. Under this program, women are educated in many fields like agriculture, horticulture, handloom, sewing and fisheries etc.
5) **Mahila Shakti Kendra -**The scheme focuses on empowering rural women through community participation. Under this, community volunteers such as students and professional individuals provide information about their rights and welfare schemes to rural women.

6) **Reservation for women in Panchayati Raj schemes:** In 2009, the Union Cabinet of India announced 50 percent women reservation in Panchayati Raj Institutions, an attempt by the government to improve the social status of women in rural areas. Modern society is more aware of the rights of women, as a result of which many self-help groups and NGOs etc. are working in this direction. Women are more open minded and are breaking social bonds to get their rights in all dimensions. However the crime is going on simultaneously. Some Acts passed by Parliament for Women Empowerment (Laws made by the Parliament favoring women empowerment).

6.1 Specific Laws for Women Empowerment in India

Here is the list of some specific laws which were enacted by the Parliament in order to fulfil Constitutional obligation of women empowerment:-

- The Equal Remuneration Act, 1976.
- The Dowry Prohibition Act, 1961.
- The Immoral Traffic (Prevention) Act, 1956.
- The Maternity Benefit Act, 1961.
- The Medical termination of Pregnancy Act, 1971.
- The Commission of Sati (Prevention) Act, 1987.
- The Prohibition of Child Marriage Act, 2006.
- The Pre-Conception & Pre-Natal Diagnostic Techniques (Regulation and Prevention of Misuse) Act, 1994.
- The Sexual Harassment of Women at Work Place (Prevention, Protection and) Act, 2013.

Above mentioned and several other laws are there which not only provide specific legal rights to women but also gives them a sense of security and empowerment.

Women's empowerment brought about a lot of changes in the lives of women:-

- Women have started taking an active part in every task.

- Women are making decisions related to their lives themselves.
- Women have started fighting for their rights and are slowly becoming self-sufficient.
- Men are now beginning to understand and respect decisions of women; they are also giving their rights to them.

Women empowerment can play an important role in getting the opportunity for women rights and equality. Because of women empowerment not only prepares women for alimony, but also prepares them to awaken the female consciousness and get rid of social atrocities.

7. CONCLUSION

Our country is moving forward with great speed and enthusiasm, but we can maintain it only when we are able to overcome gender inequality and ensure equal education, promotion and payment for women as men could. It is very important that we change our narrow thinking against women and also change the constitutional and legal provisions.

According to the country report of the Government of India, empowerment means moving from an existing position to execute a power, getting equal status, opportunities and freedom to develop her. Education motivates guides and trains in all level for improving and enhancing her qualities. It makes the women self dependent, self satisfied in every aspects of life. It is the key factor for women empowerment, prosperity, development and welfare.

Discrimination of women from Bomb to tomb is well known. There is continued in equality and vulnerability of women in all sectors and women appraised in all spheres of life. They need to be empowered in all walks of life in order to fight against the socially constructed gender biases. Women have to swim against the system that requires more strength, such strength comes from the process of empowerment and empowerment will come from the education.

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AN APPROACH ON QUALITY OF PRIMARY EDUCATION

Dr. Shyam Sundar Sharma,
Department of Psychology, Chhatapur, PO- Surpatganj,
District- Supaul, (Bihar)

Abstract:- The current investigation breaks down the interregional aberrations in the nature of essential instruction in rustic India. The investigation depends on the Annual Status of Education Report, 2010 arranged by Pratham.
Quality of Education Index (QEI) has been constructed using three indices:-

- Quality of Teaching Index,
- School Infrastructure Index and
- Learning Achievement Index.

It has been observed that Kerala is the only state which scores the highest in all the three indices whereas states like Bihar, Uttar Pradesh, Assam, Odisha, Jharkhand and majority of North Eastern state are at the bottom. At the regional level a high quality knowledge base on education system reform needs to be developed.
Keywords: Education; Interregional disparities; Quality of Education Index; Quality of Teaching Index; School Infrastructure Index; Learning achievement Index.

1. INTRODUCTION

The idea of human improvement bases on the thought that human government assistance relies upon different measurements, with training and wellbeing developing as the prime government assistance marker. As per Schultz (1961) it is preposterous to expect to have products of current agribusiness and the plenitude of present day industry without making enormous interests in individuals". As indicated by World Bank (2006), Better instruction and wellbeing lead not exclusively to higher individual pay because of expanded effectiveness but on the other hand is an important precondition for long haul monetary development.

Instruction as a rule adds to the development of an economy through securing of preparing and aptitudes while essential training establishes the framework stone of the capacities of work and is an amazing switch for destitution easing and financial development. Its outcomes can be engaging, empowering individuals to assume responsibility for their lives and settle on more educated decisions, add to the structure of a law based country, increment winning potential and social versatility just as improve individual and family wellbeing and sustenance (especially for females), and empower ladies to control their ripeness.

It is in this manner yet common that social comes back to essential training are a lot higher. The last 50 years saw extraordinary

advances in levels of instruction world over with increment in normal school enlistment. Yet, the overall improvement in instructive pointers is bound to the amount angle alone. The learning accomplishments have been generally undermined. This has brought about a gigantic hole between the market meaning of required talented labor and the current potential. Hanushek and Wosmann (2007) focused on that the nature of instruction, estimated by the information that understudy gains is considerably more significant for monetary development than the simple amount of training as estimated by number of students and number of school years.

Quality cannot improve by it self, rather it requires reforms in teacher training; improvements in infrastructural facilities in schools; teachers" motivation; and change in the style of teaching to make it attractive to students. As India moves towards being a world economic power, the low standards of education reflected by large gender disparity in enrollment, completed education, labor market participation, and lack of infrastructural facilities, has raised legitimate concern about the means through which India will manage to sustain this growth.

Ensuring universal primary education by 2015 is a part of Millennium Development Goal, of which India is also a signatory. As the timeline comes nearer, the observed pattern in the education system is a divide between urban and rural educational achievements as well as growing regional inequalities. Literacy rates have been rising sharply from 24.02 percent in 1961 to 74 percent in 2011 but there exists question on other aspects of school education viz access to education, teaching quality, school infrastructure and learning quality.

The investment in quality primary education holds the key to inclusive development in burgeoning Indian economy. Various studies have discussed the reasons for low level of learning achievement. Kumar (2010) and Mooij (2008) emphasized that lack of teacher training and their experience leads to low levels of student achievement, While Aslaam and Kingdon (2011) argued that teachers" classroom practices and the teaching process may matter more to student learning than the teachers" observed resume characteristics. Mehrotra (2006) highlighted lack of teacher accountability as the most important factor undermining the learning teaching process.

Unni (2009) and Kaushik (2009) found inadequate infrastructure in schools as the major reason for poor attendance. Naseer, Patnam and Raza (2010) highlighted the role of classroom innovations in primary schools. Barrs (2005) analysed that enhanced local governance has a positive impact on teachers" level of motivation and performance. Bajpai, Dholakia and Sachs (2008) drew attention to problems faced by teachers in schools and recommended efficiency on government's part in disbursing their salaries.

Although these studies confirm the fact that lack of infrastructure and quality teachers are the main reason for low learning achievements

in schools but none of the studies tried to quantify their impact on the quality of education provided in primary schools of rural India. The present study attempts to do this. Specifically the objective of the present study is to analyze the interregional disparities in the levels of primary education in rural India in terms of quality of teaching, provision of school infrastructure and learning achievements of students. The study is divided into four sections including present one. Section 2 is devoted to database and methodology.

2. DATABASE AND METHODOLOGY

The data for present study has been culled out from Annual Status of Education Report (ASER), 2010. The ASER is compiled and published by Pratham India. In ASER report, the data collected from rural primary schools are available for 25 Indian states. Using these data, a Quality of Education Index (QEI) has been constructed for each state. As per our calculations, the QEI is a simple average of 3 indices namely; Quality of Teaching Index (QTI), School Infrastructure Index (SII) and Learning Achievement Index (LAI), i.e.

$$QEI = \frac{QTI + SII + LAI}{3}$$

Thus, the QEI will indicate the quality of primary education in Indian states based upon three indicators. It is worth mentioning here that all of these indices have been measured in the scale of 0 to 100. A value near 100 represent better provision of particular indicator in the given state while, a score nearer to zero depicts dismal performance of the state. Among these three indicators, the QTI represents the Quality of Teaching which has been constructed using a set of five variables.

These variables are proportion of schools following Right to Education norms for:-

- pupil-teacher ratio;
- teacher-classroom ratio;
- number of teachers present during the days of survey;
- number of schools with head teacher appointed; and
- number of multi-grade classes.

Each of these variables has been converted into an index using the following formula:-

$$Dimension\ Index\ of\ X_i = \frac{Observed\ value\ of\ X_i - Minimum\ X_i}{Maximum\ X_i - Minimum\ X_i}$$

Another component of the Quality of Education Index is School Infrastructure Index (SSI), constructed using a set of 12 variables namely:-

- Percentage of schools having store/office,
- percentage of schools having playground,
- percentage of schools having boundary wall,
- percentage of schools having drinking water facility,
- percentage of schools with toilet facility;
- percentage of schools with separate girls toilet;
- percentage of schools having kitchen shed;
- percentage of schools having library and books available;
- percentage of schools with library books in use;
- percentage of schools with availability of teacher learning material (TLM) grant in class 2;
- percentage of schools with availability of teacher learning material (TLM) observed in class 4 and
- Percentage of schools with availability of computers.

The third component of QEI is Learning Achievement Index (LAI). The availability of any infrastructure is trivial in order to impart the effective and easy learning to students. Four variables have been used to check the learning effectiveness of education system:-

- Percentage of children who can recognize numbers;
- Percentage of children who can do Subtraction or more;
- Percentage of children who can read letters or more; and
- Percentage of children who can read class 1 Books.

3. RESULTS AND DISCUSSION

3.1 Quality of Education Index

The examination of Quality of training utilizing QEI has been introduced in that the territory of Kerala tops among the arrangement of 25 states, subsequently the province of Kerala has all the earmarks of being the benchmark for different states as far as nature of essential instruction. The conditions of Maharashtra and Himachal Pradesh involve second and third spot. The two different states for example Punjab and Sikkim likewise have accomplished great quality score and consequently are assigned at fourth and fifth position separately. Conditions of Haryana, Gujarat, Nagaland, Tripura, Karnataka, and Uttarakhand rank seventh, eighth, ninth, tenth, eleventh and twelfth in Quality of Education Index individually.

These states are above average performers and priority should be given to them while implementing program for uplifting the quality of primary education at aggregate levels. While states of Andhra Pradesh, West Bengal, Arunachal Pradesh, Chhattisgarh, Rajasthan and Meghalaya rank 13th, 14th, 15th, 16th, 17th and 18th respectively in QEI. All these states are below average performers but are not the laggards. Of these states Andhra Pradesh, Chhattisgarh and West Bengal are suffering from Naxalite movement whereas the others are either tribal

states or are dominated by orthodox customs which have hindered the provision of quality education.

However, the analysis of laggard states depict that Bihar (25 rank), Uttar Pradesh (24), Assam (23), Orissa (22), Jharkhand (21) and Tamil Nadu (20), appear to be the worst performers of the sample in the quality of education index. Development signifies both quantitative and qualitative achievements. For realization of this objective, development priorities, strategies and implementation modalities should be tailored to the special problems, situations and felt needs of the distinct states of India.

Quality of teaching, availability of infrastructure and learning achievements all play a very significant role in determining overall quality of education in a state. Lacking at any component may affect adversely the ranking of the given state in terms of Quality of Education at aggregated level. Thus, the analysis of the components of QEI is required to judge the reasons of the observed performance of given state.

3.2 Quality of Teaching Index (QTI)

The QTI as given in of understudy educator proportion, instructor homeroom proportion, number of instructors present, head educators delegated and level of schools with no multi grade classes. High student educator proportion in grade schools of India has consistently involved concern. Under RTE rules ideal PTR ought to be 30:1, yet against this in India not many rates of schools across different states follow the recommended standard. Accordingly their PTR list score is extremely low and they lie at the base as far as this file.

These states are Uttarakhand (0), Uttar Pradesh (3.14), Assam (20.60), Odisha (20.35) and Jharkhand (28.6). Uttarakhand being a bumpy express, the educators think that its hard to travel schools situated in distant regions. In Uttar Pradesh progressive governments have not given need in delegating educators though in Odisha, the state government has no arrangement for selecting perpetual instructors and in this manner individuals don't locate any motivator in joining encouraging calling prompting high PTR while the province of Assam is experiencing uprising because of which instructors are not all set to distant zones.

On the other hand in states like Sikkim (100), Nagaland (93.84) Kerala (93.59), majority of the schools follow the ideal pupil teacher ratio. Under RTE all schools are required to have at least one classroom for every teacher. Teachers play a very critical role in providing learning experiences to children in schools. To meet the demand of increasing enrollment and to improve the pupil-teacher ratio in schools, teachers are recruited in large numbers. But teacher absenteeism resulting in the non-availability of teachers in the classrooms has emerged as a major obstacle in improving the quality of education.

Among the North Eastern states it is observed that Manipur (25th rank) and Sikkim (24th rank) were the laggards in case of Teacher Present Index where only 70.8 percent and 78.7 percent teachers were present respectively on the day of the survey conducted by Pratham. While Gujarat (1st), Mizoram (2nd), Meghalaya (3rd), Kerala (4th), and Maharashtra (5th) are the benchmark states in teacher present category. Another indicator of QTI is the appointment of the head teachers in the school.

The states of Assam, Gujarat, Himachal Pradesh, Jharkhand, Kerala, Meghalaya, Mizoram, Nagaland, Sikkim and Tamil Nadu had 100 as their index score. While Bihar scores zero indicating that it is at the bottom of the table in terms of head teacher appointed index as only 85.5 percent of the schools in the state had head teacher appointed in the schools which clearly shows adhocism in its education policy. One more indicator which affects the teaching quality is the presence of multi grade classes in schools. It has been observed that in various schools across the states, students of standard II are found sitting with one or more other classes.

It was observed from column VI of the Table 2 that Karnataka, Tamil Nadu, Odisha, Jharkhand, and Bihar were at the bottom ranks of 25th, 24th, 23rd, 22nd and 21st respectively as all had very high percentages of schools with multi grade class system, while in case of Kerala only 8 % of schools had multi grade class system. Poor PTR and presence of multi grade classes in these states are the reasons for their low QTI. Depending on the respective index scores of states in above mentioned indicators Overall Quality of Teaching Index was constructed.

It was observed from the Table that in this Index state of Kerala (94.42) tops the index followed by Nagaland (85.15), Gujarat (82.12), Maharashtra (76.42) and Mizoram (76.26). Of these states Gujarat and Nagaland fall under above average performers in the Overall Quality Index and hence these states have the potential to catch up with the benchmark state. While Bihar (28.78), Chhattisgarh (44.71), Odisha (46.76), Uttar Pradesh (47.52), are the laggards.

3.3 School Infrastructure Index

Ideal demeanor towards school foundation encourages inspiration for increment in school participation and improves scholarly execution of understudies. Subsequently another significant constituent of QEI must be School Infrastructure Index. It incorporates files identifying with arrangement of store/office, play area, limit divider, drinking water accessibility, useable latrines accessible, girl"s latrines useable, kitchen shed, library books being utilized, educator learning material in standard II and standard IV and PC accessibility.

From clear that in School Infrastructure as well, Kerala tops the diagram followed by Punjab (second), Gujarat (third), Tamil Nadu (fourth), and Karnataka (fifth). The improvement in position of Punjab is because

of the way that legislature of Punjab under Sarva Shiksha Abhiyan had put forth incredible attempts so as to improve the framework position in schools all through the state. Additionally, it is the primary state in the nation to dispatch EDUSAT program which will give the office of two-way sound video communication with 300 foundations administered by the division of school instruction over the state.

The institutions are connected online with the teaching and co-existing classroom ending at the EDUSAT Hub. But despite a good overall rank under SII, many schools in Punjab (31.2 percent) lack toilet facility especially separate toilets for girls. Situation is no different in Gujarat which is ranked 3rd under SII but 31.9 percent schools do not have useable toilets. The states of Meghalaya (25th), Jharkhand (24th), Arunachal Pradesh (23rd), Chhattisgarh (22nd), Assam (21st) and Bihar (20th) lie at the bottom of the table in Toilet Available and Useable Index.

On the other hand, Haryana scores 100 in this Index surpassing Kerala (88.12), which otherwise ranks 1st in the Overall Quality of Education Index. It is imperative that all schools must provide toilet facilities. Under Drinking Water Facility Index majority of states have shown improvement. Himachal Pradesh (96.89), Punjab (96.77), Uttar Pradesh (95.65), Tamil Nadu (93.54) and Gujarat (92.05) have a high score in this index. Where Bihar scores 91.31 in providing drinking water facility it scores only 20.95 in providing toilet facility.

In a recent Supreme court1 hearing the bench of Justices quoted that denial of the basic right to water and toilet facilities “clearly violates the right to free and compulsory education of children guaranteed under Article 21-A"" Therefore a lot needs to be done about providing useable toilet facility in all schools across states in India as infrastructural facilities have a positive relationship with the dropout rates. The states of Meghalaya (25th), Manipur (24th), Arunachal Pradesh (23rd), Mizoram (22nd), Assam (21st) and Nagaland (20th) are the worst performers under School Infrastructure Index. Surprisingly all of these are North eastern states.

The position of Meghalaya is worst as it scores zero in four indicators: provision of store index, toilet useable index, TLM observed in class IV index and Computer index. Reveals that Manipur scores zero in drinking water facility index, separate toilet for girls index and boundary wall index. The states of Mizoram and Nagaland scores zero in the library books available index as well as in Library books in use by children index. Sikkim, another North eastern state ranks 12th under SII, which is a better rank in comparison to other North eastern states.

This it can be inferred that except Sikkim the availability of basic school infrastructure in these North Eastern states is not satisfactory. The reason for such a miserable situation of infrastructure in these states can be attributed to the fact that in these states higher education receives the maximum portion of the budget and the primary education receives very low portion of it and also the presence of ULFA and the Maoist

movements have not only affected the peace in these states but their operations have also hindered the pace of development here.

Therefore more investment for creating basic infrastructure in schools is required. According to Right to Education Act, every school is required to have a playground, boundary wall and a kitchen shed for cooking mid day meal. Haryana ranks 25th in Kitchen Shed Index followed by Manipur (24th), Meghalaya (23rd), and Assam (22nd). Under Playground Index, ten states out of twenty five score below score of 48.01 with state of Jharkhand being at the bottom.

This number increases to twelve states out of twenty five under Boundary Wall Index. In the globalised age, computer education has become essential and therefore it has become obligatory for children to learn computers but it is possible only when schools have the required computer infrastructure. In 20 states out of 25 covered in the survey less than 10 percent of schools had computers. Kerala is the only state where 75.3 percent of schools had computers followed by Tamil Nadu where 29.7 percent of schools have computers. The gap between the two states is extensive.

4. POLICY IMPLICATIONS AND CONCLUSION

Training is a piece of simultaneous rundown that implies the state just as focus both have a task to carry out. So as to accomplish the objective of Education for All (EFA), different National Policies on Education (NPE), a few undertakings and projects have been propelled in different conditions of the nation. The principal significant activity was the beginning of District Primary Education Program (DPEP) in 1994-95 followed by Sarva Shiksha Abhiyan (SSA) in 2000-01. The Central government on its part has been propelling plans and apportioning assets to the states.

Be that as it may, the execution part lies with the states. Kerala, Punjab and Himachal Pradesh have demonstrated significant advancement in creating school framework under these projects. However, Bihar, Uttar Pradesh and the eight conditions of North East India have not received the rewards of these halfway supported plans. Where the instructively in reverse states like Bihar and U.P come up short on the money related ability to subsidize the projects, the conditions of North East locale embraced the SSA just in 2002-03.

Along these lines, In request to manage their instruction shortfall, distributions ought to be made debasement free, convenient and furthermore require appropriate administration. Numerous families don't send their kids to schools as a result of absence of latrines and drinking water office. The need of great importance is rapid activity in such manner. These offices are fundamental privileges of youngsters in schools and subsequently can't be undermined. Under the RTE, 2009 schools are required to have a play area, limit divider, store room, kitchen shed, library, separate latrines for young ladies, and so forth. The Act

additionally sets out the ideal student educator proportion and instructor – study hall proportions in the schools.

These factors determine the teaching quality in schools. A well qualified teacher will impart better learning to students. Also, better incentives to teachers will reduce teacher absenteeism. The three year deadline for full implementation of the Act ends in March 2013. Various states have issued regulations to their respective education departments in order to meet the deadline. But the reality is that no state is near to achieving this target. The states facing Naxalite and Maoist tribulations have problems implementing the Act as peace is disturbed in these states.

The states with tribal populations like Odisha, Chhattisgarh, Mizoram, and Meghalaya have to deal with the problem of preparing curriculum and teaching in various tribal languages. Rajasthan faces the issue of gender bias where boys are preferred over girls for education. In such cases the government and NGO"s should step in to spread awareness among masses about importance of school education for girls.

The current trend in the education sector is the misuse of the financial allocations made by the government under Sarva Shiksha Abhiyan. The education policy makers need to give more weight to the transparency and accountability factors in government rural schools. The decision makers should also realize that efforts in increasing the enrollment rate or reducing the dropout rates alone will not help in bringing the reforms Indian education sector requires.

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A STUDY ON HUMAN RESOURCE DEVELOPMENT IN COOPERATIVES

Dr. Ona Ladiwal
Associate Professor, Swami Keshvan and Institute of Technology, Management & Gramothan (SKIT Jaipur)

Abstract - Human resources development is an important component for the success of any organisation. Human resource management plays a crucial role in the implementation of strategic management in cooperatives. It has, however, not been accorded the importance it deserves in the cooperative institutions. The existing organisational design of most of the cooperatives does not conform to the basic principles of human resources management of a sound institution. The cooperatives are generally headed by a committee of elected members, who are not necessarily professionals. The cooperatives will have to evolve sound personnel policies encompassing proper manpower planning and assessment. It is necessary to evolve scientific staffing norms. There should also be a conscious policy for developing the second line of management in all key functional areas. Conscious and well specified HRD principles in crucial areas like recruitment, placement, training, career progression, managerial grooming, etc., are lacking in most of the cooperatives. There was no evidence of an objective system involving professional guidance for recruitment in cooperatives in several states. Therefore, it is necessary to study on human resource development in cooperative. This paper attempts to analyse the human resource development in cooperatives. A diagnostic research design (theoretical analysis) is followed in the present study. Empirical results show human resource management and development in cooperatives are is not effective.

Keywords: Human Resource Development, Cooperatives, Management, Training, Education, NSUI.

1 INTRODUCTION

According to the Society for Human Resource Management (SHRM) 2007, Change Management Survey Report, “the top two obstacles encountered during the major organisational changes are communication breakdown and employee's resistance.” India moves towards progressively ‘Knowledge Economy’. Skills and knowledge are the important driving forces of economic and social development of any Country. The Eleventh Five Year Plan focused on advancement of skills and these skills have to be relevant to the emerging inclusive economic growth of rural India. Cooperative is one of the sectors, which renders services to the poor people and uplifts the socio-economic status of members. A cooperative organisation is an autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and

aspirations through a jointly-owned and democratically controlled enterprise.

Since its inception of the movement, there is need for creating awareness and acceptance of human resource development to achieve the organisational goals and objectives. The cooperatives are considered to be one of the strong instruments to involve the available human resources as well as explore the potentials for employment generation. HRD activities in cooperatives will need to be much more systematically organised with a long range perspective. Cooperatives must realise that enlightened members, competent office bearers and employees are their own need and no one from outside may be expected to support activities to build such human resources for them. A highly competent motivated team of employees and office bearers and enlightened and empowered members should be the mission of the HRD policies in cooperatives.

1.1 Concept of HRD in Cooperatives

The significance of professional management in cooperatives has been introduced after the globalisation of Indian economy. Sustainable human resource development and training system have development according to the present environment to promote cooperatives both vertically and horizontally growth and created HRD network among cooperatives to exchange information and experience. "The concept of HRD in cooperative means all the planned information, education, training, mobilisation and manpower development activities undertaken by cooperatives so as to create economically efficient, organisational capable of providing services required by their members.

2 HUMAN RESOURCE DEVELOPMENT DEFINITION

Human resource development has been considered as one of the most important area of research. The aim of the human resource development policy is based on the development of the human resource. The role of development of human resource is to improve the quality of life. Various economists argue that the human resources of a country determine the character and growth in the economic and social development of a country. Not gold and silver but only human resource of a nation can make a nation a great and strong.

The areas of professional practice that define Human Resource Development practice are generally categorised into three –

- The learning;
- The performance.
- The change.

3 REVIEW OF LITERATURE

In review of literatures, an attempt has been made to review committee's reports, research papers, articles and books related to different issues on human resource development in cooperatives.

Committee on Democratisation and Professionalisation of Cooperative Management (1985) – The Committee with Ardhanareeswarar as Chairman has examined various State Cooperative Acts and made the following observations: The changing complexities of member management, human resource development, financial management have necessitated availability of professional assistance to cooperatives through adequate trained and professional paid staff on appropriate terms working under the general guidance of a democratically elected body.

ICA Policy on Human Resource Development (1990) – The overall aim of the ICA Policy for Human Resource Development is to contribute to the effective implementation of the ICA Policy for Cooperative Development, viz. "the establishment and growth of independent, democratic and viable cooperative organisations, in which men and women participate on equal terms. These organisations must be capable of serving their members efficiently and contributing to economic growth and social equity in their respective communities and / or countries".

Brahm Prakash Committee (1991) – It was appointed to revise the existing cooperative laws for cooperative through voluntary participation of the people. The Committee recommended a Model Cooperative Law in 1991 in order to make cooperatives self- reliant, autonomous and democratic. It was circulated to all the states with the advice to incorporate the same, as it ensures more power to the members, more participation and less government intervention in the affairs of cooperatives.

The Task Force to Study the Cooperative Credit System (1999) – Chaired by Shri Jagdish Kapoor suggest measures for its strengthening observed that Human Resources Development is an important component for the success of any organisation. It has, however, not been accorded the importance it deserves in the cooperative institutions. The cooperative banks are generally headed by a committee of elected members, who are not necessarily professionals in the field of banking and finance. According to the Task Force, the cooperative banks have to evolve sound personnel policies encompassing proper manpower planning and assessment.

The Expert Committee on Rural Credit (2000) – under the Chairmanship of Prof. V.S. Vyas made the recommendations on Human Resource Development, many rural financial institutions suffer from poorly motivated and inadequately trained staff. Staff strength is sometimes too high (mainly in cooperatives) and sometimes too small. In cooperatives, these should be based on human resources requirement studies to be conducted in all States by reputed professionals. Cooperative CEOs should be professionals (and not on deputation from Government, etc.).

National Cooperative Policy (2002) – Last, but not the last, the government recognises the need to develop human resources, cooperative education and training, appropriate technologies and infrastructural facilities so as to promote professional management in cooperatives.

Task Force on Training and HRD of Cooperatives and RRBs (2002-2007) – chaired by B.S. Vishwanathan has emphasised the need for professionalisation in cooperatives and has recommended for continuance of Cooperative Education and Training schemes during X Plan.

Das Banshree, Dr. Palai N.K. and Dr. Das Kumar (2006) – The paper focuses on several pitfalls and shortcomings like: poor infrastructure, lack of quality management, over- dependence on government, dormant membership, non-conduct of elections, lack of strong human resources policy, absence of professionalism, etc. The paper makes an assessment of future prospects of the cooperative sector of India.

3.1 Objectives of Study

- To study the human resource development in cooperatives.
- To understand the issues and challenges of HRD practices in cooperatives.
- To suggest suitable measures for improving HRD practices in cooperatives in India.

The research study is significant to assess the need of human resource development in cooperatives. The present study is useful to the policy planners in their efforts to improve the working of the present system. It is useful to the academicians and students in their study of the present system.

4 RESEARCH METHODOLOGY

The methodology adopted for study is mainly theoretical. An examining research design is followed in the present study.

4.1 Method of Data Collection/Sorces of Data

The study is mainly based on secondary data which is collected from Committee's Reports. Other related information collected from journals, conference proceedings and websites.

4.2 HRD Activities

Cooperative training institutes should have to organise the following HRD activities to the personnel as well as the members of cooperatives –

- Arrange one day workshop relating to HRD issues and find out suitable solutions to improve the functions of an organisation.
- Arrange awareness programme to the students about "Cooperation among cooperatives".

- Visit adopted societies and provide technical support to develop the day-to-day activities of the cooperatives.
- Visit SHG organisations and Village Panchayats to propagate the message of cooperative week celebration to be public.

4.3 Need for HRD in Cooperatives

Cooperatives have been effectively utilising the need of human resources in following purposes –

- Recruitment and placement of personnel.
- Personnel development and career planning.
- Systems of individual performance measures.
- Training and skills up gradation.

The government needs to give higher allocation of the sources for cooperative education and training so that members in the village who are from farming community are able to use new technology, provide rural infrastructure and make use of market information and risk management.

The development of human resources in the cooperative sector is a pre-requisite for improving the capability of the farmers to compete in the market place.

The Govt. of India has formulated a revival package (2004) for restructuring and strengthening of rural cooperative credit institutions. Based on that, NABARD has designed training modules for 'Capacity Building' for personnel development of cooperatives.

5 HUMAN RESOURCE PLANNING

The business environment is changing in a way that requires managers to engage in significantly more human resource planning. Human resource planning can lead to improvements in productivity when it is supported by efforts to clarify job roles, to provide training and development for workers, and to engage in comprehensive performance appraisals. In summary, practices in human resource planning must change to be responsive to the needs of today, in order to improve the effectiveness of organizations. One of the most important goals of the human resource planning is to improve the congruence between individuals and their jobs. As a result, there has been increased emphasis in recent years upon improving assessments of individual skills, knowledge, aptitudes, and interests. The broad and major action plans prepared by the ministerial task force constituted by the government of India towards implementation of national cooperative policy 2002 –

- There is an urgent need to assess suitability of the management development and education programme of cooperative institutions so as to include the concept of value based professionalism in cooperatives.

- Central and state governments should initiate policy reforms to make cooperative training institutions independent and to be supported and run by cooperative sector itself within a span of five years. The government was however requested to provide financial support during this period of five years.
- There is an urgent need for proper identification for training needs, preparation of training strategy, development of training systems, curriculum designing to meet all the specific needs.

6 ENCOURAGE YOUNG INDIA

The cooperatives are considered to be one of the strong instruments to involve the available human resources as well as explore the potentials for employment generation. More participation of youth in cooperatives can be encouraged to utilise their energetic and youthful resources as they are in the most productive category. Participation of young people in the cooperative movement is limited. Reasons include current space being occupied by senior/elder persons, no programmes being undertaken to educate and induct the youth and changing occupation profiles of young people in India. If the movement has to become vibrant, there is a need to induct younger generation to the cooperative movement. The participation of youth in different types of cooperatives would help in bringing latest technology for cooperatives to perform better. Similarly, the weaker sections that are deprived of all the basic requirements of life may also be encouraged to actively participate in the affairs of the cooperative movement for socio-economic development. We are aware that India is one of the youngest country in the world with 60 per cent of its population is less than 24 years of age. It is the right time for the cooperatives to appeal to the youth of the country as they provide level playing field and empowerment. The cooperatives may integrate youth in their major activities and plan and educate them not only on cooperative values and principles but also cooperatives as an ethical and democratic business with responsibility. It is high time for the apex cooperatives to promote school cooperatives and campus cooperatives in each educational institution in the country so that youth take active participation and played a significant role for the success of cooperatives for the younger generation.

7 ORGANISATIONS INVOLVED IN COOPERATIVE EDUCATION AND TRAINING

One of the important functions of National Cooperative Union of India (NCUI) is to develop a strong human resource base in the cooperative sector. Visualising the importance of the HRD the NCUI has been actively involved in providing the cooperative education to members, potential members and leaders. The National Council for Cooperative Training (NCCT) is responsible for organising, directing, monitoring and evaluating the arrangements of training for the personnel working in the cooperative

institutes/departments over the country through Vaikunth Mehta National Institute of Cooperative Management (VAMNICOM) at Pune and 5 RICMs, 14 ICMs and 107 JCTCs located at state level. The network of cooperative member education and employees' training operating under the NCCT / NCUI is considered as the most extensive and largest in the world. The NCUI's promotional functions are shown in the Figure – 1 and the Figure – 2 contains information on the framework of cooperative education and training in India.

At National Level

- National Council for Cooperative Training (NCCT).
- National Center for Cooperative Education (NCCE).
- Bankers Institute of Rural Development (BIRD) Lucknow.
- Regional Training Colleges (RTC) Bolpur in West Bengal and Mangalore in Karnataka.
- College of Agricultural Banking (CAB) Pune.
- Indian Institute of Bank Management (IIBM) Guwahati.
- National Institute of Rural Banking (NIRB) Bangalore At State Level
- Agricultural Cooperative Staff Training Institutes (ACSTIs).
- Integrated Training Institutes (ITIs).
- Regional Institute of Cooperative Management (RICM).
- Institute of Cooperative Management (ICM).
- Junior Cooperative Training Centres (JCTC).

7.1 Global HRD Networks for Cooperatives

The International Cooperative Alliance has promoted and organized cooperative education and training programmes for a long time in accordance with its principle on cooperative education and its development policy. Socio- economic changes affecting cooperatives demand that the ICA redefine its concept of Human Resource Development in order to better respond to the needs and aspirations of cooperators. The ICA Executive Committee has formulated Policy on HRD in Cooperatives to prepare the cooperatives for the challenges of the 21st Century. The ICA shall provide technical assistance to member organizations and cooperative training institutions in the formulation of HRD Policies and Plans. National Cooperative Union of India and Vaikunth Mehta National Institute of Cooperative Management, Pune in collaboration with ICA HRD Committee has promoted, developed and maintained GHRD network for cooperatives.

8 FINDINGS – CHALLENGES AND RECOMMENDATIONS

8.1 HRD Challenges

This is worth mentioning here that cooperatives in the entire country are facing the biggest financial crunch towards implementing Human Resource Development programmes and activities. In order to work on professional lines enlightened and active membership and inspiring leadership, it is pre-requisite for this sector to strengthen cooperative

HRD. It is said that India has the biggest network of HRD institution in the cooperative sector in Asia but the existing infrastructure and funding availability from Government and cooperative sources seems to be quit inadequate. The lack of adequate funding pattern adversely affects its training and education activities. Similarly, the institutions funded by the State Government unions are not in a position to deliver the training and improve the efficiency due to lack of adequate financial support from the State Government. In view of larger interest of cooperative and socio economic development of our society, there is a need of look at a management policy that keeps the teaching, learning and training processes at the core of the institution. The Human Resource Management and Development in the cooperative sector should be accorded top priority by the Government of India and States for the growth and development of the cooperative sector. This will ultimately boost the efficiency and productivity of the members and make them more accountable and responsible for the cause of their society. Cooperatives have been facing following challenges –

- Weak Education System.
- Lack of funds for the human resource development.
- Lack of professional and qualified managers.
- Lack of communication/interaction between the managers and committees.
- Lack of communication with the basic members.
- Lack of interaction with and support of the national / sectoral federations.
- Lack of training infrastructure including trainers and training material.

8.2 Key Suggestions and Recommendations

Effective human resources management becomes the key to building excellence in service organizations. Sound management practices are imperative for running the cooperative and there have to be large investments made on developing good human resources in the cooperatives. Every cooperative should be required to spell out in broad terms its HRD policy in its by-laws. The Policy should cover all stakeholder viz. members, employees, Board of Directors and should specify manpower planning, recruitment procedures, and profession alization. An amount of 2 percent of the annual budget of the society should be reserved for training and member education and skill up gradation at all levels. Policy- Makers in government ministries/ departments and development agencies shall be made aware of cooperative HRD and other cooperative development policies.

- Transparent policy for recruitment of staff.
- Conduct of Training, Seminars, Pilot Studies, etc.
- Organizational restructuring of cooperatives.

- Top management should evaluate the present level of HRD practices.
- Bring necessary structural and policy change in line with cooperative philosophy.
- Develop separate HRD department by appointing professionally sound HRD manager.
- Encourage HRD manager about undertaking each HRD activity.
- Practice the HRD activity continuously in the organisation.
- Evaluate periodically and follow-up.
- Undertake member awareness and education programmes.

9 CONCLUSIONS

HRD in the organisational context is the process of organising and enhancing the physical, mental and emotional capabilities of individuals for productive work. Cooperatives need to ensure that members and employees are regarded as human resources important for the sound development of the cooperative enterprise. The part of human resource management that specifically deals with training and development of the employees. Effective training is an investment in the human resource of an organisation, with both immediate and long range returns. Cooperatives are value-based, member- based, member-owned and democratically controlled. The primary purpose of a cooperative is to satisfy the social and economic needs of its members.

A strong membership base is the foundation of a strong cooperative enterprise everywhere, every time and for everyone. Building strong membership and human resources, not necessarily capital, is the basis for building Cooperatives that are both economically strong and sustainable. The organisations should focus more on human resource development so that the organisations can lower down their employee turnover ratio by developing their employees skills from time to time through an extensive training, right from the college to the employment and further to make the employee in line with the newer technology, tools and software, the organisations should prepare a proper budget for the human resource development, employees must be given opportunities to upgrade their educational qualification and when necessary employee should be provided with an e learning facility. As it is said that fully developed employee would be highly motivated to work therefore in order to make the employee motivated to work and to decrease the employee turnover ratio, human resource development is absolutely mandatory.

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A STUDY OF MODERN AGRICULTURE: AN ENTREPRENEURIAL OPPORTUNITY IN INDIA

Dr. Atul Gupta
Associate Professor, Department of Management Studies,
Swami Keshvanand Institute of Technology,
Management & Gramothan, Jaipur

Abstract - Indian economy is dependent on agro-based activities as about 65 percent of the population living in rural areas is dependent on agriculture for their livelihood. Industrial enterprises and modern technologies no doubt can generate additional employment in urban areas and pay rich dividend to elite and big investors. Also, at the same time with the rapid pace of technological development it provides entrepreneurial opportunities to the maximum population in India. The need of the hour is to innovate the modern methods of agriculture. Though, it is not a easy task, however it provides the sustainable growth to the development of economy. It also helps to bridge the economic gap between the rural and urban population.

Recognizing these imperatives, the present study focus on indentify the entrepreneurial opportunities in India in the sector of agriculture. The study is of prominent importance as the investment done on this sector involved huge financial costs. This study makes an attempt to find out the Problems and Challenges for the potentiality of Rural Entrepreneurship. It also focuses on the major problems faced by rural entrepreneurs in India. Nowadays government also following the path PPP model to improve the conditions of farmer and agriculture production. The government also anticipated to double the income of the farmers by 2024. So the study got its relevance to study the modern agriculture techniques and its relevance in making agri-preneur.

Keywords: Agri-preneur, economic development, PPP model

1 INTRODUCTION

Gone are the days when farming is considered as a profession for the poor and the uneducated rural people living in villages. Stories of the farmer's conditions and suicides reinforce this myth. But people are now realizing that agriculture can be better handled by the hands of well trained and well educated people. The essential is that they have their hearts in the right direction.

Agriculture is one profession where the people can earn money as well as make an impact on the people in rural India who have existed on the extreme fringes of our society till now-unseen, unheard, uneducated and unable to break free of their improvised lifestyles. But agriculture is not only about farming. Rural development is more than ever before linked to entrepreneurship. Institutions and individuals promoting rural development now see entrepreneurship as a strategic development

involvement that could hasten the process of rural development. There are various aspects to this field. According to the economic survey 2018-19:

- Growth of agriculture sector has been fluctuating: it increased from -0.2% in 2014-15 to 6.3% in 2016-17, and then declined to 2.9% in 2018-19. Gross fixed capital formation in agriculture has decreased from 17.7% in 2013-14 to 15.2% in 2017-18.
- The contribution of agriculture to the GVA has decreased from 15% in 2015-16 to 14.4% in 2018-19. The decline was mainly due to decrease in share of GVA of crops from 9.2% in 2015-16 to 8.7% in 2017-18.
- Water resources: Almost 89% of groundwater is extracted for irrigation. Further, crops such as paddy and sugarcane consume more than 60% of irrigation water available in India, which reduces water availability for other crops. There is an urgent need to focus on irrigation water productivity (ratio of crop output to irrigation water applied by farmer) to improve agricultural productivity.

2 PRESENT STATUS OF AGRICULTURE

During the last 65 years of planning, the agriculture development in India has been highly praised the world over. Initially, India remained a food deficit country for almost two decades since independence. But with the Green Revolution, India became not only self-sufficient in food grains but accumulated a huge food surplus-about 58 million tones in January 2019.

The real improvement in the agriculture starts in 1960's with the introduction of HYVs of seeds and crops. The development of infrastructure for irrigation, supply, credit and support policies of government to the farmers and storage and warehouse facilities adds the milestones in the story. The major factors for the development of the agriculture were:

i. Increase in the cultivation area
ii. Increase in the land size of sown area
iii. The progress of irrigation facilities
iv. Land reforms policies
v. Credit and support policies of the government
vi. Special consolidation of land holdings
vii. Introduction and use of high yielding variety seeds
viii. Extensive use of chemical fertilizers, pesticides
ix. Advancement in the crop production techniques
x. Improvement in the crop protection methods
xi. Constructing the storage/ cold storage for food products\
xii. Increase in the investment in agriculture sector

In spite of the spectacular achievements in agriculture, various constraints and alarming trends have always continued to hamper the requite growth of the agriculture sector. These are:

i. The agriculture is still totally depends on the monsoons variation.
ii. The limited use of new agricultural technology in the all varieties of crops.
iii. Decline in the investment in agriculture in last few decades.
iv. Failure of Land reforms
v. The exploitation of tenants results in inequalities and injustice.
vi. Failure to control the growth of rural population.
vii. Unbalanced state wise development of agriculture.
viii. Lack of proper infrastructure facilities to the poor farmer.

3 REVIEW OF LITERATURE

In India, agriculture persists to be the strong pillar for the growth of the nation and rural society. Majority of our population lives in the rural India and depends on the agriculture. It our empathy to say that the main recognizing features of this segment is poverty, starvation, low standard of living and unemployment. In the present world the remedies for this is only 'Agri-preneur'. Entrepreneurship can play an important role in rural development. Entrepreneur means one who creates an artifact on his own credit and undertakes a risk to innovate and do something different. If entrepreneurships really encouraged in rural area it would, of course, be influential in changing the countenance of rural areas by solving the above mentioned problems. Neeta Baporikar (2013) suggested that entrepreneurship is significant in the business background and is plays a vital role in the Indian economy. Entrepreneurship is an fascinating topic as it deals with the behaviour of the firm entrepreneur and the entrepreneur's main competencies. However, the field of entrepreneurship world over is evolving and so is it in India. Patel & Chavda (2013) opined that rural entrepreneurship is nowadays a major opportunity for the people who migrate from rural areas or semi - urban areas to Urban areas. On the other hand it is also a fact that the majority of rural entrepreneurs is facing many problems due to not availability of primary amenities in rural areas of developing country like India. He also highlighted that lack of education facilities & knowledge, inadequate technical ability, monetary problems, and insufficient conceptual ability plays a path stone in the success of agri-preneurs to establish industries in the rural areas. Saxena (2012) in his study mentioned that the economic development of our country mainly depends on the development of rural areas and the standard of living of its rural population. Rural entrepreneur is one of the most important efforts in the economic progress & development of a country. These rural entrepreneurs use the limited resources in such an efficient manner results in increasing profits of the nation and decreasing costs. But it is pity that due to lack of education and other resources majority of rural people are unaware of modern technologies and advancement, efficient marketing skills, etc. lack of funds and shortage of raw materials are main problems face by rural entrepreneurs.

4 DIFFERENT FACETS OF AGRICULTURE

Agriculture is considered as the backbone of our Indian economy. The agriculture sector contributes approximately 17.50 percent of the GDP portion of India'. It not only fulfills the food and nutritional requirements of our population but also generate the employment opportunities in the nation. The development of the industrial/ manufacturing sector depends on the raw material supplied by the agriculture sector. Despite of concerted industrialization in the last seven decades, agriculture still occupies a place of pride. It provides employment to around 60 percent of the total work force in the country. However, the Indian agricultural faces a numerous challenges and problems with the changing environmental and business economy factors.

Since couple of decades, agriculture is moving towards commercial orientation and needs to further transition from supply driven to demand driven sector. Everyday, the market is pumped by the new technologies, innovative equipments, new inputs and many more. There is a great need to develop the professional agribusiness managers who can not only fill the management requirements but also prove to be a great support to the farmers. Our government and the private sector must come together to build this gap and becomes the partner in the progress story of India. This requires skilled manpower in the agricultural and agribusiness sector. The investment of government in infrastructure related in infrastructure related to agriculture like Artificial Intelligence, Pradhan Mantri Krishi Fasal Bima Yojana (PMKFBY), Pradhan Mantri Krishi Sinchai Yojana (PMKSY) will create huge employment in agricultural sector.

Commercialization of agriculture calls for specialized production and innovative techniques, post harvest management, expansion of processing, transportation, and positioning of products both in the domestic and international market. Few related facets of agriculture are:

Figure 1: Facets of Agriculture

Source: Self Generated

i. **Production Agriculture:** As the name suggests, this field involves producing crops, fruits and vegetables as well as raising poultry & livestock. Opening up a dairy, raising goats, sheep, pigs and even horses, these all are fall under the category of production agriculture.

ii. **Agricultural Marketing & Business Management:** Youth who studied and have knowledge of business models, business economics, marketing practices and tactics and have proper understanding of developing markets can set up their different type of venture in this field.

iii. **Agricultural Mechanics:** It includes agricultural engineering, maintenance of machinery, welding related works, electric work and plumbing as well constructing buildings for the producing and storing the agriculture products.

iv. **Agricultural Processing:** Agro processing could be defined as set of techno economic activities carried out for protection and handling of agricultural produce and to make it usable as food, feed, fiber, fuel or industrial raw material. Consequently, the scope of the agro-processing industry encompasses all operations from the stage of harvest till the material reaches the end users in the desired form, packaging, quantity, quality and price.

v. **Agricultural Journalism**: It is a specialized branch of journalism which deals with the techniques of receiving, writing, editing and reporting the information allied to the government schemes, industry regulations, new agricultural technologies and equipments, food production option and anything related to the development in agricultural industry. They collect information through the media like newspapers, periodicals, radio, TV, advertising etc.. Management processes connected with such production and information is important.

vi. **Print and Packaging Designer:** It is a highly demanded profession in the present business world with grocery stores and retailers. The creative mind is the essence for this profession. The youth the design the packaging for the agricultural producers and food industrialists.

vii. **Agri-tech Entrepreneur:** Nowadays, a number of agri-tech startups are coming up with creative, innovative and eco-friendly solutions to produce a healthy and sustainable food supply. They also facilitate to reverse some of the environmental damage.

viii. **High-tech Farmer:** when people use the latest technology and agriculture methods to enhance the production capacity they can become the high-tech farmers. It saves the time, money and energy of the farmer. They can help in reshaping the agricultural industry in India. Some of the techniques high-tech farners employ are-aeroponics (growing plants in the air), hydroponics (growing plants

in water, using drones to survey their crops and satellites to drive tractors.

ix. **Forestry:** It is the science and craft of creating, managing, using, conserving, and repairing forests, woodlands, and associated resources for human and environmental benefits. It is proficient in plantations and natural resources. Producing and harvesting the timber and other elements that belong to the biological, physical, and managerial sciences are some of the options of forestry. Modern forestry methods also holds a broad range of other areas, Known as multiple-use management. It including the provision of wildlife habitat, natural water quality management, landscape and community protection, recreation, employment opportunity in the forest and related areas, , aesthetically appealing biodiversity management, watershed management, erosion control, and preserving forests.

x. **Horticulture:** It is the art and technique of garden management. It includes the greenhouse, nursery management, floriculture, turf management and landscaping. It is the growing of flower, fruits and vegetables. It also deals with growing of ornamental plants and for fancy. Nowadays, vertical garden is the best examples for the entrepreneurial opportunity in this segment.

xi. **Silviculture:** It is derived from the word, silvics, which deals with the study of the life-history and general characteristics of forest trees with particular reference to local/ regional factors. Generally, silviculture is the science and art of growing and cultivating forest crops. In specific, it is the practice of controlling the establishment and management of forest stands. The major difference between the forestry and silviculture is that the fromer is the broader concept while later is related to the forest stand0level.

4.1 Future of Modernize Agriculture in India

With technology-enabled solutions, on soil data, crop variety, productivity, and nutrients lost in the soil; farms and farmers can prosper. Now, tractors come with agricultural implements like cultivators or broadcast seeders which greatly help in a plantation of crops. Disc rotators attached with the tractor disperses seedlings evenly. Seeds can be easily drilled without much effort and labor of the farmer. Water sprinkler helps to irrigate large parts evenly.

Other new agricultural technologies that are of great importance are sensors and automated agricultural machines. **Sensors** track real-time information on farms and ancillary infrastructure along with the habitat of animals which can help in improving farming practices. Some of the areas where they are applied are - *soil sensors, crop sensors, and livestock biometrics.*

With the recently launched *Pradhan Mantri Krishi Sinchai Yojana*, the government is keen to support and reach irrigation to every

farm. **Agro machine manufacturers** have to support agricultural growth in the country.

Automation is another area that is gaining popularity has good potential to improve farming methods for the future. The chores of planting, harvesting and irrigating can be automated with absolute accuracy.

4.2 The Role of the Private Sector

Modern agro-technologies are prevalent in developed countries but they need to be adopted in developing countries like India. The private sector has played an important role in the advancement of the agro-technologies, and now the same needs to be arranged in India. Even the government needs to actively participate and encourage farmers to use modern techniques with incentives. With the vision of **'Make In India',** government involvement and government adhered innovation and investment is increasing. Now, it is the modern agricultural implements and machine manufacturers that need to bring innovation and new agro-techniques to Modernised Farmlands of India.

In the seed sector, the growing need for R&D along with developments in **agrochemicals** such as increasing use of **bio-fertilizers** and bio-release **smart fertilizers** has been developed. The farm implements sector, however, is yet to become a major market segment and tractors remain a major sector of investment. **The irrigation sub-sector** also needs to evolve for Indian farming with large investments.

4.3 Use of Artificial intelligence (AI) in Agriculture—

The AI is also beneficial for the agriculture sector in India to prosper and growth. The few uses of AI in this sector are;

- Crop and Soil Monitoring– crop and soil health can be monitored with sensors.
- Predictive Agricultural Analytics–Farming practices due to lack of access to the scientific understanding of crop lifecycle, pests, quality metrics, and the latest micro-fertilizers. Supply Chain Efficiencies– Real-time data analytics can be used for the efficient and smart supply chain.
- Agricultural Product Grading—Crop diseases or pest infestation in the crops can be accessed by an image on a farmer's phone and determine the product quality in real time, without any manual intervention. Farmers just need to know the operation of an app on their phone.
- These modern techniques are the future of Indian Agriculture. They capture complete information about the commodities (growing information, pre- and post-harvest, transportation, warehousing, etc.) and proactively advice farmers on sowing, pest control, harvesting, etc.

- The government of India has aslo announced its support for use of agricultural drones that are already popular in the West. Drones are unmanned aerial vehicles equipped with sensors and thermal cameras that can fly over fields and monitor the condition of the crops. These aerial vehicles can give farmers accurate information about the condition of the soil, crops, excessive dampness or erosion, pest related problems etc. in real time.

5 CONCLUSION

There are several modern and sustainable ways of doing productive farming; ways that will be beneficial to both farmers and consumers. Many biotechnologists and agricultural researchers come up with effective ideas to improve agricultural practices. However, the real impacts have not been seen.

Modern agricultural crops techniques have many benefits but may also have adverse impacts if used aggressively. Too much of tillage and excessive use of fertilizers can degrade the quality of land and crops. Chemical farming can affect intra-species diversity and produce only less variety of crops. To protect fields from pests, diseases, erosion and weed, farmers can also use methods like: Cover crops, Natural pest predators, Bio-intensive integrated pest management, Crop rotation, etc are used. The role of private sector should be increased so that required growth and development in this sector can be checked and monitored. Artificial Intelligence is another factor for the development in this sector. There are lots of entrepreneurial opportunities available in this sector. If the proper focus is given in this sector then it will help in making the self sustained and reliant India.

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IMPACT OF COVID-19 ON DIFFERENT SECTORS OF INDIAN ECONOMY

Dr. Paritosh Awasthi
Principal, Shri Vaishnav College of Commerce, Indore (M.P.)

Abstract - The impact of Corona virus pandemic on India has been largely disruptive in terms of economic activity as well as a loss of human lives. Almost all the sectors have been adversely affected as domestic demand and exports sharply declined with some notable exceptions where high growth was observed. This Lockdown has its great impact on every sector of Indian Economy whether production, demand, supply, price, consumption, daily worker's earning sources, business, import, export, sports, medical, entertainment, education, transport etc. It has increase rate of unemployment in India. The Present Paper is an attempt is made to analyze the impact and possible solutions for some key sectors.

Keywords: Corona virus, Pandemic, Lockdown, Economy.

1 INTRODUCTION

Indian economy has been witnessing slowdown over past few years due to effect of GST and demonetization. India was slowly progressing towards its steady growth rate. But Covid -19 had attacked India in the fourth quarter of financial year 2019-20.It was first reported in India on 30th January 2020 in Kerala. During March several cases were reported all over the country. Mr. Narendra Modi, Prime Minister of India, has announced four lockdowns to prevent public for further transmission of this novel disease. This preventive and control measures has prevented India for entering into worst stage but it has slowdown the economy of country. This virus has not only infected people of India but also the economy of India. It has attacked India in social as well as economical aspect. There has been a great decline in demand and supply side. China is one of major exporter of India. Covid-19 has attacked China in very early stage. There was a stoppage of production, import and export from China. India is mostly dependent on China for electrical goods and raw material used in preparation of medicines. This made disruption in the Economy of India. The growth rate of India has been declined. Financial and stock market have observed its worst condition since great depression. The businesses are facing the problem of liquidity crisis. It has not only impacted industries but also agricultural and rural sector of India.

1.1 Objectives

The objectives of present paper are:

1. To study the present condition of different sectors of Indian economy.

2. To study the impact of Covid-19 on various sector of Indian Economy.

2 METHODOLOGY

The present paper is based on secondary data collected information from journals, books, magazines and e- newspapers.

2.1 Impact of Covid-19 pandemic on different sectors of Indian Economy

Indian economy has been witnessing slowdown over past few years due to effect of GST and demonetization. India was slowly progressing towards its steady growth rate. But Covid -19 had attacked India in the fourth quarter of financial year 2019-20. This virus has shown its impact on businesses as well as Industries. It has created problem of liquidity among businesses. This pandemic has caused problem for their survival. The businessman put lock on their business and closed down their economic activities. The Covid 19 pandemic has affected every sector of Indian economy. The impacts of Covid-19 on some of these sectors are discussed in the present paper.

Tea Industry: Indian Tea Industry was badly affected from Covid-19. Production and Export was fallen down. Domestic demand had been decreased. This industry gives lots of employment opportunities but during lockdown tea planters and garden owners suffered huge loss.

Education Industry: Covid-19 has put education from offline to online mode. Every organization whether Schools, colleges, Universities, Coaching and Training centers have adopt online mode for education to their students. Students were forced to learn through online mode despite of lots of technical difficulties faced by them.

Pharmaceutical Industry: This industry has shown remarkable progress in whole period of pandemic. All Pharma companies have increased their production because of lots of medicines demanded by people during pandemic. Even share price of Pharma Company was rising during lockdown and pandemic.

Hotel and Restaurant Industry: Hotel and Restaurant industries have suffered a huge loss because travelling was ban during lockdown. These industries had put lock on their shutter. Owners as well as employees were economically affected during Covid-19.

Aviation Industry: Due to Covid-19 many domestic and international flights has been suspended. Passengers cancelled their tickets and postponed their travelling plan due to Covid-19.As per CRISIL report aviation industry will face a revenue loss of Rs. 24000 – 25000 crore. It is

estimated by IATA that the revenue of Indian Aviation Industry is likely to decrease by $11.2 billion as demand of passenger falls by 47 percent due to Covid-19 pandemic.

3 CONCLUSION

Covid-19 pandemic has badly affected the economic activities of the country. This pandemic has given lesson to us about how to live with limited resources? How to keep us healthy and fit? How to care our environment? This disease has given challenge to health services of the country. This pandemic has created lots of challenges and opportunities before us. It creates an opportunity to become self sufficient and not to depend on others. It has made whole world to focus on researches and development. Indian Government is unable to enforce lockdown for longer period. They are trying to unlock the country in different phases. People have to live and carry their economic activities with Covid-19 for uncertain period.

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A THEORETICAL RESEARCH BASED ON CORONAVIRUS DISEASE

Dr. Suman Mohan
Associate Professor (English), Pt. D.D.U., Govt. Degree College,
Palahipatti, Varanasi, U.P.

Abstract - In late December 2019, an accumulation of cases of unexplained pneumonia was reported in Wuhan, China. A few days later, the pathogen behind this mysterious pneumonia was identified as a new coronavirus. This causative virus is temporarily called Coronavirus 2 in Severe Acute Respiratory Syndrome by the World Health Organization, and the associated infection is Coronavirus Disease 2019 (COVID-19). The COVID-19 epidemic is now widespread in China and around the world. The purpose of this review is primarily to review the pathogens, clinical features, diagnosis, and treatment of COVID-19, but also to provide brief comments on epidemiology and pathology based on current evidence.
Keywords: coronavirus, COVID-19, SARS-CoV-2.

1 INTRODUCTION

In late December 2019, an unexplained inferior illness called pneumonia of unknown cause occurred in Wuhan, Hubei Province, China. The outbreak has spread significantly, infecting 9,720 people in China, killing 213 people and infecting 106 people in 19 other countries. A few days later, the causative agent of this mysterious pneumonia was identified as a new coronavirus (nCoV) by several independent laboratories. The causative virus has been temporarily designated by the World Health Organization as Coronavirus 2 (SARS-CoV-2) for severe acute respiratory syndrome, and the associated infection has been designated as Coronavirus Disease 2019 (COVID-19). I did. According to the World Health Organization (WHO) daily report, the SARS-CoV-2 epidemic has so far recorded 78,630 cases and 2,747 deaths in China, with 46 other cases reporting a total of 3,664 cases. It is spreading throughout the country. The COVID-19 epidemic poses a global health threat.

Coronavirus (CoV) is a highly diverse, enveloped, and reliably perceptible group of single-stranded RNA viruses. They cause a variety of diseases of the respiratory tract, intestines, liver, and nervous system, with varying severity in humans and animals. Human CoV infections traditionally cause a small portion of annual respiratory infections. There are HCoV-OC43, HCoV-229E, HCoVNL63, and HCoV-HKU1 that cause mild respiratory illness. Over the last two decades, two new CoVs, the Severe Acute Respiratory Syndrome CoV (SARS-CoV) and the Middle East Respiratory Syndrome CoV (MERS-CoV), have emerged, causing serious human illness. During the epidemic, SARS-CoV infected more than 8,000 people worldwide and killed about 800 people. This corresponds to a mortality rate of about 10%. MERS-CoV infected more than 857 official

cases and 334 deaths, which corresponds to a mortality rate of about 35%. SARS-CoV-2 is so far the seventh member of the CoV family that infects humans. The main symptoms of COVID-19 include fever, malaise, and cough, similar to those infected with SARS-CoV and MERSCOV. There are some overlapping discrete aspects of the pathology and etiology of these CoVs that cause serious illness in humans.

Many references report the clinical features, virology, pathology, and radiology of COVID-19, but few comprehensive reviews. The purpose of this review is primarily to review the pathogens, clinical features, diagnosis, and treatment of COVID-19, but also to provide brief comments on epidemiology and pathology based on current evidence.

2 THE PATHOGEN

The causative agent of COVID-19 is nCoV, which was first identified in late January 2020 under the name SARS-CoV-2 (also known as 2019-nCoV).

SARS-CoV-2 is a new member of CoV, a large group of highly diverse, enveloped, and reliably perceptible single-stranded RNA viruses. Recent studies have shown that SARS-CoV-2 is likely to be derived from bats based on its sequence similarity to other CoVs. Perhaps the intermediate animal host for SARS-CoV-2 between the bat reservoir and humans is still unknown. Although this nCoV has genetic characteristics compatible with the CoV family, it still has a significantly different genetic sequence from the previously sequenced CoV. Analysis of samples from 7 patients infected with SARS-CoV-2 showed that SARS-CoV-2 had 79.5% sequence identity with SARSCoV.

Thin plot analysis showed that SARS-CoV-2 shares 96.2% of global sequence identity with RaTG13, a short RdRp region of bat CoV. Phylogenetic analysis showed that SARS-CoV-2 was classified in the subgenus Salvecovirus of the genus Betacoronavirus and is different from SARS-CoV.

Envelope spike (S) protein is important for CoV. The 19S protein mediates receptor binding and membrane fusion and is important in determining host tropism and transmissibility. In general, S proteins are divided into S1 domains that are functionally involved in receptor binding and S2 domains that are involved in cell membrane fusion. Structural analysis suggests that the receptor binding domain is composed of core and external subdomains. Angiotensin converting enzyme 2 (ACE2) was known as a cellular receptor for SARS-CoV. Like SARS-CoV, SARS-CoV-2 also uses ACE2 as an invading receptor for ACE2-expressing cells, indicating that SARS-CoV-2 may have the same life cycle as SARS-CoV.

3 EPIDEMIOLOGY

In short, cases usually arrive in waves and occur in groups that develop into larger outbreaks around the world. The first recorded outbreaks occurred primarily in Wuhan. 1 According to the World Health

Organization (WHO) daily report, the SARS-CoV-2 epidemic has so far recorded 78,630 cases and 2,747 deaths in China and has spread to 46 other countries. Of the 3,664 reported.

There is evidence that the mode of transmission is person-to-person. The main method of transmission of COVID-19 is close contact with droplets. It is unclear whether the infection occurs by the oral or conjunctival route, but SARS-CoV-2, which is similar to SARS-CoV, has been detected in tears. Reproductive count (R0) has been estimated by several studies. Based on clinical data from early-onset patients with COVID-19, the average R0 is 2.20 to 3.58, meaning that each patient has infected the other 2-3. It is too early to make accurate R0 estimates or evaluate transmission dynamics. Further research is needed in the future.

The average incubation period is about 5 days, ranging from 1 to 14 days, and 95% of patients may experience symptoms within 12.5 days of contact. These data suggest a 14-day medical observation period or quarantine for exposed persons and close contacts. However, asymptomatic carriers have been reported, with an incubation period of 19 days, suggesting a complex challenge to contain the outbreak.

4 CLINICAL FEATURES

Most case patients were 30 to 79 years of age. The median age is ranging from 49 to 59 years. There were few cases in children below 15 years of age. More than half the patients were male. Nearly half the cases had one or more coexisting medical conditions, such as hypertension, diabetes, and cardiovascular disease. A large cases study indicated that the case-fatality rate was elevated among those patients with coexisting medical conditions.

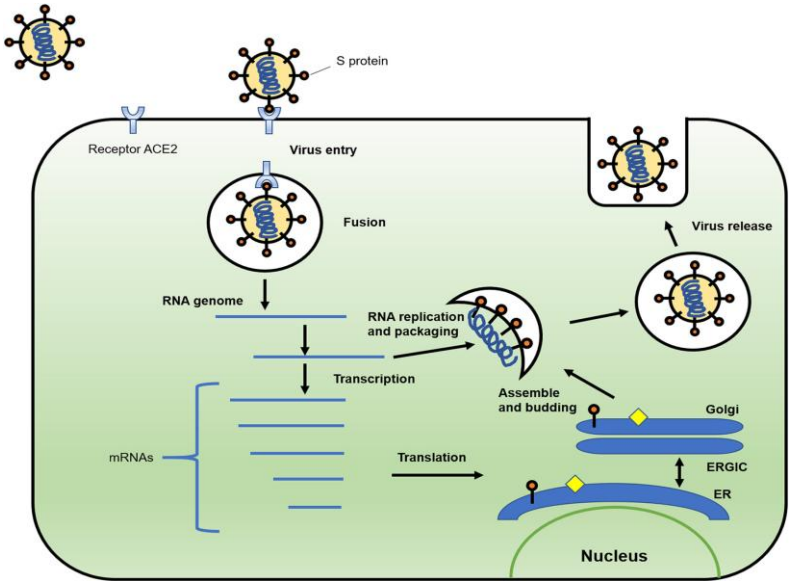

Figure 1 Schematic model of SARS-CoV-2 life cycle.

S protein binds to the cellular receptor ACE2 to facilitate the entry of the virus. After the fusion of viral and plasma membranes, virus RNA undergoes replication and transcription. The proteins are synthesized. Viral proteins and new RNA genome are subsequently assembled in the ER and Golgi, followed by budding into the lumen of the ERGIC. New virions are released through vesicles. ACE2, angiotensin-converting enzyme; ER, endoplasmic reticulum; ERGIC, endoplasmic reticulum-Golgi intermediate compartment

8 SUMMARY AND OUTLOOK

This review summarizes current findings on SARS-CoV-2 and the treatment of this severe CoV infection. Addressed the most common symptoms. Due to a single biopsy report, pathological findings associated with SARS-CoV-2 infection are limited. Autopsy is guaranteed and of value for future research.

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