

# IME Journal

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The Bi-annual Journal of Institute of Management Education

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## About the Journal

IME Journal is a refereed bi-annual journal of the Institute of Management Education, Sahibabad, Ghaziabad. It is published twice a year in January and July. The objective of the Journal is to provide research and information support to academicians, researchers, and corporate sector policymakers to equip them with the latest development & trends in the areas of management, Information Technology, and law. The journal publishes Research Paper, Articles, Case Studies, Book Reviews, Bibliography, etc. The selection of the papers in this Journal is done through a blind review process.

(A Peer Reviewed and Refereed Journal)

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### **Vice Chairman IME's Prologue**

I am happy that the XV Volume, Issue No. 1, January-June 2022 is in the hands of discrete readers despite COVID-19 dreadful pandemic. Multi-Disciplinary Research is the need of the hour as it adds to the utility of intellectual wealth. The more the inter-disciplinary research, the more are the chances of creativity and innovation, which the country stands in urgent need of. The most advanced countries of the world today are hiring intellectuals from all over the world to increase their intellectual capital. IME Journal provides ample opportunities to the scientists and scholars of management, information technology, professors of commerce and law, researchers of humanities and social sciences to carry on their researches in their respective fields.

The circumference of research papers in IME Journal is astonishingly very wide. If systems of teaching and cognition have been dealt with in one paper, fictional craftsmanship of Jerome David Salinger in another paper. The legal considerations in the managerial practices in E-Commerce have been studied in another paper and so humidity monitoring system on wireless sensor networks has been studied in another paper. Detection of parasitic diseases in animals is a field related to veterinary sciences but it has been shown by a scientist that it has also a social concern.

Likewise, environmental threats to Asian Countries have been studied by a scholar of management whereas another researcher has talked of hindrances in digitalization of HR. One scientist has written about Media Re-Victimization of Rape, the second has presented the impact of psychiatric disorder on criminal behavior. Financial Derivatives have been pointed out by another researcher and drug addiction and its anti social impacts have been studied in another paper. The compass of the journal is too wide to narrate all important topics and its social relevance. However, they are basically rooted in the real problems of life and their final purpose is to improve social life and to bring about a volte-face change in their individual life too.

IME Journal publishes research findings in various fields and thus this practice makes scientific rejuvenation accessible even by those scientists living in far-flung areas. A number of researchers, scientists, teachers and social thinkers have contributed to this volume. I wish the journal a long and happy life. On this occasion, I would like to thank Prof (Dr.) S.D. Sharma, Editor-in-Chief of the journal and his entire team for doing a wonderful job in bringing out the journal timely.

**Prof. H.P. Gupta**  
Vice Chairman  
IME



### **Editor-in-Chief's Message**

IME Journal is a biannual referred journal, which contains research papers of eminent academicians, scientists and researchers from all over the country and abroad. Consequently, I feel both proud and privileged on the publication of IME Journal for its XV Volume, Issue No. 1, January-June, 2022. It is anticipated that it will be received by the readers, business big-wigs and scientists with admiration and applause.

“The real danger”, writes Sydney J. Harris, “Not that computers will begin to think like man, but that man will think like computers.” In fact, static thinking leads to stagnation, but on the contrary, it is incessant quest for truth that leads to discoveries and innovations. Actually, in the present milieu of volcanic outburst of knowledge everywhere, it is very difficult to use information widely and discretely.

IME Journal is based on all current problems of the day. For example, measuring monetary policy, cyber security, legal assistance and aid--all are recent topics indicating a number of social problems. All these research papers pave the way to social problems and to create a social awakening among the people to come to their correct solutions. Evaluation of customer relationship management, Emergence of ESG Investing means to establish sustainable HRM Goals and impact of Goods and Services Tax are such glaring topics which invite everybody's attention. The papers included in this volume give sufficient insight into the above problems and also give suggestions. Still greater problems such as Drug Addiction and Digital way of Education are those problems which make us worried and disturbed. These research papers have some inherent findings to solve these problems and to offer a system well suited to lead happy and prosperous life.

Succour and support, inspiration and motivation received from Vice Chairman, H.P. Gupta, IME is duly acknowledged. I also duly acknowledge appreciation to all the contributors of research papers of IME Journal and also to all the peer reviewers, language experts and external experts for making judicious appraisal of the papers included in the present issue of the journal. The journal is a bi-annual referred journal well-adorned by the internally acclaimed academicians, industrial big-wigs, researchers, scientists and academic administrators as members of the Editorial Advisory Board. I also acknowledge the help extended to me by Ms. Muskan Arora, Assistant Professor, Department of Commerce, IME, Mr. Sushant Dabral, Assistant Professor, Department of Law, IME and Ms. Akriti Krishnatray, Assistant Professor, Department of Commerce, IME for their assistance. In the end, thanks are also due to Dr. Pushpendra Kumar Verma, Principal, IME PG College and Dr. S.K. Baranwal, Principal, IME Law College for their periodic help. To Ms. Lalita Bishnoi, Deputy Secretary, IME, a lot of admiration is due for her wise counsels and active cooperation.

**Prof (Dr.) S.D. Sharma**  
Director General  
Editor-in-Chief  
IME



# IME JOURNAL

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## **TCA & SCA: Two Distinct Systems of Teaching and Cognition**

**Prof. H.P. Gupta**

Vice Chairman

Institute of Management Education, Sahibabad,  
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### **Abstract**

*This paper deals with the issue of cognition and pedagogy at the university level. It does not take into account the pedagogy and instructional methods meant for lower levels of education. It, therefore, presupposes that the cognition, pedagogy and instructional methods at the university level are specifically meant for those who come in the age group of eighteen to twenty four years or so. Psychologically speaking, this age is the most formative period of life and, as such, impressions, habits and mental attitudes cultivated or framed during this period last long. Jonathan Swift probably is right when he terms this period as “the most irresistible staple of life.” As a matter of fact, in every branch of knowledge, some methods of instructions are professionally prescribed as sacred and sanctimonious as the Ten Commandments of the Bible. But since this paper takes an overview of university education only in an integrated and inter-disciplinary manner, the methods suggested, therefore, basically postulate some fundamental principles for an effective-system of instruction at university level as a whole.*

**Key-Words:** Cognition; Pedagogy; STOP Model; ADIL Model; TCA & SCA Systems

### **Introduction**

In the first place, whatever may be the literary cognition and pedagogic system of education and the method of instruction, there can never be any replacement of a teacher by any foreseeable viable method. The personality of a teacher, his method of delivering instruction, his presentation of subject matter, his dealing with the students and, above all, his exhortative and inspiring methods of teaching are individual tributes which radio, television and other mechanical devices can never replace. While seeing a teacher dramatizing his knowledge on the stage, the students with their formative minds and volatile emotions unconsciously develop certain imperishable impressions which help them develop their own personalities in a number of ways. Many great celebrities in different disciplines of knowledge acknowledge with profundity of regards and respects that they had learnt a lot from their committed teachers. A model teacher (though as rare in modern times as a Phoenix) is an effective instruction himself. In his own times, M.K. Gandhi was a great teacher, who influenced the whole generation of teachers. Amongst scientists J.C. Bose, Albert Einstein, Isaac Newton, Charles Darwin and a host of others proved themselves to be great teachers in their own right. They were not only knowledgeable but also very wise and pragmatic persons. They intuitively refrained themselves from imparting knowledge which ultimately might lead mankind to decadence. However, a teacher has to understand that teaching is a missionary profession and that his basic attributes are: thorough knowledge of the subject; commitment to teaching; accountability to all stake holders; honesty; punctuality; hard work; genuine love for learning and care for students. If poets are born, not made, so good teachers are born, not made. No society or nation can ever pay a sincere teacher quite adequately. From times immemorial, a teacher is regarded as more important than even God. But, now during this era

of moral decadence, the teaching profession too is being defiled by a number of factors beyond one's control and of them, the less said, the better.

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### **Knowledge versus Wisdom: A Misnomer**

One very curious asset of modern instructional system is that it outweighs more towards *knowledge than towards wisdom*. Our modern teacher primarily imparts knowledge and information *par excellence*. His wholesale neglect of wisdom leads the students to a state of skepticism *ad infinitum*. We cry hoarse that we are passing through a period of moral decadence and that instructions of values at the university level have virtually come to a grinding halt. We may produce Patriot or Khud missile: we may invent a cable television to herald a total revolution in the world of modern media, but the voice of Mother Teresa is, nonetheless, too feeble to be heard before the deadening explosive sound of a bomb. Parson in 1984 may limit the number of words in the *Spec-Dictionary*: Winston Smith may not get a diary banned by the BIG BROTHER to develop his personality, but we have, nevertheless, enormous funds of money to manufacture weapons to destroy mankind which otherwise is *sino-dubio* the best and the most beautiful creation of God.

### **Psychology: An Important Constituent of EIM**

Psychology assumes an important role, next to the role of a teacher, in any system of effective instructions. Students need fairly a good psychological treat. Physical punishment, open scoldings, corporeal punishments and such other devices of taking them to task are psychologically obsolete and outdated practices. In the modern perspectives, instructions are to be imparted at the university level in consonance with the psychological working of minds of the students. A teacher must understand that he is not a person to be feared or overawed by the students but he must understand that he is their friend, philosopher and guide. Mere instructions heaped up in abundance on students without their psychological study or any consideration for their psychological level will prove an utter failure. With the explosion of knowledge every-day, instructions in agriculture, engineering and technical education have increased manifold. To force the students to digest all sorts of knowledge whether wanted or unwanted is to defeat the basic purpose of instructional methods.

Milton in the *Paradise Lost* talks of the immense inherent potential of *mind capable of turning hell into heaven and heaven into hell*.<sup>1</sup> This all depends upon one's psychology. Since students happen to be the most potential brain of the country, it needs to be tapped gainfully for the benefit of the country. So this is accepted that psychology needs to be given an open and independent play. Instructions bereft of psychological moorings will prove futile in any effort at rebuilding the nation. A.C. Swinburne, a noted poet of England, just suggested that if a country were to grow, it had meticulously to nurse and nurture the young. I think any set of instructions making teaching a burden for students cannot have the capacity to force the country to move forward.

### **Media Devices: Paradigm Shifts in Teaching**

Next in order of preference, media devices such as television, radio and other audio-visual aids take their important place in instructional methods. It goes without saying that television is gradually making inroads into almost every domain of professional life. As such, it has proved a very powerful medium of instruction. Since technical education needs specific treatment keeping in view the contemporary requirements of the country, its full potential should be exploited for instructional purpose.



Programmes on technical education do exist in abundance on television; they nevertheless, need innovation so that they can well educate even those who do not have any agriculture or rural background. Efforts should also be made through instructions that when graduates pass out from the portals of university, they might volunteer themselves to serve in the rural areas. A mental attitude to serve the masses even without urban amenities of civic life has to be created amongst the students through effective instructional methods. Programmes on television have to be restructured in order to fulfill all these aspirations. In comparison to other European countries, we have to develop media methods for instructional purposes to a level where they can be comparable to the most modern methods of the world.

### Use of Language: The Sine Qua Non of EIM

An important constituent of any effective instructional method is an effective use of language, which is “a powerful help to good scientific thinking especially to communication in science, as well as a necessity in humanities.”<sup>2</sup> In fact, language serves the purpose of a *thought-crystallizer*, *idea-synthesizer* and *vision-weaver*.<sup>3</sup> For good scientific thinking and effective communication in science, language is paramount needed. “Words bring about precision and accuracy and for a scientific brain, both precision and accuracy constitute the basis for pursuing higher studies”.<sup>4</sup> The subjects of humanities cannot be neglected in any effective system of instruction for students of technology. “A student who carries on his study of science including agriculture and technology for many years unsupported by language and literature gradually develops serious mental ailment known as *atrophy*”.<sup>5</sup> Charles Darwin in his *magnum opus* the *Origin of Species* lamented having lost higher *aesthetic taste* because he neglected the studies of language and literature. In this connection, Arthur Koestler’s views are note-worthy. Koestler says that Darwin, because of neglect of language and literature, developed *atrophy* which was “injurious to the intellect and more probably to the moral character.”<sup>6</sup> In fact, neglect of the study of humanities in any instructional system of education will prove hazardous and suicidal in the way of cultivation of an integrated vision or the Greek view of life. After all the study of literature together with the study of sciences will prove a boon to students: for, in the words of Acharya Bhavbhuti, the study of humanities particularly that of literature brings about a wholesale mental order and discipline:

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uo jl :fpjke fufe/frekn/rh Hkkjrh dot;fr AA

(Kavya Prakash 1.1)

(Literature is the art of soul and hence it should contain elements of soul which is Divinity.)

### Environment of Creativity: The Ne Plus Ultra of Teaching

An equally significant segment and perhaps the most important one for effective instructional methods is to make an environment of creativity where students can think for themselves and also can act accordingly. Creativity is, no doubt, a slow and a rather desultory process yet once it starts, it works wonders. The creative students can perform miraculous jobs: can create things out of nothing. R.N. Tagore writes in the *Gitanjali*, “I am a dead reed, but you make it a flute by blowing various tunes through me over vales and hills.”<sup>7</sup> Creative students will harness the acquisition of knowledge for the good of mankind. A developing country like India, beset with a number of problems, needs very creative students. Through it is true that merely through instructions, creativity amongst students cannot be promoted. Mark Twain

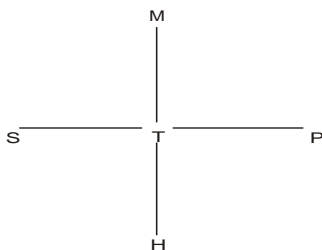
was amazed at a person who was making a hectic search for the greatest General of the world. A minister told that man, hinting at the grave of a cobbler, "If this man had become a General, he would have proved the best and most successful General of the world."<sup>8</sup> Nevertheless, instructions are to be framed in such a way that students get an opportunity to realize their dreams to re-create something anew. During the course of their studies, they must be encouraged to express their views through magazines, journals, debates, seminars, newspapers etc. as much as they can and their efforts need appreciation rather than debunking.

### **Empiricism: A Litmus Test**

So far, I have talked of certain parameters within which effective instructional methods have theoretically been considered. But in actual class-room teaching, a teacher is faced with a number of problems which need practical solutions. The task of putting theoretical postulates into practice entails a lot of practical experience. I know one of my students well-equipped with MBA+B.Tech Degree in Mechanical branch of Engineering once couldn't perform a very minor repair on his own scooter. Another of Law degree holder could not draft a simple notice. While theorizing on the mechanical system of scooter, the student was profoundly eloquent, but while on practical side, he proved a great failure. The dichotomy between percept and practice is one alarming phase of instructional technology obtainable these days. The hiatus between degree and competence is alarming. Succinctly speaking, knowledge, skill and attitude do not work in harmony.

Now, this part of the paper briefly deals with some issues, the discussion of which mainly rests on the holistic as well as practical view of education in the context of our country. These burning issues are -- teaching as art or science or both; qualities of good teaching; seven basic constituents of effective instructional methods/technology, two instructional systems; cognitive, affective and psycho motors in practice; ADID and STOP Models of instructional plan; learning process; VBI and CBI; Fillip charts; modes of learning etc., A model of instructional plan (prepared and displayed by me at the NAARM, Hyderabad on 30.11.1991) for a unit of learning experience/event is given at the end of this paper.

#### **MPHS: The Holistic View of Education**



### **Art or Science: A Combination**

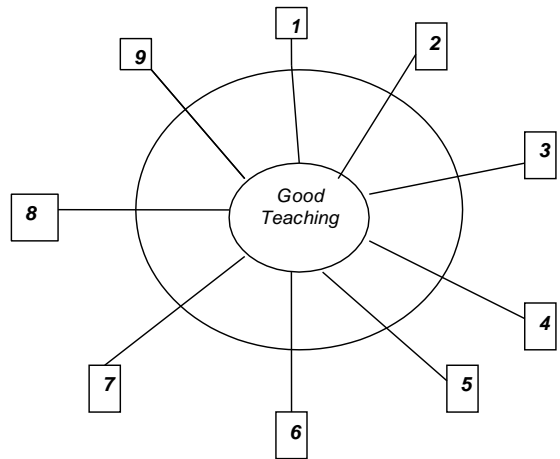
But a related problem to the above concept of education is whether teaching is an art or science or art and science both or just a practical art. Gilbert Highet's view is that teaching is just an art and not a science. According to him, since teaching also involves emotions and intuitions, it cannot exactly be measured by scientific yardstick. Teaching for him is like art, painting and music which are beyond any scientific appraisal. But K.A. Feldman considers teaching a science and as such teaching is subject to evaluation and appraisal like other

sciences. John A. Centra considers teaching both an art and science. N.L. Gage views teaching as a practical art that calls for intuition, creativity, improvisation and expressiveness. As such, it leaves room for departure from rules, formulas, and algorithms. The following diagram may help us understand better the above-said views on teaching:

### Good Teaching: A Missionary Task

In fact, teaching is a quality which is connected with a teacher in an indefinable term. John A. Centra says that some of the actions of teaching may be defined in terms of science but the rest cannot be measured in any scientific way. A good teaching is characterised by the umpteen qualities: according to John A. Centra, which may be explained in the following diagram:

1. Teacher's Sensitivity to and Concern for class level & progress
2. Teacher's preparation/organization of the class
3. Teacher's knowledge of the subject
4. Teacher's enthusiasm for subject and teaching
5. Clarity and understanding
6. Teacher's availability and helpfulness
7. Teacher's fairness
8. Teacher's impartiality for students' evaluation.
9. Teacher's efforts to upgrade quality of examination



### Eight Methods of Evaluation

Good teaching may be evaluated by eight methods, which are as follows:

1. Self-assessment/report;
2. Classroom observation;
3. Structured interview;
4. Instructional rating survey;
5. Test or appraisal of students' achievement;
6. Content analysis of instructional materials;
7. Review of classroom records; and,
8. Post classroom exercise, home work, and mental research on topic

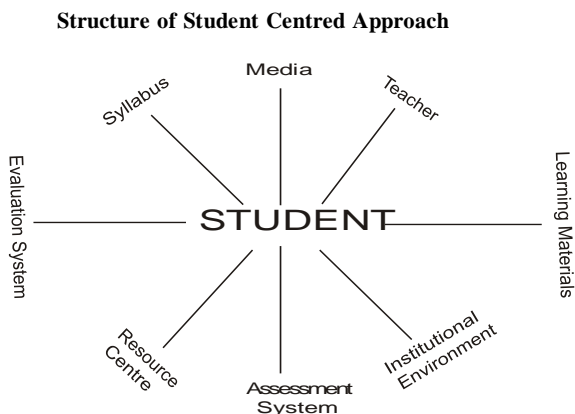
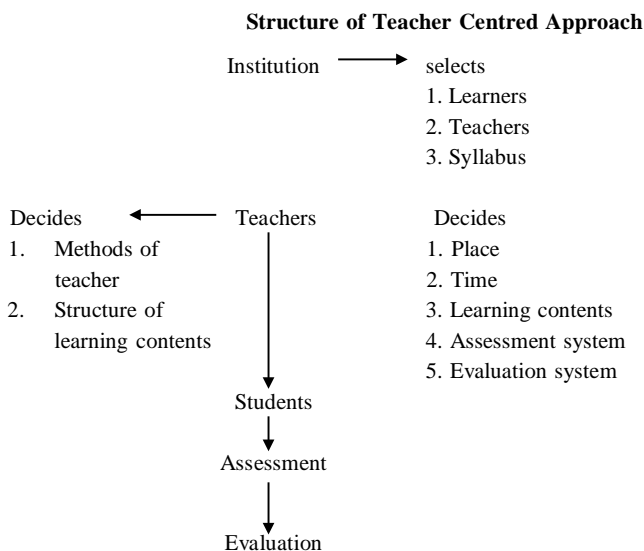
These may be evaluated by:-

1. Self;
2. Students;
3. Faculty;

4. Dean or departmental chairs;
5. Alumni; and,
6. Other appropriate administrator.
7. Experts on subject

### TCA & SCA: Two Distinct Approaches of Teaching and Cognition

There are two instructional technologies/systems namely teacher centered approach of teaching and student centered approach, which may be shown as below through two separate diagrams:

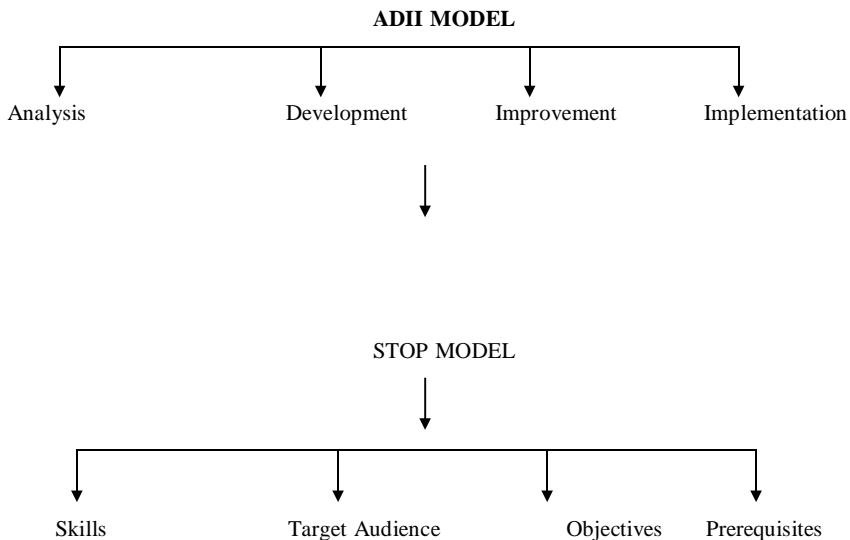


In fact, in any case of learning-teaching situation, the contents, the learner and the teacher are the only important elements. As such, to be effective, a teacher should plan his lessons well; he must know the learning outcome, aptitude, skill and also the psychology of his students. The following diagram will tell us a lot of psychological working of our students:

Cognitive	Affective	Psychomotor
*Knowledge	*Receiving	*Manipulative
*Comprehension	*Responding	*Habitual responses
*Application	*Valuing	*Complex motors
*Analysis	*Organization	*Addition of new response
*Evaluation	*Characterization	*Origination of new responses

### ADII & STOP Models

Instructional plan for a unit of learning experience/event should be well managed. According to the need, tailored model of instructions/interdisciplinary/multi-multidisciplinary approaches are recommended. Planning, designing, development and implementation are different stages of instructional plan. ADII (Analysis Phase, Development Phase, Improvement Phase and Implementation Phase) Model as shown below graphically may be tested with STOP Model:



### Learning Processes & Objectives: the Ultima Thule

But during the course of learning, a process takes place which a teacher must well understand and must well determine the instructional objectives. In an integrated instructional learning process, there are different phases which must be noted well. The following diagram illustrates this process in a systematic manner:

1. Specific student performance objectives
2. Select subject matter/materials and teaching methods to accomplish objectives
3. Cause students to interact with opposite subject matter in accordance with the principles of learning
4. Measure the attainment of students' performance objectives
5. Describe the discrepancies between performance and objective
6. Identify relative influence of process variability on student development
7. Diagnose possible causes of these discrepancies from areas of process variable
8. Plan corrective action in areas of faculty performance objectives, subject matter/materials and teaching methods
9. Implement corrective actions for the course
10. Evaluate the effects of the corrective strategies.

### **Individualistic, Competitive and Collaborative Mode of Learning**

Out of three popular modes of learning namely individualistic; collaborative and competitive, the best mode is thought to be collaborative: for, the studies have shown that whereas individualistic mode scorers only 15% success, it is competitive mode scores approximately 70% success. Nevertheless, it all depends upon teacher's capability to make use of all modes of learning in the class: for, the teacher is alone the motivator, power-wielder, cultural index, and perception moulder.

### **A Model of Instructional Plan for a Unit of Learning Experience/Event**

1. Topic: Teaching of conditional sentences (Applied Grammar)		
2. Class/Target Audience: B. Tech, I SEMESTER,		
3. Time Frame: 50 Minutes		
4. Assumption on entry behavior: The students have studied English upto intermediate level; some have public school background; every student has not studied English upto 12 <sup>th</sup> standard; approximately 50% from urban background and the rest from rural background; speak fluent English but do not know the basics of Applied Grammar; are very uncertain of their composition.		
5. Concepts:	(a)	Conditional sentences,
	(b)	Tense parity
	(c)	Actual conditions
	(d)	3 sentences
		1. If you work hard, you will pass. I
		2. If you worked hard, you would pass. II
		3. If you had worked hard, you would have passed. III
6. Phenomena/Field Problem/	(a) Problem of composition	
Actual Problem in classroom/	(b) Problem of communication	
teaching to be related	(c) Give examples: (repeat the	

above sentences in another way to underline accuracy and correctness):

1. If you work hard, you pass. I
2. If you worked hard, you will pass. II
3. If you would worked, you might have passed. III

- 
7. Competencies to be in the learners
- (a) To write their conditional sentences developed correctly;
  - (b) To differentiate between what is standard composition and what is faulty one.
  - (c) Give similar examples:
    1. If Sita sings well, she will get a prize.
    2. If Sita sang well, she would get a prize.
    3. If Sita had sung well, she would have got a prize.

- 
8. Instructional:(a) Condition no. 1- tense parity = PF say as below:  
*If Mohan walks fast, he will reach there in time*  
 P = P
- (b) Condition no. 2-tense parity = PI say as below:  
*If wishes were horses beggars would ride them*  
 P = I
- (c) Condition no. 3- tense parity = PP & w/s/m+have+III V say as below:  
*If he had written well, he would have got better marks*  
 PP = w/s/c/m+have+III V
- Discussion: Discuss as much as much as possible remembering that teacher himself is a learner in the learning cycle of CLT

- 
9. Resource: (a) Chalk board required (b) Fillip charts available  
 (c) CBI/VBI if available (d) The students may listen a record and may themselves select some of the conditional sentences explained above. Involve students in this task as much as possible. The teacher may act in this activity just as a facilitator. But remember flexibility in individual cases has to be exercised.

- 
10. Diagnostic (a) discrete questions on concept, relationship and Test Question: standard composition; say as below:  
 (b) Judge the response well and see demotivator:  
*He might top the class, if he works regularly.*  
 (c) Ask questions in the given situation of learning

If you write correctly, you will grow into a very promising professional.

- 
11. Problem-solving (a) Apply principles, rules and procedures to situations: *If you don't learn to write correctly, you will not memorize you knowledge systematically.*  
 (b) Ask questions having a direct bearing on the importance/relevance of the subject:  
 1. *If you understand this fact well that language is idea-crystallizer, idea-synthesizer and vision-weaver, you will then not dare to write wrongly.*

*2.If you don't write conditional sentences correctly, you will not succeed as a good technical writer.*

12. Evaluate the score: (a) Ponder over the learner's response; Learner's response: (b) Try a have an approximate achievement of your goal you set in the very beginning; in case the score is between 80-90%, your achievement is worth-appreciation.

### **A Model Instructional Plan for a Unit of Learning Experience/Event**

Title: Definition, Classification & Importance of Audio-visual Communication

Entry behaviour : Know the purposes of Extension Education & its approach

S.No.	Field Problems/ Phenomena/technology	Concept Understanding the problem/ phenomenon	Competencies	Time	Resources
1	Communication among people	Concept of Communication	To understand the term	5 Mts.	Blackboard
2	A.V. Communication in the society	Meaning and definitions of Audio, Visual and A.V. communication	Understanding the terms Audio visual and A.V. communication	10 Mts.	Blackboard & Slides
3	Farmers using different communication aids to receive message	Classification of A.V. Aids	To differentiate uses of different A.V. Aids	15 Mts	Transparencies
		Importance of A.V. Commun- ication	To identify the advantages of effectiveness knowing the of message	5 Mts	Blackboard
4	Mass Communi- cation in the Society	Mass Media Communication	To recognize advantages of various forms of Mass media	5 Mts 5 Mts	Blackboard Blackboard



### Diagnostic Questions:

1. What we communicate?
2. The advantages of Audio & Visual Communication?
3. Classify the A.V. Aids you farmers?
4. Why Mass Media is used is to communicate Information?

### Problem solving Questions :

1. In a village populated with a large number of illiterates what processes of communication You would use for advocating the adoption of new crop varieties ?
2. In the given context, would you use “insider” to help communicate in “dialect” of the

### Experience Self Reflections

Objective: To create self-awareness of the internal dynamics of self consciousness in the “here and now.”

Procedure: Make statements about yourself, using the key words as a stimuli. Quickly write down the first thing which comes to your mind. Only you will see these statements unless you wish to share them with others.

*I feel I am learning useful things already known but presented a bit differently.*

*I am synthesising known facts with new ones, as Samanta is doing though from a different perspective.*

*I see lectures must be more pregnant with meaning and information*

*I would like to know him say of the intuitive aspect of a teacher*

*I am afraid that instructional and minus good delivery will fill much result*

*I wish I were taught more meaningful things*

*I believe the centre of instruction will already be a teacher*

*I am worried about excellence in my job*

*I like teachers extraordinarily be equipped with sharp intellect*

*I think instructional technology imported from abroad grafted on Indian soil need more expertise to prepare*

*I fell instructional technology taught here is just a transmission of mere known and it is exclusively silent about wisdom, intuition etc., which make a teacher's role complete.*

Tot

### Learning through Psychological Analysis

### C A S E

James Sweeney taught industrial management and psychiatry at Tulane University, and he also was responsible for the operation of the Biomedical Computer there. Sweeney believed that he could teach Computer there. Sweeney believed that he could teach even a poorly educated man to be a capable computer operator. George Johnson, a black man who was a former hospital porter, became janitor at the computer centre; he was chosen by Sweeney to prove his conviction. In the morning George Johnson performed his janitorial duties and in the afternoon Sweeney taught him about computers.

Johnson was learning a great deal about computers when someone at the University concluded that, to be a computer operator, one had to have a certain I.Q. Score. Johnson was tested, and his I.Q. indicated the he would not be able to learn to type, much less operate a computer.

But Sweeney was not convinced. He threatened to quit unless Johnson was permitted to learn to programme and operate the computer. Sweeney prevailed, and he is a till running the computer centre. Johnson is now in charge of the main computer room and is responsible for training new employees to programme and operate the computer.

### **Principal Components of Ausubel's Expository Teaching**

Teachers who use the expository teaching approach for presenting lessons start with advance organizers, the present lesson content, and finally encourage students to better understand the new information.

<i>Phase One ;</i>	<i>Phase Two :</i>	
<i>Presentation of Advance Organizer</i>	<i>Presentation of Learning</i>	<i>Task or Material</i>
Clarify aims of the lesson	Make organization explicit	
Present organizer	Make logical order of learning material	
Identify defining attributes	explicit	
Give examples	Maintain attention	
Provide context	Present material	
Repeat		
Prompt awareness of Learners		
knowledge and experience		
<i>Phase Three:</i>		
<i>Strengthening Cognitive Organization</i>		
<i>Relate new information to advance organizer</i>		
<i>Promote active reception learning</i>		
<i>Elicit critical approach to subject matter Clarify</i>		

Lettering is an important visual means of imparting information to an audience. Linacre opined

That those teachers who do not care for lettering skills can never prove to be successful teachers.

The pedagogues of the yore laid utmost emphasis on the art of lettering. The modern audience has to read fast, too little and very easily also. Therefore, we must learn the kind of lettering which is easy and quick to write.

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## Fictional Craftsmanship of Jerome David Salinger

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### Abstract

*Jerome David Salinger is an outstanding writer of fiction dealing with the erosion of values during the mid-century American life. "No other writer," says James E. Miller, "since World War II has achieved the heights of popularity of J.D. Salinger. And his popularity has rested primarily on the hero, Holden Caulfield, and on one book, The Catcher in the Rye."*<sup>1</sup> James E. Miller further comments, "No other writer since the 1920's—the era of Fitzgerald and Hemingway has aroused so much public and critical interest."<sup>2</sup> Warren French, another noted critic, similarly comments, "We can, however, feel some justifiable trepidation about the future of American literature if Salinger is not considered—as he was, for example, in the recent Saturday Review poll—the most important artist, the disappointing post-World War II period had produced."<sup>3</sup> Writing in the same vein, Frederick L. Gwynn and Joseph L. Blotner, the noted Salingerian critics remark, "For the future historian, the most significant fact about American literary culture of the post—War Period knew intimately the work of a goodly number of coeval writers (Hemingway, Fitzgerald, Dos Passos, Wolfe, Sinclair Lewis, for example), the only post-war fiction unanimously approved by contemporary literate American youth consists of about five hundred pages by Jerome David Salinger."<sup>4</sup> In summation, the above critical verdicts on J.D. Salinger, present him as a novelist, who truly epitomizes the contemporary social and cultural ethos after the World War II.

**Key-Words:** Catcher in the Rye; Fanny & Joey; J.D. Salinger; Vedanta, Bhagwad Gita, Holden Caulfield

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### Introduction

But it is curious to note that Salinger, the man constantly feels more shy of public appearance and proximity than Salinger, the artist. The hiatus that virtually exists between Salinger's personal and public life may be probed into by making a sustained effort to connect his works and life—events to his autobiographical details. Warren French is of the view that "Jerome David Salinger has been less living than his creation Holden Caulfield to share with an avidly curious public ..."<sup>5</sup> Warren French, however, further comments that despite Salinger's "diverse exhibitionism," enough is known about his literary career and even more has leaked out about his personal life to enable us to see that his story is not the unusual one of the lad who courted fame until upon having the rare luck of winning her hand, he discovered that she brought with her a retinue of nuisances."<sup>6</sup>

In fact, Salinger avoided public in order to enjoy privacy as well as mental peace. Like William Faulkner, who after years of non-appearance before the public, grew loquacious before his death. Faulkner, too, avoided critics for some time. Emily Dickinson, too avoided

public appearances. Similarly Robinson Jeffers rarely mixed with the public for the obvious reason that he suffered unimaginable humiliation and depression due to public criticism. "As for the reclusive Salinger himself," Warren French pertinently comments, "he may -- like William Faulkner who after years of avoiding the public became surprisingly garrulous before his death—emerged from his hideout as his own children grew up. Faulkner is not a good parallel, though for a while the shunned critics, he was accessible to Hollywood. Salinger may follow the lead of writers like Emily Dickinson and Robinson Jeffers, who all their lives remained isolated from a society that affronted them."<sup>7</sup>

### **Grooming: Challenges & Cravings**

Salinger was born on January 1, 1939 in New York City. His father, Sol Salinger, was born in Cleveland, Ohio and is said to have been the son of a rabbi. But he disowned Orthodox Judaism to become an importer of hams. He married a Scotch-Irish Marie Jillich, who changed her name to Miriam after her husband's family. Salinger had, one living sibling, a sister Doris, who was eight years elder than he. She was a dress-buyer at Bloomingdale's department store.

A detailed account of Salinger's childhood is, unfortunately, not easily available. Nevertheless, it is revealed through register entries of schools on Manhattan's upper west side that Salinger attended some of them. He also spent sometime during summers in New Schools Camps while a student of these Manhattan schools, Salinger proved himself as "the most popular actor"<sup>8</sup> at camp Wigwam, Harrison, Maine. In 1934, Salinger joined the Valley Forge Military Academy in Pennsylvania, where he spent two years. He proved himself a very promising student at the Academy scoring 88 marks in English, 88 in French, 76 in German, 79 in History and 88 in Dramatics. His I.Q. was 115. Frederick Pillsbury in his famous article named "Mysterious J.D. Salinger : The Untold Chapter of the Famous Writer's Years as a Valley Forge Cadet" has authenticated that Salinger was slightly above the average intelligence, but far from the "genius" or even "superior" category.<sup>9</sup> At the Valley Forge, Salinger participated in all activities of the Glee Club, the Aviation Club, the French Club, the Non-Commissioned Officers' Club and the Mask and Sour dramatic organization. "While at Valley Force," Warren French authenticates, "Salinger began writing short-stories, working by flashlight under his blankets after official lights out. He also appeared to be intensely interested in getting into the movies or in selling some of his work to Hollywood."<sup>10</sup>

After graduating from the Valley Forge Academy, Salinger joined the Washington Square College of New York University in 1937. Miss Shirley Blaney, a High School correspondent for the Claremont, New Hampshire Daily Eagle has authenticated Salinger's enrollment at the Washington Square College. Salinger himself has asserted many times through his writings that when "he was eighteen and nineteen he spent some time in Vienna and Poland (possibly in Bydgoszcz)—either with or without his father— while learning German and the details of the ham importing business."<sup>11</sup> During 1937, he visited Europe and joined Ursinus College in 1938, a coeducational institution funded by the Evangelical and performed Church at Collegeville, Pennsylvania. For sometime, he wrote for the Ursinus Weekly. Afterwards, he attended Whit Burnett's famous course in short-story writing at Columbia University. Salinger's first story named "The Young Folks" was published in Story edited by Burnett himself.

Salinger also contributed stories to Collier's and Esquire. He also worked as an entertainer on the Swedish liner M.S. Kungsholm during 1941, which Salinger himself authenticates in his story named "A Young Girl in 1941 With No Waist At All". During the outbreak of war, he wrote to Colonel Milton G. Baker that he wished to enrol for war. But he was "classified as

I-B due to a slight cardiac condition.”<sup>12</sup> Again in 1942, he joined the services as a result of the lowering of standards for enrolment in the army. He attended the Officers, First Sergeants and Instructors School of the Signal Corps. His first assignment was correction of papers in a ground school for aviation cadets, probably in Nashville, Tennessee. Subsequently, he was transferred to the Air Service Command in Dayton, Ohio, where his assignment primarily entailed public releases. In 1943, he was again transferred to the Counter-Intelligence Corps, during which period he corresponded with Oona, daughter of Eugene O’Neill and subsequently Mrs. Charlie Chaplin in Hollywood. After knowing something about Salinger’s obscure biographical details, let us connect his military experiences with his experiences as a novelist dealing with the after-effects of World War II.

### **Disastrous Consequences of World War II & Holden’s Denunciation of War**

In fact, Salinger is intolerant of bearing with the disastrous consequences of the World War II. He is also pained to the core of his heart to witness the horrible spectacle of those fatally wounded or tragically died in action during war. The aftermath of the World War II manifested in social disintegration, loss of moral and ethical values, spiritual void and a sense of alienation. The world appeared, to sensitive and intelligent people, to be absurd and frightening. Almost every facet of social and individual life grew disjointed. Industrial expansion, increased employment, higher wages and greater mechanization, which were but the manifest offshoots of the World War II with all their other concomitant repercussions. Disillusionment, cynicism, inhumanity, violence, and neurasthenia were some of the horrifying ills which the World War II brought in its wake. Because of war, people lost faith in basic values of life, church, religion and even ordinary men questioned the existence and benevolence of the Almighty God. The proverbial Tennysonian affirmation that God is in heaven and everything is right with the world was chanced into the Hardyian scepticism or negation that God is not in heaven and everything is not right with the world.

P. Scott Fitzgerald and John Dos Passos, the noted American novelists, were termed as novelists of the lost generation. Nihilism shaped the outlook of a number of writers. In *The Catcher in the Rye*, Salinger has created Holden, who is vehemently against every kind of war. Holden’s projection of Alec is so much horrifying that his painful condition typifies all unimaginable agonies and dehumanization which the whole mankind at large actually suffered due to the senseless outbreak of World War II. Alec loses his memory in the hospital. He gets all possible treatment and when he is recovered, he walks only with the help of a cane. He is mad and invalid. Fortunately, he meets a girl while travelling in a bus. But, Alec is incapable of reckoning his old happiness now as a normal man. “It was about,” says Holden in *The Catcher in the Rye*, “this English guy, Alec something, that was in the war and loses his memory in the hospital and all. He comes out of the hospital carrying a cane and limping all over the place, all over London, not knowing who the hell he is. He’s a duke but he doesn’t know it ... Both so nuts about Charles Dickens...”<sup>13</sup>

### **Holden’s Alienation & Quest for Identity**

*The Catcher in the Rye* is chiefly based on the theme of Holden’s alienation, which is one of the most dangerous repercussions of the after affects of the World War II. Holden Caulfield is a misfit adolescent and as such he flunks out of Pency Prep in Pennsylvania and embarks upon his terrible journey to home in New York. The theme of alienation remains dominant till the end of the novel. His quest for truth is, in fact, a quest for identity, a search for the legitimate place of an alienated person. Salinger’s concept of alienation is a kind of reconciliation or accommodation, often resulting in distortion of the soul, bitterness, nausea and the ultimate withdrawal often leading to death. According to James E. Miller, the causes

of alienation in Salinger's works are complex and complicated. "Sometimes society seems," observes James E. Miller, "at fault. In the horrors of racial prejudice or the horrors of war. But sometimes the fault seems to lie in a failure of personal relationships ... sometimes, however, the cause of alienation lies deeply within, in a turbulence of the spirit – plunging the individual into the dark night of the soul, or dazzling him in the ecstasy of a vision of mystical union..."<sup>14</sup>

Boo Boo Glass in "Down at the Dinghy" is Salinger's most celebrated character who symbolizes a social issue of racial prejudice. Franklin Graff, a sensitive, perceptive young man, who has been kept out of the war and also somewhat out of life has drifted into pervertry in "Just before the War with the Eskimos." Walt Glass is killed during the War in Japan by absurd explosion of a toy in Japanese store in "Uncle Wiggily in Connecticut."<sup>15</sup>

"For Esme-with Love and Squalor" is a tale of war and spiritual crisis and Sergeant X's outcry that "dear God, life is hell," is mellowed into the Dostoevski sanity that "Fathers and teachers, I ponder 'what is hell?' I maintain that it is the suffering of being unable to love." "Teddy" is Salinger's experimentation in mystical experiences and Seymour is an epitome of spiritual re-union.

In *The Catcher in the Rye* again, Salinger hates war and also all senseless expenditure on the maintenance of army. One of the characters in this novel opines that, "the army was practically as full of bastards as the Nazis were."<sup>16</sup> The war phobia is one of the recurrent themes in Salinger's other writings also. In *Franny and Zooey*, the war phobia is reflected into a kind of withdrawal or recluse from society. Franny suffers from the sickness of soul. "I'm sick of it. I'm sick of not having the courage to be an absolute nobody. I'm sick of myself and everybody else that wants to make some kind of a splash."<sup>17</sup>

### **Spiritual Crisis**

Salinger's vision of life has been moulded significantly by his own experiences in World War II. "The spiritual crisis in which every Salinger hero finds himself was probably shaped, at least embryonically, in the boredom, frustrations, agonies and horrors of the world at righteous war itself."<sup>18</sup> Salinger himself was stationed for a time in Tennessee, then Tiverton, Devonshire, England. On D Day, he landed at Utah Beach in 1944. He developed hatred for war and military service due to his subsequent participation in five campaigns. In this regard, James E Miller's observation is very pertinent:

And if we are allowed to read any autobiography at all in his work, we may readily guess that the war was responsible for, or at least brought to the surface, an alienation from modern existence so profound as to manifest itself at times in an overpowering spiritual nausea.<sup>19</sup>

While Salinger was in the American Army's Fourth Division at Utah Beach and while he was moving to Europe, he met Ernest Hemingway. It is authenticated by records that Salinger became disgusted when Hemingway shot the head off a chicken the merits of a German Luger. Undocumented reports also circulated that sometime during the war, Salinger married a French woman, who was a doctor. Salinger's major assignment with the Fourth Division entailed interrogation of civilians and captured soldiers to locate Gestapo agents. But

notwithstanding his onerous military duties, Salinger could find time to write his short stories which, he contributed to the Saturday Evening Post and to Story during 1945.

During the later forties, Salinger began to publish exclusively in the New Yorker. *The Catcher in the Rye* was published and distributed in 1951 as a Book-of-the Month club selection, which was followed in 1953 by Nine Stories. He married a Rodcliffe graduate named Claire Douglas in 1955. Claire Douglas, who was born in England, was gifted with sharp wits and independent mind. Salinger finally settled in Cornish, New Hampshire. In 1955 a daughter and in 1960 a son were born to the Salingers.

### Nine Stories

From 1940-53, Salinger produced thirty stories. Nine Stories established his fame as a great writer. Muriel, Esme, Phoebe and Franny—all the adolescent heroines in Nine Stories are the remarkable characters. The Glass family has been immortalised by Salinger in Franny and Zooey:

“Raise High the Roof Beam, Carpenters” and Seymour : An Introduction”. Salinger’s Glass stories, centering round “Teddy”, “Just before the War with the Eskimos”, “Uncle Wiggily in Connecticut”, “The Laughing Man”, and “For Esme-with Love and Squalor” indicate his religious concerns. In this respect his Glass stories present a comparison with John Galsworthy’s *The Forsyte Saga*. As John Galsworthy’s *Forsyte Saga* deals with a particular family chronicle, likewise, Salinger’s stories essentially deal with the Glass family in a chronological order.”

### Franny & Zooey & Raise High the Roof Beam, Carpenter and Seymour

Salinger’s literary output markedly declined after 1953. In 1961 he published Franny and Zooey, containing stories first published in 1955 and 1957. In 1963 he published *Raise High the Roof Beam, Carpenters and Seymour: An Introduction* with stories first published in 1955 and 1959 respectively in the New Yorker. In 1965, he published “Hapworth 16, 1924” in the New Yorker after a long silence. In fact, this story opens with a brief note by Buddy Glass introducing a long letter almost covering various events of Seymour’s life. The letter runs into around 30,000 words and talks of epiphany or process of incarnation leading to super human knowledge.

Salinger gives sufficient quotations from poetry, fiction and religions literature of India, China, Japan and also from Blake, Dostoevski, Kierkegaard and Kafka. He shows his predilection for Rilke. In “Zooey”, there are quotations from Epictetus, Marcus Aurelius, Ring Lardner and Bhagavad Gita. From Kafka, the following quotation is noteworthy :

Don’t you want to join us? I was recently asked by an acquaintance when he ran across me alone after midnight in a coffee house that was already almost deserted. “No, I don’t,” I said.”<sup>20</sup>

Or, from Ring Lardner, the following quotations :

The love interest and climax would come when a man and a lady, both strangers, got to talking together on the train going back east. “Well,” said Mrs. Croot, for it was she, “What did you think of the Canyon?” “Some cave,” replied her escort, “what a funny way to put it,” replied Mrs. Croot. “And now pay me something”.<sup>21</sup>



Despite the fact that Salinger does not indicate his particular fondness or linking for recent American writers, he frequently refers to Scott Fitzgerald and Ring Lardner. His protagonist Holden speaks rather pejoratively of Hemingway's *A Farewell to Arms* as a phoney book. Buddy Glass criticises the Beatniks and Zen --- killers. The great intellectual satirists from Dante to George Bernard Shaw remain conspicuously absent from his list of favourite world authors like Tolstoy, Proust, Blake, Coleridge, Chekhov, Dostoevski and Lorca. In this connection Warren Fench's views are worth-quoting:

Although Salinger refused, on the occasion of listing his favourites to discuss recent American writers, his fondness for Scott Fitzgerald and Ring Lardner is evident from frequent references to them in such works as "The Last Day of the Last Furlough" and *The Catcher in the Rye*. In "Zooney" Salinger's "After Ego" Buddy Glass even describes Fitzgerald's *The Great Gatsby* and his *Tom Sawyer* <sup>22</sup>

In all his works, the mid-twentieth century crisis in American society constitutes the major theme. While repudiating the American society of the fifties, Salinger exhorts his readers to sustain the cherished values of life. Franny's being sick of ego symbolises the sickness of the whole humanity, which Salinger wants to relieve of :

... I'm so horribly conditioned to accept everybody else's values, and just because

I like applause and people to rave about me, does not make it right. I'm ashamed of it. I'm sick of it. I'm sick of not having the courage to be an absolute nobody. <sup>23</sup>

At another place in the same story, Franny says that she was "sick of ego, ego, ego. My own and everybody else's." <sup>24</sup> Franny is bored of herself which symbolically means that the whole humanity is sick of serious ailment, and man fights against man, society against man, individual against conformity. In the same story, Franny says to Lane that "she looks like a ghost." <sup>25</sup> In fact, Franny's fear is the fear of all the young generation during the mid-century American society.

### ***The Vedanta & the Bhagavad Gita***

Every artist, and for that matter, every novelist stands in close relationship with the age and society, which he represents. Despite denials to the contrary such an intimate relationship between the novelist and his contemporary milieu is inevitably bound to exist. Salinger, notwithstanding his repeated denials is not an exception to this long-felt relationship between the author and the society. In fact, Salinger suggests a formula to bring two extremes of despair and hope, light and darkness, closer again. The formula suggested by him is a formula which may be termed as the spiritual shelter. For this, he seeks guidance from the Oriental philosophy, particularly the Zen Buddhism and the Vedanta, and Bhagavad Gita. In fact, "Franny" appears to be a well-written document on quintessence of all the best that one can seek as inspiration from Buddhism, theory of incarnation, Atman and God. The dawning of epiphany on Franny itself is symbolical of revelation of spiritual truth before the whole mankind. Franny considers God as a form of "power" <sup>26</sup> "self-acting power" <sup>27</sup> which "the Nembutsu sects of Buddhism" <sup>3</sup> worship in a different form. Franny treats Atman <sup>28</sup> as a part of God, which the Hindus regard as just another form of God. The same religious and spiritual vein runs throughout "Zooney". Zooney defines detachment as "cessation from all hankerings." <sup>29</sup> Talking of the Vedanta and its theory of reincarnation, Nicholson makes Teddy understand that "the Vedantic theory of incarnation" is a kind of "spiritual

advancement”<sup>30</sup>. The following paragraph from “Teddy” throws sufficient light on other aspects of the theory of incarnation :

“That’s right.” Teddy said. “I met a lady, and I sort of stopped mediating.” He took his arms down from the armrests, and tucked his hands, as if to keep them warm, under his thighs. “I would have had to another body and come back to earth again anyway —I mean I wasn’t so spiritually advanced that I could die. If I hadn’t met that lady, and then gone straight to Brahma and never again have to come back to earth. But wouldn’t have had to get incarnated in an American body if I hadn’t met that lady. I mean it’s very hard to meditate and live a spiritual life in America. People think you’re freak if you try to. My father thinks I’m a freak, in a way. And my mother —well, she doesn’t think it’s good for me to think about God all the time. She thinks it’s bad for my health.”<sup>31</sup>

Since Salinger talks of spiritualism, critics like Warren French treat his “Franny” as symbolical of humanity’s “pilgrimage”<sup>32</sup>. Her possession of a little book named *Way of a Pilgrim* represents the direction to which the whole young generation of mid-century America should go. Likewise, “Zoey” is treated as symbolical of the redemption of the young generation in America. “Zoey” is, in a way, a story of Franny’s recovery which symbolically means redemption of humanity at large. Salinger’s *Seymour : An Introduction* represents the process of resurrection of young generation of America. Salinger’s *Buddy* and *Seymour* are representatives of the process of resurrection of the young generation, many of whom have turned into the neurotic misfits. When *The Catcher in the Rye* was published, it was instantly condemned as a “filth”<sup>33</sup> and also as a book “to deprave guideless school children”,<sup>34</sup> and also making the young generation learn “the Marxist indoctrination.”<sup>35</sup> “A Houston lawyer stirred up a debate in the newspapers when he withdrew his daughter from the University of Texas rather than permit her to remain in a class where the novel was used. Mrs. Beatrice Levin found herself a community issue when she recommended *Catcher* to her High School English students in Tulsa, Oklahoma. Donald Fiene, who himself was dismissed from Louisville, Kentucky’s Nale High School for reading *Catcher* with a class, has described in *The Realist* a “distressing number of attacks upon the novel, both in this country and abroad.”<sup>36</sup> But the fact of the matter is that *Catcher* is neither a radical attack on the American system nor serves, in any way, Marxist ends. It is another story that the book has been written by Salinger from a conservative viewpoint and is the best defence against the brain washing of the young generation. The basic argument in the book is essentially that the world is generally phony, which is a fact to be accepted by all and sundry. Every individual has to make efforts for his own salvation.

### Philosophy of Life

This brings us to a related question as to what is Salinger’s philosophy of life. In fact, Salinger does not incite youth to overthrow the social order or to flee from the world they know. Unlike Mark Twain, Salinger does not say—“You can’t go home again.” On the contrary, he says—“You cannot get away.”<sup>37</sup>

Salinger’s non-conformist posture is not a negative attitude but a positive one. Whenever, he quotes from *The Bhagavad Gita* or from other Holy Scriptures of the Oriental literature, his major emphasis is not on the detachment which, in other words, means non-involvement. On

the contrary, detachment for Salinger, means involvement in the world and not withdrawal : it is not escape from the realities of life but an urge to face the challenges which are inevitably bound to come in the way of every individual. He exhorts and sermonizes the adolescent young generation of America not to get bewildered or alienated from the active involvement but to face and overcome whatever phony and troublesome phenomena in society do really exist. Salinger's phony world typifies what the contemporary American life and society actually are. His nice world stands for what ought to be, for which every individual must incessantly strive. Holden's escape on these occasions to the phony world has intentionally been presented by Salinger in order to acquaint him with what actually exists in life and on all the three times, Holden grows much wiser and maturer for the world which Salinger actually calls nice world.

Likewise, Franny is bewildered, not because of the paucity of physical comforts or material prosperity but because of her psychological trauma. It is only after the dawn of two epiphanies on her on two different occasions that she realizes the importance of active involvement in life. Like Holden, she feels that life is not an escape but a constant activity. One of the significant after-effects of the World War II on American life is the general hankering for seeking shelter in spiritual bliss. Seymour seeks it in Salinger's famous short story "Seymour : An Introduction," and "Zooney" in the story of the same name.

Salinger feels that this universe is full of absurdities and some of the absurdities are horribly frightening. Hence, an adolescent need not be afraid of the frightening of the absurdities in life. The carousel scene in *The Catcher in the Rye* is symbolical of this part of Salinger's philosophy of life. When Holden sees Phoebe enjoying the carousel, he feels that even the absurdities of life appear to him as enjoyments and real happiness. He feels that he himself was absurd in running from his home. He now longs to go home back not as a frustrated youth but as a mature, wise and reformed adolescent. Herein lies Salinger's philosophy of reconciliation, compromise, reformation and realism:

"Sure you do. Certainly you do. C'mon, now, let's go," I said. "In the first place. I'm not going away anywhere, I told you. I'm going home. I'm going home as soon as you go back to school. First I'm gonna go down the station and get my bags, and then I'm gonna to straight—"

"I said I'm not going back to school. You can do what you want to do, but I'm not going back to school," she said. "So shut up". It was the first **time she ever told me to shut up. It sounded terrible. God, it sounded terrible. It sounded worse** than swearing. She still wouldn't look at me either, and every time I sort of put my hand on her shoulder or something. She wouldn't let me.<sup>38</sup>

### Concept of Renunciation

Related to the question of absurdity in life, there emerges another interesting question of renunciation in Salinger's works. It gives birth to the central conflict and other psychological problems. Lane, for instance, suffers from this problem. Franny, though not very well versed in the Oriental philosophy, talks of Buddhism and Indian meditation. She also talks of Om and God. Salinger suggests that for an adolescent neither renunciation is advisable nor complete neurotic behaviour is permissible. An adolescent like Holden, Zooney and Franny cannot learn the mysteries of spiritual enlightenment. Even if they try for it, it will prove disastrous for them. Hence, what Salinger suggests is that the adolescents must actively participate in the struggle of life with endurance and determination. For inspiring the

adolescents to participate and involve whole heartedly in the struggle of life, it is essential that education and living environment are also toned up :

“... As I remember, you even looked like somebody who'd just been shattered because all the ushers hadn't been genuine. What's the matter with you, Buddy? Where are your brains? If you've had a freakish education. At least use it, use it. You can say the Jesus Prayer from now till doomsday, but if you do not realize that the only thing that counts in the religious life is detachment.

I don't see how you'll ever even move an inch. Detachment buddy, and only detachment. Desirelessness. 'Cessation from all hankerings.' It's this business of desiring, if you want to know the goddam truth, that makes an actor in the first place. Why're you making me tell you things you already know? Somewhere along the line – in one damn incarnation or another if you like – you not only had a hankering to be an actor or an actress but to a good one. You're stuck with it now. You can't just walk out on the results of your own hankerings. Cause and effect buddy, cause and effect. The only thing you can do, is act. Act for God, if you want to—be God's actress. If you want to. What could be prettier? You can at least try to. If you want to—there's nothing wrong in trying.”<sup>39</sup>

In addition to the above, Salinger's vision of life closely connects him with his concept of society he lived in. As a matter of fact, Salinger is essentially compassionate to his fellow-beings particularly the whole generation of adolescents. His works teach the philosophy of love-love not love for a human beings, but also for the whole humanity. His characters are supersensitive human beings. They rarely brook ugliness and hypocrisy in real life. The moment they come across any unreal and counterfeit phenomenon in life or society, they quickly react and revolt. Often they appear to be as neurotic and mad as Shakespeare's Macbeth and hence, they start looking upon life as “a tale told by an idiot”. “Twice there is a reminder of Shakespeare. It comes near Macbeth's despairing definition of life, “a tale told by an idiot ... signifying nothing.” And Salinger has taken a more sensitive man in Hamlet. It could be debated long just how irrational is Holden Caulfield, as likewise, Hamlet ...”<sup>40</sup> So goes the review of *The Catcher in the Rye* in 1951 in *The Christian Science Monitor* in its July issue. The review further adds :

But he (Holden) is capable of wholesome revulsion from contact with the human dregs, and impulsively seeks a kind of abolution by offering help to others. He hates what is wrong with the movies, and in the end he forgets himself and his hope—for escape into freedom to help his sister. He is alive, human, preposterous, profane and pathetic beyond belief.<sup>41</sup>

In this regard, it should also be noted that Salinger, like Mark Twain, is not a misanthropist : for, he does not create a character like Huck Finn, who is both comical and misanthropic. Salinger's Holden is an observer of life. “Unlike Huck, he makes judgments by the dozen.”<sup>42</sup> Salinger's other immortal characters such as Franny, Phoebe, Zooey, Seymour -- all believe in the ultimate triumph of love, deep rooted love for all human beings.

### Harbinger of the New Yorker School of Fiction

Thus, Salinger's works, in summation, are epoch-making in the sense that other writers have avidly tried to follow them. Salinger is, therefore, regarded as a harbinger of the New Yorker School of fiction. His stories contain not more than two or three characters, truly in the New Yorker tradition, "seen always at a moment of crisis."<sup>43</sup> "The concentration is always on the crisis; the relationships which have led to it are indistinct, only suggested by the tone of the dialogue, by characters' momentary action and gesture".<sup>44</sup> His characters realistically speak for the depressed adolescents of the whole generation. His style is truly the spoken language of the troubled adolescents in America. The problems he deals with in his works are the problems of alienation and of spiritual crisis with which the entire American generation of adolescents is presently suffering. Hence "No writer of recent years," says Paul Levine, "has captured the New Yorker market of Connecticut emigres the way Salinger has."<sup>45</sup> In fact, Salinger does it by truly expressing the predicament of humanity at large. Salinger's characters strive hard for their survival despite umpteen nervous break-downs. They also struggle for their own existence and social identification by proving that they are more virtuous than those who call them depraved. Apparently looking like adolescent neurotics, misfits and absurds, they espouse the cult of the Existentialists.

Writing in *The Nation* in March 1957, David L. Stevenson expresses surprise at the so called critical verdict that Salinger is "rarely acknowledged by the official guardians of our literary virtue".<sup>46</sup> Answering the query, George Stainer writes, "He can now rest assured. The heavy guns are in action along the entire critical front. Salinger's unique role in contemporary letters has been accorded full recognition."<sup>47</sup> In the same vein, Arthur Mizener says, "Salinger is probably the most avidly read author of any serious pretension in his generation."<sup>48</sup> Granville Hicks in *Saturday Review* in July 1959 wrote, "There are, I am convinced, millions of young Americans who feel closer to Salinger than to any other writer."<sup>49</sup> F.L. Gwynn and J.L. Blotner comment, "The only post-war fiction unanimously approved by contemporary literate American youth consists of about five hundred pages by Jerome David Salinger."<sup>50</sup>

Whereas Maxwell Gismar considers Salinger's work "Ivy Rebellion of the Fifties",<sup>51</sup> Isben treats him as the spokesman of "the non-conformists who resist the old betrayals of rhetoric and illusion and rejects the false claims of ideals."<sup>52</sup> If for Charles Kaplan, Salinger's tales are "comic masterpieces"<sup>53</sup> and can safely be compared with the classic in literature, for Charles H. Kegel, *The Catcher in the Rye* is "the failure of any form of communication."<sup>54</sup>

The above conflicting views of the eminent critics about Jerome David Salinger are but a natural corollary, concomitant to a novelist's gradual striving for his determined efforts to get a proper identification and a place for himself in the hierarchy of recognized authors. Salinger, in fact, belonged to literary era of the mid-fifties in America, which was itself struggling for coming out of the mental trauma it received due to the World War II. It was, indeed, a period during which moral and ethical values fast degenerated. The social cords broke down and people suffered from a complete spiritual void. Men, in general, felt completely faced with grim challenges in a universe both absurd and frightening. The urbanised, alienated man looked upon God with askance. The proverbial Hardyian gloom pervaded everywhere, in a nut-shell.

The modern novelists of America such as Theodore Dreiser and Ernest Hemingway did their best to restore old ethical and moral values in the society. John Dos Passos also served the cause of the society by dealing with the problem of nervous breakdown and the fear of war in

his novels. Similarly, William Faulkner and Sinclair Lewis also dealt with contemporary problems in their own novels. Thomas Wolfe, John Steinbeck and J.P. Murguier, likewise, depicted their contemporary milieu by dealing with various problems. But after these novelists, there came many new novelists, J.D. Salinger being one of them, who popularized and practised a particular type of ism which specifically dealt with the American life and the society in a strictly professional and technical sense. Synoptically speaking, whereas Norman Mailer is known for the cult of Bohemianism, John Hersey is identified with the Revival of Conscience, similarly, Saul Bellow is known as the novelist of the intellectuals. Likewise, if James Jones is primarily known as a war novelist, it is William Styron, who dealt with the theme of innocence. With the novels of John Howard Griffin, the cult of Devil in Texas became popular. Similarly amongst all those novelists, J.D. Salinger is also identified with the New Yorker School of Fiction writers. Decidedly, the credit for popularizing the New Yorker School of Fiction must go to Jerome David Salinger; for, his contribution in this regard, as has been discussed earlier, is much wider and more varied than those of John Cheever, Irwin Shaw and Edward Newhouse, who are the other noted novelists belonging to the New Yorker School of Fiction.

### ***The Catcher in the Rye***

The *Catcher in the Rye* is Salinger's magnum opus, which deals with the life of an adolescent named Holden Caulfield. This novel became an instant success: for, about 250,000 copies were sold every year. Even such great masterpieces as *Marjorie Morning Star*, *The Adventures of Augie March* and *By Love Possessed* declined in their sale after ten years, but *The Catcher in the Rye* grew in popularity and sale year after year. The novel is a classic novel of adolescence and its central theme is the theme of alienation. Compared with *Huckle Finn*, Holden certainly appears to be more powerful and convincing. It is, in fact, Salinger's artistic feat not only from the stand-point of psychology, but also from the point of view of decline with the social and philosophical problems. In fact, Salinger worked on *The Catcher in the Rye* for about ten years and, despite criticism to the contrary, it was hailed as the true harbinger of the New Yorker School of Fiction. In this novel, Salinger deals with the life of an adolescent hero, who, for every good reason, represents the whole humanity under four RS. which, in summation, denote four powerful cycles of experience, wisdom and liberation:

- R<sub>1</sub> = Revival
- R<sub>2</sub> = Redemption
- R<sub>3</sub> = Recollection
- R<sub>4</sub> = Resurrection

These four RS suggest four distinct phases of every life in the Darwinian sense of the term. The first stage in the Salingerian works is the stage of Revival, which comes after a strong fit of epiphany. In other words, an adolescent hero like Holden Caulfield comes to the plane of reality. The second stage is the stage of Redemption, passing through which, an adolescent hero apparently looking like a neurotic absurd, is liberated from the strains of his psychological breakdown. Recollection, the third stage—is where an adolescent like Holden tries to identify his present with the past and makes his own identify. The fourth stage of Resurrection is the final stage, where Salinger's Holden like Seymour, Franny and Zooey, appears to be a virtue-incarnate.

Salinger wrote about thirty short stories within a period of approximately twenty-five years. These stories were periodically published in New Yorker, Harper's, World-Review, Collier's, Story, Good Housekeeping, Cosmopolitan and Saturday Evening Post. After rigorous selection, Salinger chose nine for his work *Nine Stories*, which comprises "A Perfect Day for Bananafish," "Uncle Wiggily in Connecticut", "Just Before the War with the Eskimos", "The Laughing Man", "Pretty Mouth and Green My Eyes", "De Daumier-Smith's Blue Period", and "Teddy". The dominant themes characterizing *Nine Stories* are – alienation, racial prejudice, estrangement in love, war-horror, spiritual crisis, neurotic disorders and wordly disillusionment. The racial prejudice is the central theme in "Down at the Dinghy" and the estrangement in love is the keynote of "Just Before the War with the Eskimos". "The Laughing Man" deals with the problem of poverty and "Uncle Wiggily in Connecticut" with that of the betrayal of faith. "Teddy" deals with the problem of spiritual crisis. James E. Miller, a noted critic of J.D. Salinger, has appreciated *Nine Stories* for effective presentation of what is real and unreal or nice and phony in this world.

*Franny and Zooey* deals with the Glass family of New York. It is a faithful portrayal of Franny's nervous breakdown and, subsequently Zooey's efforts to help Franny recover from her religious nervous crisis. The message of the Fat Lady is a symbol of death in Franny and Zooey, for the creation of which Salinger received critical encomiums. *Franny and Zooey* is also significant from the point of view of Salinger's interest in the Oriental philosophy.

Similarly, *Raise High the Roof Beam, Carpenters and Seymour: An Introduction* deals with the Glass family with a spiritual tinge. In this work, Salinger the philosopher, is dominant on Salinger the artist. Many aspects of the Vedanta and the theory of incarnation have been alluded to in order to suggest a sort of redemption to the Glass family. In treatment and narration, Salinger like Galsworthy, deals with the Glass Saga almost in the same way in which Galsworthy did in the *Forsyte Saga*. One immortal character in this work is Seymour, who has many autobiographical resemblances with Salinger himself. Some critics like Henry Anatole Grunwald find some autobiographical touches as genuine and the rest as fake. As for instance, Salinger, like the Glass children, was born in New York to a Jewish father and a Christian mother. To soothe her in-laws-to-be, Scotch-Irish Marie Jillich changed her name to Miriam when she married Sol Salinger.

Salinger's art is certainly the art of an impressionist, which is one characteristic feature of the novelists belonging to the New Yorker School. Salinger treats art as a medium to express, represent, communicate human life. He is basically allied to the joyful mysticism of Whitman. The mystical anguish of Emily Dickinson and also the macabre humour of Mark Twain constitute the essential ingredients of Salinger's art and technique. Ring Lardner's prose rhythms and F. Scott Fitzgerald's poetic style impressed Salinger. He also liked John Updike's examination of the relation of spirit and matter. The pattern of withdrawal and return, of search for the ideal and the discovery of the self, as practised by Hawthorne and Melville, also constitute significant segments of Salinger's fictional technique. Like Whitman, he does not treat modern life as completely meaningless but as something meant for facing challenges with joy. His immortal creation Seymour stoically sums up Salinger's vision, which primarily controls his art and technique: "All we do over whole lives is to go from one little piece of Holy Ground to the next."<sup>55</sup>

Salinger considers style like Buffon as the man himself. He treats simplicity, clarity, euphony and the telling effect as the major contributory factors of a good style. His use of language is unconventional in the sense that he prefers colloquial diction to a traditional one. He didn't follow the genteel tradition and uses many rustic words which somehow passed into the military vocabulary due to World Wars. His major characters such as Holden, Muriel, Dr. Sivetski, Sybil, Carpenter, Eloise, Marry Jane all speak crude words which, in fact, were very popular amongst the adolescents during the mid-fifties in America.

Another significant feature of Salinger's language is his ability of using foreign words like Kalyug, Buddhist, Vedanta, Atman and Khaki. His use of symbols and images reminds one of the practitioners of the New Yorker school. Salinger's images are visual, auditory, gustatory, tactile or olfactory. His use of synaesthetic images and empathic images is also remarkable. The most powerful image of the Fat Lady in "Zooney" and the image of the Tombstone in *The Catcher in the Rye* have become proverbial.

Salinger's black humour in *The Catcher in the Rye* resembles Mark Twain's and Right Morris's, Joseph Heller's and Ken Kesey's. Salinger's technique of narration, of introduction, of diaries, letters, etc., of inclusion of soliloque are other remarkable features as a fiction writer. Salinger is a consummate artist. His diction is precise, conversational, technical and colourful. His artistic use of dialogues which are terse, chiselled, and crisp are certainly his great merits as a novelist.

Psychoanalysis of an adolescent also constitutes the kernel of Salinger's artistic technique of writing fiction. Like John Updike, William Styron and Saul Bellow, he presents a deeper study of his adolescent heroes and heroines, who appear as mad due to a number of neurotic strains. Lionel Tennenbaum, Franklin Graff, John Gedsudski, Sergeant X and De Daumier-Smith, in addition to Holden, are all notable psychological studies. Taken as a whole, Salinger is certainly a great novelist of America and he rightly deserves the meritorious title of being the father of the New Yorker School of Fiction.

Salinger condemns war and feels dehumanized to witness its after-effects on the humanity at large. The after-effects of the World War II manifested in social disintegration, loss of moral and ethical values, spiritual void and a sense of alienation. Disillusionment, cynicism, inhumanity, violence and neurasthenia were other horrifying effects of war. The age old belief that God is in heaven and all is right with this world lost its sanctimonious touch. The proverbial Hardyian gloom that God is not in heaven and all is not right with the world came to be taken as true not only by the neurotic adolescents but also by the grown-ups. Salinger, while dealing with the theme of alienation in *The Catcher in the Rye* and *Franny and Zooey*, also deals with the problem of spiritual crisis. As such, his characters get epiphany or revelation at the appropriate time so that they are saved from facing any more absurdity in life. The Carousel scene in *The Catcher in the Rye* reads like a message of spiritual bliss to all those who are wholly depressed and totally non-plussed :

Boy, it began to rain like a bastard. In buckets, I swear to God. All the parents and mothers and everybody went over and stood right under the roof of the Carousel, so they wouldn't get soaked to the skin or anything, but I stuck around the bench for quite a while. I got pretty soaking wet. Especially my neck and my pants. My hunting hat really gave me quite a lot of protection, in a way, but I got soaked anyway. I didn't care, though. I felt so damn, happy all of a sudden, the way old Phoebe kept going around and around. I was damn



near bawling, I felt so damn happy. If you want to know the truth. I don't know why. It was just that she looked so damn nice. The way she kept going around and around. In her blue coat and all. God, I wish you could've been there.<sup>56</sup>

Like Holden, Salinger's Franny also symbolizes humanity's pilgrimage or quest for truth. Likewise, his Zooey also symbolises redemption of humanity at large. Seymour, in the same way, represents the process of resurrection of young generation in America.

Salinger's non-conformist attitude is not a negative one but a positive one. For Salinger, even the idea of detachment, which he certainly borrows from the Bhagavad Gita does not mean non-involvement but active involvement in the world. It does not mean escape or withdrawal from the realities of life. Salinger exhorts and sermonizes the adolescent, young generation of America, not to feel alienated and depressed.

Salinger feels, that despite the fact, that this world is full of absurdities, one must have endurance to face them. His Holden, after every epiphany grows as a more reformed adolescent. Instead of running away from facing the realities of life, he strikes a reconciliation and compromise between what is phony and what is nice.

Salinger's works teach the philosophy of love-love not only for a human being, but also for the whole humanity. His characters being super-sensitive human beings, quickly react and revolt against whatever they think is hypocritical and counterfeit. Salinger is, therefore, essentially a philanthropist. His Holden, Franny, Zooey, Teddy, , Buddy and also other characters—all are great philanthropists, in their own ways.

Finally, Salinger's protagonists, despite depression and defeat, have a unique survival instinct. They fully understand that, in a world full of absurdities and cut-throat competitions only the fittest survive and the weakest becomes finally extinct. In this sense, they are the Existentialists and not the Nihilists; too. To conclude, Salinger is, in fact, a great novelist, and in the words of James E. Miller, "No other writer since World War II has achieved the heights of popularity of J.D. Salinger as yet."<sup>57</sup>

### **Literary Spokesman**

Maxwell Geismar regards J.D. Salinger as "the literary spokesman of the American College undergraduates"<sup>58</sup> during the middle fifties. He also treats Salinger as the harbinger of the New Yorker School of fiction in America and places him above John Cheever, Irin Shaw and Edward Newhouse<sup>59</sup> in hierarchy of fame and eminence. A close analysis of Salinger's art and technique will reveal that among the American Moderns particularly the Newcomers, J.D. Salinger has made his own distinct identity. If among the Newcomers, Norman Mailer popularized the Bohemianism, John Hersey the Revivalism of Conscience, Saul Bellow the Intellectualism, James John the American War Fiction, William Styron the Cult of Innocence, it is obviously J.D. Salinger who revived the 'Cult of Wise Child' in New Yorker School of Fiction.

Salinger regards art as a medium to express, represent, communicate and interpret human life. He also considers that literary art is a mirror which truly reflects the contemporary milieu in a

number of ways. That is why, for Salinger, a novelist's art is irrevocably mixed with his vision, outlook and philosophical insights. Like Saul Bellow, J.D. Salinger's art does not express and interpret merely the life of the American intellectuals. He also avoids John Herseys's efforts at the revival of American conscience. His novels and short stories essentially and wholesomely deal with the life of the depressed, the misguided and the frustrated adolescents, quint-essentially epitomized in his immortal creation Holden Caulfield of *The Cather in the Rye*. That is why perhaps, James E. Miller is of the view that Holden Caulfield is Salinger's great literary and artistic achievement and "his popularity has rested primarily on one hero, Holden Caulfield, and one novel."<sup>60</sup> The noted Salinger critic – James E. Miller further opines that "no writer since the 1920's --- the era of Fitzgerald and Hemingway has aroused so much public and critical interest"<sup>61</sup> as Salinger himself has done. In fact, Salinger's art is a complete picture of his enlightened mind. He is basically "allied to the joyful mysticism of Whitman, but he responds, too, to the mystical English of Emily Dickinson as well as to the macabre humour of Mark Twain."<sup>62</sup>

If Salinger finds much for himself in "the idiom and prose rhythms of Ring Lardner",<sup>63</sup> F. Scott Fitzgerald's poetic style also attracts Salinger's attention. Salinger also likes John Updike's examination of the relation of spirit and matter. For the basic patterns of his novels, Salinger follows the patters practised by Hawthorne and Melville. This basic pattern is the pattern of withdrawal and return, of search for the ideal and the discovery of the self, of the fall from innocence and the acknowledgment of complicity. Salinger's tastes and predilections are closely akin to the affirmatory poetry of the mystical tradition. Metaphorically, Salinger's literary art is a cry of social joy transcendent over the modern wasteland and its agony. In "Song of Myself", Whitman writes, "I am the man, I suffer'd, I was there." He also writes in the same poem that "It is not chaos or death—it is form, union, plan—it is eternal life—it is happiness". Salinger quotes these lines in the "Inverted Forest", which, in the typical Salingerian reproduction, means, "man feels dislodged itself and tester, like insecure luggage on an overhead rack", nevertheless, he must maintain his sanity and develop his understanding. Like Seymour, man must go his appointed rounds fully realizing that "all we do over whole lives is go from one little piece of Holy Ground to the next." In fact, in any literary history of post—World War II American fiction, Salinger's art and technique will always be mentioned as the formidable factors to promote New Yorker School of fiction.

### Style

Salinger considers style, like Buffoon, as the man himself. For this, he treats simplicity, clarity, euphony and the telling effect as the major contributory factors. Being an impressionist, like other New Yorker fictionists, he regards the telling effect or the overall impression as the only significant and dominant factor for a writer's style. If his works are closely analyzed, it can easily be noticed that, wherever his characters get resurrection, the telling effect is very much heightened. Take, for example, the case of Holden Caulfield in *The Catcher in the Rye*. Usually the whole of Chapter XXV of the above novel is suffused with marvellous telling effects, nevertheless, the closing paragraph where Phoebe participates in the Carousel Ceremony is worth-quoting :

Boy, it began to rain like a bastard. In buckets, I swear to God. All the parents and mothers and everybody went over and stood right under the roof of the Carousel, so they wouldn't get soaked to the skin or anything, but I stuck

around on the bend for quite a while. I got pretty soaked wet, especially my neck and my pants. My hunting hat really gave me quite a lot of protection, in a way, but I got soaked anyway. I didn't care, though.<sup>64</sup>

Likewise, the telling effect through quick, moving, crisp events and clauses in "Just Before the War with the Eskimos", in the following lines, is often quoted by critics as a typical example of the New Yorker fictionists:

"Well, my gosh. If you never phoned her up or any--"  
"I couldn't, for Chrissake!"  
"Why not?" said Ginnie.  
"Wasn't in New York."  
"Oh! Where were you?"  
"Me? Ohio."  
"Oh, were you in college?"  
"Nope. Quit."<sup>65</sup>

The telling effect forcefully captures impressions and an adolescent mind is more capable of capturing impressions than the mind of an adult. Since Salinger's heroes and heroines are adolescents, they have a very strong mental calibre to capture childhood impressions. For instance, Holden in *The Catcher in the Rye*, recalls many childhood events, when he comes in contact with Antolini :

"Yes, sure," I said. I did, too. "But yor're wrong about that hating business. I mean about hating football players and all. You really are. I don't hate many guys. What I may do, I may hate them for a little while, like this guy Stradlater I knew at Pencey, and this other boy, Robert Ackley. I hated them once in a while – I admit it – but it doesn't last too long, is what I mean."<sup>66</sup>

Since words are the building material of style, it is expedient here to discuss Salinger's use of language. The American novelists used and practised the genteel tradition throughout the nineteenth century, which normally means the use of heavy diction, embellished terminology, pompous words and classical poetic narration. The impact of the First and Second World Wars left a mighty impact on the novelists so far as their style and diction are concerned. Moreover, tremendous advances in science and technology further compelled novelists in America to write in a style which is simple, straight-forward and having a colloquial diction. Salinger does not follow the genteel tradition and uses the language really used by the young people of America during the mid fifties. Warren French has pertinently remarked about Salinger's use of language as one of the greatest factors of his popularity. "I think", says Warren French, "that young people read Salinger because he writes in their language about the world that they know or would like to know."<sup>67</sup>

A close analysis of the language of J.D. Salinger's *The Catcher in the Rye* will reveal the fact that it is representative of the typical Salingerian style of writing. Donald P. Costello opines, "*The Catcher in the Rye* will be studied, I feel, not only as a literary work, but, also as an example of teenage vernacular in the 1950's. As such the book will be a significant historical linguistic record of a type of speech rarely made available in permanent form."<sup>68</sup> Despite the fact that some critics find Holden's language as obscene and blasphemous, the fact remains

that *The Catcher in the Rye* is of great linguistic importance. Holden's language is an authentic teenage speech. In order to give a proper identification of his own personality, Holden speaks a distinctly recognizable teenage language. He speaks repeatedly many dangling words such as "and all", "I really did it", "it really was", etc., Holden repeats these phrases again and again in order to create a distinct atmosphere.

Donald Barr, a noted critic of Salinger, is of the view that Salinger has special liking for the subtle nuances of syntax. He also has a special insight into the working of mental processes. Each adolescent experience in Salinger's works becomes memorable and alive. "Salinger has", comments Donald Barr, "an ear not only for ideosyncrasies of diction and syntax, but for mental processes. Holden Caulfield's phrase is "and all" ... "she looked so damn nice, the way she kept going around and around in her blue coat and all—as if each experience wore a halo. His fallacy is *ab uno disce omnes*: he obstructs and generalizes wildly."<sup>68</sup>

In *The Catcher in the Rye*, there is hardly any page which does not have the use of "and all". Equally significant is the use of "hell" and "dough". "A due and all", "noble and all", "to puke", "goddam", "bastard", "phonies", and a host of such other expressions and phrases occur again and again. The use of the above phrases is so frequent that sometimes an adult reader gets offended taking for granted that Salinger probably intends to under-rate his own intelligence and understanding. For example, while Holden goes to the movies at Radio City, the following passage in Chapter XVIII in *The Catcher in the Rye* is worth-noting :

After the Christmas thing was over, the goddam picture started. It was so putrid I couldn't take my eyes of it. It was about this English guy, Alec something, that was in the war and loses his memory in the hospital and all. He comes out of the hospital carrying a cane and limping all over the place, all over London, not knowing who the hell he is. He's really a duke, but he doesn't know it. Then he meets this nice, honey, sincere girl getting on a bus. Her goddam blows off and he catches it, and then they go upstairs and sit down and start talking about Charles Dickens. He's both their favorite author and all. He's carrying this copy of *Oliver Twist* and so she. I could've puked. Anyway, they fall in love right away, on account of they're both so nuts about Charles Dickens and all and he helps her run her publishing business. She's a publisher, the girl.<sup>69</sup>

In his short stories, Salinger uses some crude words which suggest either innocence or childishness on the part of the major characters. For example, in "A Perfect Day for Bananafish", there are Muriel, Dr. Sivetski and Sybil Carpenter and Sharon Lipschutz, who use many crude words and expressions. Likewise, in "Uncle Wiggily in Connecticut", Elosie, Marry Jane and Romona also use crude words either to suggest their wordly inexperience or inner frustration. But at the same time, Salinger's characters also use such phrases like "God's sake", "goddam", "Chrissake", or "Jesus Christ" in order to show their mental attitudes or emotional feelings. Whenever, the major characters or the protagonists indicate their intensity of feeling with a distinct spiritual mooring, such expressions like "goddam hunting cap", "coming in the goddam windows", etc. are frequently used. In "Just Before the War with Eskimos", Ginnie Mannon and Selena Graff use crude but religious expressions. In "The Laughing Man", John Gedsudsky also used a

number of such words. In “Down at the Dinghy”, Boo Boo Tannenbaum, likewise, uses religious expressions in a convincing and effective manner.

In *The Catcher in the Rye*, Holden’s speech is also typical for his use of slangs, which roughly number over a hundred or so. The slang terms used by Holden are usually those which have passed into American colloquial language. “I spilled some crap all over my grey flannel” or “all that David Copperfield kind of crap” are other expressions used by Holden which are wholesomely slang terms. Holden also uses the phrases to be a lot of crap and to shoot the crap and to chuck the crap—all to mean to be untrue and unfaithful. Holden also uses such expressions as to shoot the crap which simply means to chat. His use of crazy is both trite but impressive. That drives me crazy means Holden’s violent disliking for something and to be crazy about means that Holden extremely likes a particular object or person. Holden also used killed in both favourable and unfavourable senses and connotations. Such words as lousy, pretty, crumby, terrific, quite, old, stupid, etc., usually form the habit of teenage vernacular in Salinger’s novels. Most of the nouns which are called stupid cannot be taken to be ignorant, and similarly, the use of old before a proper noun has nothing to do with age. Such words as “hell”, “madman”, “bastard” have also been used by Salinger to form a common simile. For example, such uses like “as hell”, “like a mad man” and “like a bastard” are common similes but they are not related to a literal setting at all. Salinger’s non-habitual figures of speech are usually trite. “Blind as a bat,” “shart as a tack” and “hot as a fire cracker” are some non-habitual figures of speech, which Salinger uses effectively in *The Catcher in the Rye* through his protagonist.

One significant feature of Holden’s speech is that he turns nouns into adjectives with the simple addition of ‘y’. For example, the following words and with ‘y’—

Perverty, christmasy, vomity-looking, whory-looking, hoodlumpy-looking, show-offy, flitty-looking, dumpy-looking, pimpzy, snobby, fisty, etc.,

Salinger’s language shows a strikingly versatile synthesizing grip. For this, Salinger changes parts of speech too frequently. For this reason, Donal P. Costello regards Salinger’s language as

intimately characterized by the quality of adaptability. Repetitive vocabulary is another feature of Salinger’s language. In addition to repetitive vocabulary, Salinger also uses words which only a well-read man can use. For example, the following words require Holden a conscious effort to use them correctly :

Ostracized, exhibitionist, unscrupulous, conversationalist, psychic, etc.

Much of the humour in *The Catcher in the Rye* arises from Holden’s habit of writing on more than one level at the same time. For example, such phrases as “they gave guys the axe quite frequently at Pency” and “It has a very good academic rating, Pency.” These expressions are replete with humorous over-tones.

If a comparison of his earlier works with his later works is made, we can find that, whereas in his earlier works, sentences are short, simple, full of many slangs and abstract expressions, in his latter works, the sentences are complex, language slightly heavier and choice of words intentionally picked up in conformity with the seriousness of the subject. So, the language Salinger uses in *Nine Stories* is decidedly easier than he uses in *Semour : An Introduction*.

Likewise “Zooney” is a short-story belonging to Salinger’s later works, in which sentences used are complex and words rather pedantic. While talking of such serious matters as Lord Christ, Lord Buddha, or Lord Shankaracharya, Zooney seems to be beyond Franny’s understanding:

He says the only people he ever really wants to meet for a drink some where are all either dead or unavailable. He says he never even wants to have lunch with anybody, even, unless, he thinks there’s a good chance it’s going to turn out to be Jesus, the person—or the Buddha, or Hui-neng, or Shankaracharya, or somebody like that. You know”. Franny suddenly put out her cigarette in the tiny ashtray with some awkwardness, not having her second hand free to brace the ashtray.<sup>70</sup>

### **Language: Use of Foreign Words**

Another significant feature of Salinger’s use of language is his capacity to use foreign words. In fact, Salinger’s use of foreign words is not just a display of his scholarship, it is, quite conversely helpful in creating an authentic atmosphere and believable locale. Though it is difficult to ascertain as to what are the actual sources of Salinger’s knowledge of words he borrowed from foreign languages, the way he uses them is decidedly superb. One possibility appears to be that Salinger’s love for the Oriental philosophy made him understand fairly well the Indian languages particularly the Sanskrit language. In fact, as has been pointed out earlier that Raise High the Roof Beam, Carpenters and Seymour: An Introduction are thoroughly permeated with moral and spiritual touches. Salinger’s immortal creation Seymour talks of Mahayana Buddhism, Jnana Yoga, Karma Yogin, Advaita, Vedanta, Zen Buddhist and Detachment.<sup>71</sup> Seymour’s room, Buddy finds, is filled with quotations laboriously culled from the Bhagavad Gita, Mahatma Gandhi, and Sri Ramkrishna. Salinger uses “Atman”<sup>72</sup> in “Franny” and “Nembutsu sects of Buddhism”<sup>73</sup> and expression from Pali language, which is meant to praise Lord Buddha—“Namu Amida Butsu”.<sup>74</sup> He also uses “Om” and “God”.<sup>75</sup> Salinger uses “Khaki”,<sup>76</sup> Kalyug and “Lulu”<sup>77</sup> so appropriately that they reflect his profundity of knowledge with regard to foreign languages.

### **Symbols & Images**

Salinger’s use of images and symbols is typically suggestive of the practitioner’s use of words of the New Yorker School. Franny’s “sheared-raccoon”<sup>78</sup> is symbolical of every pretty and beautiful phenomenon appearing again and again. Lane’s “disjointing a pair of frog’s legs”<sup>79</sup> is a symbol of America’s dis-jointed, disturbed society. The symbolic use of hell in Salinger’s works stands for decadence and degeneration. Salinger’s images are, in short, so powerful that they yet need a little bit of detailed treatment.

For Salinger, an image is a picture made out of words. A poetic image is a picture of words charged with imagination and passion. Salinger does not treat image as something dull nor does he consider it simply a device of artistic embellishment. Salinger uses images in order to create ‘cosmos’ out of ‘chaos’. Hence, his images are marked with precision, efficiency, suggestiveness, evocativeness, intensity and harmonizing power. It also arouses aesthetic pleasure and creates new wholes. Whereas, on the one hand, Salinger uses an image to reveal a complex personality, on the other, he uses it to explore the recesses of human experience at large.

Salinger uses an image in all its forms – visual, auditory, gustatory, tactile or olfactory. Salinger also uses an image in a synaesthetic way, which means, putting together of different modes of sensation. Salinger's synaesthetic imagery is found in sight-sound-motion, colour-light motion, sight-touch-motion, etc.,. Not only this, Salinger's use of empathic imagery is also remarkable. Empathy is a personal projection into the object under contemplation. In fact, we attribute our feelings and experiences to the object of our perception. Our contemplation gives rise to adjustment of motor and kinesthetic sensations. We derive aesthetic pleasure through the dynamic and kinesthetic process of empathy. As a matter of fact, the process of empathy goes unobserved. It exists in our mental life: it is the psychological process which enters into imagination. Salinger's empathic imagery ensures that he is capable enough of merging his personality into the object perceived. Salinger takes great pains to transmute his pictures alive into the hearts of his readers.

Salinger's images take in their purview both the vicious and the virtuous, the cruel and the comely, the pleasant and the unpleasant aspects of life. He is also fond of making the abstract concrete and personifying the abstractions like the painter or the actor. Salinger also uses his images for creating an effective atmosphere and background. These are the images which convey the heart-felt emotions and grief of the novelist himself.

Wilson Knight says, "Literature aims rather to raise sense-perception beyond itself or to realize the extra-sensory through the senses."<sup>80</sup> Fiction begins where factual truth ceases to be merely such and to exhibit a further truth, that is to say, the connection it has with the world of emotion, and its power to produce imaginative literature. Salinger establishes this connection with the world – whether it is nice or phony, through his images.

The most powerful image in Salinger's work is the image of the Fat Lady in "Zooney". Here it will be in proper fitness of things to quote from the imagery of the Fat Lady which comes towards the end of the story. In fact, the image of the Fat Lady refers to the impending fear of death :

He said to shine them for the Fat Lady. I didn't know what the hell he was talking about, but he had a very Seymour look on his face, and so I did not. He never did tell me who the Fat Lady was, but I shined my shoes for the Fat Lady every time I ever went on the air again --all the years you and I were on program together, if you remember, I don't think I missed more than just a couple of times. This terribly clear, clear picture of the Fat Lady formed in my mind. I had her sitting on this porch all day, swatting flies, with her radio going full blast from morning till night. I figured the heat was terrible, and she probably had cancer, and --- I don't know. <sup>81</sup>

The image of the tombstone bearing the obscenity in *The Catcher in the Rye* suggests that suicide itself will be a kind of ultimate recapitulation to the terrible physicality of life. It also suggests ironically the involvement of flesh at the very moment of abdication. Holden's falling on the ground due to nausea and faintness ironically suggests "the final fall" that marks the end of the descent. The carousel scene is an image of resurrection and spiritual bliss.

## Humour

Salinger's black humour in *The Catcher in the Rye* is in line with the native American tradition and it has resemblances with Mark Twain's humour produced in *Huckleberry Finn*. In fact, black humour has the occasional elements of irresponsibility, cruelty, despair and insanity. Salinger's black humour has all these essential ingredients which are copiously found in Wright Morris's *Ceremony in Lone Tree*, Joseph Heller's *Catch* and Ken Kesey's *One Flew Over the Cuckoo's Nest*. One significant illustration of black humour may be cited from *The Catcher in the Rye* as an illustrative specimen. Holden is wandering completely non-plussed in the streets after his departure from Antolini's apartment. He comes across a small vignette that seems to sum up the weird incongruities of modern life: "I passed thesetwo guys that were unloading this big Christmas tree off a truck. One guy kept saying to the other guy, 'Hold the sonuvabitch up: Hold it up, for Chrissake.'"

## Plot Construction

Salinger's technique of writing fiction is different from that of his predecessors in the sense that he is more concerned with giving effective and telling situations in his novels and short stories than constructing episodal plots. The plot in his novel—*The Catcher in the Rye*—is slender and can well be described within a few sentences. The time really taken to complete the novel is just forty-eight hours and the events which occur in Holden's life are not numerous. But the only three or four deciding situations in the novel are so effective that they carry their complete import to the reader. For the sake of compendium, it is not worthwhile to recall here the slender plot not only of *The Catcher in the Rye* but also of other stories. However, the focus of the discussion here is on Salinger's short stories, which, too contain so effective and telling situations that the narrative pattern in them appears to be just the recording of certain telling situations.

## Narration

Equally important aspect of Salinger's technique of patterns of narration in his works is that he lays sufficient emphasis on character-portrayal. But his technique of character-portrayal is not traditional in the sense that he does not deal with the full life-span of his protagonists in a chronological order. Since Salinger himself is the harbinger of New Yorker School of fiction writing in America, it is but natural that he dwells upon the technique of selecting only those situations which ultimately prove to be fatal, revealing and moulding. It is also worth-noting here that the more the powerful and effective a situation is, the more the awakened and enlightened his characters will become. In other words, the major function of dealing with chosen or selected situations in the life of a character is to plan the dawning of epiphany or the mental process of revelation which, in other words, means a kind of resurrection or involvement in the activities of life. It should prudently be noted that epiphany dawns on Holden three times and on all the three occasions, he, in fact, learns the deeper meaning of life. Likewise, Fenny receives epiphany two times and on both the occasions, she becomes much wiser than before. It is often said that the dawning of epiphany of Salinger's characters means a kind of end of the excruciating struggle for the attainment of any further spiritual bliss.

Another important aspect of Salinger's artistic technique of writing fiction is the introduction of diaries, letters, anecdotes and such other classical illusions. For example "Raise High the Roof Beam, Carpenters" begins with the questioning of Po Lo by Due Mu of Chin. It covers almost two pages of the story and it is not worth-while to quote the above tale in full for the sake of compendium. Subsequently in the same story, a letter is written to Buddy which almost covers two pages, from page 8 to 10. The entire story entitled "Seymour: An



Introduction'' is based on Seymour's entries in his diary and Buddy's going through those recorded entries in the diary. In "Franny", Franny writes a lengthy letter to Coutell Lane in the very beginning. For specimen's sake, the above letter may be reproduced below but only in parts :

So if I spell anything wrong kindly have the kindness to overlook it.  
Incidentally I've taken your advice and resorted to the dictionary a lot lately,  
so if it cramps my style you are to blame. Anyway I just got your beautiful  
letter and I love you to pieces, distraction, etc., and can hardly wait for the  
week-end.<sup>82</sup>

### Soliloquy

Salinger's technique of giving effect to soliloquy also adds to his craftsmanship as a great writer of fiction. His characters talk to themselves in a very thoughtful mood. The more his characters talk to themselves in privacy and solitude, the more they learn the real meaning of life. But Salinger's technique to include a soliloquy in his stories and novels is not to dramatize the personality of his characters but to explore the psyche of his protagonists. In a way, more than half of Salinger's "Seymour: An Introduction" is in the form of soliloquy. For instance, the following soliloquy is worth-noting as an illustrative specimen of Salinger's use of soliloquy in his works:

Yet even while I feel it, even while I go under with it, a certain conviction that I've had from the beginning remains intact, snug and dry. "Conviction" isn't the right word at all. It's more like a prize for the best glutton, for punishment, or a certificate of endurance. I feel I have a knowledge, a kind of editorial insight gained from all my failures over the past eleven years to describe him on paper, and this knowledge tells me he cannot be got at with understatement.<sup>83</sup>

### Diction

Salinger's diction is precise, conversational, technical and colourful. In fact, diction is closely related to the mental attitudes of an author. Recent researches into the domain of linguistics have revealed the fact that diction is an author's temperamental phenomenon. In syntax and semantics, diction works like a regulated index to study various facets of the personality of an author. Without delving deep into those linguistic intricacies, it will be appropriate and relevant here just to circumscribe our treatment only to Salinger's functional fiction insofar as it is concerned with the structural aspect of fiction writing. In this respect, if there is any singular characteristic feature in Salinger's diction, it is undoubtedly its conversational ease and particular colouring. Take, for example, the following specimen of conversational diction from Salinger's famous story named "Uncle Wiggily in Connecticut", in which Marry Lane and Romona, the two major characters, speak to each other with a very conversational ease :

"He won't talk to you," said Eloise.  
"Ramona, tell Marry Jane about Jimmy."  
"Tell her what?"  
"Stand up, please ... Tell Mary Jane  
How Jimmy looks."  
"He has green eyes and black hair."

“What else?”

“No mummy and no daddy.”

“What else?”

“No freckless.”

“What else?”

“A sword.”

“What else?”

“I don’t know,” said Ramona, and began to scratch herself again.<sup>84</sup> One of Salinger’s great achievements as a novelist is his artistic use of dialogues. In addition to the fact that his dialogues are crisp, terse, pointed and chiselled, they are also suggestive, philosophical, functional and technical. Because of the sheer force of his dialogues, Salinger has overawed his rivals also. But it is also a fact that Salinger uses two types of styles—one for earlier works and the other for his latter works as well as two types of dialogues which are distinctly recognizable. In his earlier short stories, Salinger’s dialogues are short, often using slangs and grammatically incorrect expressions. But his dialogues in *Franny and Zooey*, *Raise High the Roof Beam, Carpenters* and *Seymour: An Introduction* are not only lengthy, racy, and often redundant but also sometimes ambiguous, pedantic and philosophical. In order to make the difference intelligible, the first illustration given below is from Salinger’s famous story named “Just Before the War with the Eskimos”, in which Marry, Ramona, Eloise and Ginnie are talking to one another:

Ginnie hesitated. “Well, may be she was busy.”

“Yeah. Busy. Busy as a little goddam beaver.”

“Do you have to swear so much?” Ginnie asked.

“Goddam right I do.”

Ginnie giggled. “How long did you know her anyway?” she asked.

“Long enough.”

“Well, I mean did you ever phone her up or anything? I mean didn’t you ever phone her up or anything?”<sup>85</sup>

Now for, instance, take another example from “Zooey” in which Franny and Zooey look at the Fat Lady and at once start thinking rather pensively of the death, the ultimate reality in a man’s life. The dialogue that follows is philosophical, serious and of significant spiritual import:

Don’t you know that goddam secret yet?

And don’t you know—listen to me, now—

don’t you know who that Fat Lady really is?...

Ah buddy. Ah, buddy. It’s Christ Himself.

Christ Himself, buddy.”

For joy, apparently, it will and Franny could do to hold the phone, even with both hands. For a fullish half minute or so, there were no other words, no further speech. Then “I can’t talk any more, buddy.”<sup>86</sup>

Another important feature of Salinger’s artistic technique is that even of trite and commonplace things, he makes a minute description. Apart from narrating buildings, cities, domestic nature, streets and shops with an artistic touch of perfection, Salinger also narrates smaller and even less significant object with a sense and commitment of an artist. The *Catcher in the Rye* is a powerful novel from the point of view of narrative technique. Some critics treat his latter works particularly “*Seymour: An Introduction*” as significantly much weaker than

“Teddy” and “Fenny”. Nevertheless, Salinger’s powerful technique of narration is an artistic feat. The opening of Chapter XXV of *The Catcher in the Rye*, puts forth Holden’s contemplative nature with an amazing touch of minuteness together with description of all objects significant or insignificant, he comes across in the way:

When I got outside, it was just getting light out. It was pretty cold, too, but it felt good because I was sweating so much.

I didn’t know where the hell to go. I didn’t want to go another hotel and spend all Phoebe’s dough. So finally all I did was I walked over to Lexington and took the subway down to Grand Central. My bags were there and all, and I figured I’d sleep in that crazy waiting room where all the benches are. So that’s what I did.<sup>87</sup>

### Psycho-Analysis

Psycho-analysis of an adolescent also contributes to the growth of the central theme of Salinger’s artistic technique of writing fiction. David D. Galloway terms these adolescents as “the absurd heroes”. While dealing in detail with the adolescent heroes popularized by John Updike, William Styron, Saul Bellow and J.D. Salinger, Galloway probes deeper into the causes of depression these absurd heroes intensely suffer from. Lack of worldly wisdom, dream fantasy and utopianism, irritation and depression arising out of their failure to face the scathing challenges of life are some of the root causes which make these absurd heroes as rebels, non-conformists, adventurous and even valiant spokesmen of the poor class.<sup>92</sup> In fact, John Updike, William Styron, Saul Bellow and J.D. Salinger use the art of writing to portray the absurd man in four aspects: as saint, as tragic hero, as picaro and as seeker for love. In fact, by doing so, these great American novelists attempt to replace the lost values of orthodox Christianity with a new set of ethical values and deep-rooted belief by homocentric humanism. Salinger presents his adolescents as great seekers of love. In fact, Camus defines a meaningless world as absurd-world, in which everyman vainly struggles for unity. His heroes who are adolescents do their best to reject nihilism and orthodoxy. While doing so, Salinger’s heroes undergo various tests and trials with so many psychological stresses. Salinger shows his commendable understanding of psychology of the adolescent characters. Holden finds nice and phony worlds at considerable juxtaposition: for, the one is real, whereas the other is counterfeit. The phoniness of Hollywood and of religion are naturally revealed to Holden during the course of his attending the Christmas pageant :

All these angels start coming out of the boxes and every where, guys carrying crucifixes and stuff all over the place, and the whole bunch of them—thousands of them—singing “Come All Ye Faithful:” like mad. Big deal. It’s supposed to be religious as hell, I know, and very pretty and all, but I can’t see anything religious or pretty, for God’s sake, about actors carrying crucifixes all over the stage.<sup>88</sup>

Lionel Tannenbaum, Franklin Graff, Eloise, John Gedsudski, Esme, Sergeant X, De Daumier Smith, Teddy, Seymour—all are notable psychological studies immortalized by J.D. Salinger. Often Holden and Huck are compared and contrasted, but in this comparison and contrast too, it is ultimately Holden who outweighs Huck.

Salinger is, thus, a great craftsman and his literary output, taken as a whole, entitles him to a place to eminence amongst the New Yorker novelists of America. “Although Salinger’s total

creative production'', to ditto James E. Miller's opinion, ''to date has been relatively small, his impact and influence—and his artistic achievements have been enormous.''89

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## Legal Considerations in the Managerial Practices Pertaining to E-Commerce

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### Abstract

*There is a vast change in the managerial practices performed during the offline course of business as compared to E-commerce businesses. The competition has remarkably extended in the phase of E-commerce. Consumer need products readily available at the doorstep as per his choice. Most of the commodities and services are today covered under the ambit of E-commerce and rarely any business is an exception to E-commerce. Thus excellence in management practices is necessary in such a competitive business environment. The traditional practices like strategy planning, personnel organization, budget setting, etc have to be done more carefully leaving least legal complications in the E-commerce businesses. The transactions done online involve day to day dealing with retailers, customers, wholesalers, etc. through e-contracts. The mandate use of artificial intelligence, publicity through electronic platform etc requires the management practices to be evolved to meet the emerging needs in the global trade market without any advertent or in advertent non-compliance with the laws of the land. The better such companies address the legal repercussions; the better would be their score in Corporate governance and contribution in the national economy, and most importantly, the confidence of the general public. This paper examines the legal perspectives to make E-commerce related managerial practices more effective and transparent for achieving best results in an organisation.*

**Key-words:** Artificial Intelligence, E-commerce, Legal Perspective, Managerial Practices.

### Introduction:

With the advent of globalisation and internet, the world has experienced unprecedented developments leading to one change from the other and so on. This chain of unstoppable events led inter alia to changes in the way the people shop and buy goods and services. Likewise, there has been a significant change in the marketing system in India as elsewhere in the world. There has been steady – sometimes slow and sometimes rapidly, evolution of e-commerce industry since 1999. Evolution of day today technologies has compelled the industry to update itself not only for the growth but also to fit in the trending business changes. Online business has captured a substantial part of the old offline business markets. It not only inclined the business goons towards the online mode of selling and purchasing but also gives more opportunities of growth and thus attracting even the small and hitherto unknown traders to try their luck in the business ventures. It has been observed during the Covid-19 pandemic that even the small traders like your nearest Beetle leaf shops or the flour

chakki owners commenced selling and delivering the products at your doorstep through online mode, and now when the Govt has allowed selling products without any restrictions, they are still keen to stay on online mode of delivery.

The attraction towards what is called as online mode of business might be due to increasing quantum of customers, less physical interaction, no time constraints, etc. But the business, whether small, medium or large scale, requires skilled management practices. Once a company or individual enters into the paradigm of online business, cooperation and indulgence of many others is involved. They might be the aggregators, retailers, etc depending upon the type of business entity. For example, if one has to buy a set of Television, he can directly log on to the website of the brand which he wishes to purchase, or alternatively, can purchase it through the popular E-Commerce brands. E-commerce can be classified as under:-

1. Business to Business electronic commerce (B2B): In this type of electronic commerce two or more business entities interacts with each other directly or through an intermediary.
2. Business to Consumer (B2C): Such type of electronic commerce give option to consumers to browse, select and buy products online providing the goods at better prices and with lots of variety.
3. Consumer to Consumer (C2C): In type of electronic commerce opportunities are provided for traders of products and services among consumers who are connected through the Internet. Consumers can transact goods or services with other consumers through Internet.

Whatsoever is the e-business pattern the management practices have to be in place. These practices in turn, must have a clear vision of legal considerations that should be taken into account for the successful and smooth functioning of the business. To keep up pace with the emerging business trends, the old managerial practices and norms are required to be changed as may be required as per the time and place. The business managerial practices would include a mix of factors including planning, organization, staffing, direction, communication coordination and controlling. With the advent of e-commerce, these are in the process of change. The E-commerce has besides these, introduced other aspects like website interactions, security features, payment modes, customer care etc. To top it all, the biggest challenge today to satisfy the need of customers with least friction. Therefore the business policy of an enterprise should be such that it does not ignore and result in legal contradictions or violations later on. In the race to win the customers and capture the market the management must consider the related laws which are applicable to business generally and to its business specifically. Although majority of Indian population is relatively less concerned about the factors like privacy and measures taken towards security of their credentials and diligent application of laws by the e-commerce companies, it should not alter the fact that the E-commerce business should be duty bound to prevent acts or omissions pertaining to the violation of customer centric law application to them. Such instances shall lead to the dissatisfaction and ultimately lead to the bad publicity of the business. Howsoever fast is the growth of e business, it does not take much time to ruin the image of business if legal concerns are not properly addressed. The Websites of E-Commerce may or may not allow a fair system of customer reviews, but the people have fair social platforms like Google to give



their reviews about the business ,the products etc. Such use of social media for reviews is so rampant and voluminous, that even the question of it resulting in defamation and other legal consequences has become secondary. For purchasing something, people need a fair review, and here is a review of the product by say, 5000 persons. In this changed scenario, a proper business strategy is a must to avoid untoward legal consequences.

### **E-Commerce and related managerial practices**

E-Commerce is a wide term. It entails the case where you are selling your own product directly, and where you are selling other's product procured by you in your inventory, and the case where you are selling something as Aggregator, i.e. others are selling , and you are like an umbrella listing platform for products sold by different sellers selling directly or indirectly.

Whatever the case is, the management of E-Commerce has certain peculiar functions which are strikingly similar for most models. They are as under:-

#### **Planning**

*"Planning is deciding in advance what to do, how to do and who is to do it, it bridges the gap from where we are to, where we want to go hence planning is the continuous process"*

*-H.Koondz and CJ Odonnel*

Planning is the first step to be done by the management. Through this intellectual procedure a proper course of action is decided. A good planning results with the proper and full accomplishment of the objectives of a business organization. In e-commerce planning is one of the most important things. It is not restricted to hiring people and selecting the areas of business etc. Once we are selling anything online, certain key factors get involved and one of them is pricing. Same product is sold by various online companies offering different prices and at different rates of discounts.

For example:-

- 1.A company operating E-commerce business as aggregator sells a NCERT book online, and one of the seller on the website, which is having the scarcely available book in times of lock down is pricing it at ₹2000, when the original cost of which of the book was somewhere ₹50.
2. The product is priced at ₹100 and upon arrival it shows ₹110, which is shown as "surge price". In such cases the management is either transgressing the prevalent laws or ignoring the transgressing done<sup>1</sup> by a seller operating on its website. As is well said by Mr. Jeff Bezos, Owner of Amazon:-

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<sup>1</sup>Section 7 "consumer" means any person who— (i) buys any goods for a consideration which has been paid or promised or partly paid and partly promised, or under any system of deferred payment and includes any user of such goods other than the person who buys such goods for consideration paid or promised or partly paid or partly promised, or under any system of deferred payment, when such use is made with the approval of such person, but does not include a person who obtains such goods for resale or for any commercial purpose; or (ii) hires or avails of any service for a consideration which has been paid or promised or partly paid and partly

*"If you make customer unhappy in the physical world they might each tell 6 friends if you make customers unhappy on the Internet they can tell 6000 friends"*

Thus having disregard to laws does only dissatisfy and bring down the sales but also invoke certain provisions of the Consumer Protection Act 2019<sup>1</sup> under which the meaning of consumers include the online consumers as well not such type of instances can also invoke the violation of e-contracts and related provisions of Indian Penal Code.

### **Organization and Staffing**

Organising and staffing plays equally important role in e-commerce. To carry on the objectives of an enterprise, organization of people is required. Good teamwork leads to success and in case of ecommerce the selected personnel or staff must be having full knowledge of computers that is both software and hardware as a whole business is done with the help of computers only. The management must take care of cyber security and related offences.

For example:-A person purchasing or availing services online and paying through payment gateways, shares his vital financial information including bank details. Though the gateway is operated by a third party, it is the onerous responsibility of the primary vendor too to take care of the security of the data entered by the customer in every possible way. The information entered by the customer is disseminated in a way that many times it might be misused leaving no hope to the person of getting back his hard earned money due to the cyber crimes. The development of e commerce and IT industries has helped not only in the economic growth worldwide but also proliferated the rise in cyber crime. The need of the management in such cases is to have proper security system and proper training to the staff of cyber laws through cyber law enforcement agencies otherwise it would again invoke the related provisions of cyber and IT laws.<sup>2</sup>

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*promised, or under any system of deferred payment and includes any beneficiary of such service other than the person who hires or avails of the services for consideration paid or promised, or partly paid and partly promised, or under any system of deferred payment, when such services are availed of with the approval of the first mentioned person, but does not include a person who avails of such service for any commercial purpose.*

*Explanation.—For the purposes of this clause,— (a) the expression "commercial purpose" does not include use by a person of goods bought and used by him exclusively for the purpose of earning his livelihood, by means of self-employment;*

*(b) the expressions "buys any goods" and "hires or avails any services" includes offline or **online** transactions through electronic means or by teleshopping or direct selling or multi-level marketing;*

### **<sup>22</sup>Section 43 of IT Act 2000**

#### **Penalty and compensation for damage to computer, computer system, etc.—**

*If any person without permission of the owner or any other person who is in charge of a computer, computer system or computer network,—*

*(a) accesses or secures access to such computer, computer system or computer network or computer resource;*

## Direction and Communication

*“Your direction is more important than your speed”- Richard L Evans*

In case of ecommerce business quick directions are required. The management must have ability to take quick and on the spot directions. As per the market study conducted by the Competition Commission of India, on 30/08/2020, the discounting practices of large online platforms have emerged as a major point of contention. The defective and duplicate products are sold on heavy discounts by the aggregators which the company does not generally provide. It is difficult for the layman to identify the differences.

E-commerce Company can directly communicate with its customers through website. Sometimes, they have the option to chat and call. Thus direct communication helps in creating better understanding the problems are resolved very quickly with high level accuracy and reliability. But sometimes, it is found that when the “exchange or return” option or any complaint is made by customer, Instead of resolving it, the company closes the option or it is wrongly displayed that the issue is resolved and closed. Many times online companies don’t even maintain the option of directly contacting to it, or having the grievance cell. On the available customer care contact numbers, they have limited options of grievance. E.g. if the grievance pertains to the delivery agent having misbehaved or cheated, the said option is not even appearing in the drop down list of grievances. The only option in such cases is to leave

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*(b) downloads, copies or extracts any data, computer data base or information from such computer, computer system or computer network including information or data held or stored in any removable storage medium;*

*(c) introduces or causes to be introduced any computer contaminant or computer virus into any computer, computer system or computer network;*

*(d) damages or causes to be damaged any computer, computer system or computer network, data, computer data base or any other programmes residing in such computer, computer system or computer network;*

*(e) disrupts or causes disruption of any computer, computer system or computer network;*

*(f) denies or causes the denial of access to any person authorised to access any computer, computer system or computer network by any means;*

*(g) provides any assistance to any person to facilitate access to a computer, computer system or computer network in contravention of the provisions of this Act, rules or regulations made thereunder;*

*(h) charges the services availed of by a person to the account of another person by tampering with or manipulating any computer, computer system, or computer network;*

*(i) destroys, deletes or alters any information residing in a computer resource or diminishes its value or utility or affects it injuriously by any means;*

*(j) steal, conceal, destroys or alters or causes any person to steal, conceal, destroy or alter any computer source code used for a computer resource with an intention to cause damage; he shall be liable to pay damages by way of compensation to the person so affected.*

*Explanation.—For the purposes of this section,—*

*(i) “computer contaminant” means any set of computer instructions that are designed—*

*(a) to modify, destroy, record, transmit data or programme residing within a compute.*

the feedback, and there is very little likelihood of the company taking an appropriate action against a feedback. The customer is left helpless in such situation. Such practices frustrates the communication and violates consumer protection laws directly or indirectly. The management has to be alert of preventing such situation.

### **Controlling and Coordinating**

The management is required to have complete control over all the areas be it advertising, networking with retailers or any other specific functions. One of the apparent concerns regarding managerial practices is on increasing revenues in all the possible ways. Thus, increasing advertisement of the Website on various media, sending pop ups of the goods searched by a customer, putting advertisements of other entities on the website, emphasizing on unique characteristics of the Company e.g. on the fastest time of delivery etc. This too has a share of legal implications, which might range from nuisance to violations of copyright. The use of Artificial intelligence by the management of E-Commerce companies is swiftly progressing from limited to optimum. From the perspective of Companies it provides interface for many different aspects of ecommerce and help them automate frequently faced issues by customers. It has points of incidental legal repercussions. For example, there is a time limit window for replacement of defective goods, beyond which one cannot replace the defective goods. The duration of window will depend of policy of each Company, and may be there regardless of the position in law. For example, a Mobile set delivered without a battery has to be replaced as per the law of the country. The E-Commerce Company or the manufacturer cannot dictate that it has to be replaced within say three weeks. Such policies should be carefully put in place by the management with emphasis on compliance of what the legal position in the country is.

### **Conclusion and Suggestions**

It is imperative that there would be in place managerial practices in the E-Commerce today. How much effective and legally compliant is it as part of the economy is a consideration which is still establishing itself. The common man is diving the E-Commerce revolution. He is thus the main stakeholder for whom the whole system is designed. He may not have the time and knowledge of entering into the process of litigation, even at the platform of Consumer courts where the time and expenses are much lesser. But the awareness of legal rights is slowly and surely bringing a change in people's minds. Further, it is not just the individual who is the customer. Companies, organisations, etc., which usually have a formal legal adviser or cell are also the customers of E-Commerce services. Also, the Government agencies like SEBI, CCI, ED, Income Tax Department, GST Department etc. look into the modus operandi adopted by these Companies so far as it is relevant to their scope of work. Thus, having due regard with the legal framework is a prime duty of the management. It has to frame its policy in compliance with the customer centric legal provisions like, but not limited to Consumer Protection Act, 1986, Indian Contract Act, 1872, Indian Standards Institution (certification marks) Act, 1952; Prevention of Food Adulteration Act, 1954, Essential commodities Act, 1955, Prevention of Black-marketing and Maintenance of

Supplies of Essential Commodities Act, 1980, Standard of Weights and Measures (Enforcement) Act, 1985, GST Act, 2017, etc.

Besides these, the management has to keep into account the expectations of the various other stakeholders also. Accordingly, the laws relating to Fraud, bribery, Money laundering, Data protection, Environmental protection, Public health and safety should also be taken into account.

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## **A Study on Temperature and Humidity Monitoring System based on Wireless Sensor Networks (Leach Protocol)**

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### **Abstract**

*Wireless Sensor Network (WSN) use of in this study of temperature and humidity monitoring system calculate network wirelessly that yourself from a bunch node which is spread on an area certain. In order to solve this problem, combined with the wireless sensor network technology, based on the DigiXBee, according to the architectural characteristics and environmental parameters of ancient buildings, we designed and implemented a humidity monitoring system suitable for environment analysis. The hardware part designs the sensor nodes, and the software part designs the system's routing strategy. The sensor node in the system sends its own temperature, and humidity to the coordinator node through the wireless module. The coordinator node sends the collected data to the monitoring host through the serial port and displays it on the monitoring host software. The monitoring host can send these data to the mobile phone of the Android system through the communication network so that the monitoring personnel can understand the situation at any time. LEACH Algorithm is implemented on a system consisting from 9 sensor nodes and 1 sink node. Each sensor node carries out temperature monitoring and humidity surrounding.*

**Key-words:** Wireless Sensor Networks (WSN), ClusterHead(CH), DigiXBee , Mobile web application, Sink Node.

### **Introduction**

Science and technology are currently developing very rapidly, so is the case in the field of network technology. This technological development has made use of Wireless sensor networks are increasingly in demand as an environmental monitoring system.

Wireless Sensor Networks (WSN) is a wireless technology that consists of a collection of nodes sensors scattered in a certain area [1]. Each node has the ability to collecting data around it and communicating with other nodes [2]. Node is a basic functional unit of WSN, generally small in size. Each nodes consist of communication devices, computing devices, and sensors [3]. Third these components are used to scan, process the scanned data, and send data between nodes wirelessly. In general, WSN is often used to monitor the condition of the monitoring area and place of observers who are in a remote position. So it takes the media scanner in order to send data from the monitoring results. WSN implementation can be used in various fields with various monitoring objects such as temperature, sound, pressure, vibration, motion, etc. [4][5]. The main purpose of using WSN is maximizing so that environmental monitoring carried out can last in long time. This is done by minimizing energy use in a way to reduce the amount of communication between nodes without

compromising the purpose of transmission [6]. By therefore, it is necessary to use a routing protocol that functions to determine the best route which can be passed by the sensor node to the sink node so that more energy is used efficient. This research implements the LEACH routing protocol with a case study monitoring in the form of temperature and humidity so that the optimum method of time can be obtained living network. One of the main obstacles in implementing WSN is the carrying capacity of batteries is limited, so it can only support the transmission of limited amounts of data. Consumption energy in the network becomes important in order to increase network life time.

Various methods and algorithms in the routing protocol have been investigated to overcome various problems found in WSN [7]. One solution to overcome the problem of efficiency energy in designing WSN by using LEACH (Low Energy Adaptive Clustering Hierarchy) [8]. The LEACH routing protocol aims to reduce energy consumption in the network by dividing nodes into clusters small with each cluster having a Cluster Head that functions as collecting data from the sensor node and forwarding the data to the sink node so that energy which is used in networks more efficiently [8][9][10]. However, routing configuration settings The LEACH protocol for certain network configurations requires proper design, so this research is able to provide a preliminary picture for researchers who want to use the LEACH routing protocol.

## Method

**System Depiction Wireless Sensor Networks (WSN)** consists of several nodes that are connected inside a network. Each node consists of scanning, computing, and communication devices forming a unit to carry out their duties. For the WSN system to work, routing protocol is needed to map the best route that must be passed by the sensor node to go to the sink node. In WSN, sensor nodes play an important role because of data obtained and sent by the node. Each sensor node has limitations in terms of energy to maintain the network's life time. Therefore, the system is built-in this study is a wireless sensor network that implements routing LEACH protocol. LEACH is one of the hierarchical-based routing methods that aims to energy efficiency in the network by dividing *nodes* into clusters. LEACH Algorithm starts by selecting a *node* as *Cluster Head* (CH) then using the algorithm *clustering* chooses non-CH *nodes* as members to form clusters. This mechanism saves energy because only CH transmits data to the *sink node*, meanwhile each *sensor node* is enough to send data to each CH. As a result, energy consumption reduced so that the network life time is optimal. Block diagram of sensor network system built wireless can be seen in Figure 1

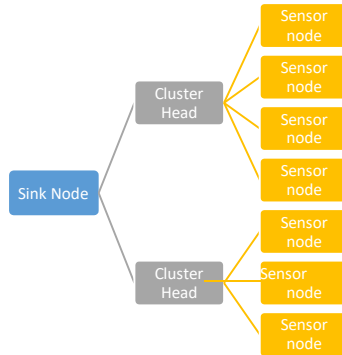


Figure 1: Block diagram of sensor network system

The system consists of one *sink node* and nine *sensor nodes* or ordinary called *node*. The role of the *node* is to scan data from the environment and transmit result data sensor readings to the *sink node*. In addition, the *node* also acts as a *relay* in the network whose job is to forward data from *node* to *sink node*, in this case referred to as *Cluster Head*. Each *node* has identical properties. The *sink node* acts as the centre

Data aggregation of all *nodes* on the network. Each *node* communicates by using a DigiXbee module with a range that is still in range. The process in forming a network using the LEACH routing protocol consists of

Twofold phases namely the *setup* phase and an *unvarying condition* in a *physical process*. The *set-up* phase is the formation phase cluster where in this phase the *Cluster Head* was chosen. Each *node* has a chance same to be *Cluster Head*. Determination of *Cluster Head* is determined based on random numbers that are raised by each *node*. After *Cluster Head* is selected in each cluster, each *node* chooses to join *Cluster Head* based on the signal strength it receives. After the *set-up* phase is finished, the process continues to the *steady-state* phase. In this phase, *node* - the *node* that joined the cluster each start scanning the environment. In this case, the scan is carried out on the temperature and humidity of the air. Data scan results obtained by each *node* are forwarded to each *Cluster Head*. Next *Cluster Head* collects data from all *nodes* in its cluster and sends that data to *sink node*. [8]

## Hardware Schema

System hardware consists of a *sink node* as a data collector and nine *sensor nodes* that work to form a wireless sensor network. *Sink node* consists from the Digi Xbee series 1 communication module as communication unit and microcontroller type Arduino Uno as a *processing unit* that processes data received from the *sensor node*. The *sensor node* hardware consists of the DHT11 sensor as a *sensing unit* subsystem, Arduino Uno as a *processing unit*, Digi Xbee series 1 module as a *communication unit*, and battery 9 volts as a *power unit*. Figure 2 shows the hardware block diagram of each *sensor node* and in Figure 3 shown the *sink node* hardware block diagram. [7]



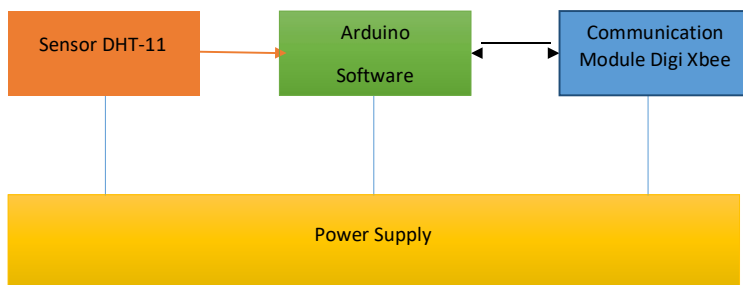


Figure 2:Block Drawing of Sensor Node

Each subsystem on sensor nodes and sink nodes has their respective functions in supporting system performance. In the sensing unit, the temperature measurement process occurs humidity around the node. The analogy signal from the sensing unit is processed by Arduino acting as a processing unit. The processes that occur in Arduino in the form of data conversion sensors from analogy data into digital data, forming system routes, and sending and receiving data to and from Digi Xbee as a communication unit.[5]

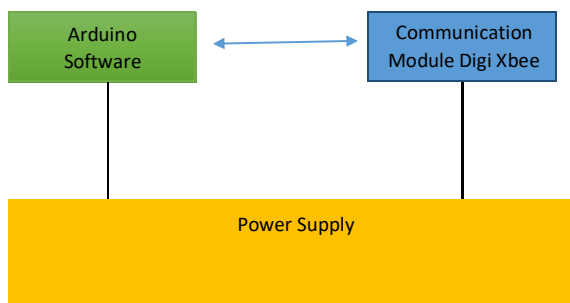


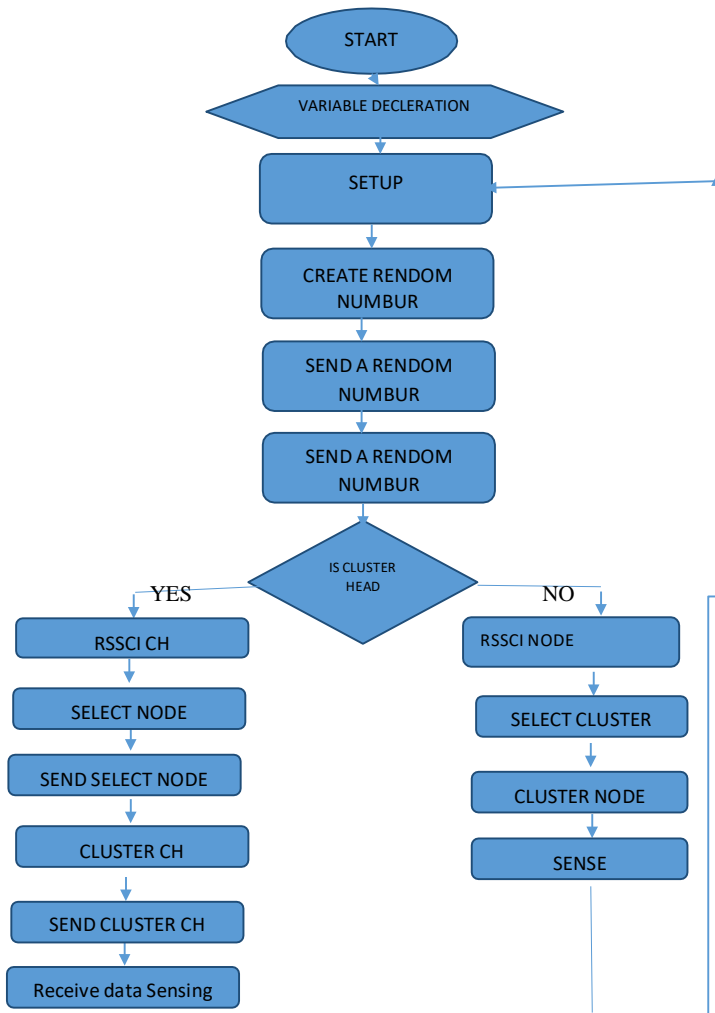
Figure 3: Block Drawing of Sink Node

DigiXbee functions as a transceiver module that sends and receives data on system. In order to operate, all three parts of the system must be equipped with a power unit to provide a voltage supply. At the sensor node, the supply voltage comes from the battery 9 volts, while the sink node supply voltage is obtained from the laptop using a USB connection.

### Software Structures

The system in this study uses the LEACH algorithm used as routing protocol on a wireless sensor network that monitors temperature and humidity. In this study the system consists of nodes and sink nodes. Software for all identical nodes, only has a difference in the identity of the node. Node software designed to be able to accept serial output inputs and control DigiXbee communication modules. Communication between these nodes uses the broadcast method. Broadcast is communication between nodes whose data transmission is intended for

all nodes that are in its range. Figure 4 shows the software flow diagram for the node. Unlike the node software, the sink node software is only run on a single node that functions as a central network that collects all data from all the nodes on the network. The process on the sink node starts with receiving data random numbers sent by each node on the network. Data received is displayed on Arduino IDE serial monitor. Next from the random number received, the sink node selects node which becomes Cluster Head. Cluster Head is chosen based on the smallest random number value received by the sink node. After the selected node becomes Cluster Head, the sink node sends the selected node data by means of broadcast to all nodes on the network. Furthermore, the sink node waits until the process sensing at the node is complete so that the sink node can receive sensing data. Sensing data results received next is displayed on the serial monitor. The process on the sink node is complete after all nodes on the network have become Cluster Head. Figure 5 shows the flow diagram of sink node software.



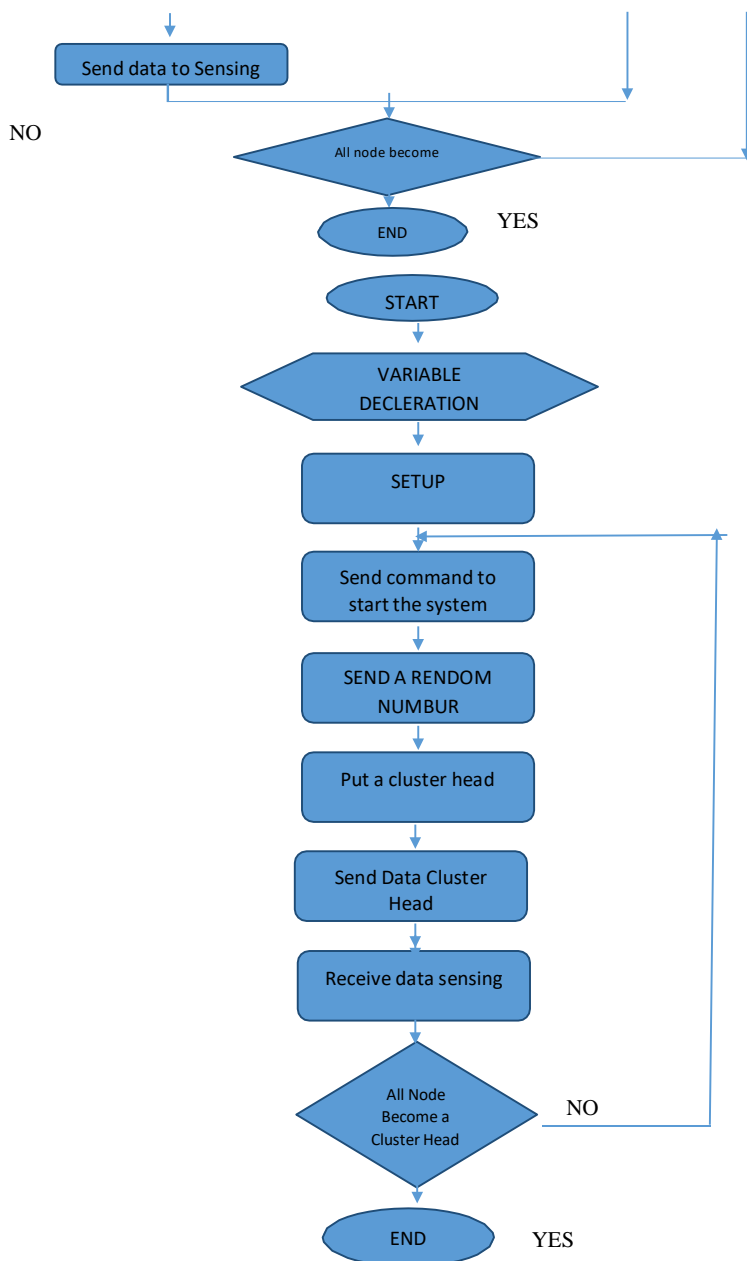


Figure 5. Data Flow Diagram software sink node

## Testing Scheme

The test was conducted to determine the ability of the wireless sensor network system by using the LEACH algorithm that was built by comparing the LEACH and non-LEACH algorithms of the system. In this test, variations in the number of sensing in one cycle for each node in the network are obtained in order to obtain the optimal amount of sensing to produce an optimal network life time. The test was carried out on a wireless sensor network system consisting of 10 nodes which included 9 sensor nodes and 1 sink node. The system is divided into two clusters, each consisting of 5 sensor nodes and 4 sensor nodes.

LEACH algorithm testing is done by running a wireless sensor network system consisting of 9 sensor nodes and 1 sink node. The network system created is divided into two clusters, each consisting of 5 sensor nodes and 4 sensor nodes. Testing is done in one room with the distance of each sensor node to the sink node of about 1 meter and the distance between nodes in a cluster of about 0.2 meters. The use of distances between nodes is made close enough that the data transmitted on the network always reaches the destination node. The use of distances between nodes that are too far away can cause data that does not reach the destination node, causing the system to stop.

In this LEACH algorithm, each cycle that takes place consists of several CH selection processes. The number of CH selections depends on the number of nodes in each cluster. Therefore, cluster 1 consists of 5 CH selection processes and cluster 2 consists of 4 CH selection processes. This LEACH routing protocol test aims to determine the maximum lifetime of the network created if using the LEACH routing protocol. This routing protocol is tested by varying the amount of sensing in each CH selection process. Variation in the number of sensing is done starting from 5 times sensing per process to obtain the optimal value of the number of sensing at intervals of 5 times sensing. The testing scheme carried out is presented in Table 1.

S. Nos.	Testing	Result
I	LEACH Algorithm	Know the maximum network lifetime with the optimal amount of sensing using the LEACH algorithm.
II	non-LEACH algorithm	Know the maximum network lifetime with the optimal amount of sensing using a non-LEACH algorithm

Table1. Testing scheme

## Results and Discussion

### LEACH Algorithm Test Results

Figure 6 shows the results of testing the LEACH algorithm. Figure 6 shows that increasing the amount of sensing in each CH selection process can cause the network life time to increase by up to 70 times the number of sensing per process and the network life time decreases when entering 75 the number of sensing per process. This shows that 70 is the optimal amount of sensing to obtain maximum life time on the network using the LEACH routing protocol. The optimal amount of sensing is obtained because with 70 sensing per CH selection process, one LEACH cycle can take place and also with 70 times the amount of sensing the system produces the maximum network life time. When the number of sensing is increased to 75 sensing per CH selection process, the network is inactive when it has not

reached one LEACH cycle. Also when the amount of sensing is increased to 75 sensing, the network life time decreases. On

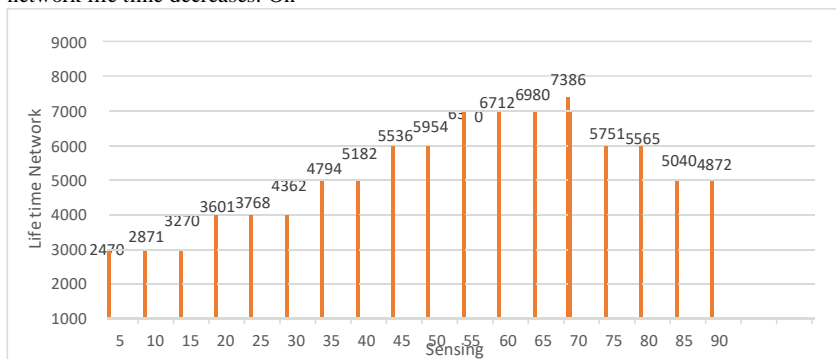


Figure 6. Graph of network life time for the amount of sensing in the LEACH algorithm

The results of this test indicate that the more the number of sensing in each CH selection process until one LEACH cycle takes place, the network life time increases. This is because the less the number of sensing per CH election process, the more frequent the clustering process is carried out, and conversely the more the number of sensing per CH election process, the less frequent the clustering process. This clustering process uses quite a lot of power on the network.

### Non-LEACH Algorithm Testing Results

Non-LEACH algorithm testing is done as a comparison of the LEACH algorithm which is a routing protocol on a network system that is made. The non-LEACH algorithm applied in this study uses an extended star topology. This type of topology is the development of star topology. If in the star topology all nodes in the network are connected directly to a central node, then in the extended star topology each node is not directly connected to the central node but is first connected to another node that functions as a link between the node and the central node. Traffic data on this topology flows from node to sub node and then forwarded to the central node.

As with the LEACH algorithm, testing on the non-LEACH algorithm is done by varying the amount of sensing in each CH selection process. Variation in the amount of sensing is done starting from 5 times to 70 times sensing per process with intervals of 5 times sensing. However, in this algorithm, the node that acts as CH is always fixed even though the clustering process is always done after each sensor node has sensed the specified number of variations. Figure 7 below shows the results of testing a network system using a non-LEACH algorithm as its routing protocol.

### Comparison of LEACH and non-LEACH Algorithms

A comparison between the LEACH and non-LEACH algorithms is given on the network life time comparison chart when using the LEACH and non-LEACH algorithm in Figure 7.

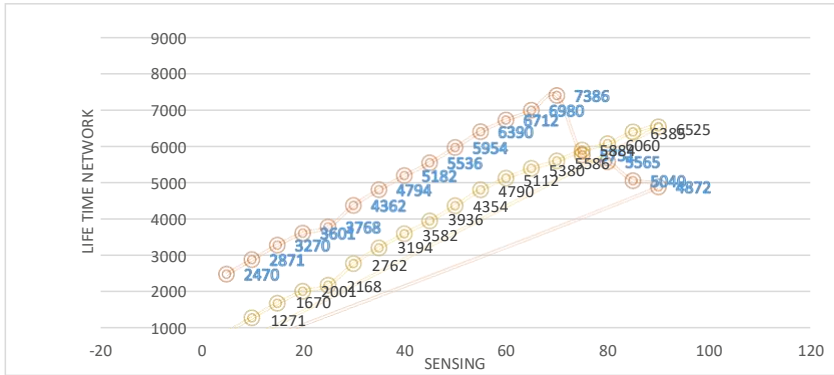


Figure7. Comparison graph of network life time using the LEACH and non-LEACH algorithms

The graph in Figure 8 shows that the network life time when using the LEACH algorithm is longer when compared to using a non-LEACH algorithm. When reaching the optimal point with 70 sensing times, the network life time when using the LEACH algorithm reaches 7,387 seconds, whereas with the same amount of sensing when using a non-LEACH algorithm, the network life time can only reach 5,565 seconds.

This shows that the use of the LEACH algorithm is superior to the non-LEACH algorithm. The advantage of the LEACH algorithm over the non-LEACH algorithm lies in its clustering process. In the LEACH clustering process, the node that acts as CH always changes so that the distribution of energy use in the network is more evenly distributed. This is different from what happens in non-LEACH algorithms where nodes that act as CH always remain as long as the network is active, so that energy in CH is quickly depleted and causes network life time is not long.

### Conclusion

Based on observations, testing, and analysis of the results obtained, it was concluded that the LEACH routing protocol on wireless sensor networks case studies monitoring temperature and humidity are superior to the use of non-LEACH algorithms. Algorithm testing is done by varying the number of sensing per CH election process and obtained 70 as the optimal number of sensing on the LEACH algorithm. The LEACH algorithm produces a network life time of 7,387 seconds with 70 sensing times, while the non-LEACH algorithm only produces a network life time of 5,565 seconds with the same amount of sensing.

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## Judicial Law-Making & the Separation of Powers

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### Abstract

*The power of law-making in India has essentially been given to the Parliament for the Country and Legislatures in case of States by the Constitutional Mandate. In the constitutional journey from the day India claimed sovereignty, there are many instances where Judiciary played a pro-active role, sometimes called 'Judicial Activism' while encroaching upon the fields demarcated between the three organs. Though, Indian Constitution doesn't contain a rigid Separation of Powers but the various provisions enshrined in the Constitution indicate towards the same. This paper seeks to analyse the Judicial Law-making in the light of Separation of Powers between Executive, Legislature and Judiciary.*

**Key-words :** Law, Constitution, Judicial-Law Making, Judicial Legislation, Separation of Powers, Judicial Review, Judicial Activism.

### Introduction

Generally, the courts apply pre-existing rules or statutes formulated by legislative bodies. At times, courts also interpret them, typically transforming the rules from generalities to specifics and sometimes filling gaps to cover situations never addressed by lawmakers when the legislation was first drafted<sup>i</sup>. As courts decide disputes in individual cases, they create an important by product—beyond peaceful settlements—that is, they develop rules for deciding future cases. In common law systems, such decisions are called precedents, and they are rules and policies with just as much authority as a law passed by a legislature. Thus, law is made not only by legislatures but also by the courts. The common law system of creating precedents is sometimes called stare decisis i.e. literally to stand by decided matters. This system of stare decisis is sometimes referred to as judge-made law.

### Meaning of Law

According to the most generally accepted definition, a 'law' is an imperative direction embodied in a Bill which has been debated and passed by a duly constituted Legislature or Parliament in the prescribed manner and assented to by the Head of the State, and is binding on every citizen, and which the courts charged with the duty of ensuring respect for law are bound to enforce<sup>ii</sup>. The term 'law' includes any ordinance, order, bye-law, rule, regulation, notification, custom or usage having the force of law<sup>iii</sup>.

### Meaning of Judicial Law-Making

Judicial legislation is nothing but law pronounced, proclaimed and declared by the judiciary—more particularly the Supreme Court, this is also known as "Judicial law" or "Judge-made law". Even though enacting legislation is the constitutional prerogative of the legislature. There may be circumstances where the existing laws made by the legislature prove to be inadequate in the process of administration of justice. In such situations, the directions issued by the higher judiciary, to fill the vacuum until the legislature enacts substantive law is also a



constitutional prerogative to meet the ends of the justice. Hence, to meet the needs of society, the Judges do make law and it is now recognised everywhere.

### Opinion of Thinkers

Austin did not find any difficulty incorporating judicial law making into his command theory. He characterized that form of law making, along with the occasional judicial recognition of customs by judges, as the “tacit commands” of the sovereign, the sovereign's affirming the “orders” by its acquiescence.

According to **Austin**, judicial law could be termed as any law which is made indirectly or in the way of improper legislation whether it proceeds from a sovereign or subordinate source. Austin recognized “judicial legislation as a subordinate source of law”. He accepted that at times judges do make law, but at the same time, he was of the view that judicial legislators legislate arbitrarily.

The great constitutional lawyer, **A.V. Dicey**, had a high opinion of judge-made law. In a lecture entitled “Judicial legislation”, which he published in 1905, Professor Dicey said: “Judicial legislation aims to a far greater extent than do enactments passed by Parliament, at the maintenance of the logic or the symmetry of the law”<sup>iv</sup>.

**Lord Nicholls**, a distinguished member of the House of Lords, which was the precursor of the Supreme Court, has stated: “The common law is judge-made law. For centuries judges have been charged with the responsibility of keeping this law abreast of current social conditions and expectations. That is still the position. Continuing but limited development of the common law in this fashion is an integral part of the constitutional function of the judiciary”<sup>v</sup>.

**Holmes, J.**, pointed out in *Southern Pacific Co. v. Jensen*,<sup>vi</sup> “I recognise without hesitation that judges do and must legislate, but they can do so only interstitially; they are confined from molar to molecular motions”.

**Justice Cardozo** said, “The theory of the old writers was that judges did not legislate at all. A preexisting rule was there, embedded, if concealed, in the body of the customary law. All the judges did was to throw off the wrappings and expose the statute to our view”<sup>vii</sup>.

**Bentham** and later **Gray**, asserted that judges produce law just as much as legislators do; and they even make it more decisively and authoritatively than legislators, since statutes are construed by the courts and such construction determines the true meaning of the enactment more significantly than its original text<sup>viii</sup>.

### Judicial Law-Making & the Constitution

The Constitution of India explicitly confers the power of judicial review in several articles such as Arts. 13, 32, 131-136, 143, 226 and 246, though not explicitly mentioning the term ‘Judicial Review’. Further, under Art. 141, the Supreme Court has the power to declare any law which has the force of an authoritative precedent for all other courts. Under Art. 142, the Supreme Court is entitled to pass any decree, or make any order, as it necessary for doing complete justice. A cumulative effect of all these provisions makes it abundantly clear that the judiciary in India has vast powers under the Constitutional scheme which it uses to justify Judicial Law-Making.

**Bhagwati, J.**, in one of his speech remarked that:

*It is recognised on all hands that Judges do not merely discover law, but they also make law... Even when a judge is concerned with interpretation of a bill of rights or a statute, there is ample scope for him to develop and mould the law. It is he who infuses life and blood into the dry skeleton provided by the legislature and creates a living organism appropriate and adequate to meet the needs of the society and by thus making and moulding the law, he takes part in the work of creation and this is much more in the case of interpretation of the Constitution... Greatness on the Bench lies in creativity and it is only through bold and imaginative interpretation that the law can be moulded and developed and human rights advanced... To meet the needs of the society, the Judges do make law and it is now recognised everywhere that Judges take part in this law-making function and, therefore, Judges make law<sup>x</sup>.*

### **Judicial Law-Making in Practice**

Though in certain cases, the courts in India have refused to accept that in judicial process the judges do make law. However, there are many instances which clearly depicts that judges in India have indulged in lawmaking, though such lawmaking is not at par with the legislature's power to enact law. The instances of both kind can be termed as Pro-Active Role and Self-Restraint.

#### **Pro-Active Role**

It may be noted that the Courts has on several occasions issued directions, directives in respect of those situations which are not covered by any law or there exist imperfections in law to fill-up the void created by statutes.

In *Vishaka v. State of Rajasthan*,<sup>x</sup> the Court recognising the International Conventions and norms such as the International Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), interpreted gender equality of women, in relation to work and held that sexual harassment of women at the workplace is against their dignity and violative of Articles 14, 15(1), 19(1)(g) and 21 of the Constitution of India. The Court opined that Section 354 IPC, 1860 were to be referred in any case of sexual harassment but these provisions were not specific to the issue at hand. This resulted in the Supreme Court's elaborate guidelines to keep a check on sexual harassment at workplaces. The Court stated that the guidelines are to be treated as a declaration of law in accordance with Article 141 of the Constitution until Parliament legislates on the subject These guidelines served their purpose for 15 long years until the enactment of the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013.

In *Laxmi Kant Pandey v. Union of India*,<sup>xi</sup> the Court issued directions regarding the procedure and the necessary precautions to be followed in adoption of Indian children by foreign adoptive parents.

In *D.K. Basu v. State of W.B.*,<sup>xii</sup> the Court issued a list of 11 guidelines regarding the arrest of a person which were to be followed by the police before proceeding to an arrest. This case introduced "custody jurisprudence" in India. The Court also held that failure to comply with these guidelines invites not only department actions but also contempt of court proceedings against the officers.

In *Prakash Singh v. Union of India*,<sup>xiii</sup> the Court, so as to ensure police accountability, issued time bound directions ranging from the Constitution of State Security Commission, Selection and minimum tenure of the DGP and IG's, Separation of Investigation and Law &

Order Functions, Constitution of Police Establishment Boards, Police Complaints Authority and the formation of National Security Commission.

In *Re Destruction of Public & Private Properties v. State of A.P.*<sup>xiv</sup> the Court taking a serious note of various instances where there was large scale destruction of public and private properties in the name of agitations, bandhs, hartals and the like, issued wide guidelines to effectuate modalities for preventive action and for adding teeth to investigation inquiry.

In *Sahara India Real Estate Corp. Ltd. & Ors v. Securities & Exchange Board of India & Anr.*,<sup>xv</sup> a new constitutional doctrine of ‘postponement of publication’ was propounded by the constitutional bench to keep a check on trial by media.

In *People’s Union for Civil Liberties v. Union of India*,<sup>xvi</sup> The Supreme Court had asked the Government to distribute food grains rotting in government godowns for free to the poor and hungry. Besides this, the Court “suggested that the Government should increase the quantity of food supply to the people living below poverty line (BPL); (ii) the Government should open the fair price shops for all the 30 days in a month; (iii) the Government should construct at least one large Food Corporation of India godown in every State and also consider the possibility of constructing a godown in every division of every State if it was not possible to do so in every district.”

#### *People’s Union for Civil Liberties v. Union of India*<sup>xvii</sup>

The People’s Union for Civil Liberties an NGO, filed a public interest litigation under Article 32 of the Constitution to challenge the constitutional validity of Rules 41(2) and (3) and 49-O of the Conduct of Elections Rules, 1961, challenging the provision in which one wishing not to vote for any candidate had to inform the Presiding Officer. On 27-9-2013, this was held ultra vires by the Supreme Court under Article 19 of the Constitution (protection of certain rights regarding freedom of expression) and Section 128 (maintenance of secrecy of voting) of the Representation of the People Act, 1951. The Court also directed the Election Commission to make the necessary provisions in ballot papers and electronic voting machines (EVMs) to provide a “None of the Above” option for voters, this was to enable voters to exercise their right not to choose a candidate while maintaining their right to secrecy.

The Supreme Court in *Paramvir Singh Saini v. Baljit Singh*,<sup>xviii</sup> directed States and Union Territories Governments to look into the compliance on the directions issued in *Shafhi Mohammad v. State of H.P.*<sup>xix</sup>, which directed installation of the cameras with audio devices at the police stations in their State. Further, the Court held that CCTV footage shall be preserved for a certain minimum time period, which shall not be less than six months, and the victim has a right to have the same secured in the event of violation of his human rights.

#### **Self-Restraint**

However, despite the cases where Judges came forward to make a Rule/law by utilizing their Judicial decisions, there are also instances where the same judiciary have exercised self-restraint in many cases.

In *Rajeshwar Prasad v. State of West Bengal*,<sup>xx</sup> it was stated that “no doubt, the law declared by this court binds Courts in India but it should be remembered that this court does not enact”. In *Union of India v. Deoki Nandan Agarwal*,<sup>xxi</sup> it was observed, “...The Court cannot rewrite, recast or reframe the legislation for the very good reason that it has no power to

legislate. The power to legislate has not been conferred on the courts...Courts shall decide what the law is and not what it should be...”.

In *Vemareddy Kumaraswamy Reddy v. State of A.P.*,<sup>xxii</sup> it was observed that : The Judges should not proclaim that they are playing the role of a lawmaker merely for an exhibition of judicial valour. They have to remember that there is a line, though thin, which separates adjudication from legislation. That line should not be crossed or erased. This can be vouchsafed by an alert recognition of the necessity not to cross it and instinctive, as well as trained reluctance to do so.

In *Divisional Manager, Aravali Golf Club & Anr. v. Chander Hass & Anr.*,<sup>xxiii</sup> Markandey Katju, J., observed that, “if there is a law, judges can certainly enforce it, but judges cannot create a law and seek to enforce it”.

In *V.K. Naswa v. Union of India*,<sup>xxiv</sup> the Court observed that it is crystal clear that the Court has a very limited role and in exercise of that, it is not open to have judicial legislation. Neither the Court can legislate, nor it has any competence to issue directions to the legislature to enact the law in a particular manner.

### Judicial Law-Making V. Separation of Powers

Indian Constitution does not strictly accept the concept of separation of powers, as laid down in *Rai Sahib Ram Jawaya Kapur v. State of Punjab*<sup>xxv</sup>. It has not indeed recognised the doctrine of separation of powers in its absolute rigidity<sup>xxvi</sup> but the functions of the different parts or branches of the Government have been sufficiently differentiated<sup>xxvii</sup>. Hence, the judiciary to indulge in lawmaking is to overstep its limitations<sup>xxviii</sup>. Moreover, allowing an unelected body like the judiciary to share the burden of lawmaking is always criticised as it is extraneous to that of the people’s will.

Judicial legislation for the first time was checked by a 7-Judge Bench decision in *P. Ramachandra Rao v. State of Karnataka*<sup>xxix</sup>, wherein the Court held that giving directions of a legislative nature is not a legitimate judicial function.

Even in *Bachan Singh v. State of Punjab*,<sup>xxx</sup> a five-Judge Bench headed by Y.V. Chandrachud, C.J. held that “We must leave unto the legislature, the things that are the legislature’s. ‘The highest judicial duty is to recognise the limits on judicial power and to permit the democratic process to deal with matters falling outside of those limits.’” Even with regard to Vishaka Guidelines<sup>xxxi</sup>, the Court expressed its concern much later<sup>xxxii</sup> on being an interim Parliament.

However, in many PILs, the courts freely decree rules of conduct for government and public authorities which are akin to legislation. Such exercises have a little judicial function in them. Its justification is that the other branches of Government have failed or are indifferent to the solution of the problem. Sometimes failing to circumspect and understand the thin line between law and governance<sup>xxxiii</sup>.

Hence, allegations are made now and then on the judiciary in general and the Supreme Court in particular that it has entered into the domain of the legislature and “taken over” the administration of the country. But, analysing various judgments of the Supreme Court, underlying reasons for expanding judicial review and its legitimacy can be understood.

The Judge-made law can be validated when there is serious lacuna or vacuum which has to be filled and left unattended by the legislature, as even “Judges cannot afford to be timorous

souls. They cannot remain impotent, incapable and sterile in the face of injustice”<sup>xxxiv</sup>. Laws enacted need to fulfil the needs of the people, with changing time, expanding the scope of existing provisions in the Constitution is also legitimate. For instance, in *Maneka Gandhi v. Union of India*<sup>xxxv</sup> and *K.S. Puttaswamy v. Union of India*<sup>xxxvi</sup> scope of Article 21 is expanded manifoldly and new dimensions were mandated by the Court. Moreover, it is a Constitutional Obligation of the Court to ensure justice is delivered. It is only the tradition that Judges ‘find’ and do not ‘make’ law<sup>xxxvii</sup>. Hence, by interpretative technique, the Judges not only make and state what the law is but they also assert what it ought to be<sup>xxxviii</sup>. Adding/subtracting legislation in the name of interpretation can be categorised as illegal. Even an order “to do complete justice” under Article 142 cannot be “inconsistent with the substantive provisions of the relevant statutory laws”<sup>xxxix</sup>.

### **Dichotomy of Opinion: Activist V. Conservative**

There are two kinds of opinion regarding the Judicial Law-making, the Activist approach acknowledges that the Judges have the power to interpret the constitutional and statutory provisions in such a way to meet the pressing demands of the society, with regard to fundamental human rights and duties in form of making guidelines or rules or any kind of relief. However, the Conservative approach refrains itself from any such interpretation irrespective of the contemporary societal conditions and leaves the law-making to the proper channel.

### **Reasoning from Activist Judges on Judicial Law-Making**

#### **Justice V.R. Krishna Iyer<sup>xi</sup>**

“The Judge is not a mimic. The greatness of the Bench lies in creativity....To meet the needs of the society, the Judges do make law and it is now recognised everywhere that Judges take part in this law-making function and, therefore, Judges make law.”

#### **Justice P.N. Bhagwati<sup>xii</sup>**

“There is no need for Judges to feel shy or apologetic about the law creating roles....Lawmaking is an inherent and inevitable part of the judicial process....There is bound to be a gap between the generalities of law and the specifics of life...thus making and moulding the law he takes part in the work of creation.”

#### **Justice K. Ramaswamy<sup>xiii</sup>**

“The role of the Judge is not merely to interpret the law but also to lay new norms of law and to mould the law to suit the changing social and economic scenario to make the ideals enshrined in the Constitution meaningful and a reality.”

#### **Justice Kurian Joseph<sup>xiii</sup>**

“I would like to sum up stating that judicial legislation is not necessarily an innovative role of an activist Judge, it is the solemn duty or role or function of Judge who has taken oath under the Constitution of India to uphold it.... He shall not non-suit a person crying for justice taking a technical approach that there is no enacted law to be applied in the given circumstances.”

### **Reasoning from Traditional Judges on Judicial Law-Making**

#### **Justice Pathak<sup>xiv</sup>**

“The Court must never forget that its jurisdiction extends no farther than the legitimate limits of its constitutional powers and avoid trespassing into political territory ... excessively

political role identifiable with political governance betrays the Court into functions alien to its fundamental character, and tends to destroy the delicate balance envisaged in our constitutional system between its three basic institutions”.

**Justice Y.V. Chandrachud<sup>xlv</sup>**

“The highest judicial duty is to recognise the limits on judicial power and to permit the democratic processes to deal with matters falling outside of those limits.”

**Justice MarkandeyKatju<sup>xlvi</sup>**

“Judges ought to know their limits and must not try to run the Government; they must have modesty and humility, and not behave like emperors.”

**Justice S.B. Sinha<sup>xlvii</sup>**

“The courts must exercise judicial restraint in this connection. The tendency in some courts/tribunals to legislate or perform executive functions cannot be appreciated. Judicial activism in some extreme and exceptional situation can be justified, but resorting to it readily and frequently, as has lately been happening, is not only unconstitutional, it is also fraught with grave peril for the judiciary.”

**By comparing traditional and activist Judges**, we can come to a conclusion that even in traditional Judges there is acceptance to judicial legislation to some extent, and which some Judges term it as legitimate judicial legislation<sup>xlviii</sup>. Nonetheless, when it comes to the vacuum which needs to be filled, Judges did not hesitate in using their legislative powers. At the same time when there is a blank wall, courts were not reluctant to lay new doctrines/guidelines to cross the obstacles. The fundamental difference is that there is a tendency amongst activist Judges to pass orders which tend to cobble with policy decisions and lay guidelines which are sometimes against the statute laid. While traditional Judges refrain to comment on policy decisions and passing orders when there is a statute even sometimes ineffective to meet the needs. **Recently**, the incumbent CJI Ramana in a Conference remarked that “Constitution provides separation of power among three organs and the harmonious function between three organs strengthens democracy. While discharging our duty, we should be mindful of Lakshman Rekha”<sup>xlix</sup>.

The CJI also stated that decisions of the court aren't implemented by the government for years. “There's deliberate inaction despite judicial pronouncements that aren't good for country. Although policymaking is not our domain, if a citizen comes to us with their grievances then court can't refuse,” he said<sup>l</sup>.

**Criticism of Judicial Law-Making by other Organs**

For instance, if we look at the Supreme Court's order in *People's Union for Civil Liberties v. Union of India*<sup>li</sup> against corruption in the Food Corporation of India, the then Union Agriculture Minister, Sharad Pawar reacted<sup>lii</sup> by saying that it was not possible to implement the “suggestion” made. The Supreme Court made it very clear that it did not make a “suggestion to the Government; it was an “order”<sup>liii</sup>. The then Prime Minister Manmohan Singh said that the Supreme Court should refrain from interfering in policy issues<sup>liv</sup>.

Even former Union Finance Minister, Mr Arun Jaitley vehemently criticised on this issue. In his words: I have often heard (the) argument that judicial activism is born out of a phenomenon that when other institutions are not doing their job, somebody has to fill the gap. It is a flawed argument. It is flawed because if any organ of the State is not doing its duty, it can be directed to do its duty. Usurpation of power... by any other organ would never be the correct constitutional approach. What if the same argument was used the other way round

against the judiciary? Arrears are pending, Judges are not doing the job. So must somebody step in and now exercise that power? The answer is no... And therefore, it is extremely important that the dividing line on separation of powers is maintained. And therefore, by creating arguments, the thin dividing line itself cannot be lost<sup>iv</sup>.

Arun Jaitley also criticized Judiciary when the Apex Court delivered its Judgement on the constitutionality of 99<sup>th</sup> Constitutional Amendment which provides for the constitution of NJAC for Appointments and Transfer in Higher Judiciary by saying "Indian democracy cannot be a tyranny of the unelected and if the elected are undermined, democracy itself would be in danger<sup>lvi</sup>.

## Conclusion

Law-Making is the Constitutional Prerogative of the Parliament in India but filling up the void while interpreting the statutory provisions is the obligation of Judiciary to effectively pronounce judgments. The Parliamentary Law-Making is based on apprehensions and it may not be absolutely applicable on the facts and circumstances of the case, while the Judicial Law-Making develops out of the facts and circumstances itself which could have a higher applicability. Overall, the Judicial Law-Making does not encroaches upon the legislative wing when it exercises its powers legitimately and with the confidence of the general conscience of the people. Parliament haven't failed in exercising its powers as it's not feasible for it to enact a law on every subject and that's why there is the need of Judicial Law-Making but in a controlled organized and constitutional way. However, the Judiciary may approach a legally legitimate way by directing/recommending the legislative functionaries for a particular law-making, in case of emergency, the judiciary shall ask the executive for an ordinance.

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<sup>i</sup>Nick Robinson, "Structure Matters: The Impact of Court Structure on the Indian and U.S. Supreme Courts", 61 *American Journal of Comparative Law* 101 (2013).

<sup>ii</sup> S.L.Shakdher, *The Process of Legislation* 3(2<sup>nd</sup> Edn., 1967).

<sup>iii</sup> The Constitution of India, Art. 13(3).

<sup>iv</sup> A V Dicey, *Lectures on the relation between Law and Public Opinion in England during the Nineteenth Century* 362 (1905).

<sup>v</sup> *In re Spectrum Plus Ltd.*, (2005) 2 AC 680, para 32.

<sup>vi</sup> (1916) 244 U.S. 205 at 211.

<sup>vii</sup> Benjamin N. Cardozo, *The Nature Of The Judicial Process* 124-125 (Yale University Press, U.K, 1961).

<sup>viii</sup> John Chipman Gray, *Nature And Sources Of The Law* 93 (Beacon Press, Boston, 1963).

<sup>ix</sup> Justice P.N Bhagwati in his address on the 'Domestic Application of Human Rights Norms', cited in *University of Kerala v. Council of Principals of Colleges, Kerala & Ors.*, (2010) 1 SCC 353.

<sup>x</sup> (1997) 6 SCC 241.

<sup>xi</sup> (1987) 1 SCC 66.

<sup>xii</sup> (1997) 1 SCC 416.

<sup>xiii</sup> (2006) 8 SCC 1.

<sup>xiv</sup> AIR 2009 SC 2266.

<sup>xv</sup> 2012 (8) SCALE 541.

<sup>xvi</sup> (2010) 14 SCC 611.

<sup>xvii</sup> (2013) 10 SCC 1.

<sup>xviii</sup> (2021) 1 SCC 184.

<sup>xix</sup> (2018) 5 SCC 311.

<sup>xx</sup> AIR 1965 SC 1887.

<sup>xxi</sup> 1992 Supp (1) SCC 323.

<sup>xxii</sup> (2006) 2 SCC 670.

<sup>xxiii</sup> (2008) 1 SCC 683 at 692.

<sup>xxiv</sup> (2012) 2 SCC 542.

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- xxix (2002) 4 SCC 578.
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## **Managing Detection of Parasitic Diseases in Animals: Conventional Versus Molecular Assays**

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### **Abstract**

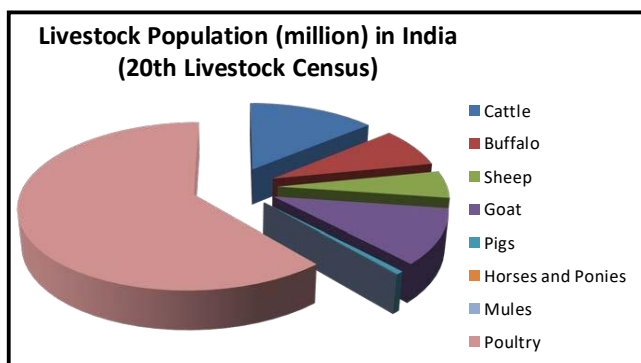
*Profitable livestock farming implies improved health, production and effective management of animals. However, to maintain continuous productivity of animals it is essential that they remain free of bacterial, viral and parasitic diseases. The conventional techniques like microscopy and laboratory examinations are considered the gold standard for the diagnosis of parasitic diseases. But factors like less sensitivity and specificity are a big impediment in relying solely on them. Molecular techniques on the other hand are fast, sensitive and specific and hence are gaining more attention. The applications of nucleic acid detection are many and include diagnosis of many parasitic infections, identification of new parasites and identification of a pathogen in mixed infections, diagnosis of the infection after anti-parasitic therapy, identification of virulence and resistance genes, in epidemiological studies, analysis of population genetic structures, gene expression and organization and vaccine development.*

**Key-words:** Livestock, Parasitic diseases, Diagnosis, Molecular assays

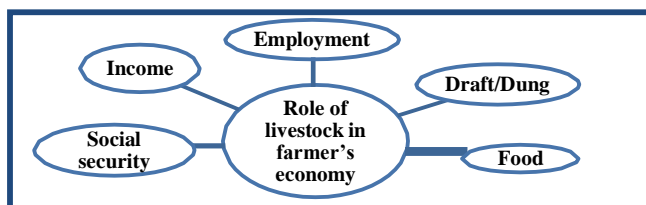
### **Introduction**

India is an agro based country where about more than 65% population is rural and depends directly on agriculture and allied fields like horticulture and animal husbandry. Agriculture along with animal husbandry is the backbone of Indian economy. The livestock sector contributes 4.11% of the gross domestic product and 25.6% of the full agricultural GDP (<https://vikaspedia.in>). Livestock provides livelihood to two-thirds of the agricultural community. It also provides employment to about 8.8% of the population in India. These estimates highlight the significant contributions of livestock to sustainable agricultural development and food security. As per the 20th Livestock Census (2019), the total livestock population in India is 536.76 million which is the world's highest. Rearing of livestock provides a regular source of income. Animals are an important source of nutrient-rich food products like milk and meat. They also serve as a source of draught power. The dung is used as organic manure and domestic fuel. Besides, hides obtained from animals are a regular source of income for rural household's especially marginal farmers. They are a natural

capital, which can be easily reproduced to act as a living bank with offspring as interest, and an insurance against income shocks of crop failure and natural calamities (Birthal, 2008).



Source: <https://dahd.nic.in>



Profitable livestock farming implies improved health, production and effective management of animals. However, to maintain continuous productivity of animals it is essential that they remain free of bacterial, viral and parasitic diseases. Parasitic diseases in animals constitute a considerable economic burden in many countries throughout the world (Chincarini *et al.*, 2022). Although, parasitic diseases are rarely fatal, however, the long term debilitating effects of these infections assume greater importance in terms of production losses they cause to livestock industry. Therefore, unequivocal detection of these chronic infections is important in designing appropriate control measures.

The laboratory diagnosis of these parasitic infections can be done by direct detection of the parasite by microscopy/ parasitological methods; detection of protein component of the parasite with help of specific antibodies (antigen detection); detection of parasite specific IgA, IgM and IgG antibodies directed against a given parasite and changes in their antibody titer (antibody detection); cell mediated immunity assessment and specific detection of nucleic acids of the parasites by molecular methods.

## Various Diagnostic Tools for the Detection of Different Animal Parasitic Diseases

### Microscopy/ Parasitological Methods

Microscopic diagnosis of parasites has been in practice for the last several decades (Momcilovic *et al.*, 2019). The parasitic diseases are detected through examination of faecal samples for the presence of various stages like eggs/cysts/oocysts/segments as in case of

helminth parasites/some gastrointestinal protozoan parasites or through examination of blood/lymph node aspirate/cerebrospinal fluid/bone marrow/tissue samples for the presence of whole parasites or developmental stages as in case of blood parasites/some helminth parasites. However, the accurate diagnosis relies on a qualified doctor or else misdiagnosis can affect the treatment and management of patient. This warrants other sensitive diagnostic tools to be used for diagnosis.

### **Serology-based Assays**

The serological based tests can be antigen –based assays or antibody-based assays. These are more sensitive and specific and are used under conditions when obtaining a biological sample is difficult or the animal exhibits low-parasitemia and/or who are asymptomatic. Some of the commonly used serological diagnostic tools include ELISA (enzyme-linked immunosorbent assay), FAST-ELISA (Falcon assay screening test), Dot-ELISA or Dipstick, RIPA-ELISA (radioimmunoprecipitation assay), DFA or IFA (direct or indirect immunofluorescence assay), Immunoblot, DHA or IHA (direct or indirect hemagglutination assay), CF test (complement fixation test), Luciferase Immunoprecipitation System (LIPS) and RDT (rapid diagnostic test).

### **Molecular-based Assays**

Molecular biology has brought a revolution in every walk of life and it has provided many areas of veterinary sciences with powerful new tools that can be used to advance our basic understanding of biological systems and improve health. During the last few decades, the diagnosis of parasitic disease has begun to include the use of nucleic acid-based technology. Despite the delayed start of developing these assays for parasitic diseases, further progress in this regards has been rapid. The nucleic acid methods are much better than conventional techniques which are being utilized for the diagnosis of various parasites. The DNA technology has had a major impact in many areas of parasitology, including the detection and taxonomy of parasites, the epidemiology of parasites, the analysis of population genetic structures, gene expression and organization, the study of drug resistance and vaccine development (Ruenchit, 2021). Molecular assays are considered better than traditional methods of parasitic disease diagnosis as they have increased sensitivity and specificity. However, standardization of these assays is difficult along with the costs and requirement of trained personnel. Some of the various DNA based assays being used for parasitic disease diagnosis include PCR (polymerase chain reaction), RT-PCR (real-time polymerase chain reaction), QT-NASBA (quantitative nucleic acid sequenced-based amplification), RT-QB-NASBA (real-time quantitative nucleic acid sequenced-based amplification), LAMP (loop-mediated isothermal amplification), Luminex, PCR-ELISA, OC-PCR (oligochromatography Polymerase chain reaction) and Mass Spectrometry {LDMS (laser desorption mass spectrometry), MALDI-TOF (matrix-assisted laser desorption/ionization time of flight), SELDI-TOF (surface-enhanced laser desorption/ionization time of flight)}.

**Table1: Comparison of different methods used for diagnosis of parasitic disease** (Jabbar *et al.*, 2005; Verma *et al.*, 2018)

	Method	Advantages	Disadvantages
CONVENTIONAL	1. Microscopic/ Parasitological examination	Simple, direct detection of parasite	Slow, laborious and tedious, requires high level of parasites for good sensitivity, cannot differentiate morphologically similar organisms, requires experienced personnel
	2. Immunodiagnostic Assays	Simple, fast, automatable, appropriate for screening large number of samples	Poor specificity, does not distinguish active form prior or latent infection, requires standardized reagents
	3. <i>In vitro</i> Culture/Mouse Inoculation Assay	Measures virulence and infectivity, can detect viable parasites only	Expensive, slow, interstrain variation, uses animals, parasite must be viable in specimen
	4. Xenodiagnosis	Measure of parasitemia and infectivity	Slow, laborious, unpleasant, poor sensitivity
MOLECULAR	5. Molecular Techniques	Fast, sensitive and specific, directly detects parasites, can detect variants, independent of previous clinical history, parasites need not to be viable, automatable	Expensive, multistep, will detect dead organism, possible false negative from PCR inhibitors/ carry over contamination.

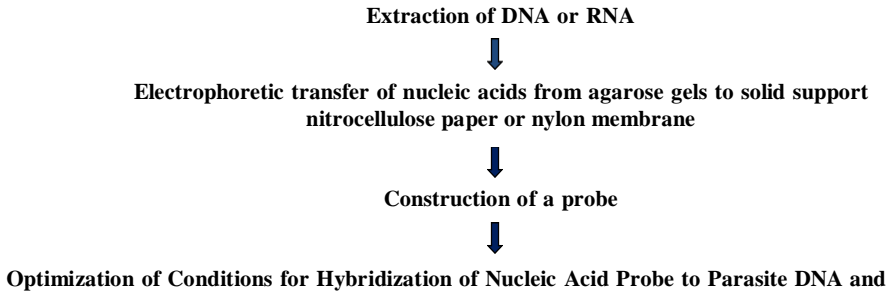
### Molecular Techniques for Diagnosis of Parasites

Polymerase chain reaction (PCR) has enabled the scientists the world over to exploit gene amplification for diagnosis of parasitic diseases and overcome the limitations posed by microscopic and immunodiagnostic assays. This has been made possible by use of several variants of PCR *viz.* nested and multiplexed PCR and real-time PCR (RT-PCR). Newer technologies such as loop-mediated isothermal amplification and Luminex-based assays have also emerged as possible novel approaches for the detection of parasitic agents.

Nucleic acid based assays offer greater sensitivity and specificity over the existing microscopic and immunodiagnostic assays. They permit the detection of infections under conditions of very low parasitaemia (Mens *et al.*, 2007). Multiplexed PCR enables the detection of several parasitic infections simultaneously (Zarlenga and Higgins, 2001).

### Hybridization techniques using specific DNA probes

In diagnostic parasitology, the use of DNA probes for demonstration and identification of parasites in clinical specimens is a highly specific and reproducible technique. A DNA probe is a labelled nucleotide sequence complementary to a segment of parasitic genome unique to a particular parasitic strain, species and genus. Complementary strands of DNA, RNA or DNA plus RNA hybridize readily to form double stranded helical structures when placed under suitable annealing conditions. This property is used extensively in molecular genetics to identify specific nucleic acid sequences. The essential steps in DNA hybridization protocol involve:



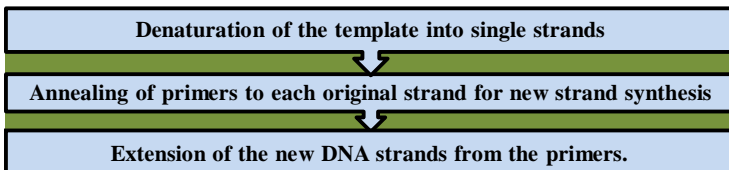
#### Clinical Specimens.

DNA probes have been developed for detection of many parasites viz. *Echinococcus granulosus*, *Onchocerca* sp., *Trypanosoma evansi*, *Plasmodium* sp. etc. (Figueroa and Buening, 1995; Singh, 1999; Spargano, 1999; Contreras *et al.*, 2022)

#### Polymerase Chain Reaction (PCR)

This molecular tool has revolutionized parasitological research and has found broad acceptability mainly because of its high sensitivity which is made possible by amplification of genes or gene fragments from minute amounts of parasite material. With the PCR, tiny amounts of DNA fragments corresponding to a few or even one parasite can be detected with high specificity in almost every type of specimen such as tissue, sputum, CSF, blood, urine, or stool etc. (Verma *et al.*, 2018)

#### Steps in DNA Synthesis



The method of PCR allows the selective amplification from DNA or RNA (in RT-PCR). For DNA, a particular fragment (up to about 10 kilobases in size) is selected from a complex genome by enzymatic amplification *in vitro*. The double stranded genomic DNA template is denatured by heating (94°C), and the temperature is then decreased to allow specific oligonucleotide primers to hybridize (anneal) to their complementary sequences on opposite strands of the template. The template directed DNA synthesis (extension) then proceeds in both orientations from the primer sites by enzymatic catalysis with a thermo stable polymerase and this results in double stranded products. This synthesis is repeated over 30-35 cycles in an automated thermocycler, and can take one to several hours to complete. During each cycle, each template is replicated by a factor of two, so that upon completion of cycling, millions of copies of the original template have been produced and are available for subsequent analyses and manipulations. For RNA, reverse transcriptase is first used to

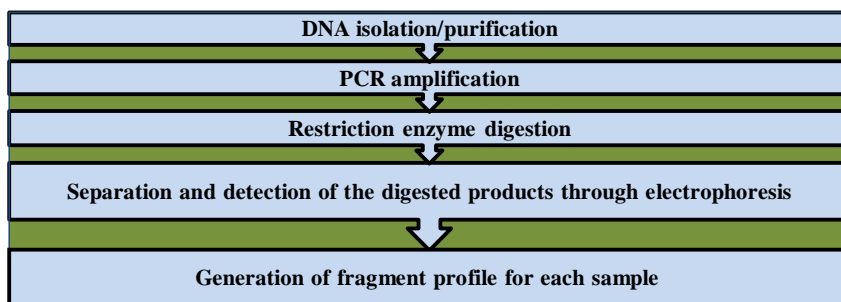
synthesize complementary DNA (cDNA). Then, the cDNA template is amplified by PCR in the same manner as for genomic DNA.

Various modifications of PCR include Random amplified polymorphic DNA-PCR (RAPD-PCR), Reverse transcriptase-PCR (RT-PCR), Nested PCR, Multiplex PCR (Bisset *et al.*, 2014), Arbitrarily primed-PCR (AP-PCR), Competitive PCR, Real Time PCR etc. The role of various PCR techniques in parasitology has been reviewed by Gasser (1999).

### Restriction Fragment Length Polymorphism (RFLP) Analysis

In RFLP analysis, DNA samples are digested with a restriction enzyme using a specific buffer and at a specific temperature. The digest is separated by electrophoresis and profiles are detected by UV transillumination of ethidium bromide stained gels and recorded by photography. Alternately, The DNA digest separated by electrophoresis can be transferred to a membrane by southern blotting and probed with a labelled piece of DNA that will hybridize to the original DNA as well as smaller pieces of the same sequence. The sensitivity or resolution of a RFLP is dictated by the number of bases in the recognition site and the size of test DNA.

#### Steps in RFLP



This tool is used to detect mutations in DNA sequences that can be recognized by a specific restriction enzyme. The test DNA may not typically be the target of restriction enzyme activity. However, because the base sequences targeted by restriction enzymes commonly and frequently occur throughout every genome, comparing the number and placement of these sites is an effective method to screen for individual and species DNA differences.

RFLP analysis is commonly used to compare the mitochondrial DNA of closely related species *viz.* *Echinococcus*, *Taenia*, *Entamoeba* etc. in human beings and G.I. nematodes, cestodes and protozoans like *Babesia*, *Theileria*, *Trypanosoma*, *Eimeria* sp., *Sarcocystis* sp, *Toxoplasma gondii* etc. Beside these PCR-RFLP has been used effectively for the definition of strain and species-specific genetic markers (Monis *et al.*, 1996; Newton *et al.*, 1998).

**DNA Fingerprinting:** DNA fingerprinting takes advantage of the natural presence of repetitive regions of DNA sequence within a genome (Firoozi *et al.*, 2019). These regions of DNA do not contain genes i.e., they are non-coding. Some of these repetitive regions are believed to play a role in maintaining chromosome structure, recombination, and/or regulatory control. Because these regions are non-coding, they accumulate mutations faster than coding regions, where mutations are much more likely to affect the individual's

survival, and thus tend not to be transmitted to next generation. Since mutations occur randomly, each individual carries a unique set of these repetitive sequences.

DNA fingerprinting is performed either by probing DNA with markers that contain the repetitive sequences, or by using PCR to amplify specific repeat regions within the genome. Two types of DNA fingerprinting techniques are:

**Variable Number Tandem Repeat (VNTR) analysis:** This method relies on the regions of DNA that contain different numbers of short, repeating sequences in different individuals, and at different positions (loci) in the genome. Genomic DNA is fragmented at restriction sites that flank the VNTRs. Analysis of the digested DNA by Southern blot reveals a unique pattern of bands based on the number of repeats in an individual. Depending on the length of the repeat, VNTRs are classified as microsatellite (12-200 bases) or minisatellite (2-4 bases).

**PCR-based methods of fingerprinting:** This method identifies unique profiles of DNA fragments by varying the nature of PCR primer and the conditions under which the primer anneals. The condition can be varied so that only the sequences with exact complementarities to the primer sequence will bind or at the other extreme, so that all sequences that are somewhat similar will bind. A profile of different sizes of bands is generated that reflects the various loci targeted by the primer. PCR-based fingerprinting is typically used to screen whole genomes, producing a large number of species-specific bands. DNA fingerprinting is commonly used for the analysis of various strains in the epidemiological studies of various parasites such as *Trypanosoma*, *Leishmania*, *Plasmodium*, *Taenia*, *Echinococcus*, *Haemonchus*, *Srongyloides* etc.

**Ribotyping:** Limiting the number of bands to be analysed can be achieved by using labeled DNA probes targeted to rRNA loci. Ribotyping is one of several molecular methods that can generate comparative data independently of the complexity of the organism's morphology. The restriction patterns produced are simple, reproducible and easy to interpret. The technique has been used for differentiation of different species of *Leishmania*, *Trypanosoma* etc.

**Recombinant DNA Technology:** With the advent of nucleic acid engineering and recombinant technology, a number of strategies have been developed to produce recombinant proteins for diagnostic purposes. Thus, the diagnostic tests of second or third generation are mainly based on recombinant antigens of synthetic peptides of selected immunodominant antigenic epitopes. Recombinant antigens, usually accessible in high purity and large amounts, are improving the specificity of immunoassays like ELISA or western-blotting.

**Loop-Mediated Isothermal Amplification (LAMP):** This is a simple DNA amplification technique with high specificity, efficiency and rapidity under isothermal conditions using a set of four/six specifically designed primer, which recognise six/eight specific target sequence and a DNA polymerase with strand displacement activity (Notomi *et al.*, 2000; Nagamine *et al.*, 2002). During the LAMP reaction process, a white precipitate is formed due to production of large amounts of pyrophosphate ions (Mori *et al.*, 2001). This turbidity thus produced is proportional to the amount of DNA synthesized. Hence, the reaction can be assessed by real-time measurement of turbidity through the naked-eye. This novel molecular tool is being used for the detection of several parasitic diseases including the *Babesia* (Mosqueda *et al.*, 2012) and *Theileria* (Paliwal *et al.*, 2020). Arun Raj *et al* (2019) conducted a study to know the prevalence of *Theileria annulata* in large ruminants of sub-Himalayan region of northern India using different diagnostic assays. LAMP method gave the

highest level of sensitivity (11.04%) followed by allele specific polymerase chain reaction (AS-PCR) (6.67%) and then routine laboratory blood smear examination (3.75%) and they suggested that LAMP could be a better molecular diagnostic tool for large scale epidemiological studies of theileriosis. Thus managing the selection of the diagnostic assay is crucial in detection of parasitic diseases as well as their timely control.

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## **Atmospheric Brown Clouds: Environmental Threat to Asian Countries**

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### **Abstract**

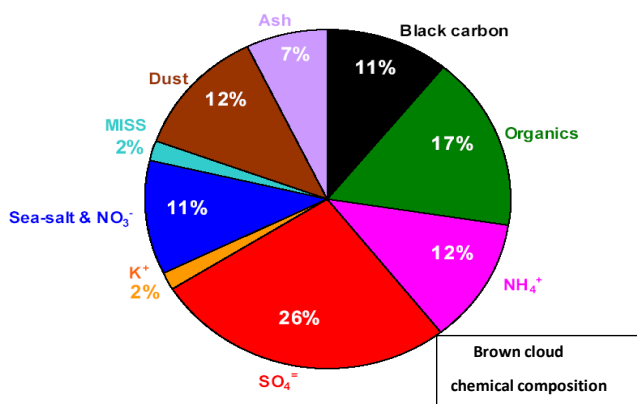
*Atmospheric brown clouds are the resultant of ever increasing population, urbanization and industrialization. These three are directly or indirectly creating various forms of pollution in the environment. Air pollution is one of the major after effect of industrialization. The most visible impact of air pollution is the haze, a layer of pollutants and particles from biomass burning and industrial emissions. This cloud of pollution at times has a brownish color (e.g., the Denver Brown Cloud) and this brown cloud phenomenon is a common feature of industrial and rural regions around the world. Due to long-range transport, the mostly urban (fossil fuel related) or rural (biomass burning related) phenomenon is transformed into a regional haze (or cloud) that can span an entire continent. It is now becoming clear that the brown cloud can have huge impacts on agriculture, health, climate and the water budget of the planet.*

**Key-words:** Atmospheric BrownClouds, Environmental Threat

### **Introduction**

Atmospheric brown clouds (ABCs) are regional scale plumes of air pollution that consist of copious amounts of tiny particles of soot, sulphates, nitrates, flyash, black carbon and many other pollutants. Soot results from the incomplete combustion of fuels and consists of nano-to a few micro-meter (millionth of a meter) size particles. Black carbon (that is, light absorbing elemental and organic carbon particles) and many organic acids are the main constituents of soot. The brownish colour of ABCs is due to the absorption and scattering of solar radiation by anthropogenic black carbon, flyash, soil dust particles, and nitrogendioxide gas. Typical background concentrations of aerosols are in the range 100 - 300 cm<sup>-3</sup>, whereas in polluted continental regions the concentrations are in the range 1,000–10,000 cm<sup>-3</sup>. ABCs start as indoor and outdoor air pollution consisting of particles (referred to as primary aerosols) and pollutant gases, such as nitrogenoxides (NO<sub>x</sub>), carbon monoxide (CO), sulphurdioxide (SO<sub>2</sub>), ammonia (NH<sub>3</sub>), and hundreds of organic gases and acids. These pollutants are emitted from anthropogenic sources, such as fossil fuel combustion, biofuel cooking and biomass burning. Gases, such as NO<sub>x</sub>, CO and many volatile organic compounds (VOCs) are referred to as ozone precursors since they lead to the production of ozone which is both a pollutant and a strong green house gas.

Gases, such as  $\text{SO}_2$ ,  $\text{NH}_3$ ,  $\text{NO}_x$  and organics, are referred to as aerosol precursor gases, and these gases-over a period of a day or more-are converted to aerosols. Aerosols that are formed from gases through chemical changes (oxidation) in the air are referred to as secondary aerosols. Although previous research had seemed to indicate that aerosols could create a general cooling effect in the atmosphere — thus helping to mitigate the effect of global warming —a new study has revealed that they may in fact warm it just as much as greenhouse gases. In fact, these "brown clouds" — soot-filled aerosol clouds — have been increasing atmospheric warming over India by about 50%.

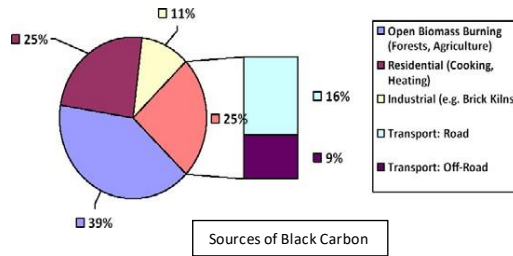


### Causes: -

1. During humid conditions, it forms haze. It is created by a range of airborne particles and Pollutants from combustion (e.g. wood fires, cars, and factories), biomass burning and industrial processes with incomplete burning. The cloud is associated with winter monsoon (November/December to April) during which there is no rain to wash pollutants from the air.

2. **Brown Haze Composition:-**Black carbon and ash, sulfates, nitrates, mineral dust and 75% of the cloud is man-made.

3. **Black Carbon and its Sources:** Black carbon, often equated with elemental carbon, is a component of particulate matter, or soot, produced from the incomplete combustion of fossil fuel, biofuels and biomass. The main sources of black carbon are open burning of biomass; residential burning of solid fuels such as coal, wood, dung and agricultural residue; fossil fuel combustion for transportation; and industrial activities. Globally, transportation accounts for 25 percent of all black carbon emissions, and Diesel engines account for approximately 70 percent of that global 25 percent.



**4. Observation:** This pollution layer was observed during the Indian Ocean Experiment (INDOEX) intensive field observation in 1999 and described in the UNEP impact assessment study published 2002. Scientists in India claimed that the Asian Brown cloud is not something specific to Asia. Subsequently, when the United Nations Environment Programme (UNEP) organized a follow-up international project, the subject of study was renamed the Atmospheric Brown Cloud with focus on Asia. The cloud was also reported by NASA 2004 and 2007. Although aerosol particles are generally associated with a global cooling effect, recent studies have shown that they can actually have a warming effect in certain regions such as the Himalayas.

**5. In ABCs Have Both Observations Cooling and Warming Effects:** - For GHGs, the global mean forcing is positive, while for ABCs it is negative. However, this does not mean that all aerosols in ABCs have a cooling effect. Some aerosols have a cooling effect and others have a heating effect, as described next. Some aerosols, such as Sulphates and nitrates, have a cooling effect. Others, such as black carbon (BC), have a warming effect on the surface-atmosphere system.

- **Cooling aerosols.** These aerosols primarily scatter solar radiation back to space, leading to a reduction of solar radiation at the surface (known as surface dimming), which results in the cooling of the surface-atmosphere system. Major examples of this category are sulphates, nitrates and some organics.
- **Heating aerosols.** Major examples of this category are elemental carbon and some organic acids in soot. Together these aerosols are referred to as black carbon. The heating aerosols absorb solar radiation. Furthermore, the ratio of absorption to scattering exceeds 10 percent. These absorbing aerosols add solar energy to the atmosphere and alter the distribution of energy in two different ways: First, by absorbing direct solar radiation, which would have otherwise reached the surface, the absorbing aerosols lead to dimming at the surface. This effect is distribution of the solar energy between the surface and the atmosphere, and has a significant influence on the stability of the atmosphere by warming the air above and cooling the surface below. Second, by absorbing solar radiation reflected by the surface, atmosphere and clouds, the absorbing aerosols reduce the amount of solar radiation that is reflected to space.

**6. ABCs Influence Cloud Properties:** Aerosols in ABCs nucleate cloud drops. The enhancement of the cloud drop population increases the reflection of solar radiation (making the clouds brighter) which leads to dimming and surface cooling. In regions with copious amounts of ABC aerosols, competition for water between nucleating aerosols causes cloud drop size to decrease, and this inhibits the formation of larger size drizzles and rain drops. The net effect is an extension of cloud lifetimes, that is, the polluted regions are cloudier with brighter clouds. This latter effect also leads to dimming and surface cooling.

**7. ABCs Hotspot and Regional Climate Change:** By integrating and assimilating a surface observations with new satellite observation sand chemistry transport model (CTM), the ABC Science Team produced global maps of ABC hotspots. ABC hotspots are defined as regions where the annual mean anthropogenic aerosol optical depth (AOD) exceeds 0.3 and the percentage of absorbing aerosols exceeds 10 percent. Substantial loadings of ABCs over Eastern USA and Europe have also been observed. However, in these extra-tropical regions, the atmospheric concentrations of ABCs are large mainly during the summer season since precipitation removes the aerosols efficiently during other seasons. Four regional ABC hotspots around the world have been identified

- i) Indo- Gangetic Plain in South Asia
- ii) Southeast Asia
- iii) Southern Africa; and
- iv) The Amazon Basin.

The following 13 mega-city ABC hotspots in Asia have been identified: Bangkok, Beijing, Cairo, Dhaka, Karachi, Kolkata, Lagos, Mumbai, New Delhi, Seoul, Shanghai, Shenzhen and Tehran. Over the sehot spots, theannual AOD (natural anthropogenic) excee ds0. 3 and the absorption optical depthis about 10 percent of the AOD, indicative of the presence of strongly absorbing soot accounting for about 10 per cent of the amount of aerosols. The annual mean surface dimming and atmospheric solar heating by ABCs over some of the hotspots range from 10 - 25 percent, such as in Karachi, Beijing, Shanghai and New Delhi. Using satellite data and regional assimilation models, the chemical composition of aerosols in ABCs and how their chemistry contributes to the AOD have been characterized for the first time for China and India. The TOA forcing duet the increase of GHGs from the pre-industrial period to the present is estimated by IPCC-AR4 (2007) at about 3 Wm<sup>-2</sup> (90 per cent confidence interval of 2.6 - 3.6 W m<sup>-2</sup>). The same report estimates aerosol forcing (direct plus indirect) at-1.2Wm<sup>-2</sup>(90 percent confidence intervalof-2.7to-0.4W m<sup>-2</sup>). The combined GHG and ABC forcing is1.8 W m<sup>-2</sup> with a 90 per cent confidence interval of 0.6 - 2.4 W m<sup>-2</sup>

2. By comparing this with only the GHG forcing of 3 W m<sup>-2</sup> (90per centintervalof2.6-3.6W m<sup>-2</sup>), it is seen that aerosols in ABCs have masked 20 - 80percent of GHG forcing in the past century.

**8. ABCs Radioactive Forcing Over Asia:** The absorption of solar radiation by the surface and the atmosphere is the fundamental driver for the physical climate system, the biogeochemical cycles, and for all life on the planet. ABCs have significantly altered this radioactive forcing over Asia, as summarized below.

- It is certain that ABCs have caused dimming at the surface.

- It is certain that soot in ABCs has increased solar heating of the atmosphere.
- It is virtually certain that India and China are dimmer (at the surface) today by at least 6 percent, compared with the pre-industrial values.

**9. Observed Trends in Regional Climate and Attribution: China and India:** In China and India, large changes in solar radiation, surface and atmospheric temperatures and monsoon rainfall have been observed. These changes cannot be explained solely from the increase in GHGs. Global climate model (GCM) studies suggest that a combination of GHGs and ABCs, along with natural variables, is needed to properly simulate the observed trends. For a more reliable estimate of regional climate changes, a combination of GCMs and regional climate models (RCMs) with a finer spatial resolution (about 50 km or less) than that adopted in GCMs (200 km or more), is required. After the 1970s, cities like Guangzhou recorded more than 20 per cent reduction in sunlight since the 1970s. The dimming trend has been attributed by numerous studies largely to the rapid increase in ABC emissions since the 1950s. In China and India, the dimming trend was accompanied by large decreases in pan evaporation. However, this doesn't necessarily imply a decrease in actual evaporation or evapo-transpiration.

**10. Impact on Solar Radiation:** Annual land-average solar radiation over India and China decreased significantly during the period 1950-2000. For India, the observed surface dimming trend was  $4.2 \text{ W m}^{-2}$  per decade (about 2 per cent per decade) for the 1960 – 2000 period, while an accelerated trend of  $-8 \text{ W m}^{-2}$  per decade was observed for the 1980-2004 period. Cumulatively, these decadal trends suggest a reduction of about  $20 \text{ W m}^{-2}$  from the 1970s up to the present, thus supporting the large dimming values inferred from modern satellite and field campaign data. In China, the observed dimming trend from the 1950s to the 1990s was about 3-4 percent per decade, with larger trends.

**11. Impact on Surface and Atmospheric Temperatures:** Asia was subject to an annual mean warming trend of about  $0.7 - 1^\circ\text{C}$  from the pre-industrial period up to the present. The trend was not uniform over all seasons or over all regions. In India, the warming trend from the early

**12. Impact on the Monsoon Rainfall:** Observed summer precipitation trends for the 1950 - 2000 period revealed the following: (a) a decrease in monsoon precipitation over India and Southeast Asia by about 5 - 7 per cent; and (b) a shift in rainfall in China with Northern China receiving less rainfall and Southern China receiving more rainfall. The Palmer Drought Severity Index shows an increase in drought-prone conditions, that is, a decrease in cumulative soil moisture in India and Northern China since the 1900s. In the 1990s, events ( $>100 \text{ mm}$  per day) have increased followed by a decrease in moderate events ( $<100 \text{ mm}$  per day) in India as well as in China. These observed trends in land average precipitation cannot be explained solely by increases in GHGs. The IPCC-AR4 GCMs with just the GHG increase are notable to simulate the decrease in zonal mean tropical land precipitation north of the equator, or the decrease in monsoon rainfall in India or the north-south shift in China's rainfall. While the increase in intense rainfall can be accounted for by global warming due to GHGs and the solar heating of the atmosphere by black carbon in ABCs, dimming due to

ABCs is required to account for the decrease in the Indian monsoon rainfall since the 1950s. Studies with GCMs suggest that four processes are involved in the ABC modification of rainfall. The first three tend to decrease rainfall while the fourth tends to increase rainfall.

- Dimming leads to a decrease in the evaporation of water vapor (that feeds rainfall) from the surrounding ocean and land surface.
- Dimming decreases the land-sea contrasting the solar heating of the region, an important monsoon forcing agent.
- The preferential dimming of the polluted Northern Indian Ocean, compared with the relatively cleaner Southern Indian Ocean, decreases the north-south gradient in sea surface temperatures, another important monsoon forcing term; and the solar heating of the atmosphere strengthens the monsoonal flow into the subcontinent, increasing rainfall.

**13. Impact on Food Security:** Throughout Asia, the annual growth rate of rice harvest has decreased from 3.5 per cent (1961- 1984) to 1.3per cent (1985 - 1998). Similar decreases in growth rates have occurred for wheat, maize and sorghum. Multiple stresses, such as limited availability of water and air pollution concentrations, are increasing the crops' sensitivity to climate change and reducing resilience in the agricultural sector. The negative impacts of climate change will be felt most acutely in developing countries, particularly in Asia. Without a decrease in monsoon rainfall due to ABCs and an increase in surface warming due to GHGs, the average annual rice output for nine states studied in India during 1985 - 1998 would have been about 6.2 million tons higher [which is equal to the total annual consumption of 72 million people]. In addition, elevated concentrations of ground level ozone have been found to have large effects on crop yields. Experimental evidence suggests that growing season mean ozone concentrations of

30 - 45 ppb could see crop yield losses of 10 - 40 per cent for sensitive varieties of wheat, rice and legumes. Concern for a worsening situation in the future is highlighted by projections which suggest that the annual surface mean ozone concentrations in parts of South Asia will grow faster than anywhere else in the world and exceed 50 ppb by 2030.

**14. Impact on Hindu Kush-Himalayan-Tibetan Glaciers and Snow Pack:** The observed retreat of the Hindu Kush-Himalayan-Tibetan (HKHT) glaciers is one of the most serious environmental problems facing Asia, since these glaciers and snow packs provide the headwaters for the major Asian river systems, including the Ganges, the Brahmaputra, the Mekong and the Yangtze. Glacier inventory by the Chinese Academy of Sciences has reported a 5 per cent shrinkage since the 1950s in the volume of China's 46 928 glaciers over the past 24 years, equivalent to the loss of over 3000 km<sup>2</sup> of ice. About 82.2 per cent of the glacial area in Western China is shrinking. Many of the major glaciers in India (such as Siachen, Gangotri and Chhota Shigri) are also retreating at rates ranging from 10-25 m per year. The glacier retreat began in the mid-19th century. The retreat has accelerated since the 1970s. Most of the studies, if not all, attribute the retreat of the Himalayan glaciers to rising air temperatures. Warming is much more pronounced at elevated levels of the Himalayan-Tibetan region. The warming trend at elevated regions (>3km) is as much as 0.25°C per decade since the 1950s. ABC solar heating (by black carbon) of the atmosphere is suggested to be as important as GHG warming in accounting for the anomalously large warming trend observed in the elevated regions. Decreased reflection of solar radiation by snow due to black carbon deposition is emerging as another major contributor to the melting of snow packs and glaciers. Recent ice core observations reveal large depositions of Sulphates and black carbon, with a large increasing trend during the past few decades. Furthermore, new atmospheric observations by Project ABC in elevated regions of the Himalayas (1 - 5 km)

within 100 km of the Mt Everest region, suggest large black carbon concentrations ranging from a few hundred to a few thousand mg m<sup>-3</sup>.

**15. The Impact of the Ground level Ozone Component of ABCs on Agriculture:** A large number of experimental studies using a variety of experimental techniques (fumigation, filtration, chemical protestants and transect studies) have been conducted on major crops in Asia. The studies suggest that growing season mean ozone concentrations in the range 30 - 45 ppb could see crop yield losses in the region of 10 - 40 per cent for sensitive cultivars of important Asian crops (that is, wheat, rice and legumes). Pooling experimental data on the impact of ozone on crops in Asia allows comparison with European and North American dose-response relationships. These comparisons would suggest that Asian grown crop varieties are more sensitive to ozone. This could be due to varietals differences predisposing environmental conditions or pollutant exposure characteristics. However, these data should be interpreted with caution given the heterogeneity in the experimental methods used in the derivation of the Asian data.

Given the annual variability in ozone concentrations, it is important to consider the growing seasons and developmental stages of the main Asian crops and to identify those that are likely to be exposed to higher ozone concentrations and therefore be more susceptible to ozone damage. Economic loss estimates due to ozone impacts on crops have only been recently conducted for East Asia using North American dose-response relationships. Global ozone projections suggest that some of the largest increases in ozone concentration will occur in South and Southeast Asia from now until 2030. Such projections would see South Asia becoming the most ozone polluted region in the world, with annual surface mean concentrations reaching 52.2 ppb. The impacts of current and projected ozone concentrations therefore need to be considered within the broader context of impacts on agriculture under climate change, as well as consideration of how climate change may influence crop sensitivity to ozone (through alterations in temperature, atmospheric humidity and soil moisture).

**16. Climate-Related Impacts of ABCs on Agriculture in Asia:** Growth of agricultural output in China and India has slowed down since the mid-1980s. For example, while rice harvesting in India increased annually by about 3.2 per cent between 1961 and 1984, it has grown by only 2.4 per cent annually since then. In China, the average annual growth rates changed from 5.4 to 0.2 percent during the same period. For Asia as a whole, annual growth rates have decreased from 3.5 to 1. Research on the agricultural impacts of ABCs is very limited compared to research on the agricultural impacts of climate change caused by elevated greenhouse gas (GHG) concentrations. Although not focused on ABCs, the latter research has generated results that provide insights into the likely impacts in Asia of ABC-induced drying (reduced rainfall) and cooling (reduced temperatures, especially at night). The impacts of drying, cooling and dimming on Asian agriculture must be analyzed jointly, not individually. This follows from evidence that these impacts can be in different directions (that is, negative or positive).

Impact studies should consider the farmers' ability to adapt to worsening environmental conditions to prevent overestimating damages under given climate scenarios. There have been very few studies on the joint impacts of climate change on agriculture due to the build-up of GHGs and ABCs. The only published statistical study on this focused on wet-season rice in India. It found that reductions in ABCs would have resulted in significantly higher wet-season rice harvests in India during the period 1985 - 1998, suggesting that ABCs contributed to the well-known slowdown in agriculture in Asia. Future studies should focus on understanding the impacts of ABCs in a larger number of locations. A major effort on data



collection at the farm level is necessary to better understand the direct (pollution damage) and indirect (climate-related) impacts of ABCs in a field setting. Farm level studies would allow for disentangling the direct and indirect impacts of ABCs, which is pertinent to policy responses related to pollution control measures. Such studies would advance the understanding of farmer responses. Data would need to be collected from a wide variety of sites over several years.

Dynamic crop simulation models are effective tools to assess the impacts of ABC on crop yield. The effects of ABC are mediated through increase in diffuse radiation, decrease in direct radiation and cooling effect. Incorporation of diffuse radiation as a separate model input needs to be achieved. Impacts of ABCs are likely to be crop-specific. For wheat and rice, yield reductions up to 8 per cent were predicted in India when single effect of aerosol radiation was considered by crop simulation models. However, when cooling effect was also incorporated in the model, it nullified the yield reductions due to enhanced crop duration effect. The effect of ABCs on sugar cane yield was no significant as predicted by the sugarcane model.

**17. Impacts of ABCs on Human Health:** ABCs have several characteristics that determine their impact on human health, including: large geographical reach; long-range transport of aerosols across continents and oceans; consistent and persistent exposure of large populations, including high-risk populations; potential for physical, chemical and microbiological mixing and interactions of the aerosols, and for exacerbating local air pollution when aerosols transported over long distances transfer to the lower atmosphere. These characteristics, together with the potential for the aerosols to act as transport mechanisms for pathogens, pose important challenges for public health, well-being and welfare.

The focus of the section on Impacts of ABCs on Human Health will be on the exposure, epidemiology, toxicology, associated diseases, preliminary estimations of numbers of premature deaths and economic costs, and the science and characteristics of ABCs, which are important considerations for policy options. Knowledge of the physical, chemical, and microbial characteristics of ABCs, and the potential for intermixing and interactions of the anthropogenic aerosol mixture will be important in improving the assessment of health risks and effects. This knowledge will be important for supporting decisions on what research to undertake, what policy responses to formulate, and what technical and management options to implement.

**18. ABCs and Adverse Health Outcomes:** ABC-relevant pollutant studies reviewed from available literature include studies of health effects related to increased cardio- respiratory hospital admissions and mortalities in Malaysia, Indonesia, Singapore, Australia and Brazil from exposure to smoke from forest fires, bush fires, and agricultural burning; increased asthma and other respiratory effects, cardiovascular hospital admissions, and mortality in China and Republic of Korea related to dust storm events; increased acute respiratory infections, chronic obstructive pulmonary disease and lung cancer in Nepal, Indian China, resulting from exposure to biomass and coal smoke; and reduced pulmonary function, bronchitis, wheezing, shortness of breath, increased hospital admissions and mortality in India and China associated with exposure to urban and industrial air pollution.

The biological plausibility of the effects of PM on cardiovascular and respiratory health has been supported by various lines of in vivo and in vitro toxicological research, including increased plaque formation from long-term exposures to PM<sub>2.5</sub> in experimental mice and emerging human evidence of increased atherosclerosis from exposures to elevated ambient PM<sub>2.5</sub> levels were enhanced in animals with repeated exposure to concentrated particulate

matter. In addition, serious cardiac outcomes have been observed in controlled human and experimental studies examining the effects of biomass burning. Toxicity outcomes associated with individual ABC-relevant pollutants include cardiovascular and respiratory disease, cancer, and reproductive and/or developmental alterations. Exposure to wood smoke produces extensive lung damage along with diminished immune competence and increased susceptibility to pulmonary infection in exposed animal models. Respiratory effects, such as pulmonary inflammation, have also been observed in response to ABC-relevant pollutants in controlled human studies, in response to inhaled diesel exhaust.

The “willingness to pay” and “human capital and/or cost of illness” approaches are considered as techniques available for conducting original economic valuation studies. The “benefits transfer” alternative is a common approach in the analysis of health policies, projects and programmes will likely be important in the evaluation of ABC control strategies. While there is a relatively large value of statistical life (VOSL) literature for North America and Europe, there is a huge lack of evidence on the costs of premature mortality for developing countries in general, and China and India in particular.

**19. Further Studies on ABCs and Human Health:** Understanding the science and characteristics of ABCs is of significant importance to strategic and effective public policy on human health and welfare. The ABC characteristics that merit attention include:

- Wide spatial distribution, hence exposing very large populations;
- Composition, which consists of fine and ultra fine particles that can reach target tissues, exerting their toxicological effects and increasing environmental health risks and influencing the etiology of diseases;
- Likelihood to transport bio-aerosols over long distances with significant consequences on human health and well-being, livestock and agricultural productivity and the quality of drinking water.
- Health outcomes are compounded by impacts on water, agriculture and ecosystems.

**20. Exposure Assessment is Essential:** Assessment of exposure is essential to the estimation of risk associated with exposure to air pollution, as it is not possible to determine risk without some reliable measure of exposure. There is currently a lack of critical exposure information as it pertains to ABCs. The information that is available is generally about ambient levels of pollutants, which can be significantly different from levels that cross biological membranes, reach their target tissues, and exert their toxic effects. Molecular epidemiology is a potentially important tool for assessing exposure to ABCs, as well as the consequent effects from such exposure. The field involves assessing, at the molecular level the contribution of environmental risk factors, with the influence of genetics, to the etiology of disease. One of the main aims is to gain mechanistic information from epidemiological studies and to correlate exposure and effects data that are relevant to the exposure and/or disease. Exposure assessment includes environmental monitoring, exposure modeling, and bio-monitoring. Environmental monitoring studies should encompass ambient and personal monitoring of air pollutant exposures. Bio- monitoring of exposures and effects will include ABC-relevant pollutants and air pollution-associated health effects, such as asthma and cardiovascular effects.

A new satellite called CALIPSO actually measures the concentrations and vertical extent of brown clouds, and as presented by Ramanathan et al., central Asia has a significant brown cloud found in all swaths (note below that the data are from November to March). The team next ran a numerical model with greenhouse forcing and the brown cloud concentrations found by CALIPSO, and they concluded “Our general circulation model simulations, which

take into account the recently observed widespread occurrence of vertically extended atmospheric brown clouds over the Indian Ocean and Asia, suggest that atmospheric brown clouds contribute as much as the recent increase in anthropogenic greenhouse gases to regional lower atmospheric warming trends. We propose that the combined warming trend of 0.25K per decade may be sufficient to account for the observed retreat of the Himalayan glaciers.”

**21. The Brown Cloud Summit:** In March 2000, Governor Jane Hull formed the Governor's Brown Cloud Summit, a committee of local politicians and business people, dedicated to restoring the Valley's air to its once pristine clear blue. Chaired by meteorologist and ex-State Senator Ed Phillips, the Summit examined this issue for ten months. According to the Brown Cloud Summit's final report, the process described above not only obscures the once clearly visible mountains surrounding the Valley, it also contributes to higher than average incidents of health problems, especially respiratory ailments including allergies and asthma, leading to higher than normal mortality rates from heart and lung diseases.

**22. Cooking Fires Weakening Indian Monsoon:** July 14th, 2009 - 3:05 pm ICT by IANS New Delhi, July 14 (IANS) Soot from the wood-based cooking fires used by 70 percent of Indians is forming a cloud of pollutants that is impeding the monsoon winds, according to a senior scientist. The Asian Brown Cloud, as the blanket of pollutants over South Asia and the Tibetan plateau is called, is not only weakening the monsoon but is responsible for half the warming observed in the Himalayas, Syed Iqbal Hasnain, senior fellow at The Energy and Resources Institute, said here Monday evening. He was delivering a talk organised by the Indian Mountaineering Foundation on the melting of Himalayan glaciers due to climate change. Scientists fear the melting will lead to water scarcity in the north and south of the Himalayas, affecting well over a billion people. “With 70 percent of the Indian population using biomass for cooking, the Asian Brown Cloud covers the entire sub-continent at a height of around 3,000 feet,” said Hasnain, a former vice chancellor of Kozhikode University and formerly from New Delhi's Jawaharlal Nehru University. The effect of this cloud gets worse in the cold atmosphere of the Himalayas where the soot gathers and impedes wind, he explained. Apart from the weak monsoon that is causing consternation in India now, the cloud also held up the westerly winds in winter. Scientists have measured the average temperature in the Himalayas had risen by 1.2 degrees Celsius in the last 100-odd years.

**23. Future Prospects:** Many agencies and programmes, like, NASA, US Environmental Protection Agency, UNDP, DPCC in Delhi etc., and various scientist in Asia, Africa, Europe & in north America working on atmospheric brown cloud to control their production.

- Scientists think atmospheric brown clouds may be contributing to some climate change. However, there remains no definite answer to whether they warm or cool the climate.
- Scientists are trying to answer that question right now. Do ABCs Warm or Cool the climate?

**Hence,** it is clear that the UNEP news release about the Asian Brown Cloud has created awareness about pollution. This should give an impetus to the ongoing program of reduction of harmful emissions in our cities. People living in Asia must be concerned about this haze because it has immediate and long-term impacts on their health. The general population is always unaware about the recent environmental issues as a result of which the pollution is rising on a daily basis. This may be due to the increasing number of automobile vehicles, various industries or indoor pollution. Additionally, there is also a sudden rise in pollution during the festivals due to excessive fireworks. In India, so far work done related to global warming is mainly confined to research, conferences, seminars and workshops, with the

general population having very little knowledge about the burning issue of global warming. Similarly, there is little awareness about the Asian Brown Cloud in the general population. As global warming has emerged as matter of environmental concern for the entire world, similarly the Asian Brown Cloud is also one the essential environmental issues globally and especially for the Asian countries. All these growing environmental issues are somewhere interlinked either in causative factors or in the ways of preventing them. There is an urgent need to sensitize the general population about such growing environmental issues.

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## **Hindrances in Digitalisation of H.R-Tackling Barriers in Adoption of H.R Analytics for Reinventing Talent Management**

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### **Abstract**

*The main focus of this paper is to throw light over the fact that how HR Analytics and HR Metrics help in reshaping the Talent Management. It also laid emphasis over the major challenges that the organisation face in digitalization of HR Initiatives. Advanced analytics provide a phenomenal opportunity to the HR Professional to deep root themselves as a strategic partner of the executive board. It helps in retaining the great managers, torch bearer leaders and innovators that are often behind the success of any organisation. Even if the organisation is able to navigate successfully through turbulent waters, still it is very important to retain the best talent in order to safeguard the ship from future risks. The HR Metrics and HR Analytics can be used to harness Talent Management in such a way that a supporting culture is developed within an organisation where the major emphasis is laid by the employer on polishing the employee's skills.*

**Key-words:** Talent Management, Strategic Management, Human Capital Analytics, HR Stack, Strategic Workplace Planning (SWP), Design Thinking, Employee Experience Mapping, HR Metrics, and Touchpoint Management

### **Introduction**

HR Digitalisation is reinventing the ways HR Activities were performed in the organisation traditionally. It has paved the way for better tomorrow. Just imagine how the work dynamics shall reshape in the near future. The future worker will apply for the desired job without a resume or curriculum vitae. It will be the machine learning that will have a vital role to play. It will help in reaching out to the desired candidate. The old ways of selecting the candidate by calling upon walk-ins shall be completely out of trend. Prospective employee shall be hired without conducting interview. Companies will revamp their annual appraisal system. Employees will have a better work-life balance where they shall be enjoying unlimited vacations. The employers shall be able to track employees likely to leave the company soon that will open gates to timely recruitment. Not only this, better customisation of employee benefits can be done. Chatbots will help in conducting essential informal and formal communications. (Claus, 2020) On the other hand, Talent Management involves adoption of strategic choices through making use of data from HR Metrics and Analytics that helps to gear up the competitive advantage through people of the organisation. Many leading organisations are already using HR Analytics in areas of talent management. A leading healthcare organisation is able to capture \$100 million of savings by simultaneously paying emphasis over the talent management. This is done by increasing the engagement of the employees. Providing right wage to the employees as per their performance (also known as Performance Appraisal) helps the organisation in reducing the attrition rate. (Lippens, Schaninger, & tanner, 2015)

## **Methodology**

For this study, secondary data is taken from various journals and books closely related to disciplines including Strategic HRM, Talent Management, HR Digitalisation, HR Analytics, Behavioural Analytics and Human Capital Analytics. Also, the case studies from top multinational companies like McKinsey, Deloitte, etc., are referred to understand the concept in a much better way.

## **Talent Management and its interface with HR Analytics**

Talent Management is a global practice adopted by the innovative firms for attaining sustainable means of accomplishing strategic goals of the organization. It helps in mending the strategic choices and operational activities that helps in attaining the competitive advantage by creating a well garnished portfolio of integrated HR Activities that helps in attaining the mission and vision of the organization. It involved hiring right person on the right position at the right cost that helps in utmost utilisation of the human resource. The management of talent is not the duty of the leader alone. (Mayo, 2018) Some specific attention to individuals in organisation can help the organisation as a whole. Today people are more curious in spotting skill growth avenues in any job they join. Salary is considered as a secondary issue these days.

Some people in the organisation are hard to replace due to unique set of skills and competencies they possess. However, this act as a great challenge for the HR Professionals to segregate the people on the basis of their skills and competencies. Also, their might to few people working with great efficiency in a 'pool' while others might have an individual excellence. HR Analytics involves having a robust indicator of capabilities that helps in assigning right job to right candidate. It is important to note that HR Professionals shall not have a mere concentration over the behavioural competencies of the employee. They should rather pay more emphasis over the actual work performance of the individual. HR Metrics and HR Analytics helps in wiping out such disparities caused by the personal opinions of the HR Professionals. Thus, the data obtained over the talent management through HR Analytics is more robust in terms of authenticity and validity because it is free from personal biasness. Time to time even the HR professionals come up with various programmes and intervention in order to equip the workforce with the latest upgradation in the market. This throw light over the fact that mere retention of the talent is not enough! Rather regular work is needed to be done for polishing the skills of these talented workforce so as to ensure longer association of such people with the organization. This can also be kept as a basis for further appraisals and promotions.

Behavioural Analytics helps in predicting the upcoming turnover in the organisation. It closely read the working patterns of the employees. In case the employee is potentially going to leave the organisation, he might stop engaging himself in the organisational activities, there will be delay in work submission, more absenteeism and many more. These traits indicate that the employee is going to leave the organisation in the near future. This helps the HR Professional to make a backup employee ready in order to fill the vacant position immediately. Under behavioural analytics, the HR Professional closely interview the outgoing employee in order to understand the reason of attrition. Limited investment in employee training, inadequate recognition, less rewards, toxic working environment, etc., has remain the major reasons for the employee exit from the company. The current analytic approach helps in creating a proactive process where the talented employees can stopped from leaving the organisation. (Lippens, Schaninger, & tanner, 2015)

### **Need to Reinvent Talent Management**

Business Environment is radical and a same kind of Talent management strategy will not be able to fetch the desired result for the organization. Companies that are progressive in nature need to revamp their Talent Management plans to meet the needs of the changing industry. Changing demographic conditions, technology and globalisation have considerable implications over the Talent Management practices of the companies since past two decades. Nowadays organisations work on nurturing the Talent by providing employees better working environment and better employee experience so as they stay connected to the organisation for the longer duration. Special training programmes are crafted on design thinking, agile management, behavioural economics and analytics to augment their HR competencies. It is nearly impossible for the organisation to broaden the Talent in organisation without working on the Talent Management conversation. (Claus, 2020)

### **4<sup>th</sup> Industrial Revolution and Talent Management**

With the 4<sup>th</sup> Industrial Revolution, talent management is needed to be worked upon simultaneously so as to maintain the growth pace of the organizations belonging to varied sectors. In accordance to the same, a proximate emphasis is laid upon demography, technology and globalisation. The concept of Diversity, inclusion, belonging, and support (DIBS) is gaining major significance these days. (Claus, 2020) Employers have understood the fact that to retain the necessary talent, an integral goal of talent management is to create a meaningful workplace where people can bring their true authenticity. These demographic changes also create a multi-generational workforce in which four diverse generations work together both side by side and virtually creating additional complexities and challenges.

#### **1. Demography**

Population is continuously rising around the world. The fact that people are living longer has important consequences for talent management. Also, the parallel is drawn between the demographic condition and the Talent management. They are indirectly interlinked with each other. In an organisation various people work from different socio-cultural backgrounds who cater varied needs. The HR Professionals need to address the same in order to retain the significant Talent for longer duration. The three stage of life is indicated by- the education, the career and the retirement. It is very important that a good working environment with possible growth in future avenues is made available to the employees so that they stay with the organisation in a longer run.

#### **2. Technology**

Technology has helped in the intervention of Talent Management with artificial intelligence (AI), cloud computing, deep learning, global network platforms, machine learning and robotization. This can be a deadly combination. AI intervention with Talent Management and other HR Activities has made the work simpler at the organisation. AI is successfully outperforming human tasks. The work done by people has been successfully substituted with algorithms, robots and computers. Technology is slowly overtaking the manual routine work at the workplace. With invent of AI, employment rate has fallen drastically as most of the routine work are now done with robots or machine learning. Preparing salary, recording attendance and even induction training is conducting these days through AI. Around 47% of job fall is observed in US due to interface of HR with AI. It has been observed that around

60% of all the occupations, 30% of the work can be easily automated.(Claus, 2020) Organisations work on finding innovative ways of saving cost associated with routine duties. Also, by intervention of AI, the chances of human errors have been reduced drastically. But ironically, this will reduce the jobs in the market that will hit the people in a negative way. On the other hand, the employers are much keener in replacing humans with machine as it will not only bring their operating cost down, but also will help in completing the work in a limited time period without mistakes. Also, AI helps in forecasting future market trends that helps them in making decisions with utmost precision. Unlike humans, machine can be made work 24x7 without any inconvenience; that helps in cashing every bit out of business.

AI helps in tapping the skill requirements of the employees so that correct training could be provided in adherence of the same. This helps in crafting adequate training programme for the employees that will not only help in their personal development, but also in development of the organisation as a whole.

### **3. Globalization**

Globalisation has opened the gates of the economy to rest of the world. This has made the competition more rigorous in terms of technology, inventions and sustainability. Globalisation allows sharing of technology with other countries. Not only this, in order to tackle the rising competition, it is very important to train the employees with new technologies and processes to accomplish the work in more efficient way. Assisting the employees in acquiring new talents with extensive training programmes is the prime objective for most of the multi-national companies these days. Globalisation has also been a major reason of unemployment worldwide as it leads to shut down of the domestic businesses who are unable to combat with global competition. Also, it has led to global mobility of the labour as a resultant of forced migration due to unavailability of jobs. Thus, close emphasis is needed to be laid upon the talent management through adequate training structure.

### **Strategic Talent Management**

Talent Management has always remained the major focus of the HR Professional while using HR Analytics. Various tools are adopted like Big Data, Human Capital Accounting (HCA), Strategic Workforce Planning (SWP), HR Stack, Design Thinking, Employee Experience Mapping, Touchpoint Management, Rapid Prototyping, Agile Management and many more to ensure a proximate tie up between HR Analytics and Talent Management. (Sparrow, Hird, & Cooper, 2015)

#### **1. Human Capital Analytics (HCA)**

As per the study of Deloitte, 75% of the companies have found that making use of Human Capital Analytics helps in improving the organisational performance. (Minbaeva, 2020) It has been observed that there is a readiness gap between HR and people analytics that has turned out as a major reason for unsuccessful implementation of Talent Management plans. The capability gap thus created is due to poor data quality, lack of skills and inadequate knowledge. Thus, for the success of HCA, three major heads shall be kept under consideration: data quality, strategic ability of the organisation and analytical competencies. In today's era, the organisations need to spend in human capital wisely as they are the major contributors in attaining competitive advantage.



## **2. HR Stack**

It involves reengineering the way things are done in past and revamping the entire process so as to provide better customer experience. Here, stack means collection of technologies and solutions that helps in better management of the people of the organisation. It provides new tools to the companies that holds progressive vision. All those disciplines earlier ignored in HR are taken under consideration in this process. It involves intertwining HR with behavioural economics, agile management, design thinking, project management and many more. (Claus, 2020)

## **3. Strategic Workforce Planning (SWP)**

Strategic Workforce Planning helps in making significant investment in a combination of data and analytics that helps in retaining specific talent by making parallel investment in the same in order to avoid any loss of value. (Sparrow, A Historical Analysis of Critiques in the Talent Management Debate, 2020) SWP helps in computing that how much amount is needed to be invested in the Human Capital so as to enhance their skills and to retain the potential talents in longer run by gaining their loyalty. With emergence of IHRM, HCA and SWP are gaining importance as they help in making the organisational competitive on the global front.

## **4. Design Thinking**

As the name suggest, design thinking involves finding creative ways of solving a problem. In management, Design Thinking involves mingling the creativity with the intuitive thinking that helps in advancing efficiency and innovation. A design centric culture involves more focus over the emotional user experience, creating models to solve the complex problems, tolerating failures and using several prototypes to explore potential solutions. Design thinking involves usage of various tools like experience mapping, touchpoint simplification, rapid prototyping and many more. (Claus, 2020)

## **5. Employee Experience Mapping**

Employee Experience Mapping involves tracking the complete journey of an employee throughout the tenure spent in the organisation. It involves studying the entire job life-cycle. (Claus, 2020) Various qualitative and quantitative data is collected by conducting in-depth interviews in order to record the employee experience and taking required measure to mitigate the negative experience feedback. This helps in making customised training and mentoring programmes to retain talents for longer run in the organisation.

## **6. Touchpoint Management**

This involves determining the emotional touch points of the employees working in an organisation. This is directly linked to the structure, systems and people. These touchpoints can be positive and negative. The negative one shall be the pain points that are needed to be dealt with utmost care. It's the duty of the HR Professional to understand these touchpoints more closely by analysing the behavioural patterns of the employees. If the employee is doing well psychologically, it will definitely stay with the organisation in a longer run.

## **Talent Management in McKinsey through HR Analytics**

The data regarding the behavioural patterns of the employees is collected and stored in a database. The collected data is then combined with the machine learning algorithms. This can be done by a Data Scientist who has an in-depth knowledge of handling such data. Hypothesis has a great role to play in this process. A pool of ideas is created in workshops and interviews. A series of algorithm tests are run to make predictions that helps in developing concrete models. The result brought astonishing facts in front of the HR

Professionals. Usually, it is predicted that compensation or individual recognition are the major reason of the high attrition rate in any company. But ironically it was observed that these days most of the people leave an organisation due to stagnation in the career growth. Lack of mentoring and coaching remain the other major reasons that restrict the talent of the employees from developing further. (Lippens, Schaninger, & tanner, 2015)

## Conclusion

It has been observed that great confusion has been observed in understanding the conceptualisation of HR Analytics. Also, it is not everyone's cup of tea. Organisational need to recruit Data Scientists who have the comprehensive knowledge about handling data collected through HR Metrics. In order to make an informed decision, one need to analyse the data related to HR disciplines deeply which will in turn help in reducing the attrition rate of the talented employees. ( Fernandez & Gallardo , 2021) The major emphasis of any organisation is to have talented professional on the pivotal roles which will help in long term success of the organisation. It is very important to create a 'talent mindset' in any of the organisation in order to ensure its persistent growth rate. (Ashton & Morton , 2005) In order to maintain the success of the organisation in the longer run and to ensure the perpetual succession, it is very important the necessary emphasis is laid upon people analytics, behavioural analytics, human capital analytics, design thinking and strategic workforce planning. As it is said, even a billion-dollar idea collapse if the organisation doesn't have talented workforce for its implementation. Human Resource is the most crucial assets and their retention shall be the utmost concern for any organisation.

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## **Identity Dilemma: Media Re-Victimization of Rape Survivors**

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### **Abstract**

*The right to privacy has been considered a fundamental right under the garb of Article 21 of the Constitution of India. India has also enacted the Right to Information Act to ensure the delivery of information on public affairs. It is also evident that Media often interfere with the privacy of individuals to gather the news. Thus, the privacy of an individual has always been at stake.*

*The paper critically analyses India's statutory developments regarding privacy. Also, the need for privacy becomes even more critical in context to the victims of sexual abuse who are not once but several times abused by the torturous media coverage. Media channels, to gain more publicity, do not mind getting down to any level, even if it adversely affects and threatens the life of the victims and their families.*

*The main purpose of the research paper is to do a collative analysis of the media victimization and analyze the factors and causes behind its gradual build-up in protecting the identities of rape victims.*

**Key-words:** Privacy, Media Trial, Victimisation, Sexual Abuse, Identity Disclosure

### **Introduction**

The media serves as society's gatekeeper and watchdog. It essentially extracts the information through all the concerned stakeholders and constructs a viewpoint on the alleged subject matter that fundamentally contributes in fostering public mood, awareness, and activism outside the courtroom via different channels of persuasion i.e. through campaigning, discussions, advocacy, and advertising furthering the mobilization of public perception.

The recent fad in media reporting labelled as "trial by media" has observed scandalously crafted storylines with imprudent facts culminating in the infringement of individual rights, which has morphed media reporting into a media circus. Besides suspects and accused, victims and witnesses are also subjected to undue attention resulting into incursion of their privacy. On the other side, the "trial by media" hinders the administration of justice and tends to lower the authority of courts by meddling in the investigation thereby hindering the functioning of investigating agencies.

The media has effectively undertaken the cause of justice for the cases of *Jessical Lal*<sup>1</sup>, *Priyadarshini Mattoo*<sup>2</sup>, *Aarushi Hemraj – Double Murder Case*,<sup>3</sup> and many more simultaneously, it

has on one hand without considering the severity of the cases, interfere with the rights of the people involved in the case and on the other hand tried to usurp the prerogative of the courts to try the cases.

Hence, the media involves itself so intensely and during such high publicity court cases, the media sensationalizes the case and provokes the atmosphere of public hysteria which not only makes a free and fair trial impossible but also maligns the reputation of both the victim as well as the accused.

### **Historical background**

In India, the natural need for autonomy or control over confidential parts of lives of the masses was first encountered in early holy texts. The ancient tales of 'Hitopadesh' is the oldest example of the same. Further, the 'Shastras' also suggested that certain matters such as family matters; worship, sex, etc. shall be protected from the ultimate disclosure. Then this right developed in its most decisive state during the times of the British Raj, whereby the Indians were introduced to the actual concept of privacy.

Post-independence while the framing of the constitution, as a result of the successful application of the 'Right to Privacy' in America, suggestion regarding the inclusion of it in the bill of Fundamental Rights was also given. But this suggestion was negated by the majority. As an outcome of this assessment, the 'Right to Privacy' was not exclusively mentioned in the Indian Constitution. Its inclusion has rose questions about its existence in India from time to time.<sup>4</sup> However, on August 24, 2017, a nine-judge bench of the Apex Court headed by chief justice JS Khehar, ruled that the right to privacy is a fundamental right for Indian citizens under the Indian Constitution (notably under Article 21 and under Part III of the Indian Constitution).

### **Sexual assault and violence against women**

Abuse of women is shown in appalling distinct ways, from domestic abuse and rape to child marriages and female circumcision. All of these are the infringement of the most basic human rights.

When a woman is raped, she suffers significant physical and mental distress as a consequence of the incident and the subsequent events of unveiling the type, severity, and particulars of the assault to law enforcers. Furthermore, once the perpetrator was apprehended, the survivor would more inevitably be compelled to testify in a public courtroom regarding the assault to which she was the subject inducing her to additional mental trauma. Throughout this period the woman is trying to regain a sense of control and autonomy in her daily living situation. Compounding these and other difficulties, some women are being further victimized by

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<sup>1</sup>Manu Sharma v. State(NCT of Delhi), (2010) 6 SCC , available at, [http://www.supremecourtcases.com/index2.php?option=com\\_content&itemid=99&do\\_pdf=1&id=18595](http://www.supremecourtcases.com/index2.php?option=com_content&itemid=99&do_pdf=1&id=18595)

<sup>2</sup> Santosh Kumar Singh v. State, (2010) 9 SCC 747, available at,

[http://www.supremecourtcases.com/index2.php?option=com\\_content&itemid=99&do\\_pdf=1&id=19832](http://www.supremecourtcases.com/index2.php?option=com_content&itemid=99&do_pdf=1&id=19832)

<sup>3</sup>NupurTalwar v. CBI, (2012) 11 SCC 465, available at,

[http://www.supremecourtcases.com/index2.php?option=com\\_content&itemid=99&do\\_pdf=1&id=25568](http://www.supremecourtcases.com/index2.php?option=com_content&itemid=99&do_pdf=1&id=25568)

<sup>4</sup>PRIVACY AND MEDIA LAW, available at, <https://cis-india.org/internet-governance/blog/privacy/privacy-media-law>

having their identities widely disseminated by newspapers and television stations. While fortunately, the phenomenon is not prevalent, if disclosure occurs before trial, it can be one of the more cruel aspects of this traumatic experience.

Therefore, the disclosure of the identity of a rape victim is an outrageous and shocking penalty imposed on a woman already brutalized by a violent and terrorizing crime. Though the right to privacy has become an intrinsic part of the right to life and is well recognized by the Courts, in the absence of comprehensive legislation on the subject in India, it has failed to acquire the status of an absolute right, especially in matters of protecting the identities of rape victims.

### **National and international laws on the disclosure of the identity of rape victims:**

Indian law does not prohibit just the disclosure of the names of rape victims but of information potentially leading to the identification of rape victims. The protection of the identity of rape victims could be considered to be a requirement of both criminal law and civil law — the identity of rape victims is protected under statutory law, case law, and (presumably) tort law relating to privacy (not to mention constitutional law).

Section 228-A of the Indian Penal Code lays down the provisions barring the disclosure of the identity of the victim of certain offenses.<sup>5</sup>

Similar laws exist in other countries such as the United Kingdom where victims of sexual assault are generally given lifetime anonymity under the Sexual Offences (Amendment) Act, 1992. The UNICEF also has guidelines in place relating to media reporting on children. The guidelines emphasize changing the name and obscuring the visual identity of any child who is identified as the victim of sexual abuse and exploitation.

Apart from this, there are, of course, several guidelines and policies which are relevant when it comes to reporting rape. Despite having laws that protect not just the name but any matter that may make known the identity of the victim, there have been multiple instances in which identities have been revealed and there is a clear variance in interpretation by courts and standards applied to cases. Women in India suffer shame for being raped because it undermines their “value” to be known as the damaged “property” of their husband or father. Thus, it is important to protect the identity of rape victims to prevent further scrutiny and stigma. The judiciary, which is supposed to uphold the law, has violated provisions multiple times, setting a very bad example for law enforcement and reporters.

### **Prohibition of law and privilege of media**

It has remained a sour bone of contention for many that the roots of S.228A of the Indian Penal Code stem from the orthodox thinking promoting counterproductive social stigma that a victim of a sexual offense is equally at fault. However, it has been argued by the other side that S.228A is rather a protective statute and we are still not ready to wind it up for good on account of social standards. The question of “marriage prospects” and “degradation of respect” in society are some of the common arguments that are advanced against it.

Identical provisions exist under Section 23 of the Protection of Children from Sexual Offences Act 2012 (POCSO) which prohibits disclosure of name, address, photographs, family details, school, neighborhood, or any other particulars which may lead to the disclosure of the identity of a victim of sexual offenses. However, the sentence in the two

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<sup>5</sup> *LAW ON DISCLOSURE OF IDENTITY OF RAPE VICTIMS*, available at, <http://copyright.lawmatters.in/2013/11/law-on-disclosure-of-identity-of-rape.html>

sections varies. While contravention of S.23 leads to up to 1-year contravention of S.228A may lead to imprisonment up to 2 years.

It may be pertinent to mention that it is not just the category of victims that have been granted protection under the law. Section 21 of the Juvenile Justice (Care and Protection of Children) Act, 2000, also protects the identity of alleged rapists who are juveniles.

### **Disclosure challenging social stigma**

In the Delhi Gang Rape Case<sup>6</sup> where the parents of the deceased victim openly came forward and disclosed the name of the victim. They remarked that “Our daughter was not at fault. If anyone should hide their identities, it should be the perpetrators.” This statement encouraged a radical and

long-awaited stand that should have been taken by society. It has been the plight of m the people and NGOs that our approach towards sexual offences and assistance to victim has been ironically misconceived. The old and orthodox model of society which needs drastic makeover in the form of abolition of prohibition on disclosure of identity of the victim was taken head to head by the family of victim here. While the agenda behind such enactment predominantly sounds like a rude mock up towards assisting the victim it has been approved and enforced despite of its subsisting grotesque moral deformities.

The actual root of the problem is that our society has been largely unable to decide as to whether they should support disclosure of identity of victim or keep her identity in solitude. While the first promotes a good thinking of evolving society, the later has been as per government instrumental in protecting victim from post offence atrocities and vicious ridicule.

### **Section 228a : inception & intent**

Section 228A was inserted in the Indian Penal Code by the Criminal Law Amendment Act, 1983 to prevent social victimization or ostracism of the victim of a sexual offence. The proposed idea behind this was to save the victim from the post offence atrocities of society which came in the form of ridicule and deterioration of marriage prospects. Rape and sexual assault victims were commonly targeted as one who was abetting the crime. Surrendering to the social stigma of victimization after crime, the legislature came up with S.228A prohibiting anyone from making identity of victim of such offence known. While it cannot be denied that the media houses and news reporting agencies are cautious about such law, still there have been instances where there have been willful or negligent breaches.

Currently S.228A provides exceptions to non-disclosure requirements under the law: These are:

- a) by or under the order in writing of the officer-in-charge of the police station or the police officer making the investigation into such offence acting in good faith for the purposes of such investigation; or
- b) by, or with the authorization in writing of, the victim; or
- c) where the victim is dead or minor or of unsound mind, by, or with the authorization in writing of, the next of kin of the victim:

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<sup>6</sup>MUKESH AND ANR VS. STATE FOR NCT OF DELHI AND ORS. (5 MAY 2017), Available at, [https://www.scribd.com/document/347408982/Mukesh-and-Another-vs-State-for-NCT-of-Delhi-and-Others#from\\_embed](https://www.scribd.com/document/347408982/Mukesh-and-Another-vs-State-for-NCT-of-Delhi-and-Others#from_embed)

Provided that no such authorization shall be given by the next of kin to anybody other than the chairman or the secretary, by whatever name called, of any recognized welfare institution or organization.

In the case of *R. Lakshmipahri v. Ramalingam*<sup>7</sup>, a newspaper was allegedly found to have involved in disclosure of identity of the victim. However, on careful perusal of the case, the court found that the publication was made at the instance of a recognized welfare association. And accordingly, it did not attract the provisions of S.228A.

In State of *Karnataka v. Puttaraja*<sup>8</sup>, it was held that it would be appropriate that in the judgment, be it of Supreme Court, High Court or lower court, the name of the victim should not be indicated.

A similar finding was made by the Apex court in the case of *Om Prakash v. State of UP*<sup>9</sup>, wherein the court emphasized on the rule of caution and not disclosing the identity of victim in judgments.

Going by the Section it is ample clear that the legislature was suspicious about the involvement of private parties not being a welfare institution trying to profit out of the tragic story of the victim. Hence this section was cautiously closed with the proviso clause expressly granting such exception to welfare institutions. However, going by the greedy nature and ulterior motives of less ethical news agencies, there always remains a tendency of welfare institution being a hand in glove with the news houses. Since the probability of such union cannot be entirely ruled out, it would be unjust to allow such publication.

#### **Prominent cases which led to the change of scenario:**

##### **Kathua Rape case<sup>10</sup>:**

The order dated 13.04.2018 passed in a suomoto matter taken up by the Hon'ble Delhi High Court comprising of acting Chief Justice Gita Mittal and Justice C Hari Shankar again sparked the controversy regarding "identity disclosure of victim involved in certain offences." The terrible tragedy of the Kathua Rape & Murder Case (name and identity of the victim not being disclosed as per S.228A of Indian Penal Code & Section 23 of the POCSO) where a minor girl was allegedly kidnapped and continuously surrendered to the humanity shaming brutality was taken up by the Hon'ble Delhi High Court on account of breach of identity disclosure norms. The bench categorically stated that:

"Unfortunately the nature and manner of reporting of the alleged offence is being effected in absolute violation of specific prohibition of law disrespecting the privacy of victim which is required to be maintained in respect of the identify of a victim."<sup>11</sup>

Shocked by the role of media houses and news reporting agencies, the bench issued notice to 12 media houses including The Times of India, The Hindustan Times, The Indian Express, The Hindu, NDTV, Republic TV, and Firstpost.

##### **Fines for disclosing identity of the victim:**

<sup>7</sup>R. Lakshmipahri v. Ramalingam 1998 CrLJ 3683 (Mad)

<sup>8</sup>State of Karnataka v. Puttaraja 2004 CrLJ 579 (SC)

<sup>9</sup>Om Prakash v. State of UP 2006 CrLJ 2913 (SC)

<sup>10</sup>Mohd. Yusuf Vs. State of J&K

<sup>11</sup>"Kathua child rape and murder: India court finds six guilty". *BBC News* <https://www.bbc.com/news/world-asia-india-48552354>



The Delhi High Court issued a fine of 10 lakh rupees on twelve media houses in India for disclosing the name of the rape victim as well as other details including the usage of photographs of the victim. This action by the High Court of New Delhi was taken *suo-motu* and under the Protection of Children from Sexual Offences Act, 2012 and the Indian Penal Code. The fine was to be paid within a week. The money collected from the fine has gone to the Jammu and Kashmir Victim Compensation Scheme<sup>12</sup>.

Lawyers representing media houses claim that the mistake was only made because there was a misunderstanding that the law in this case only extended to naming and revealing information related to rape survivors, and not rape victims. Following this, media houses across the country blanked out the name of the victim online in already published articles also.<sup>13</sup>

In mid-2016, the Delhi Police registered a case against Delhi Commission for Women chief Swati Maliwal for allegedly revealing the identity of a **14-year-old Dalit rape victim** in a notice she sent to the police station chief of the area the victim was from. In 2018, a Delhi court rapped the city police for revealing the identities of victims of sexual violence in a chargesheet it had filed.

Indeed, *the Nirbhaya case* shows that sufficient public will and outrage can coalesce even around an unnamed victim, so it's not as though sentiment – and even legal change – can only be driven through naming and showing the victim. In fact, it is arguable that a more generic term like the one used then,

'Fearless', could potentially have an even greater impact. No matter what they thought, the media took care to follow the law, even after she had died. Eventually Nirbhaya's name was made known, after her parents agreed to do so, and the appropriate procedures had been followed. There was a bit of confusion since the parents used her name for the first time in a media interview rather than first informing the police or the courts, sure, but it took nothing away from the reporting, or the outrage, or the powerful activism that helped usher in the criminal law amendments of 2013.

**Kathua rape case** is not an isolated incident<sup>14</sup>. The following cases will also highlight the same issue:

1. **G. Premshanker v. Inspector of Police and Another**, wherein Justice M.B. Shah, Justice B.P. Singh and Justice H. K. Sema Bench on 12th September 2002 mentioned the name of the victim of rape twice although it was not a judgment passed in a rape case.

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<sup>12</sup> "Kathua rape and murder case: Delhi High Court slaps Rs 10 lakh fine on media houses for revealing victim's identity". *The New Indian Express*. <http://www.newindianexpress.com/nation/2018/apr/18/kathua-rape-and-murder-case-delhi-high-court-slaps-rs-10-lakh-fine-on-media-houses-for-revealing-vi-1803122.html>

<sup>13</sup> "Kathua rape and murder case: Media houses apologise before Delhi HC for revealing victim's identity - Firstpost". *www.firstpost.com*. Retrieved 24 April 2018, <https://www.firstpost.com/india/kathua-rape-and-murder-case-media-houses-apologise-before-delhi-hc-for-revealing-victims-identity-4436297.html>

<sup>14</sup> SC again violates privacy of a rape victim, <https://www.livelaw.in/breaking-sc-violates-privacy-rape-victim-mentions-name-age-ironically-voices-concern-violence-women/>

2. **Shivu and Another v. R.G. High Court of Karnataka and Another**, Justice ArijitPasayat on 13thFeb 2007 disclosed the name of the rape victim 6 times in the judgment.
3. **State of Rajasthan v. Munshi**, wherein Justice Harjit Singh Bedi of the Supreme Court of India on 12th Oct 2007 disclosed the name of the rape victim 10 times in the judgment.
4. **Bantu v. The State of U.P.**, Justice ArijitPasayat again on 23rdJuly 2008 disclosed the name of the rape victim 6 times in the judgment.

### **The need and purpose behind non disclosure of identity:**

The true object of disclosure of identity of victim should be in interest of both victim and public. While the struggle of victim should encourage the society in recalibrating the legal regime and our social standards, it is also the obligation of the society who knows the identity of the victim to come up with financial and emotional assistance for her rehabilitation. NGO's and social activists would be in a better position to assist the victims if their identities are in their knowledge. Contrary to popular public opinion it is not the solitude but helping shoulder that would give way to better future.

### **Non-compounding nature of offence:**

The offence under S.228A cognizable, bailable and non-compoundable. The offence has been kept non-compoundable so that powerful media houses do not buy victims approval out of the very money which is made from selling the news. The profits generated by viewer attracting news are undisputedly remarkable. If the sanctity of this Section and corresponding provisions is to be kept, it would require the non-compounding nature of the offence to continue.

### **Nipun saxena v. Union of India<sup>15</sup>:**

In this case, The Bench comprising of Madan B. Lokur and Deepak Gupta, JJ. laid down directions and threw light in a very precise and analytical manner on two very important and pertinent issues:

***ISSUE 1- Identity of adult victims of rape and children who are victims of sexual abuse should be protected so that they are not subjected to unnecessary ridicule, social ostracisation and harassment;***

***“Victim of a sexual offence, especially a victim of rape, is treated worse than the perpetrator of the crime.”***

- Court made it clear that they do not want to in any manner curtail the right of the defence to cross-examine the prosecutrix, but the same should be done with a certain level of decency and respect at large. Efforts have been made to sensitise the courts, but experience has shown that despite the earliest admonitions, the first as far back in 1996, *State of Punjab v. Gurmit Singh*<sup>16</sup>, the Courts even today reveal the identity of the victim. Further, the Court referred to Section 228A IPC (Disclosure of identity of

<sup>15</sup>NipunSaxena& ANR. Vs. Union of India &Ors, [Writ Petition (Civil) No. 565 of 2012] available at, <https://www.advocatekhaj.com/library/judgments/announcement.php?WID=10864>

<sup>16</sup>*State of Punjab v. Gurmit Singh*, (1996) 2 SCC 384

the victim of certain offences etc.), Section 327 CrPC, 1973 (Courts should be open and normally public should have access to the Courts) , stated that vide the Amendment Act of 1983, cases of rape, gang rape etc. were excluded from the category of cases to be tried in open Court.

- Sub-Section (2) of Section 228A is **making known the identity of the victim** by printing or publication under certain circumstances described therein. Bench making it clear that the phrase “*matter which may make known the identity of the person*” **does not solely mean that only the name of the victim should not be disclosed but it also means that the identity of the victim should not be discernible from any matter published in the media.**

#### **Issue 2- Issues which relate to non-disclosure of the name and identity of a victim falling within the purview of the POCSO.**

- “*India is a signatory to the United Nations Convention on the Rights of Child, 1989 and Parliament thought it fit to enact POCSO in the year 2012, which specifically deals with sexual offences against all children.*”
- Section 24(5) and Section 33(7) makes it amply clear that the name and identity of the child is not to be disclosed at any time during the course of investigation or trial and the identity of the child is protected from the public or media.
- The bench further detailed out that media has to be not only circumspect but a duty has been cast upon the media to ensure that it does nothing and gives no information which could directly or indirectly lead to the identity of the child being disclosed.
- “**Media should be cautious not to sensationalise the same.**”  
*Sensationalising such cases may garner Television Rating Points (TRPs) but does no credit to the credibility of the media.*
- A child belonging to a small village, the disclosure of the name of the village may contravene the provisions of Section 23(2) POCSO because it will just require a person to go to the village and find out who the child is—Media is not only bound to not disclose the identity of the child but by law is mandated not to disclose any material which can lead to the disclosure of the identity of the child and such violation would amount to an offence under Section 23(4). Another point raised by the amicus curiae was that the publication should only mean a living child to which the Supreme Court was in total disagreement, as in the case of dead victims, the factor which was to be kept in mind was the dignity of the dead which they cannot be denied of.
- The decision of Calcutta High Court in, *Bijoy v. State of W.B.*, 2017 SCC, detailed out the reasons while dealing with the provisions of POCSO and held that neither during investigation nor during the trial name of the victim should be disclosed. The judgment also laid down directions to ensure that the provisions of the law are followed in letter and spirit, and

the fundamental rights of child victims are protected, to which the Supreme Court bench in the present case is in agreement.

- The Bench requested the Chairpersons and Members of all the Juvenile Justice Committee of all the High Courts to go through the judgment of the Calcutta High Court stated above and issue directions keeping in view the needs of each High Court/State. The Court also detailed out the establishments of “**One Stop Centres**”, by taking inspiration from “**BHAROSA**” in Hyderabad which can be used as a model for other one-stop centres in the country.

## Conclusion

“Identity of victims of rape, sexual assault can’t be disclosed even in remote cases, says-Supreme Court”. Also, nobody can have objection to the victim disclosing her name as long as she is a major and has taken a decision regarding this voluntarily.

SC validated the non-disclosure of the identity of victims giving directions at every point of procedure. Now, it’s the duty of the fourth pillar of our democracy i.e. MEDIA to abide by the decision and help in safeguarding the administration of justice and maintaining the severity of the cases by giving protection to the victim’s identity. Thus, at last, it is pertinent to understand the role of media in democracy.

## Role of Media in Democracy and Good Governance

*“If it were left on me to decide whether we should have a government without newspapers or newspapers without a government, I should not hesitate a moment to prefer the latter”*

*– Thomas Jefferson*

The role of media in India, the largest democracy of the world is different from merely disseminating information and entertainment. Educating the masses for their social upliftment needs to be in its ambit as well. In a country where there is large scale poverty, unemployment and underdevelopment media has a responsibility towards developmental journalism. It has a role to play behind the formation of public opinion which can force the political parties to address the core issues haunting the country’s progress. It is thus referred to as the fourth pillar of democracy. However; public opinion can be manipulated by vested interests to serve their own goals.

Good governance is an ideal system which is difficult to achieve in its totality. In other words, no country or society has ever said to achieve good governance in totality. We can only come close to this by our activities with the aim of making this ideal a reality. The journey of India from developing nation to a developed nation will depend on the role played by the media in the country. It needs to be focused on real matters, which are mostly social and economic in nature, instead of trying to divert the attention to the known issues. Achieving good governance requires the understanding and participation of every member of society. The media, their significant roles, channels and contents, are considered to be the most powerful weapon to make this achievement a reality.

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## **A Study on Financial Derivatives Market**

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### **Abstract**

*In finance, a contract that derives its value from the performance of an underlying entity like any asset, index, or interest rate is derivative. Derivatives are used for various purposes like insuring against price movements (hedging), increasing exposure to price movements for speculation, or getting access to hard-to-trade assets or markets, forwards, futures, options, swaps are some of the common types of derivatives and variations of these such as synthetic collateralized debt obligations and credit default swaps. Uses of Financial derivatives include risk management, hedging, arbitrage between markets, and speculation. In the present volatile business environment, risk management is very important. an effective and less costly solution to the problem of risk that is embedded in the price unpredictability of the underlying asset is provided by the emergence of derivatives market in India which has shown a substantial growth over the years. The market turn-over has grown from Rs. 2365 crore in 2000-2001 to Rs. 11010482.20 crores in 2008-2009. The present study includes an analysis of historical roots of derivative trading, types of derivative products, regulation and policy developments, growth and prospects, challenges of derivative market in India.*

**Key-words:** derivatives, forwards, futures, options, swaps, hedging

### **Introduction**

Financial derivatives are contracts whose value depends on a specific asset or indicator or commodity. Financial derivatives help investors to trade specific financial risks (such as interest rate risk, currency, equity and commodity price risk, and credit risk, etc.) to other participants who are more willing to take or manage this risk. The risk involved in a derivatives contract can be traded either by trading the contract itself, such as with options, or by creating a new contract which involves risk factors that match features of the existing contract owned.

### **Working of a Derivative Market**

Trading in the derivatives market is done through Exchanges and Over the Counter (OTC).

- **Exchange-Traded Derivatives:** Exchange traded derivatives are contracts that take place through a broker. For example, Futures and options.
- **Over the Counter Derivatives:** Over the counter derivative contracts are contracts that take place directly between two parties. For example-Forwards and swaps. As a result, such contracts are customised to match the requirements of both parties to the contract.

Furthermore, financial derivative contracts come with an inherent risk of market volatility and are not completely risk free. Hence, it is risky to trade in the derivatives market without proper hedging mechanisms.

### **Participants in a Derivative Market**

Following are the participants within the derivatives market:

- **Hedgers:** Hedgers are often referred as risk-averse traders and their focus is on protection against risk and they always attempt to protect themselves from price fluctuations in the future. They are active participants in the commodities market. Trading in futures and options can offer them such price stability.
- **Speculators:** Investors who wish to earn good profits by taking risk are called speculators. They continuously monitor the markets, the news, and any other information that could affect their trading. They tend to purchase an asset at a lower price in the short term while betting on bigger returns in the long run.
- **Arbitrageurs:** Investors who try to take advantage of the price difference of the same asset across different exchanges are arbitrageurs. They buy securities at a lower cost from one market and sell them at a higher price in a different market.

## Types of Financial Derivatives

The most popular financial derivatives are:

**Futures:** Derivatives contract where the buyer and seller enter into an agreement to fix the quantity, price of the asset and where the date of the transaction is mentioned are known as futures contracts. Upon entering the contract, the buyer and seller are obligated to fulfil their duty regardless of the asset's current market price. Futures contracts are useful for hedging risk and speculation. Although, the main purpose is to fix the price of the asset against volatility.

**Options:** The contracts which derive their value from an underlying asset are option contracts. It is not necessary for an option holder to buy or sell the asset on expiry. The two types of options are:

**Call Option:** The call option holder has the right, but not the obligation, to purchase the asset at the stated price on the specified date. For example, if X buys a call option on Company Z to buy 100 shares at INR 200. As a result, X is unwilling to execute the contract since it is a loss proposition. X has the option not to purchase the stock. X will just lose the premium paid to enter the contract in such a case. As a result, instead of losing INR 5,000, X will just lose the premium paid.

**Put Option:** The buyer of the put option has the right but not the obligation to sell the asset at a specific price on a specific date. Suppose Y purchased a put option on a Company D to sell 100 shares at INR 200 on a certain date. The share price of Company D has increased to INR 250 on the expiration date, and Y is unwilling to execute the contract since he would lose money. Y has the option of not selling the stock and saving INR 5,000.

**Forwards:** Forward contracts are like futures contracts. The contract holder is under the obligation to fulfil the contract, but these contracts are not standardized and are not traded on the exchange.

**Swaps:** Derivative contracts that help two parties to exchange their financial obligations are swaps contracts. Corporate use swap contracts to minimize their uncertainty risk of certain projects. There are four types of swaps namely, interest rate swaps, currency swaps, commodity swaps and credit default swaps.

### **Key reasons why investors choose financial derivatives**

- To deal with market volatility: Financial assets are highly volatile in nature and the price fluctuations can often lead to heavy losses. Investors can leverage the financial derivatives to minimize their losses. Suitable derivatives contracts can help shield from price fall as well as price rise.
- Arbitrage opportunities: An arbitrage is the simultaneous purchase and sale of an asset to profit from a difference in the price. Derivatives contracts help in gaining profits from the price differences of identical or similar financial instruments on different markets or in different forms.
- Access to different assets and markets: Derivatives can help businesses gain access to assets or markets that might otherwise be unavailable.

### **Disadvantages of monetary Derivatives**

Despite the advantages that derivatives waken the financial markets, the financial instruments include some significant drawbacks. The drawbacks resulted in disastrous consequences during the world Financial Crisis of 2007-2008. The rapid devaluation of mortgage-backed securities and credit-default swaps led to the collapse of economic institutions and securities round the world.

1. **High risk** -The high volatility of derivatives may lead to potentially huge losses. The delicate design of the contracts makes the valuation extremely complicated or perhaps impossible. Thus, they bear a high inherent risk.
2. **Speculative features** -Derivatives are widely thought to be a tool of speculation. thanks to the extremely risky nature of derivatives and their unpredictable behaviour, unreasonable speculation may result in huge losses.
3. **Counter-party risk**- Although derivatives traded on the exchanges generally bear an intensive due diligence process, several the contracts traded over the counter don't include a benchmark for due diligence. Thus, there's a chance of counter-party default.

### **Prospects of Derivatives market**

#### **To Hedge**

Derivatives were originally created as tools for hedging. Businesses face plenty of risks associated with commodity prices in their day-to-day operations. for example, the operations of an airline firm are largely tormented by the costs of jet fuel. the costs of jet fuel fluctuate daily. Hence, businesses cannot earn a stable income. Organizations usually prefer stability and hence there's a requirement for a financial instrument which might ensure stable prices irrespective of the increase and fall in commodity prices. Exporters face lots of risk associated with interchange. Their goods are invoiced in foreign currency. The exchange rates between the foreign and native currency change every second. Hence, the profitability of such an export-oriented firm is hit by these changes within the commodity prices. They too feel that there's a requirement for a financial instrument which may provide them a stable charge per unit no matter the ups and downs within the market, so they'll plan their operations supported this stable platform. Lastly, a farmer faces the danger of the variability within the price of his produce. If there's excess produce every year, then the costs are low as an alternative the costs are high. The farmer wants to induce obviate this price variability and



hence feels that there's a desire for a financial instrument which will help him fix the costs. Hedging is that the legitimate reason for the existence of derivatives. Hedging happens when the people buying or selling derivatives contract use the underlying asset within the day-to-day operations of their firm.

### **To Speculate**

The second commonest reason behind the usage of derivatives is theory. Now, this could not appear to be a legitimate reason. However, speculators are necessary participants in any market as they supply liquidity. Hedging happens when the parties to a contract have genuine business interests within the underlying asset. Speculation is that the exact opposite. Speculators haven't any interest within the underlying asset and participate within the contract because they believe that they will make a gain out of the value movements. for example, if you think that the US dollar will depreciate significantly against the Euro within the next month, derivatives contracts enable you to require a foothold on this within the market. Since derivative contracts are extremely leveraged, speculation within the derivative market could be a highly risky business. However, there are those that focus on doing so.

### **Circumventing Regulations**

The third reason why derivatives are utilized in the marketplace is to bypass regulation. Certain institutions like pension funds are prohibited from making investments in any quite risky securities. Hence, derivatives help in superficially de-risking the securities and making it legal for the pension funds to buy them. Consider the case of mortgage-backed securities. Pension funds weren't allowed to speculate money in land since it had been considered a risky bet. However, investment bankers created de-risked mortgage-backed securities which were backed by agencies like FNMA. These securities perceived to be harmless and hence pension funds could legally trade them. There are many such instances wherein derivatives are wont to circumvent regulations and alter the very nature of the investment being made.

### **Minimizing Trade Costs**

Investors don't like transaction costs. Derivatives provide a good thanks to avoid and evade them. This will be best explained with the assistance of an example. Consider the case of a corporation that has taken a set rate loan from a bank. Hence, they want they must take a floating rate loan. However, closing the loan before its day of the month would attract prepayment penalty. Also, taking a replacement loan would generally attract processing charges. Hence to avoid these transaction costs on either side, a firm can simply structure a swap wherein they'll turn to floating interest rates without bearing any of the above-mentioned transaction charges. Hence, derivatives are extremely useful financial instruments. This usefulness adds tremendously to their popularity and explains why ever Multinational Corporation, major bank or investment bank within the world is very involved in derivative trading.

### **Methods**

The present study is exploratory in nature and is envisioned to find out the reasons for investors preference towards Futures and Options. The study will analyse the level of satisfaction among the investors, the factors influencing their decision to invest and their risk and returns from Futures and Options trading. Besides this, the study also focusses on the problems faced by the investors in Futures and Options trading. The study gives a clear picture of the present scenario in the derivative market with the help of accurate measures.

The population consist of regular stock market investors spread over different places. Here, stock market investors refer to those who have a DEMAT account to operate and invest in stock market. The pilot study was conducted for three months. After making necessary modifications in the questionnaire, the final survey was conducted from March 2022 to May 2022. The study covered 175 investors. Moreover, secondary data from the NSE and BSE relating to Futures and Options trading and their reports were based on the final figures available from the year.

## **Results**

There is an explosive growth in derivatives market in India and is anticipated to continue within the years both in terms of volumes and numbers of traded contracts. Derivative trading in Indian markets in NSE accounts around 99 percent alone. The introduction of derivatives gained popularity among securities market players. In due course, the turnover of the NSE derivatives market superseded the turnover of the NSE cash market. If we compare the trading figures of NSE and BSE, performance of BSE isn't excellent. Among all the products traded on NSE, single stock futures also referred to as equity futures are most popular in terms of volumes and number of contracts traded with turnover shares of 52 percent, followed by index futures with turnover shares of 31 percent. Just in case of BSE, index futures outperform stock futures. A crucial feature of the derivative segment of NSE which can be observed from Table 6 and Table 7 is that the huge gap between average daily transactions of its derivatives segment and cash segment. In sharp contrast to NSE.

**Table 5:** NSE Cash & Derivatives Segment Turnover

(Rs. in Cr.)

Year	Cash Segment	Derivatives Segment
2007-08	3,551,038	13090477.75
2006-07	1,945,285	7356242
2005-06	1,569,556	4824174
2004-05	1,140,071	2546982
2003-04	1,099,535	2130610
2002-03	617,989	439862
2001-02	513,167	101926
2000-01	1,339,510	2365

Source: Compiled from NSE website

**Table 6:** Number of contract Traded at NSE Derivatives Segment

Year	Index Futures	Stock Futures	Index Options	Stock Options	Interest Rate Futures	Total
2008-09	136476747	149159997	116790708	7826231	0	410253683
2007-08	156598579	203587952	55366038	9460631	0	425013200
2006-07	81487424	104955401	25157438	5283310	0	216883573
2005-06	58537886	80905493	12935116	5240776	0	157619271
2004-05	21635449	47043066	3293558	5045112	0	77017185
2003-04	17191668	32368842	1732414	5583071	10781	56886776
2002-03	2126763	10676843	442241	3523062	-	16768909
2001-02	1025588	1957856	175900	1037529	-	4196873
2000-01	90580	-	-	-	-	90580

Source: compiled from NSE website

**Table 7:** Average Daily Transaction at NSE in Derivatives and Cash Segment

Year	Derivatives Segment	Cash Segment
2007-08	52153.30	14,148
2006-07	29543	7,812
2005-06	19220	6,253
2004-05	10107	4,506
2003-04	8388	4,328
2002-03	1752	2,462
2001-02	410	2,078
2000-01	11	5,337

Source: Compiled from NSE website and NSE fact book 2008

**Table 8:** BSE Derivatives Segment Turnover

Year	Index Futures	Stock Futures	Index Options		Stock Options		Total
			Call	Put	Call	Put	
2007-08	234660	7609	31	8	0	0	242309
2006-07	55491	3515	0	0	0	0	59006
2005-06	5	1	3	0	0	0	9
2004-05	13600	213	1471	827	2	0	16112
2003-04	6572	5171	0	0	174	157	12452
2002-03	1811	644	1	0	21	0	2478
2001-02	1276	452	39	45	79	35	1922
2000-01	1673	-	-	-	-	-	1673

Source: Compiled from BSE website & various issues of SEBI bulletins

## **Discussion**

The relationship between risk and return from derivative trading entails consideration of investor's satisfaction level in respect to different variables. The current study was conducted in Ghaziabad. The amount of satisfaction and attitude of the investors were analysed with the assistance of various statistical tools and methods. The tactic utilized in the study is exploratory because it utilizes scoring of the variables. Both qualitative and quantitative data is collected. Accordingly, the study uses both qualitative and quantitative techniques for the analysis of information. The statistical analysis comprised of two stages. The primary stage examined the descriptive statistics of the measurement items and assessed the reliability and validity of the measure applied during this study. The second stage tested the proposed research model, and this involves assessing the contributions and significance of the manifest variables path coefficients. The information was analysed via SPSS 20.0 for Windows.

### **Based on Profile of the Respondents**

The study shows that majority of the respondents under study are male investors. This indicate that Futures and Option trading is popular among males compared to female investors. The study shows that investor within the people of 20 to 30 years constitute major proportion of investors who exchange derivatives while investors with age above 50 years constitutes a awfully low proportion of investors in derivative market segment. It is discovered that the age of the respondents is has no significant effect on the amount of satisfaction among the investors. The study shows that investors having professional degree are dominating the Futures and Options market compared to investors with bachelor's degree. It is also found that the extent of education of the investors influence their satisfaction from derivative trading. Most of the investors under the study are private sector employees constituting 60 percent of the respondents followed by professionals, Businessmen, daily earner, and unemployed persons. It is often seen from the study that occupation of the investors influences their level of satisfaction from Futures and Options trading. It is found that most of the investors under the study earn Rs. 41,000 to Rs. 50,000 per month, followed by investors quite Rs.50,000 p.m. This shows that investors with high monthly income can invest in derivatives compared to low-income groups. Therefore, it may be concluded that income of the respondents effect their level of satisfaction.

### **An Insight into Derivative Trading**

The study shows experience of respondents within the stock exchange incorporates a significant role in their derivative trading. Majority of the respondents (51.9 percent) has an experience of 0 to five years, followed by respondents (38.9 percent) with 6 to 10 years. Hardly 2.9 percent of respondents has an experience starting from 15 years and above. Thus, it's concluded that exposure to the exchange guides the investor who are willing to require risk to take a position in futures and options. It clearly shows that investors must have experience to trade the derivative market segment. Majority of the investors have an experience of three to 4 years. It also seen that investor with but a year exposure to derivative market segment is trading in derivatives. Thus, we can conclude that derivative trading is getting quite popular nowadays. Most of the investors are willing to tolerate risk at a medium level while trading in derivatives. This brings out the very fact, if there's a return from trading investors is willing to require more risk. Majority of the investors invest 10 percent to 30 percent of their money in futures and options, followed by 37 percent of the investors with 30 percent to 50 percent. this means that investors are now willing to speculate more and is actively participating within the Futures and Options segment. Thus, we will conclude that

Futures and Options trading is one among the foremost profitable investment avenues within the present scenario. Majority of the investors hedge around 21 percent to 50 percent of their investment risk through Futures and Options. Therefore, apart from earning returns derivatives are an effective tool for hedging investment risks.

The study shows that Stock Futures are the most preferred derivative instrument among investors. Stock Options and Index Options are least preferred by investors.

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## **Drug Addiction is the Problem of Youth and Society**

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### **Abstract**

*Many people don't understand why or how other people become addicted to drugs. They may mistakenly think that those who use drugs lack moral principles or willpower and that they could stop their drug use simply by choosing to. In reality, drug addiction is a complex disease, and quitting usually takes more than good intentions or a strong will. Drugs change the brain in ways that make quitting hard, even for those who want to. Fortunately, researchers know more than ever about how drugs affect the brain and have found treatments that can help people recover from drug addiction and lead productive lives.*

### **Key-words:**

Adolescent behavior, Alcohol drinking, Behavior, addictive, Brain, Central nervous system stimulants, Cocaine-related disorders, Compulsive behavior, Confidence intervals, Depression

### **Introduction:**

The concept of drug, drug abuse, drug dependence, drug addiction and abstinence syndrome need some clarity, 'Drug' is a chemical substance associated with distinct physical and / or physiological effect. It alters a person's normally bodily processes or functions. But this definition is too broad. In medical sense, a drug is a substance prescribed by physician or manufactured expressly for the purpose of treating and preventing disease and ailment by its chemical nature and its effect on the structuring and functions of a living organism. In the physiological and sociological contexts, drug is a term for habit-forming substance, which directly affects the brain or nervous system. More precisely, it refers to "any chemical substance, which affects bodily function, mood, perception, or consciousness which has potential for misuse, and which may be harmful to the individual or the society" (Julian 1977). In terms of this definition, the frequent use of drug is considered so dangerous and sometime even immoral and ant-social that it arouses a variety of indignant and hostile sentiments on the part of general public. Some drugs, are however, relatively innocuous and are not addictive or accomplish by harmful physiological effects. The use of such drug stands in marked contrast to the use of illegal drug like heroin, cocaine and LSD or the consumption of legal drug like alcohol, tobacco, barbiturates, and amphetamines, all of which are associated with distinctly harmful physical effects on the habituated to them.

Drug addiction, also known as substance use disorder, is a condition, which has become a concern all over the world. Many people don't understand what drug addiction is and how someone gets addicted to drugs. They think that people who get addicted to drugs are either not

willing to quit or lack the willpower to do so. But in reality, it is a more complex problem than that. Drugs change the brain chemistry of a person in such a way; it becomes very difficult to quit, even if you want to.

- Knowing about the effect of drug addiction.
- Tracing the effects of drug addiction on the younger generation
- Finding out the cause of drug addiction
- Finding a solution to drug addiction

### **What is drug addiction?**

Drug word 'addiction' is generally used to describe physical dependence. Thus, 'addiction' or 'physical dependence' is "state whereby the body requires continued administration of the drug in order to function". Body functioning is interfered with if the drug is withdrawn, and withdrawal symptoms appear in a pattern specific for the drug. The total reaction to deprivation is known as 'abstinence syndrome'.

Drug addiction is a complex neurobiological disorder, which affects a person's brain and behavior in a way that they lose the ability to resist the urge to use drugs. It isn't just about illegal drugs like heroin and cocaine. You can get addicted to substances like medication drugs, alcohol, nicotine, marijuana and other legal drugs as well. Drug dependence usually starts with an experiment. Initially, you take drugs because you like the way it feels. You think it's a one-time experience and you can handle it. Also, many people start using drugs as self-medication or to cope with stress. But repeated misuse of drugs physically changes how your brain works. It makes you lose self-control and messes with your ability to avoid the desire to take drugs. These changes in the brain can be long lasting. People who are in recovery from drug abuse are likely to return to drug use even after years of being in recovery from drug addiction. This is called drug relapse.

### **Empirical studies of drug addiction**

#### **Study of College / Universities Students:**

The studies on drug abuse among college / university students may be classified as (a) single studies, (b) joint studies and (c) multicenter studies. Single studies were conducted by scholars like Banerjee (in Calcutta in 1963), Dayal (in Delhi in 1972), Chitnis (in Bombay in 1974) and Varma (in Punjab in 1977). Joint studies were conducted by Sethi and Manchanda (in Uttar Pradesh in 1978), and by Dube, Kumar, and Gupta (in 1969 and 1977). Multicentred studies were conducted in 1976 (in seven cities) and in 1986 (in nine cities) and both were coordinated by D. Mohan of the All India Institute of Medical Science (AIIMS), Delhi. If we take all the studies on College / University student together, we find that the prevalence rate of drug abuse among College / University student varies from 17 percent to 25 percent in different cities. But excluding alcohol, cigarettes and painkiller, the extent of drug consumption is only 4 percent to 6 percent. Other important findings of these studies are: (1) Drug consumption differs with respect

to professional courses. When Sethi and Manchanda found that medical students were using more drugs than non-medical students my own study in Jaipur (both in 1976 and 1986) indicate that drug abuse among medical students was not high. In the 1976 study, I found the highest use of drug among law student (26.1%), followed by commerce (23.6%), art and social science (17.5%), medical (14%), science (13.6%), and engineering (4.6%) students. In the 1986 study, however, the highest use was found among commerce students (31%).

Taking all the characteristics of the drug user together, some high-risk categories in drug uses can be identified. There are high-income groups, age group of 16-21 years, public school and hostel attached institution. The research also indicate that about 60 percent student take to drug on the suggestion of friend, 5 percent on the suggestion of some family member or kin, 10 percent on the suggestion of physician, and 25 percent of their own record. Thus, on the basis of the 'initiative' factor, a large number of drug user may be identified as submissive, a small number as self-directive, and a few as adaptive.

### **Research on high school student**

Mohan, Sundaram and Chawla conduct two important studies on drug abuse among school children in Delhi in 1978, and by Rastogi conducted in 1979. Eleven years ago (1986), Mohan PradhanChakrabarty conducted one more study on high school students in four metropolitan cities of Delhi, Bombay, Calcutta and Madras, and Ramachandran but its analysis was not published. Mohan's study of about 200 school students in 1978 revealed that though 63 percent students were using drugs, a very large number of them took painkiller, smoked cigarettes or consumed alcohol. Only 0.2 percent or 0.4 percent took sedatives, stimulants and narcotic drugs. This shows that drug abuse among high school students is very limited

### **Research in rural area**

Elnagar, Maitra, and Rao conducted the first research on drug abuse among people in the rural areas in 1971 in village in West Bengal, and then in 1972 by Dube and in same year by Verghese and Beig. They found addiction to alcohol only in 1 to 2 percent of the cases. However, four studies conducted between 1974 and 1979 gave a better picture of drug abuse in rural areas. Deb and Jindal Study conducted in 1974 in Punjab Village found alcohol in 74 percent of the adult above 15 years. Gurmeet Singh's study conducted in 1978 in selected villages of Punjab found drug abuse in 29 percent (of 10 and above years of age), tobacco use in 40 percent cases, alcohol use in 26 percent cases, opium use in 19 percent cases, and cannabis use in 20 percent's cases. Sethi and Trivedi's study conducted in 1979 in eight-village covering a population of about 2000 persons (above ten years of age) found the prevalence rate of 25 percent. They found addiction in 6 percent cases, alcohol consumption in 82 percent cases, cannabis consumption in 16 percent cases, and opium consumption in 11 percent cases. Lastly, Mohan Prabhakar and Sharma's study conducted in 1977 in six blocks in three-border district of Amritsar, Ferozpur and Gurdaspur in Punjab covered 1276 household and a total population of 3600 people above 15 years of age. If we take all studies (pertaining to college high school student, industrial workers, and rural people) together, we find that up to 1980, the use of drug was not high. However, after 1980, the availability of heroin in our country has so increased that consumption of smack and other drugs has increased among students, slum dwellers, truck drivers, rickshaw-pillars and industrial workers.



## **Causes of drug addiction**

### **Family and Peer Group:**

Family and peer group associations are the primary potent influences upon the direction which individual take and maintains in his life. A hypothesis in my own study of drug abuse among college / university student was that drug uses influenced by the quality of (affectionate family relationships) was operationalized on the following bases

- a) Parent takes an interest in the career of their children and is conscious of their parental obligations.
- b) Relations between parents of drug users, between drug user and their parents and between users and their sibling are based on harmony and solidarity.
- c) Parental control is neither very harsh nor very lenient so as to give an opportunity to the child for self-expression
- d) The size of family is so manageable in terms of family income that no child in the family suffers from unfulfillment of the necessities of life.

### **Genetics and family history**

Genes may mean a greater predisposition to addiction. Your body and brain react to a particular drug the way your ancestors reacted to it. If your parents or their parents had a history with drug abuse, your chances of being addicted to drugs increase drastically

### **Psychological cause**

Although genetics and environment play a significant role in drug addiction, psychological factors also contribute to the problem. Sexual or physical abuse, negligence from parents and peers, domestic violence, everything can lead to psychological stress. And people turn to drugs to let off this stress. Over time, this misuse of drugs can become an addiction

### **Other psychological cause**

- Mental disorder such as depression
- Lack of friends in school or any social setting
- Huge academic pressure
- Traumatic events

There are different types of drugs in the market, and each type of drug causes different kinds of effects in your body:

### **Opioids**

Opioids also called narcotic drugs are often used as a pain reliever. They work by lowering the pain signals received by your brain. They also change the way your brain responds to pain. Opioids are usually safe to use. But if consumed in an uncontrolled way, opioids can become very addictive. Opioid drugs alter brain chemistry by influencing dopamine release and hijacking the reward pathway. Dopamine is a neurotransmitter (chemical messenger) that makes you feel good. After too much use of opioids, your brain starts to depend on it and stops producing its own.

### **Commonly abused opioids**

- Heroin
- Morphine

- Fentanyl
- Codeine
- Hydrocodone
- Hydromorphone
- Methadone
- Oxycodone
- Oxymorphone
- Paregoric
- Sufentanil
- Tramadol

### **Short-term effects of opioids**

- Relaxation
- Euphoria
- Drowsiness
- Nausea, vomiting
- Physical agitation
- Slurred Speech
- Shallow breathing
- Anxiety attack

### **Depressants**

Common depressants are prescribed to help with symptoms like insomnia, anxiety, panic and acute stress reactions. It works by slowing down the activities of the brain and putting the body in a state of relaxation. Depressants can build up drug tolerance quickly. And because of the way it affects brain chemistry, if consumed regularly without a doctor's prescribed guideline, it can lead to addiction

### **Commonly used depressants**

- Barbiturates
- Benzodiazepines
- GHB
- Alcohol

### **Short term effects of depressants**

- Enhanced mood
  - Reduced anxiety
  - Reduced reaction time
  - Weakness, headache and lightheadedness
- 
- Impaired judgment
  - Slurred speech
  - Slowed breathing
  - Amnesia

## **Stimulants**

Stimulants are a category of substances, which include both medical drugs, illegal street drugs, and commonly used substances such as caffeine and nicotine. Stimulants affect the brain by temporarily increasing functions like awareness, alertness, energy and mood. Stimulants also increase the level of dopamine inside the mind. It gives you a sensation of euphoria. This sensation makes it more difficult to stop the harmful pattern of stimulant abuse

### **Commonly used stimulants**

- Cocaine
- Amphetamine (e.g. Adderall)
- Caffeine
- Methamphetamine (e.g. Desoxyn)
- Methylphenidate (e.g. Ritalin, Concerta)
- Stimulants users tend to develop rapid drug tolerance. Tolerance occurs when people have to take more of a substance to achieve the same level of high. This type of behavior also increases the risk of overdose

### **Short term effects of stimulants**

- Euphoria
- Increased energy, sociability
- Increased vigilance
- Reduced appetite
- Rapid heart rate
- Increased blood pressure
- High body temperature
- Muscle shake or tremors

## **Hallucinogens**

Hallucinogens are a type of drug, which alters the perception of reality and causes hallucinations. There are two types of hallucinogens: classic hallucinogens (psychedelics) and dissociative hallucinogens. Hallucinogens are sometimes considered less dangerous than other kinds of drugs like heroin. But hallucinogens can cause dependency, addiction, and long-term adverse side effects

### **Commonly used hallucinogens**

- LSD
- Psilocybin (mushrooms)
- DMT

- Mescaline (peyote)
- PCP (phencyclidine)
- Salvia
- Ketamine

Hallucinogens cause people to see and hear things that feel real but don't exist. For some people, these cause intense anxiety, panic attack and terrifying thoughts

### **Short term effects of hallucinogens**

- Altered perceptions
- Sense of relaxation, well-being
- Unclear thinking
- Anxiety
- Excessive sweating
- Elevated heart rate
- Increased body temperature
- Nausea
- Numbness

### **Cannabis**

Most commonly known as “weed” or “marijuana”, cannabis can be a mixture of leaves, flowers or stems from cannabis plants. THC (tetrahydrocannabinol) is the main active component of cannabis that leads to drug abuse. Cannabis produces relaxation sensation, mild euphoria, increased appetite and distorted perception of space and time. If used for a prolonged time, you can develop an addiction to cannabis. Research has also shown that excessive use of cannabis can cause brain damage and memory impairment

### **Commonly used forms of cannabis**

- Marijuana (dried flowering tops and leaves)
- Hashish (dried cannabis resin and compressed flowers)
- Hash oil (extracted THC from hashish)

### **Short term effects of cannabis**

- Relaxation
- Euphoria
- Relief from stress
- Increased appetite
- Dry mouth
- Bloodshot eyes
- Altered judgment
- Poor coordination
- Impaired memory
- Paranoia

### **Effects of drug addiction**

Drugs are chemicals, which affect the brain and body. Different drugs have different compounds and affect the human body differently. Effects of drug abuse also depend on the way you consume it. There are few ways a drug can be consumed, like injection, inhalation and ingestion

### **Effects of drug addiction on the brain**

Here are some effects of drug addiction in brain:

- Altered brain functions
- Loss of rational decision-making
- Loss of self-control
- Drug viewed as necessary to survival
- Inability to feel pleasure without drugs

### **Effects of drug addiction on the body**

Here are some common effects of drug misuse on the human body:

- Drug abuse damages the immune system and makes you vulnerable to infections
- It causes heart conditions, including abnormal heart rates, heart attacks and the collapse of veins.
- Drugs cause nausea, abdominal pain and vomiting.
- Some drugs increase the risk of liver failure due to the excessive strain on the liver.
- Misuse of drug abuse causes permanent brain damage, including memory loss, and problems with decision-making and focus.

### **Social effects**

Apart from these, there are social effects of drug abuse that are also damaging:

- Damaged relationships with family and friends
- Losing job
- Financial trouble
- Sexual abuse
- Accidents and injuries
- \* Legal consequences (e.g. going to jail).

### **Solution of drug addiction**

The solution of drug addiction by adopting the following steps:

1. Imparting education about drugs: The target population for educational measures for prevention should be young college / university students particularly those living in hostels and away from the control of their parents, people living in slums, industrial workers, and truck drivers and rickshaw-pullers. The method of imparting education should be such that people involve themselves actively and there is a free exchange of valuable information. The type of education which would be more effective would be one whereby they are able to discard a good deal of inaccurate and misleading knowledge about artificial euphoria and acquire information which is more authoritative pertaining to physical and psychological effects.

2. Changing physician attitude: A change in the attitude of doctor in prescribing too many drugs can go a long way in controlling the abuse of drugs. The doctors have to show a greater care is not ignoring the side effects of the drugs.
3. Undertaking follow-up study of study addicts treated under detoxification programs.
4. Parents need to play a crucial role in controlling drug usage among their children. Since parental neglect, over-hostility, rejection, marital disharmony play an important role in perpetuating drug addiction, parent have to take more care in keeping the family environment congenial and harmonious. Since addiction does not overnight and its involve a process of evolution of losing interest in studies, activities and hobbies, indulging in irresponsible behavior, irritability, impulsive conduct, and having dazed expression, parent can locate the early sign by being alert and can make sure that the child withdraws from the habit.
5. The teacher too can help much in the prevention of drug addiction. They can discuss dangers of drug addiction with the student by talking informally and openly. They can keep themselves interested in their students. They can encourage them to volunteer information of any incident of drug addiction. They can talk about the problem of adolescence and guide students how to solve them. They can encourage them to discuss their (students) crises (of family, peer, group, money, etc.) with them and help them to the best of their abilities in facing these crises.

## **Conclusion**

In conclusion on the basis of this study, it can be said that drug addiction has become a social problem in India, which is very harmful for the youth and society, due to which both youth and society cannot progress, so it is necessary to avoid drug addiction. Drug de-addiction centers should be established in the society to get rid of them. Social values should be developed in the youth and they should be motivated that they are the leaders of the society; only through them the society can progress. So they should help in making the society progressive, which is needed. Committed to make enough distance from drug addiction, only then a drug-free society can be made.

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## Digital Way of Education and its Impact on Students in India

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### Abstract

*This article is an analysis of the impact of online education system as a replacement of face-to-face education during a pandemic such as COVID-19, for a large population of developing countries like India. People consider online education to be a better medium to educate the population during an endemic. The current forms and practices of online education have complexity. Current online education formats lack the desired level of interaction with users. The analysis concluded that digital technology shortage, non-facilitated experiences with current formats and less interactive platform are limiting the applicability of online education to use it as a replacement for offline education. This analysis identifies the challenges / reform areas associated with the current online education system in highly populated developing countries like India, which can help the policy makers to design a more applicable online education policy. The existing studies are more focusing on online vs. offline education system or digital technology implication in traditional education system. This analysis tries to fill the gap of conversion from offline education system to online education system.*

### Key-words:

Online Education, Pandemic Situation Management, COVID-19, Developing Economy, Community education, Critical Success Factors

### Introduction:

People will always remember the past two years, due to the COVID-19 pandemic which globally affected people. In the history of mankind, humans have never faced such a painful situation. People got trapped in their houses. Many social and professional activities were affected by this. Education was also one of them. Education is much needed for the growth and stability of an individual. It is the most comprehensive and accepted method of face-to-face medium education. This face-to-face medium or offline education has been shown to be effective in leaving a positive impact on the knowledge, attitudes, and behavior of learners. In the event of the pandemic of COVID-19, social-distancing had been considered the most effective way to prevent the spread of the virus. In the traditional offline education model, it is very difficult to maintain the necessary social distancing. Therefore, most scholars and policy makers recommend using online education as a replacement for offline education for learners.

This analysis assesses readiness to use online education as a replacement for offline education in a developing economy like India. However, the year 2001 is considered a milestone for online courses, when the Massachusetts Institute of Technology, Oxford, Yale, and Stanford University have launched large - scale online programs and large-scale open online courses. Online education is now preferred by most students to develop their professional and technical skills. The purpose of this analysis is to find out the acceptance and limitations of online education in India specifically in such a crisis. Moreover, the analysis also evaluates the impact of identified challenges of online education on its applicability.



### **Objectives**

1. To find out whether people are indifferent to the applicability of online education during crisis situations.
2. To evaluate the perception of various users towards the applicability of online education.
3. To identify various challenges in effective online education on the set parameters and sub- criteria.
4. To identify and verify the importance of various research-based dimensions of the online education system on user experience and perceptions.

### **Literature Survey**

To understand the applicability of online education in a crisis state, this analysis analyzed the challenges and importance of online education success factors. Many research studies were conducted on online education. The literature survey of previous research on online education includes institutional management, learning environment, technical infrastructure, instructional design, services support.

Like any other model, the current model of online education is also not 100% compatible with learners. There are still many challenges in online education with its current design and execution. According to previous related research conducted in the field of online education in developing countries, the major challenges are technical capability of students and instructors, psychological barriers, engagement issues, and fear.

### **Findings**

#### **Applicability of Online Education**

First, the applicability of online education during pandemic situation is calculated. The observations found, whether the perspectives are indifferent about the applicability of online education during the pandemic situation or not. The population is not indifferent to online education during a pandemic situation. The analysis assessed the experience or perception of various user segments towards applicability of online education in terms of Accessibility, Customization, Convenience, Effectiveness and Safety.

#### **Challenges with Online Education**

Almost all learners have found that online education is more accessible, customized, and convenient for learning during crisis situations. But some professionals and advanced studies or others have different opinions. Some professionals or people from other categories reacted adversely to all three criteria. People doubt the effectiveness of online education. Most school- going students, or others do not find it effective. It has also been seen that people do not feel so safe about online education. The main reason for this can also be the adverse effects on the eyes and brain by long-term exposure of cellular devices or computers. When people were asked what challenges, they faced in online education, they opted – Lack of technical access, lack of technical knowledge and skills, and their coordination with technology. However, to a lesser extent, untrained teachers were also held responsible.

Further analysis identified that-

- Advanced studies aspirants are lacking access of digital technology, although they have least issue in knowledge / skill in using Digital education material.

- Almost all the learners, except advanced studies aspirants, are facing knowledge / skill issue in using Digital education material (i.e., College Students, School Students and Parents).
- It is found that still almost all the segment users are facing comfortability with digital platforms.
- Majority of parents and advanced studies aspirants are not pleased with teacher quality

The analysis shows that almost all learners are facing challenges in using digital learning materials. Furthermore, the zeal of students' parents towards digital education is relatively low. Apart from college students, all other learners are having difficulty analyzing on digital platforms. The lack of human touch in the current digital education system is found to be challenging for all learners.

Since teaching from primary level to college-level classes is based on a specified module, learners make relatively little demand for customization. But professional and aspiring for advanced education are not happy with the less flexible format of current online education. The good thing is that not all learners feel alone with the digital education format, which increases its acceptance. But, in online education platform, all learners feel disconnected due to being loosely connected to peers. It has also been observed that the medium of current online education is not capable enough to connect learners with their virtual existence. Instructors are considered as the most important element of an education system.

### **Success Factors**

The analysis verified the importance of the dimensions considered important for acceptance for online education. These are –

- Technology Applicability of online education
- Online Instructor Quality
- Maintain user's motivation
- Student Support Services
- Teaching Platform
- Program Framework & Cost
- Technical Knowledge of user

It is found that almost all learners consider the importance of almost all the parameters. It was found that all the learners considered all the mentioned criteria equally important for the acceptance of online education. At the same time, all users agree that the quality of instructors, motivation level of students, student services and learning platforms are also very important for the acceptance of online education. In addition, the technical knowledge of the students is also very much important for the acceptance of online education.

### **Implication**

Online education is considered as the only option to educate the public during this pandemic situation. Governments are advising their educational institutes to provide online education to maintain social distancing without compromising the education services. This

analysis identified the challenges of present online education practices, to make it more effective. This analysis is more of use for governments of developing countries and their educational institutes. This analysis identifies the priorities of learners of online education, which help governments and educational institutes, to frame more user-friendly policies for online education. No doubt, all governments and educational institutes are considering online education to educate the public during a pandemic situation. But still, some associated challenges with its present format and practices are limiting its acceptance and effectiveness.

The most important contribution of this analysis is that it highlights, that the college going students and parents are the most suffering segments with the present online education services. The educational institutes need to establish better connectivity with them to enhance the acceptance and effective learning among these users. Present platforms used in online education are either too much ordinary or too much complex to use. These platforms must be easy to understand and easy to use, so that skills, content-usage and technical access related challenges can be minimized.

In addition, the analysis also suggests that the online learning service providing the platform should be more interactive and handier. Most users face these two challenges. The most important contribution of this report is that it highlights, that the college going students and parents are the most suffering segments with the present online education services.

### **Conclusion**

Many experts and articles are coming in favor of online education. This analysis highlights the challenges that exist in current online education practices. The analysis evaluates the readiness of developing countries (particularly India) to accept online education platform for the masses. There is a great need to identify and improve the areas of concern required to provide better online education in developing countries and to take corrective action. In this way, especially in the event of an epidemic, this analysis can contribute significantly to improving the effectiveness and acceptance of online education to educate-people.

The analysis found that the lack of digital technology and non-facilitation experience with current formats and practices are limiting its acceptance and scope. Although the analysis went deep inside each considered challenge, further research can be done to identify the innovative ways to overcome these challenges or can identify the ways to remove or minimize the impact of the identified challenges. Moreover, this analysis is based on a small sample of users. The advance analysis, with a bigger size sample, may come out with better perspectives.

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## **A Research Paper on an Impact of Goods and Service Tax (GST) on Indian Economy**

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### **Abstract:**

*The Goods and Services Tax (GST), the biggest reform in India's indirect tax structure since the economy began to be opened up 25 years ago it last looks set to become reality. GST is being introduced in country after 13-year long journey, since it was first discussed in the report Kelkar task force on Indirect taxes. There are around 160 countries in a world that have GST in place. India implemented the GST from 1 July, 2017 and it has adopted the dual GST model in which both state and central levies tax on Goods and Service on Both. Lok Sabha and Rajya Sabha unanimously passed the 122<sup>nd</sup> constitutional amendment bill in August 2016 which later got the assent of President. The GST Act was passed in the Lok Sabha on 29<sup>th</sup> March, 2017 and came into effect from 1<sup>st</sup> July 2017.*

**Key-words:** Goods and Service Tax, Indian Economy, Tax System in India

### **Introduction:**

Goods and Service Tax (GST) term first utilised by German Economist during 18th Century. In India Kelkar committee has suggested to comprehensive Goods & Service Tax supported VAT Principles. The Central Government of India proposed to implement GST in India with effect from 1st April 2016. Goods and Service Tax is a single comprehensive tax levied on goods and services consumed within the country. It's basically on tax on final consumption. GST is that the largest indirect tax reforms of India. GST could be a revenue enhancement on the availability of goods and services. GST will comprise of Central Excise Law, Service tax law, VAT, Entry Tax, Octroi etc. GST is destination-based tax where the tax is collected by state where goods are consumed. GST taxes only final consumer hence cascading of taxes is avoided and production is block. (MISHRA, 2018)

The growth of Indian economy & growth in collection of GST both are positively correlated to each other. Goods and Services Tax is defined as the giant indirect tax structure designed to support and enhances the economic growth of a country. GST is consumption-based tax and therefore, it wholly depends on the purchasing power of consumer. Purchasing power of consumer depends on employment and employment depends on economy. So, you may say that GST collections depend on economy or vice-versa. GST is

the most ambitious and remarkable indirect tax reform in India's post-Independence history. Its objective is to levy a single national uniform tax across India on all goods and services. GST has replaced a number of Central and State taxes, made India more of a national integrated market, and brought more producers into the tax net. (MEDATWAL, 2020). By improving efficiency, it can add substantially to growth as well as government finances. Implementing a new tax, encompassing both goods and services, by the Centre and the States in a large and complex federal system, is perhaps unprecedented in modern global tax history. GST is a tax on goods and services with comprehensive and continuous chain of set-off benefits up to the retailer level. It is essentially a tax only on value addition at each stage, and a supplier at each stage is permitted to set-off, through a tax credit mechanism, the GST paid on the purchase of goods and services. Ultimately, the burden of GST is borne by the end-user (i.e. final consumer) of the commodity/service. With the introduction of GST, a continuous chain of set-off from the original producer's point and service provider's point up to the retailer's level has been established, eliminating the burden of all cascading or pyramiding effects of an indirect tax system. This is the essence of GST. GST taxes only the final consumer. Hence the cascading of taxes (tax-on-tax) is avoided and production costs are cut down. As already noted, prior to the introduction of GST, the indirect tax system of India suffered from various limitations. There was a burden of tax-on-tax in the pre-GST system of Central excise duty and the sales tax system of the States. GST has taken under its wings a profusion of indirect taxes of the Centre and the States. It has integrated taxes on goods and services for set-off relief collections. It would end the long-standing distortions of differential treatment of manufacturing sector and services sector. GST will facilitate seamless credit across the entire supply chain and across all States under a common tax base. (MEDATWAL, 2020)

### **Structure of GST on Indian Economy**

GST is levied on every stage of manufacturing and sales of goods and services across India. This tax is levied when the goods or services are consumed. There are three subcategories to GST-

CGST (Central Goods and Services Tax) is collected by the Central Government on interstate sale of goods and services.

SGST (State Goods and Services Tax) is collected by the State Government on intrastate sales.

IGST (Integrated Goods and Services Tax) is collected when a supply of products and services is supplied from one state to another. The taxes collected are shared both by the Central and State Government. (DANI, 2016)

UTGST (Union Territory Goods and Service Tax): UTGST is applicable when there is a separate governing body. Here is the list of the Union Territories where the UTGST Act is applicable: (i) Chandigarh (ii) Lakshadweep (iii) Ladakh (iv) Dadra and Nagar Haveli and Daman and Diu (v) Andaman & Nicobar islands

## Impact of GST on Indian Economy

### Positive Impact of GST:

**Increase in Foreign Investment-** With the implementation of GST, India is become a unified market and the foreign investment has increased in country (INDIA). Because of their lower costs, goods manufactured in INDIA have become more competitive in international market leading to growth in export. The implementation of Goods & Services tax brings India in the line of international tax standards, making it easier for Indian businesses to sell in the global scale.

**Fewer Tax-** GST has two constituents: The central GST and the State GST. The Central GST will replace - Service Tax, Central Excise Duty, and Custom Duty etc. The State GST will replace - State VAT, Central Sales Tax, Tax on Advertisements, Luxury Tax, Purchase Tax, Entertainment Tax etc. Before GST, there were so many taxes will be replaced by all these taxes and duties with Central GST and State GST.

**Reduce the cost of doing business-** GST has altered VAT throughout India. Now we no longer have to pay different amounts of taxes in different states. Because It is unified tax system for all Indians states and so we have already eliminated various taxes and duties on our businesses.

**Transparency-** The tax administration has begun to work without corruption. Transparency has also resulted from allowing sales invoices to show the tax applied.

### Negative Impact of GST:

**Dual Control** - Although GST is referred to as a single taxation system, it is actually a dual tax because both the state and the centre will collect separate taxes on a single sale and service transaction.

**Current price increases for some commodities** - The tax rate on many products has been raised, raising their prices.

**Some industries are losing money:** textiles, media, pharmaceuticals, dairy products, information technology, and telecommunications. Commodities such as jewellery, mobile phones, and credit cards have also increased in price.

**Real Estate Market affected** - Economists are of the opinion that GST in India has already had a negative impact on the real estate market. It has added up to 8 percent to the cost of new homes and reduced demand by about 12 percent.

GST has already been implemented in approximately 140 countries, including Australia, Germany, Japan, and Pakistan. India has one of the world's most stable economies, and we have proven to be quite adept at adjusting to major economic changes.

As a coin has two sides, the implementation of GST has an impact on a nation in both positive and negative ways. If we ignore the negative aspects and focus on the positive effects, it is a method of reducing black money. GST is experiencing some initial difficulties, but with time, we will be able to see the bigger picture, which will undoubtedly result in economic integration. (service)

## **Years of GST: Achievements, Challenges & Suggestions**

### **1. Achievements**

- Automated Indirect Tax Structure– In addition to dealing with false invoices, electronic invoices have contributed significantly to revenue generation by filing GST. The electronic invoices direct taxpayers to a fully compliant structure. This makes calculating tax obligations and reconciling upfront tax credits even easier.
- Simplify compliance– It has linked the customs and GST portals. This link provides import credits, connects to the appropriate facilities to match upstream tax credits, and automates customs procedures.
- Council functions– The Council has revised the law to clarify complex issues, such as simplifying the GST tariff and introducing COVID-19 mitigation measures.

### **2. Challenges faced by GST**

- Fiscal relations between the Central and State Governments– The reduction in GST revenues during the pandemic had an impact on fiscal relations between the Centre and the States. The state's fiscal power has been taken over; the state can no longer impose tariffs directly. There are several obstacles to the GST law's benefits. From technical issues to legal deficiencies, the Centre-State partnership must play a role in decision-making.
- Issues raised by the 15th Financial Commission– The 15th Finance Committee raised several concerns, including tax rate diversity, insufficient GST collection compared to forecasts, high volatility in GST collection, and several inconsistencies.
- Small, medium, and large businesses– IT glitches have disrupted the flow of credit entry and compliance procedures. Indirect taxes make no distinction between rich and poor; therefore, it increases the burden on poor people. Moreover, SMEs are still struggling with the shift towards technology.

### **3. Suggestions for GST**

With oil prices at an all-time high, policymakers should consider including oil and related products in the GST law. It is critical to establish a GST court of appeals because taxpayers rely on the authorities to listen to their practical problems. Such processes must be streamlined in order to simplify the GST compliance procedures. (TIME, 2018)

### **What are the items not affected by GST?**

Supplies related to the following goods are not covered under GST:

- 1) Petrol, high-speed diesel, aviation turbine fuel, crude oil.
- 2) Electricity
- 3) Alcohol used for human consumption
- 4) Natural Gas



**Research methodology:**

The proposed study is Desk research and is an attempt of descriptive research, based on the secondary data sourced from journals, Internet, articles, previous research paper, and reference research, Documentation and information service.

**Research Findings:** Findings of research study connecting to impact on Indian economy can be summarized with reference to below key performance parameters.

- **Redesign of Taxation Structure:** GST will redesign indirect tax system by replacing majority of indirect taxes by a uniform goods & service tax. This tax reform will improve simple doing business significantly.
- **Exports:** GST removing cascading effect of taxes would positively influence export of goods & services in India. Also, features like input step down would make export industry in India competitive internationally.
- **Gross Domestic Product:** GST would end in cost reduction in products & on capital inputs. This would result in economic growth of approx. 2% in short to medium term. As per the study conducted by National Council of Applied research, GST would boost Indian GDP by 1.0 to 1.7 % in long run.
- **Inflation:** Implementation of GST in India revealed some upturn in inflation in short run. However, in long term GST would ensure negligible Inflation.
- **Foreign Exchange:** Implementation of GST in India resulted in increase FDI's and a narrow current account deficit. This would help Indian currency to outpace other developing business nation's monetary forms.
- **Manufacturing & new services in country:** GST tax reform plays a significant role in attracting FDI's & making India a world class manufacturing hub.
- **Unification of Market:** GST being uniform tax reform would result in unification of market & would ensure seamless movement of goods across states.

**Limitations of the Study**

1. The study is completely based on the secondary sources.
2. No Quantitative data were collected.

**Conclusion:**

The GST law is still in development mode, and evolution in such complex processes cannot be just ruled out. The Indian Government must continue to act to make this tax regime promising soon.

Taxation system like GST will minimize the complexity of taxation and will encourage new entrepreneurs to generate employment opportunities across sectors. GST is uniform tax

across country & hence will minimize tax distortion based on geographical locations in India. Dual benefit of GST will include decrease in commodity prices in long run & increased consumption of goods which will also boost economic growth & GDP for the country. GST implementation will increase investment in FDI's & will positively affects foreign exchange of the country. Finally, new tax system like GST will promote start-ups in India due to its uniform tax structure & business friendly tax laws.

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## **Means to Accomplish Sustainable H.R.M Goals: A Study of Human Resource Practices in Selected I.T. Companies**

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### **Abstract**

***“To win the marketplace, you must first win the workplace”- Doug Conant”***

*The ever changing business environment has led to the new challenges to modern business world in order to operate in the dynamic business environment. To cope up with these challenges, corporates are required to call for sustainability. Sustainability ensures minimum wastage of every resources and reduction in cost of production and as a result of which a specific company enjoys competitive advantage over another one. In the present scenario of challenging and competitive business world, the relevant area where sustainability requires is ‘Human Resource Management’. Various strategies and plans need to be implemented in order to achieve the target of “sustainable HRM” and the strategy implementation cannot be done by physical resources such as technology, machines & materials. Therefore the optimum utilisation and development of human resource is necessary to achieve sustainable goals. The objective of this research paper is to determine and analyse the best HR practices to be followed in top IT firms which has now become the key path to achieve the goal of sustainable HRM. Sample of top 10 IT companies are taken to find out the best HR practices. Effort has been made to clearly depict the superiority of HRD over HRM to ensure corporate sustainability because sustainability requires long –term strategy by HR professionals and merely managing people at workplace will not enough to achieve the sustainable HRM goals.*

**Key-words:** sustainable HRM, Human Resource Practices, Human Resource Development

## Introduction:

Human resource management is a managerial activity concerned with procurement, utilisation and development of competent employee. HRM is concerned with personnel in an organisation and how they contribute to organisational efficiency & effectiveness. HRM as an integral part of general management deals with the human aspect which is considered as the asset of the organization. Ibrahim, Rahman (2017) According to Mathis and Jackson:

**“Human resource management is the effective use of human resources and organisation through the management of people related activities.”**

Obviously competitive world drives everyone to value resources and currently the most valuable resources are human resources. Human resources are considered to be an asset for the organisation. Therefore to sustain them in the organisation for longer, management nowadays practices the strategies of sustainable HRM. It is interesting to note that the word sustainability means “longer”, “durable”, “consistent”. According to World Commission on Environment and Development, 1987, Sustainable Development means “development that meets the need for the present without compromising the ability of future generations to meet their own needs”. This definition dictates at the societal level. There is a need to study sustainability in the context of HRM because the present competitive business environment & several corporate failures lead to employee burnout, stress at work, hampering their individual growth, health problems etc. such situation lead to rethinking HRM if companies are willing to retain their employees for running the business in future.

People are the one that play the vital role in crafting strategies which further help to execute them effectively. Mallikarjuna (2016) Sustainable HRM can be explained as “HRM practices and strategies plays a major role in achieve the financial, ecological and social goals of the organisation over a long period of time. It simultaneously helps in controlling negative feedback and unintended side effects” Ashitha (2021) Many researchers also have their interest for doing research by taking HR practices as a subject-matter. Development and formulation of best HR practices can ensure a high level of employee performance which resulted into increase in efficiency and achievement. **According to Kramar (2014), sustainable HRM refers to social and human outcomes which contribute to the continuation of the organisation in the long term that is to a sustainable organisation.** It has also been used to refer to HRM activities which enhance positive environmental outcomes, and positive social and human outcomes for their own sake, rather than just as mediating factors between financial outcomes strategy.

## 1. Objectives

This paper is an empirical study about Human Resource practices. The basic objective of this research paper is to highlight the importance of best HR practices stated as a newly means to achieve the Sustainable HRM goals. Sustainable HRM is a term derived from business environment and gaining importance at workplace in the organisation. The key idea behind this paper is to make HR professionals aware about how an appropriate measures and relevant HR practices could help to sustain their employees in the organisation for longer.

Also, the paper only highlights the core HRpractices because all practices are not relevant as well as suitable for the employee.

Every year list of top fortune companies are announced where it is specified for the best place to work. But the question is : “What make it so fortune ?” Researchers try to find out the answers by examining the policies of these fortune companies. And the answer to this question lies in the corporate human resources policies and practices of top companies. It is also believed that success of the ventures to some extent lies on the effort, behaviour and interactions of employees as they carry out the mission and strategy of the firm. The Information Technology (IT), sector in India holds the distinction of advancing the country into the new-age economy. The sector has been growing at an annual rate of 28% p.a. since 2001. Indian IT companies become globally success because of the skilled manpower and quality of services. The number of people employed in this sector has been consistently growing over the period of time. With such a huge number of employees working, it is essential for the right kind of HR practices to be employed. They are constantly in the need of the right kind of people with right skill. Due to this there is constant job hopping and leading to a high rate of attrition. With people moving out, the intellectual capital of the organisation reduces. There is a need to nurture and sustain this knowledge which is available within the organisation. Proper HR practices will help the IT sector in this process. Each organisation does have a set of HR practices, but each of them needs to understand what is best for their employees and their organisation. Therefore, researchers try to achieve following two main objectives by conducting the survey:

1. To identify the best Human resource practices to achieve sustainable HRM.
2. To make a pair wise comparative analysis of HR practices across select top IT companies.

## **2. Research Methodology**

Extensive review of Secondary Data on HRpractices& Sustainable HRM has been conducted with a view to bring out the best HRpractices. Several websites, articles, books and journals are used for the references.

Analytical hierarchy Process: In order to understand the importance and prevalence of HR practices across corporate world, Analytical Hierarchy process has been followed by the researchers. The comparison of HR practices of select IT companies involves identification of the most critical and pivotal HR practices. This identification of HR practices has been carried out with the help of literature globally. A concise list of ten practices has been formulated on the basis of apparent commonality in the research worldwide. Further the ten practices have been grouped under three headings depicting the basic nature of the practise. A pair-wise analysis of such practise was carried on with HR experts as respondents using Analytical Hierarchy Process (AHP). All the practices were ranked in accordance with the eigen vector score. Top IT companies listed on NSE have been selected for such comparison. The experts so chosen have been HR managers of selected companies having generous

knowledge and an experience of 5 or more years in the company. They had been requested to compare each practise and give rating on the scale so provided. The scores provided by the experts were averaged to reach a common factor.

Sample - A sample of 10 top listed IT companies in accordance with national Stock Exchange have been undertaken in this study as a representative of IT sector of India.



Source : NSE

### 3. The Importance of Sustainable HRM

With the aging of the workforce, organisations need to improve the efficiency of their workforce and by increasing the efficiency of employees, organisations would be in better position to achieve the goals of sustainable HRM. These efficient employees will lead to give the higher output and the organisation will grow. Thus, it is necessary for the organisation to take effective measures in order to sustain the workforce in the organisation for longer.

Over the recent years, Human Resource Management (HRM) is experiencing a great transformation due to latest development in technology and high rate of globalisation. The focusing of corporate social responsibility and increasing pressure of competitiveness and flexibility of organisation have significantly influenced HRM strategies and practices. Managing a global workforce in Multinational Enterprises has become more complex due to the demographic change, value change, internationalisation or lack of quality in some

education systems. This has raised great interests for practitioners and researchers highlighting the need for more sustainable HRM.

In order to ascertain the importance of sustainability, two separate aspects of HRM Practices are analysed deeply- the importance of managing people and the notion of sustainability. Valuable human resources have been identified as critical for organisational performance. HR professionals have been influenced by resource-based views such as human resources are rare and inimitable, and building profits by putting people first. Brewster (2002) points out that 'the capabilities and the knowledge incorporated in an organisation's human resources are the key to success. However, highly qualified employees seem to face increased work-related stress, work-life conflict, health problems, new employment relationship or lack of employability.

Sustainability provides a broad perspective to analyse the implications of on-going developments on HRM. Concerning the relevance of sustainability for HR professionals, Boudreau and Ramstad (2005) argued that: 'Sustainability is not a fringe issue. Corporate heavyweights like shell, British Petroleum (BP), and DuPont, as well as the United Nations and the International Labour Organisation (ILO), HR Plans and Strategic Plans have received less emphasis over time.'

The significance of organisational sustainability has assumed more importance now since many organisations are facing the difficulties between competing demand-side short-term profit or long- term organisational sustainability. In this situation, the organisation should be more concerned in making higher investments in attracting, developing and retaining skilled employees and paying higher focus on efficiency and effectiveness in HR practices. Any organisation that wants to survive in longer run shall be more concerned in retaining the old talents and building scope to acquire new talents. Sustainability plays the most intricate role in building strategic potential for HRM.

#### **4. Human Resource Practices: An Introduction**

Human resource practices refer to the organisation's practices on improving the knowledge, skills, abilities and other talent of their employees. It is the integrated use of training, organisational and career development efforts to improve individual, group and organisational effectiveness. HR as a theory is a framework for the expansion of human capital within an organisation through the development of both the organisation and the individual to achieve performance improvement or HR practices is a new systematic approach to proactively deal with issues, related to individual employees and teams and organisations and a movement to develop organisational capability to manage change and challenge.

The active resource of an organisation is the human resource. Other resources remain inactive unless there are competent people available in the organisation to utilise the available resources for the production of goods and services. Hence we can say that the organisation is

primarily responsible for procuring and ensures the complete development of human resource as all other resources are dependent on humans. Therefore their overall development is necessary for the efficiently utilisation of resources. Employee is considered as the biggest asset for the organization because human brain has the limitless capacity of working in productive way. Hence, competent and qualified human resource is behind the success of the organization. In this regard, the emergence of human resource practices plays a vital role in enhancing the skills of people and is a one step forward towards the achievement of sustainable HRM goals.

Brief explanation of all the HR practices:

- (i) **Safety & healthy workplace:** Safe and healthy work environment ensures that employees feel at home and stay with the organisation for a very long time. In order to fulfil safety and security needs of the employees, they shall be provided with appropriate amount of compensation.
- (ii) **Open Book Management Style:** Open book management style means workers' participation in management decision- making. Sharing information with employees made the organisations understand that employees are equally interested in management as organization.
- (iii) **Performance Linked Bonuses:** Awarding bonuses can be both worked as a source for motivation and dedication for work or disillusionment depending upon the way it is administered and communicated. The logic behind linking rewards with performance is to create an understanding within the employees that achieving the degree of profitability is necessary to receive the bonuses.
- (iv) **360 Degree Performance Management Feedback System:** A 360 degree appraisal performance review is a kind of performance appraisal technique in which employees' performance was reviewed by the subordinates, co-workers, and managers. The purpose of 360 degree performance evaluation mechanism helps in recording the performance of the employees and rewarding them in accordance with the same. This made Performance Management System to come in role play. The harmony thus helps in channelizing a sense of belongingness within the employees towards the company.
- (v) **Fair Evaluation System:** employees' performance evaluation needs to be fair. For allocating fair rewards, organisations use the performance management system to measure the employee performance. Regular training helps the employees to be updated with the current job expectations, helps to maintain balanced criticism, offer on time regular feedback and listen their queries carefully. Fair evaluation system helps in building strong employee-employer relationship and both strive hard in achieving the long term vision of the organization.

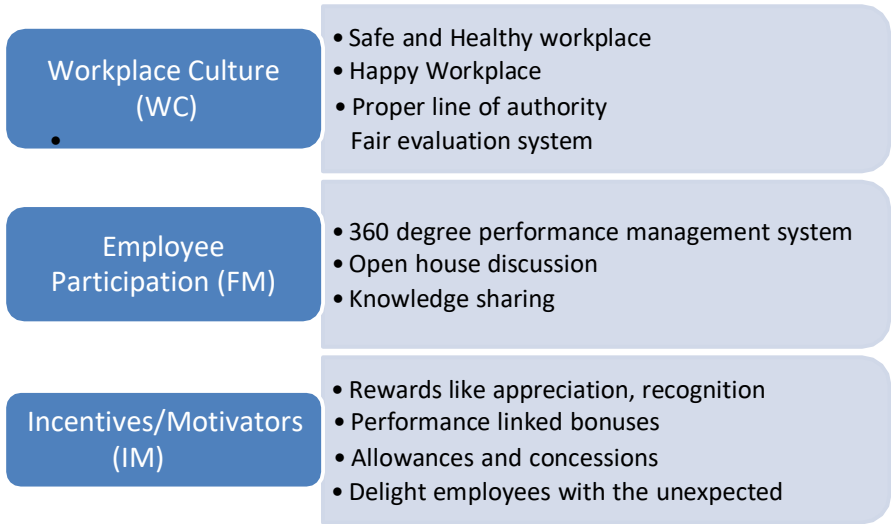


- (vi) **Knowledge Sharing:** it means there should be well coordinated environment at workplace where employees and management both shares their experience regarding any value addition into them. This is also known as knowledge sharing. For example, if any employee returns after attending any skill development program, sharing essential knowledge with others could be made mandatory. Knowledge Sharing process Creates a sense of responsibility among the members of the organization.
- (vii) **Highlight Performers:** A sense of recognition and achievement is necessary to boost motivation into the employees of the organisation and this can be possible through creating profiles of top performers and make them visible on the company sources. Regular appreciation boost the employees to work in more dedicated manner and creates a competitive environment which helps the organisation to grow as a whole.
- (viii) **Open House Discussions &Employee Participation:** ideas rule the world. Employees are the biggest source of idea. They create ideas and also execute them. Capturing new ideas is only possible when all the employees brainstorm together. Regular sessions shall be conducted on weekly or monthly basis where different talents from different departments shall come together to share productive ideas. Employee-management regular meets, open discussions, suggestion box, etc., helps in developing innovative ideas.
- (ix) **Rewards:** merely recognizing the talent may not work, organisation need to link it with appreciation. Rewarding the hard working employees shall be utmost priority of the organization. Rewards can be in the form of monetary terms or non-monetary terms. As per the Vroom's Expectancy Theory, monetary rewards play a vital role in retaining the employee for longer run. A proper platform providing adequate recognition, applause for achievement and job security to employees is the need of the hour.
- (x) **Delight employees with the unexpected:** sometimes, it is necessary to give break to the work at workplace and create an informal environment where everyone could get opportunity to greet and meet with others. Sharing of grief and problems also is the major need so as the whole organization can develop a sense of belongingness. Covid has made this to come in action where employees have been seen supporting the organization by accepting temporary compensation cuts and overtime to keep the company running in odd days.
- (xi) **Proper lines of authority:**Lines of authority refers to the chain of command within the organisation that allows superiors to order their subordinates for performing a task mentioned within their job description. The proper lines of authority, in management ensures who has the authority to give orders to whom and also who is accountable to whom.

- (xii) **Happy Workplace:** It is believed that happy employees are successful employees. Happy employees tend to create more productivity. Human mind has a potential to work in more creative way when an adequate comfortable environment is provided to it.
  
- (xiii) **Allowances and Concessions:** The financial incentive is a positive measure for employee motivation. It helps to improve their performance. In today's socio-economic conditions, money plays a very important role in the part of our lives. Financial incentives must be provided to employees so that they meet their survival needs and improve their standard of living. Incentives like bonuses, profit-sharing etc., helps in increasing the interest of employees.

All above helps us to understand that a proper framework is needed to be created for understanding HR Framework in a better way. With the help of HR Practices Framework, a proper comparison between all the above practices is needed to be done to analyse the result. Main three major components of HR Practices are- Workplace mechanism, Employee Participation, Financial incentives mechanism. This is further categorised in various sub-categories which would be discussed further.

**Figure 1 : HR Practices**



The above HR Practices framework has been designed in order to make classifications of top HR practices under the broad components of- Workplace Mechanism, Employee Participation and Financial Incentives Mechanism. Let's have a look how these components become major categories to call for Sustainable HRM goals:

- (a) **Workplace Culture:** Employees need proper working environment in order to do their work efficiently & effectively. Conducive working environment is necessary for maintaining the employees' dedication high. Any kind of mismanagement at workplace leads to the failure of work on time and thus fails to achieve the objectives. This will result into the low morale of employees and it will become difficult for the organisations to sustain their employees for longer. Thus a better working environment is necessary for human resource sustainability.
- (b) **Employee Participation:** Feedback plays a major role in identifying the strength and weakness of any individuals, groups and firms. A proper and favourable Employee Participation ensures that work is going on in the right direction but failure to give correct feedback or ignorance of feedback will lead to the failure of achievement of objectives. When any employee doing his/her work with taking it as an initiative then it is the duty of management to guide them or give feedback for their point of lackness so that in future those employees increase their efficiency to overcome those discrepancies.
- (c) **Incentives/Motivators:** As it is also stated above that financial incentives as well as non-financial incentives play a major role in every human's life. Purchasing power and living of standard depends upon how much you are earning. Your earnings must be sufficient to meet the basic wants and demand. Many cases of retrenchment and layoff in the organisation is happening due to inappropriate pay-scale or employees are not getting rewards for their effective work. Therefore in order to sustain the employees in the organisation, HR managers must frame the adequate compensation and bonuses plans for them. A timely recognition and & pay will keep the employees dedicated towards their work and they will not leave the organisation.

## 5. Analysis, Results and Discussion

The response collected from HR managers of top 10 IT companies on the pair wise comparisons of various criterion and sub-criteria have been aggregated using geometric mean method for obtaining a group response or judgement for each entry of the comparison matrix. MS-Excel was widely used for the same. The following tables represent the comparison matrices, priority vectors and consistency tests for the hierarchical model shown in figure 1.

**Table 1 Analysis of Main Criteria**

	WC	FM	IM	weights	consistency test	
WC	1.000	2.265	2.563	<b>0.546</b>	<b>PEV (λ)</b>	3.0003
FM	0.44	1.00	1.197	<b>0.245</b>	<b>CI</b>	0.0002
IM	0.39	0.84	1.000	<b>0.209</b>	<b>RCI</b>	0.58
					<b>CR</b>	0.03%

Table 2 Analysis of Sub-Criteria 1

	SHWP	HWP	PLA	FES	weights	consistency test	
SHWP	1.00	4.395	1.658	1.988	<b>0.438</b>	<b>PEV (<math>\lambda</math>)</b>	4.0184
HWP	0.23	1.00	0.573	0.599	<b>0.119</b>	<b>CI</b>	0.0061
PLA	0.60	1.75	1.00	1.270	<b>0.241</b>	<b>RCI</b>	0.90
FES	0.50	1.67	0.79	1.00	<b>0.202</b>	<b>CR</b>	0.68%

Table 3 Analysis of Sub-Criteria 2

	360 degree	OHD	KS	Weight		
360 degree	1.00	0.783313	0.381439	<b>0.205</b>	<b>PEV (<math>\lambda</math>)</b>	3.0001
OHD	1.28	1.00	0.498793	<b>0.263</b>	<b>CI</b>	0.0000
KS	2.62	2.00	1.00	<b>0.532</b>	<b>RCI</b>	0.58
					<b>CR</b>	0.01%

Table 4 Analysis of Sub-Criteria 3

	Rew	PLB	AnC	DEWU	Weight		
Rew	1.00	0.258564	0.497125	0.877768	<b>0.126</b>	<b>PEV (<math>\lambda</math>)</b>	4.0299
PLB	3.87	1.00	1.439836	2.835518	<b>0.432</b>	<b>CI</b>	0.0100
AnC	2.01	0.69	1.00	2.840272	<b>0.308</b>	<b>RCI</b>	0.90
DEWU	1.14	0.35	0.35	1.00	<b>0.134</b>	<b>CR</b>	1.11%

It can be observed from the above table that the consistency ratio is below 10% which represent that all the matrices are consistent. The weights of the main and sub criteria are depicted in the below table.

Global weight of the Main criteria is the same as its local weight. Local weight of sub criteria is calculated by multiplying global weight of its main criteria with its local weight.

Overall from the above table, we have been able to find the sequence of importance of the Human resource practices in IT sector. From amongst the Main Criteria, the most important

HR Practise is the workplace culture(Weight = 0.546) which is followed by employee participation(Weight = 0.245) and then Incentives or Motivators(Weight = 0.209). If the workplace where the employee is working is safe and healthy, it is of prime importance for the employee to remain stable in the company from amongst all the other HR practices.

## **6. Conclusion**

In the present study, we have tried to identify the HR practices which makes an employee of the IT firm to remain loyal to the organisation and hence find stability in the same. Briefly, the findings suggest that the workplace culture of the organisation is the most important factor that makes an employee to stay longer with the organisation. Out of the workplace culture, safe and healthy workplace and having a proper line of authority without any ambiguity top the chart of HR practices, which shows the prevalence of an unambiguous reporting culture in top IT companies. The findings also show that employee participation is also an important criterion especially knowledge sharing which is preferred in IT companies. At the same time, performance linked bonuses are given much preference over other HR practices in the top IT companies which help employees get stabilised and feel their importance. The practise such as rewards like recognition in the form of appreciation is least preferred by the employees, which depicts that employees are more inclined towards materialism and incentives which are monetary or in kind.

The above findings suggest to the budding IT firms to adopt and design the best HR practices for their firms which are very well stated in this paper. The blooming firms can get a processed idea for having stability in terms of human resource in their company.

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## Emergence of ESG Investing: Green Deposits

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### Abstract

*We are not untouched by the emerging new investment alternatives, ESG investing and the green deposits. Over the past years, corporate treasuries have managed to face the challenges rapidly evolving business models and today, corporate treasury departments are focusing on the Environmental, social and governance (ESG) issues. The Treasuries are now contributing towards the enterprises wide ESG efforts. They are adopting a basic liquidity management product, offered by the banks in the form of green deposits. Green deposits are fixed-term deposit for investors looking to invest their surplus cash reserves in environmentally friendly projects. This new investment alternative in the market indicates the increased awareness about the importance of ESG (Environmental, social and governance) and sustainable investing. The investors, with a sense of responsibility towards sustainable environment are looking for such type of alternatives. Green deposit is a great means of next generation sustainable finance as we can see demand for a full range of sustainability offerings. The new fixed term green deposits give the ability to investors to invest their short-term liquidity in environmentally friendly projects. The guiding principles for green deposit investing could be better to described as “ESLY” with the “E” standing for “ESG.”*

**Key-words:** Green deposits, ESG (Environmental, social and governance), Sustainable Investment, Business Environment.

### Introduction

In current scenario of the Business Environment, we are addressing the issues related to Environmental, Social and Governance (ESG). These include a broad range of issues relating to the climatic changes, usage of alternative energy sources (such as Solar energy), cyber security and diversity initiatives. Addressing all the above-mentioned issues have become a major focus of the corporations. In India, the concept of Green Deposits is introduced, and many banks and financial institutions have emerged the same programme. Many Banks are now beginning to offer: Green Deposits. In recent development, the contribution to enterprise wide ESG efforts by the corporate treasury departments now can be by adopting a basic liquidity management product that a handful of banks are beginning to offer: Green Deposits. The corporations across the globe are emphasizing upon the importance of achieving the ESG objectives and it is expected to grow in the coming future. (MUFG, 2022)

In India specifically, the issues relating to Environmental, Social and Governance (ESG) are now emphasized, and the commercial banks and other financial institutions are now introducing the Green Deposits to their customers. For the investors looking to invest their surplus cash reserves in an environment friendly project, green deposit is a fixed-term deposit which will solve the purpose for them. This new investment alternative in the market indicates the increased awareness about the importance of ESG (Environmental, social and governance) and sustainable investing.



## Objectives

- To study about the introduction and scope of Green Deposits.
- To know about the emergence of ESG investing.
- To study the concept of sustainable investing.

## Methodology

The research is based on the secondary data gathered from multiple financial websites, books, national and international journals, and articles, research paper that focused on various elements of Environmental, Social and Governance (ESG) and the introduction of green deposits in India. The proposed study is an attempt of descriptive research based on extensive review of secondary data to bring out the main purpose of the research. The websites of various banks and financial institutions were referred to gather up-to-date developments.

## Discussions and findings

### Growing demand for a simpler investment alternative

Corporations across the globe are focusing on achieving the ESG objectives and significance of such objectives continues to grow. In recent development, more and more corporations are willing to integrate ESG (Environmental, social and governance) into how they deploy their investments. This resulted in a shift towards more socially responsible investments using their surplus cash reserves that align with corporate values.

To address this shift, many ESG (Environmental, social and governance) investment alternatives have emerged, and green deposit is one of them. Investing in ESG-strong companies and funds may require some changes in the company's investment policy.

- Many companies which are focused on ESG (Environmental, social and governance) tend to be in newly established industries.
- No ESG-scoring company which includes ESG (Environmental, social and governance) research firms and traditional credit rating agencies are using the same standards.
- The number of indexes that now benchmark ESG (Environmental, social and governance) investment performance has risen above 1,000.
- The standard for Corporate ESG (Environmental, social and governance) Reporting continues to evolve.

The companies investing in these asset classes i.e., ESG investments, to pursue ESG objectives can find it more challenging and expensive than traditional investing. Often it requires the assistance of a specialized external investment manager and staff dedicated to monitoring and managing the performance of those investments. As a result of which the demand for simpler, more familiar ESG investment alternative is rising. (MUFG, 2022)

### How green deposits fill the void?

The European Commission is making a global effort towards a more sustainable economy. Governments and the corporate treasures around the world chose a more sustainable path for our planet and our economy by adopting the 2016 Paris agreement on climate change and the United Nations 2030 Agenda for Sustainable Development.

The European Union is committed towards the development that meets the needs of the present without compromising the ability of future generations to meet their own needs i.e., Sustainable development. Sustainability has since long been at the focus of the European

project. The European Union Treaties have also given recognition to its social and environmental dimensions, which should be addressed together. (Commission, 2018)

- A company can fund loans or commitments which meet established ESG criteria with these interest-bearing bank deposits. Green deposit is a new short-term investment option meeting the demand.
- The idea behind green deposits is simple. It is based on the idea- Banks make loans that support the ESG projects, why not companies be given an opportunity to fund those loans using their short-term cash?
- There are wide range of categories of projects that can be financed through the green deposits, such as energy efficiency, renewable energy, waste management, clean transportation, greenhouse gas reduction, and sustainable agriculture and natural resource management. Through these, the companies can afford a simple and inexpensive opportunity to participate in the ESG Movement. (MUFG, 2022)

### **Banks on Green Deposits Programme**

- **FEDERAL BANK** - Federal Bank have introduced Green Deposits. It is a fixed deposit for a specific tenure, where the amount deposited by the investor is used for lending to renewable energy projects, green building projects and projects in smart agriculture, water, or waste management projects etc.(BANK F. , 2021)
- **DEUTSCHE BANK** - Ole Matthiessen, Head of Cash Management at Deutsche Bank said that  
The new programme is an important step on their journey into ESG (Environmental, social and governance) as a cash management provider. It marks the first of many cash management products they will look to introduce as part of the bank's sustainability framework.(BANK D. , 2021)
- **INDUSIND BANK - Ms. Roopa Satish, Head - CSR and Sustainable Banking, IndusInd Bank** said that sustainable banking has always been a critical area of focus. It is only bank in India to secure 'band A' in the Carbon Disclosure Project and have maintained leadership capability over the last 5 years. At IndusInd Bank, green deposits are now introduced which provide the customers with an opportunity to contribute towards building an environmentally sound society and encourage both corporate and retail depositors to avail this opportunity through this sustainable investment alternative. Green deposit is like a regular bank deposit but in addition, depositors will be issued a 'Green' certificate as well as an 'Assurance' certificate. The introduction of 'Green' deposits' forms a part of IndusInd Bank's larger commitment of creating value for all its stakeholders and remaining focused at sustainable economic growth of the country. (BANK I. , 2021)

Some other banks who have joined hands with this programme and are now offering sustainable investment alternative, green deposits are HSBC INDIA, UNION BANK, CITI BANK, DBS BANK, HDFC BANK etc. In the coming years, it is expected that more such alternative such as green deposits will be introduced to include environmental welfare in the schemes for the betterment of the world.

### **How is Green Deposit limits applied?**

- Funds deposited through Green Deposits are used to finance environmentally beneficial projects through customer lending.
- The depositor will be notified of such limits during on boarding. Any amount invested above the limit will not be considered Green Deposit.

### **Information to the Customers on the use of Deposited Funds**

- A quarterly report is provided by the banks containing portfolio-level information regarding the use of deposited funds.
- A portion of Green Deposits may appear unallocated at a point in time due to timing gaps between funds being deposited and eligible projects financed. The aim is to minimise the unallocated funds through close monitoring of funding and lending pipelines. The quarterly report will clearly identify the deposited funds awaiting allocation.

### **Who is it for?**

- Corporates or public sector companies looking for inclusion of sustainability agenda into their financial chain.
- Companies with limited opportunities for investment in environmentally beneficial projects
- Companies which prefer investing their surplus cash in deposits rather than in marketable securities (e.g., bonds) (HSBC, 2021)

### **Discussion**

The decision, whether to dip the company's toes into green deposits or any other alternative investment is a very crucial decision. The companies use the 'SLY' guiding principles that is also used for deciding about other short-term decisions, focusing on the "S" (security) first, then the "L" (liquidity), and finally on the "Y" (yield).

A company can achieve a strong security profile through green deposits. The market price risk associated with these bank deposit products is very little. If we consider from the liquidity point of view, green deposits can make sense for investing across all categories of short-term cash, including core/reserve, operational and strategic.

Under the "SLY", yield consideration come last, and that certainly should be the case with green deposits, where achieving ESG goals takes precedence over profits earned by the company. In fact, it will not be wrong to say, the guiding principles for green deposit investing could be better to described as "ESLY" with the "E" standing for "ESG."

The investment in this fixed tenure deposit will go towards financing eligible businesses and projects that promote the transition to a low-carbon, climate-resilient, and sustainable economy. The amount for Green Deposits will be subject to limits basis availability of eligible projects and businesses.

### **Conclusion**

WHY COMPANIES CONSIDER THIS NEW PRODUCT?

There are many reasons that a company might want to allocate a portion of their short-term cash to green deposits.

- The corporate treasurers are familiar with green deposits. The green deposits are the bank deposit product, just like the ones used in both business and personal financial lives. These are easy to understand and familiar to both company's management and financial staff executing daily transactions.
- Most of the ESG investment alternatives expose corporate investors to the volatility and potential loss of principal associated with the securities market. On the other hand, green deposits which are offered by banks have the same characteristics of existing bank deposit products with additional protection provided by the Federal Deposit Insurance Corporation for FDIC insured institutions, which provides coverage up to applicable limits.
- There is no need to engage either internal or external investment professionals to keep a watch over the green deposits and hence it requires less resource to monitor.
- Green deposits are considerably new product in the market, due to which there are few governance hurdles to clear. However, being a familiar, low risk product, there is usually no need to incorporate them into formal investment policy guidelines.
- Green deposits also allow the investors to extend their relationship with banks into the ESG arena.

The ESG (Environmental, social and governance) have made its way into the corporate decision making. As the companies are moving forward in their ESG journeys, green deposits represent an inexpensive, low risky way of investing in socially responsible investments. (bank, 2021)

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## **Evaluation of Customer Relationship Management (CRM) Practices to Gain Customer Loyalty towards Banking Services**

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### **Abstract**

*The purpose of this paper is to determine the impact of customer relationship management on customer loyalty in banking service industries. The three dimensions that have been frequently used in prior studies that address the impact of CRM on customer satisfaction and customer loyalty are service quality (SQ), service access (SA), and handling complaints (HC). These factors are found to have effects on customer satisfaction and customer loyalty. The study benefits both academics and practitioners in the context of adding to the existing literature on CRM and providing insights on what drives CRM in real practice. A customer relationship management solution in banking helps banks manage customers and better understand their needs in order to provide the right solution the research paper object is to study how CRM works in banking sector. Examine the opinion of customer's regarding service facilities .The focuses of CRM in banks to understand past problems present needs and future plans. The study also noticed that bank words and promises are reliable and the bank is fulfilling its obligation towards the customers. It is also offering them valuable advice on how to must is the predominant variable which has impact on customer loyalty. So the banking sector to focus more on these factors, thereby increasing customer loyalty. Hence the concept of CRM may be emphasized so that the customers are treated royalty in relation to banking services. Therefore, the banks need to improve the customer satisfaction in the utilization of various modern banking service and should provide more customer friendly services to make the modern banking activity a delight for the customer.*

**Key-Words:-**Customer Relationship Management (CRM ),Banking, service

### **Introduction:**

CRM is a process or methodology used to learn more about customers' needs and behaviors in order to develop stronger relationships with them. Customer relationship management (CRM) is a term applied to process implemented by a company to handle its contact with its customers. CRM is a combination of policies, processes, and strategies implemented by a company that unify its customer interaction and provides a mechanism for tracking customer information.

Today, Indian banking industry is one of the largest in the world .CRM in the banking sector is of strategic importance. Customer relationship management assist in the acquisition of new

customers through the use of past track records and value they brought to the banks, Success indicators of banking organization have undergone tremendous change in terms of quality, efficiency parameters and breadth and depth of the services mix offered. Banking organization as a part of competitive services cape, is experiencing paradigmatic shift in its marketing strategies and enormous investment in main lasting relationship with the customer. Relationship marketing has replaced traditional transactional marketing and in this direction. The concept and tools of customer relationship management (CRM) have become significantly important. In today's competitive world, banks, like any other industry, are struggling hard to maintain the old clientele while attracting new customers. Today's banking industry faces several challenges, increased competition, strict regulation, and customers who are increasingly sophisticated price conscious and discriminating in evaluating banking service (Beckett et.al. 2000; Calik and Batta, 2006; Fandos Roig et.al. 2006; Goode and Mootinho, 1995; Ozdemir and Trott 2009)

The winner in the Indian banking sector will be the player who can be aware of the customer, fulfill customer needs and attain high levels of customer retention (Kamath et.al. 2003, PP 85). Berry (1983) Vivid relationship marketing as a strategy to attract maintain and enhance customer relationship. Relationship marketing is to establish, maintain and enhance relationship with customers and other partners at a profit, so that the objectives of the parties are involved are met (Gronroos, 1994). This research has revealed the importance of customer relationship management. Customer retention has a significant impact on banks profitability (Newman and Crowling, 1996) as percent increase in customer retention adds 25-150 percent in bottom line (Rosenberg and Czepiel, 1983) small increase in customer retention rates can lead to dramatic increase in profits (Ruchheld, 1996). Hence, adopting customer-centre strategies aimed at maintaining and enhancing relationship with existing customer is important for

### **Literature Survey:**

In India, the service firms took some of the early initiatives in CRM, especially in the financial services. CRM is emerging as the core marketing activity for services firms operating in the fiercely competition environment (Shainesh and Choudhary, 2011). Customer relationship management (CRM) is no large new term but realities for much organization, the long-term business relationship provide many potential benefits for banks and clients. It is generally less costly for any service firm (Bank) to maintain and develop an existing client relationship (Berry 1983).

A recent research reveals a clear opportunity for banks to increase the sophistication of their offers and communications to customer around recognizing and rewarding loyalty. The challenge is about integrating customer strategies and capabilities across the broad and complex organization structure of 21<sup>st</sup> century banks to drive effective execution at the front line between banks and their customer (a research paper of Priya and Bag, 2011). A research paper of Kaur (2013) reveals that CRM is a strategy that is being implemented by the banks in India for effective service delivery to their customers to achieve higher levels of customer satisfaction and strive for customer delight. Colgate and Hedge (2001) insisted that losing customer could have a negative effect on a bank's market share. Hence banks should retain the customer to continue to exist in the banking sectors. Customer loyalty and retention is the central aims of relationship marketing and is closely related to a company profitability (Heskelt et.al. 2008; Rust and Zahori, 1993). The survival of Indian banks (Ray and Shekhar, 2010).

According to Smith (2006), building in IT infrastructure for CRM is like building a bridge; it takes comprehension of a need, engineering, reviewing, building and re-building. Lindgreen

and Antico (2005) suggest that CRM frequently employs IT technology as a means to attract, develop, and retain customers. Although, it must be emphasized that CRM does not necessarily involve IT technology (Park and Kin, 2003). Rowley (2002) recognized that CRM systems support all stages of the interaction with the customer from order through delivery to after-sales service (Swift, 2001).

According to Greenberg (2004), implementation of CRM is technique of capture, storage, extraction, processing, interpretation, and reporting of customer data to a user. Smith (2006) states that analysis of customer data is a key part of CRM. A solid analysis will provide companies with a clear picture of who their customers are and what their needs are. This information comprises patterns and trends in consumer behavior, customer preferences, migratory tendencies, life style, and personal habits that will be used to predict and develop future business opportunities.

Xu and Walton (2005) proposed that analytical CRM provides real-time information about customer's buying patterns, pre-and post-sales behavior and factors for customer retention. They future argue that an analytical CRM should provide customer profiling and customer segmentation functions with the capability to identify strategically significant customers. Customer behavior modeling is a process that includes segmenting target customer groups, establishing criteria for measuring behavior, monitoring and tracking behavior changes, generating behavior patterns, and predicting possible future behavior.

More recent studies exhibit mixed evidence: while certain studies (Keova 2003) suggest ownership to have some effect on bank performance, others (Bhaumik and Diamova, 2004 ) veer around the view that the competition induced public sector banks to eliminate the performance gap that existed then and both domestic and foreign and private sector banks. More recent research reported differences in the efficiency of Indian commercial banks with different ownership status, label of non-performing loans, size and asset quality (Das and Ghosh, 2006).

A recent research reveals a clear opportunity for banks to increase the sophistication of their offers and communications to customers around recognizing and rewarding loyalty. The challenge is about integrating customer strategies and capabilities across the broad and complex organization structures of 21<sup>st</sup> century banks to drive effective execution at the front line between banks and their customers (a research paper of Priya, Jyoti and Bag, 2011).

A research paper of Kaur (2013) reveals that CRM is a strategy that is being implemented by the banks in India for effective service delivery to their customers to achieve higher levels of customer satisfaction and strive for customer delight.

## **Research Methodology**

### **Type of Research**

In this paper a descriptive research design has been adopted to measure the impact of various dimension of customer relationship management in banking services and its

### **Source of Data Collected**

#### **Secondary data:-**

1. Magazines
2. News paper
3. Bank's websites



4. Journals
5. Research Papers.
6. Book chapters
7. Articles.

### **Implication of the Study**

The research work reveals that there is a positive impact of CRM in banking sector. Now banks are providing all the financial services like ATM, safety locker system, mobile banking internet banking services. Customers are getting all other services like loan facilities. overdraft facilities ,and various recent government schemes for educational loan home loans and for small medium business. Customers are highly satisfied with overall banking services.

### **Conclusion**

With the research conducted, it has been found that there is a positive relationship between customer relationship management and customer satisfaction. CRM is one of the greatest approach and tool for gaining customer base and there by surviving in this competitive environment. Now a day this is very important for every bank to increase higher satisfaction level of customers so they stay loyal for their respective bank.

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**“50 Years of Freedom under Rule of Law: Indian Experience”  
– J.S. Verma: An Analysis**

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**Abstract**

*The objective of this paper is to examine and analyse the work of Justice J.S. Verma on Rule of Law called “50 Years of Freedom under Rule of Law: Indian Experience”. This Article by Justice Verma is a tale of influence casted by the concept of “Rule of Law” on India in its 50 years after freedom from British Empire which is presented and explained with the help of an interweaved web of judicial pronouncements by the Indian Supreme court on relevant issues related to Rule of Law.*

*The problem faced by government has remained viz. two fold; first, how to govern the population and second, how to put effective control on itself while governing the population. The concept of “Rule of Law” has proved to be very effective tool in governance and keeping the authority of state agencies under control.*

*The Author then proceeds to elaborate the role played by Supreme Court of India in ensuring and upholding the Rule of Law. The Author does that by offering a three subject matter analysis of the concept. First, by focusing on Separation of Power in the State structure, Second, the role of courts in protection of Personal Liberty and third, by concentrating on the question whether ordinary laws shall be preferred over discretionary powers of the authorities.*

*The paper in its subsequent part focuses mainly on the significance of Public Interest Litigation and how the relaxation in the rule of ‘Locus Standi’ have helped the underprivileged to have access to justice.*

**Key-Words:** Rule of Law, Fundamental Rights, Judicial Activism, Separation of Powers, Public Interest Litigation, Personal Liberty, etc.

**Introduction:**

This Article begins with the observation of the Hon’ble Supreme Court of India in its landmark pronouncement of **Indira Nehru Gandhi V. Raj Narain**<sup>1</sup> - “*The MAJOR problem of human society is to combine that degree of liberty without which law is tyranny with that degree of law without which liberty becomes license*”<sup>2</sup>. Justice Verma analyses the “perennial dilemma is to discover a measure of right balance appropriate to the ever-shifting tangle of human affairs”.<sup>3</sup> A large part of human endeavour over a period of time has been spent in quest of solution to the problem of imbalance in the abovementioned tangle.

As per the author, there are two main facets to the Government: (i) governing the governed (ii) controlling itself whilst such governing. The concept of ‘Rule of Law’ is used by almost all the liberal democracies as a mechanism to morally, culturally and constitutionally control their government from overstepping their predefined limits. Post World War-II, many

colonial countries got liberated and with the establishment of their new domestic governments adopted loftily worded constitutions. These emergent democracies despite of their flowery constitutions lacked the value and spirit of liberty and constitutionalism, which reduced their constitutions to 'a mere rope of sand'.<sup>4</sup>

The problems faced by these rising democracies were numerous as the political activities disregarded the constitutional rules, the federal structure was unsuccessful in restraining itself at central and state levels and pluralism presented a tough challenge for constitutionalism.

Justice Verma goes on to quote Professor Atiyah - "Rights and duties after all, may exist on paper, but those who are unimpressed by pieces of paper may still have a healthy respect for threats of imprisonment remedies are ultimately what matter" and that it was the "profoundly English belief that an independent judiciary, and a judiciary with the power to issue practical orders, was more important than any number of grand theoretical declarations about the Rights of Man".<sup>5</sup> The English penchants for pragmatic decisions have had its subtle influence on the judicial approach to solve legal problems. The Indian Judicial system has been, to a great extent, influenced by the concept of Rule of Law which is an English inheritance. The exercise of governmental power in India is limited by the machinery of judiciary which, amidst the din and clamor of democracy, provides for a pragmatic system of governance. The editors of Professor

De Smith explains its contents, "that laws as enacted by Parliament be faithfully executed by officials, that orders of courts should be obeyed; that individuals wishing to enforce the law should have reasonable access to the courts: that no person should be condemned unheard, and that power should not be arbitrarily exercised."<sup>6</sup>

The courts in India have emphasised that Rule of Law is an 'expression to give reality to something which is not readily expressible but which postulates the pervasiveness of the spirit of law throughout the whole range of governmental action'. That is where "Law has reached its finest moments when it has freed man from the unlimited discretion of some ruler". True enough that "where discretion is absolute, man has always suffered".<sup>7</sup>

## II – Rule of Law and Supreme Court India

The "Rule of Law" was made to be considered as an inherent part of Constitution of India by the creative interpretations of the Indian Apex court. In the case of **Chief Settlement Commissioner, Punjab v. Om Prakash**<sup>8</sup> the Supreme Court observed:

"In our Constitution system, the central and most characteristic feature is the concept of the rule of law which means, in the present context, the authority of law courts to test all administrative action by the standard of legality. The administrative or executive action that does not meet the standard will be set aside if the aggrieved person brings the appropriate action in the competent court.

The majority opinion in the milestone pronouncement of *Keshvananda Bharti v. State of Kerala*<sup>9</sup> stated that "Rule of Law" and "Democracy" were amongst the "Basic Structures" of the Indian Constitution not amenable to the amending process under Article 368 of the Constitution. The equality aspect of Rule of Law and of democratic republicanism is in Article 14 of the Constitution of India which was described by Das C.J. as "combining the

English Doctrine of Rule of Law and the American equal protection clause of the Fourteenth Amendment. The first part of Article 14 enshrines the basic principle of Republicanism. It was held that Rule of Law is an essential feature of the Constitution of India, and absolute discretion in matters affecting the rights of the citizens is repugnant to Rule of Law.”<sup>10</sup> It has also been held that the requirement of Article 14 is that every State action must satisfy the test of non-arbitrariness even if the action is in the field of contract. The Supreme Court has also protected the rights of non-citizens and has set great example that the country is governed by Rule of Law. In one of the cases where a large number of people feared foul play, the court stated: “We are a country governed by the Rule of Law. Our constitution confers certain rights on citizens. Every person is entitled to equality before the law and equal protection of the laws. So also, no person can be deprived of his life or personal liberty except according to the procedure established by law. Thus, the state is bound to protect the life and liberty of every human being, be he a citizen or otherwise, and it cannot permit anybody or group of persons, e.g., the AAPSU, to threaten the Chakmas to leave the State.” The contemporary dimension of Rule of Law was highlighted by one of the renowned authors as: “The Rule of Law has meant many things to many people. To A.V. Dicey it meant the virtual exclusion of official discretion, which he equated with arbitrary power. The Rule of Law is seen as a principle of institutional morality. Its application is by no means confined to the courts, although the courts are instruments in its elaboration. British constitution, although unwritten, nevertheless rests upon two fundamental principles, the one being the legal sovereignty of Parliament, the other the Rule or Supremacy of Law.”<sup>11</sup> Then, the author moves on to elaborate three areas of assimilation of Rule of Law into judicial process. The FIRST area is the concept of the Doctrine of Separation of Power under the Indian Constitution. The SECOND is the area of personal liberty which the Indian courts have always held on a very high constitutional scale of values. The THIRD is the perennial dilemma of fixed rules versus discretionary justice.

#### • Separation of Power

The Supreme Court of India in the case of *Re Delhi Laws*,<sup>12</sup> observed that in the absence of any specific provision in the constitution exclusively vesting legislative powers in the Legislature and judicial power in the Judiciary, can it be said that Indian Constitution incorporated the doctrine of separation of power within its ambit? The majority opinion, however, imported the “essence” of the doctrine of separation of powers and the doctrine of constitutional limitation and trust implicit in the constitutional scheme. Justice Kania<sup>13</sup> observed: “Although in the Constitution of India there is no express separation of powers, it is clear that a legislature is created by the Constitution and detailed provisions are made for making that legislature pass laws. Is it then too much to say that under the Constitution the duty to make laws, the duty to exercise its own wisdom, judgment and patriotism in making laws is primarily cast on the legislature? Does it not imply that unless it can be gathered from other provisions of the Constitution, other bodies, executive or judicial, are not intended to discharge legislative functions?”

Later in the case of *Chandra Mohan v. State of Uttar Pradesh*,<sup>14</sup> the Supreme Court pronounced a necessary corollary of this principle i.e. the separation and independence of the judicial branch of the state. In the landmark judgment of *Indira Gandhi v. Raj Narain*, the doctrine of separation of powers was elevated to the position of a basic structure. The SC observed: “The exercise by the legislature of what is purely and indubitably a judicial function is impossible to sustain in the context even of our co-operative federalism which contains no rigid distribution of powers but which provides a system of salutary checks and balances. It is contrary to the basic tenets of our Constitution to hold the amending body is

an amalgam of all powers – legislative, executive and judicial. ‘Whatever pleases the emperor has the force of law’ is not an article of democratic faith. The basis of our Constitution is a well-planned legal order, the presuppositions of which are accepted by the people as determining the methods by which the functions of the government will be discharged and the power of the state shall be used.’<sup>15</sup> Justice Verma also mentions about the Judicial Activism in India as it goes on to fill the legislative vacuum in the field of human rights. The Supreme Court provides enforceable directions to fill the vacuum till the legislature enacts suitable legislations to fill that gap. The apex court has also by means of its judicial dictates framed certain guidelines to regulate the executive functions of the authorities in order to guarantee the equality principle enshrined in Article 14 and exclude arbitrariness and also to realize the right to life and liberty granted by Article 21. This exercise of activism by the Supreme Court of India is in consonance with scheme of the constitution. It can be seen that the cardinal principle of rule of law i.e. Doctrine of Separation of Power is being integrated and developed by the Supreme Court of India.

### • Value of Personal Liberty

In the field of Personal Liberty, the Apex Court has shown great concern for the protection of great embedded right under the Constitution. Article 21 of the Constitution lays down that “no person shall be deprived of his life or personal liberty except according to the procedure established by law”. This Article has gone through a number of interpretations and has seen immense growth. In the year 1950, in the famous case of *A.K. Gopalan v. State of Madras*,<sup>16</sup> the words “according to the procedure established by law” came up for interpretation. The question particularly raised was whether they need to interpret it in a strict positivist manner or whether it needs to be interpreted in a manner which would ensure a fair and reasonable procedure. The Supreme Court opted for a narrow positivist interpretation. Indeed, one of the judges stated that, “If a law provided that the cook of the Bishop of Rochester be boiled in oil it would be valid under Article 21”. Later in the year 1978, the Supreme Court was obliged to interpret “according to the procedure established by law” differently. The Court in *Maneka Gandhi v. Union of India*<sup>17</sup> interpreted those very expressions as non-positivist norms and importing the idea of reasonableness. It held that the procedure established by law must be “just, fair and reasonable and not arbitrary or oppressive” and the court was arbiter of what was right, just and fair. When there was a threat to the sovereignty and territorial integrity of the country by political terrorism and by armed groups seeking to impose their political ideologies through violence, certain legislations granting special powers to the government were enacted, one of such enactment was Terrorist and Disruptive Activities (Prevention) Act of 1987 (TADA). The provisions of TADA, particularly, sub-section (8) and (9) of Section 20 which imposed a ban on the release on bail of a person accused of an offence punishable under this law (except on certain strict conditions) came in for challenge. The provisions of the ‘Act’ and Section 20(8) and (9) were held not to be violative of Article 21 of the Constitution, however, with a view to prevent the misuse of extensive powers granted under this law, the court initiated a regime of strict review of the cases by Committees of high placed officials both at the Centre and in the States to reassure themselves that no miscarriage of justice occur. This innovation operated as a great check on the exercise of the powers. Later, in the case of *R.M. Tewari v. State (NCT of Delhi)*,<sup>18</sup> the Supreme Court gave recognition to the importance to the recommendations to such Committees. The court observed: “If the recommendations of the Review Committee, based on the material present, is, that resort to provisions of the TADA Act is unwarranted for any reason which permits withdrawal from prosecution for those offences, a suitable application made under Section 321 CrPC on that ground has to be considered and decided by the Designated Court giving due weight to the opinion formed by the public prosecutor on the

basis of the recommendation of the High-Power Committee.” The Supreme Court in *Shaheen Welfare Association v. Union of India*<sup>19</sup> took note of the long delays taking place in the trails of the person accused under the TADA Act. It made further judicial innovations for liberalising bails. The Court classified the persons proceeded against under that law under four different groups, classified on the basis of the nature of the role played by each of them making a distinction between real hardcore terrorists on one hand others who had minor roles in alleged terrorist activities. The Supreme Court also made specific orders for grant of bail in the three out of four classes of cases. The court itself indicated the terms subject to which such bails be granted. This judicial activism, to a great extent, protected personal liberty of the accused. As a result the number of under trails in custody under TADA which was 14,446 in 1996 came down to almost 10 percent of that figure in about a year.<sup>20</sup> The author argues that though the acts of terrorism are against the unity and integrity of the country are to be dealt with firmly and the citizenry be protected against such misguided and senseless violence, the Government must be open and honest about its policies of anti-terrorist measures and control measures must be limited, well-defined and directly only against terrorism and terrorists and conducted within the limits of the law and the constitutional obligations of the State. The TADA which was a temporary legislation expired by efflux of time. It was not given a new lease of life by the legislature.<sup>21</sup>

The Supreme Court once again dealt with a similar stringent provision of granting of bail under the Narcotics Drugs and Psychotropic Substances Act (NDPS) of 1985. Section 37 (b) (ii) is analogous to the language of the corresponding provision under the TADA. The Supreme Court held that nevertheless provisions of Section 167(2) of the Code of Criminal Procedure, which made it mandatory for the release of the accused after the expiry of a stipulated period of time which is provided in the proviso to Section 167(2) would continue to apply and that whatever charges were not brought against the detained person within the specified time, he would be entitled to bail as of right. According to Justice Verma, these judicial approaches to questions of personal liberty have greatly enhanced the quality of justice.<sup>22</sup>

#### • Fixed Rules V. Discretionary Justice

The author then moves to the third field which is very much influenced by A.V. Dicey’s concept of Rule of Law. Dicey’s requirement of predominance of ordinary laws as opposed to wide discretionary authority had caught the imagination of judiciary in India. In a case of *Jaisinghani v. Union of India*,<sup>23</sup> the Supreme Court quoting Dicey had held, “The rule of law from this point of view means that decisions should be made by the application of known principles and rules and, in general, such decisions should be predictable and the citizen should know where he is”. But in the later pronouncement it referred to this as only “an aspiration for an ideal and not based on any down-to-earth analysis of practical problems with which a modern government is confronted” and that “In the world of action, this ideal cannot be worked out and that is the reason why this exposition has been rejected by all practical men”.<sup>24</sup> The court also pointed out that Dicey’s formulation of Rule of Law namely; “the absolute supremacy or predominance of regular law as opposed to the influence of arbitrary power, excluding the existence of arbitrariness of prerogative, even of wide discretionary authority on the part of the government” had been discarded in the later editions of his book.

### III – Judicial Activism and Public Interest Litigation

According to Justice Verma, the Indian experience of freedom under Rule of Law would be incomplete without reference to the recent experience of Judicial Activism. Access to justice

has been ensured to everyone by liberalisation of the rule of 'locus standi'. A large section of the people in India comprise of 'have-nots' who suffer from different kinds of disability and are not even aware of all their constitutional rights. Access to courts for them has become a reality through the medium of Public Interest Litigation (PIL) brought by social activities, not busy bodies, who are well equipped to espouse their cause. The principles underlying Order 1 Rule 8, Code of Civil Procedure has been applied in public interest litigation to entertain class action and at the same time to check misuse of PIL. The appointment of Amicus Curiae in these matters ensures objectivity in the proceedings. Judicial creativity of this kind has enabled realisation of the promise of socio-economic justice made in the Preamble to the Constitution of India.<sup>25</sup> In order to enforce Fundamental Rights the Supreme Court of India exercises its power under Article 32, which itself is a Fundamental Right along with the plenary power it has under Article 142 to make such order as is necessary to do complete justice in the cause has enables the Supreme Court to grant the relief appropriate in the cause for enforcement of the Fundamental Rights. The content and scope of Fundamental Rights is enlarged by the presence of Part IV of the Constitution i.e. Directive Principle of State Policy which mandates the government to fulfil the promise of a welfare state. In recent years, according to Justice Verma, the medium of PIL has achieved accountability of public authorities and probity in public life. It helped in keeping in check the arbitrary exercise of public power and misfeasance of public authority which resulted in violation of Fundamental Rights of the citizens. The conflict between demand for development and preservation of ecology was reconciled by the Judiciary. Judicial decisions were elemental in the formulation of the Public Trust Doctrine related to the Environmental law jurisprudence. According to this Doctrine, the ecology and environment of a place is incapable of ownership being a gift of the nature and are to be preserved in trust for the future generations. The present generation is a trustee for its preservation. The concept of "Sustainable Development" came into being in order to cater 'development' needs of the people. These pronouncements have mainly come into the realm because of the Judicial Activism through Public Interest Litigation. In the implementation of Rule of Law one important principle to be emphasised is of Right to Equality. There are high public officials who are involved in the commission of serious economic offences of corruption. The investigative authorities should perform their statutory duty of investigation irrespective of the status of the accused. In the matter of Vineet Narain v. Union of India<sup>26</sup>, the Supreme Court devised the procedure of 'continuing mandamus' to direct the investigation and monitor its progress till its completion with the filing of the charge-sheet in the competent court to commence the trial according to the prescribed procedure. Thus, accountability and probity in public life has been enforced judicially and this became necessary because of the lethargy which the investigative authorities displayed in probing and prosecuting the offenders holding high public offices.

## Conclusion

In conclusion, it can be stated that the horizon of the Rule of Law in India has been expanded by Judicial Activism undertaken by the Supreme Court of India. In *A.K. Kraipak v. Union of India*, the court observed that "In a welfare state like ours it is inevitable that the organ of the state under our constitution is registered and controlled by the rule of law. In a welfare state the jurisdiction of administrative bodies is bound to increase at a rapid rate. The concept of rule of law would lose its validity if the instrumentalities of the state are not charged with the duty of discharging their functions in a fair and just manner."<sup>27</sup> Justice Verma states that, "In this manner of judicial creativity to suit the Indian conditions the recent phase of Judicial Activism has advanced the cause of justice attempted to achieve the constitutional purpose in accordance with constitutional scheme and thereby ensured proper implementation of the

Rule of Law. This is an attempt to realise the hopes and aspirations of the people and to strengthened the foundation of Rule of Law which is the bedrock of democracy.”<sup>28</sup> He further asserts Indian democracy is a living and vibrant democracy and Indian judiciary has striven to unite its people in common bonds of justice. An American Constitutional writer<sup>29</sup> speaking of the American Supreme Court said that, “it is easier to speak of a solar system without a Sun than to speak of the American democracy without the Supreme Court and that the constitutional rights of the American people were safe in the hands of their Supreme Court.” Similarly as per Justice Verma “Indian judiciary can, in the 50th year of Independence, say with reverence and humility that the constitutional rights of its people are safe in the hands of the Indian judiciary”<sup>30</sup>

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## Cyber Security: A New Technological Challenge

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### Abstract:

*At present, many profitable, marketable, artistic, social, and governmental relations, as well as international relations, in all cases, including individuals, non-governmental organizations, and public and private institutions, have been created online. Recently, many private companies and government agencies around the world are facing the threat of cyber-attacks and the dangers of wireless communication technology. The temporary world relies heavily on electronic technology, and monitoring this data from cyber attacks is a major problem. The purpose of the cyber-attack is to damage companies financially. In some cases, cyber-attacks may have military or political objectives. These damages include PC infections, datacuts, data distribution services(DDS), and other attack vectors. To date, colorful organizations use color effects to help the damage caused by cyber-attacks. Cyber security follows real-time data on back-end IT data. The conclusion of this study is to fully evaluate and review the most common advances made in the field of online safety and to investigate the challenges, sins, and strengths of the proposed styles. Different types of new customer attacks are considered in detail. Common safety clothes are embedded in the history and styles of the first generation of cyber security. Additionally, emerging trends and the latest developments in online safety, with security pitfalls and challenges being introduced. It is expected that a comprehensive review of research presented by IT and online security testers will help.*

**Key-words:** Cyber attacks, Cybercrime, Cyber security, Wireless Communication, Data Distribution Services (DDS), PC infections, and Internet attack

### Introduction:

We live in the age of Information Technology where information sharing is becoming increasingly important. As we all know, emerging technologies require very fast communication and secure data sharing. It is very important to protect information about users, employees, customers, and records when shared in bulk form. SO, here the word CYBER-SECURITY is introduced. Today the internet is a rapidly growing infrastructure in everyday life. In today's technological world many of the latest technologies are changing the face of humanity. But thanks to these emerging technologies, we are unable to protect our

confidential information in a highly effective manner and that is why these days cybercrime is on the rise. Improving technology has transformed communication, transaction, debt management, and other activities that need to be verified. The scope of cyber-security is not limited to developing types of services but is also a matter of concern for technologies such as Cloud Computing, Commerce, Banking, and all other fields.

### **History of Cyber-Security:**

The word Cyber means is related to or includes computers or computer networks (similar to a network).The term CYBER is also used as a starting point for relationships and Information Technology (I.T.).The origins of cyber security began with a research project. It just happened to be due to the emergence of germs.

### **In 1969, at UCLA (University of California, Los Angeles), a professor sent a message to the Stanford Research Institute.**

Leonard Kleinrock, a professor of UCLA(University of California, Los Angeles),and student, CharleyKline, sent the first electronic message from a computer to UCLA SDS Sigma 7 Host to BillDuvall, program coordinator, at Stanford Research Institute.[1]This is one of the most famous and momentous events in the history of the digital world. The message sent from UCLA was the word "sign in."The system crashed after typing the first two letters "this."Since then, the story has been the belief that the editors wrote the first message "look and see."Although it was believed that "login" was the intended message. Those two letters of the alphabet changed the way we speak.

### **In the 1970s, Robert Thomas created the first virus that printed "I am Creeper, Catch me if You Can"**

Robert (Bob) Thomas, a BBN Technologies researcher in Cambridge, Massachusetts, created the first computer virus (virus). He realized that the computer system could not move through the network, leaving a small trail (series of symbols) wherever it went.[3] He named the program Creeper, and designed it to travel between Tenex terminals at the beginning of the ARPANET, printing the message "I am Creeper: Catch me if you Can't."

### **In1986, Russia used Cyber Power as a weapon to further the security of another system.**

The Russians were the first to use cyber power as a weapon. MarcusHess, a German citizen, hijacked 400 military computers, including processors in the Pentagon. He intended to sell the KGB secrets, but the American astronomer Clifford Stollar rested him before that could happen.

### **In 1988, American Scientist created an Influence to know the size of the Internet.**

An American computer scientist, Robert Morris, wanted to test the size of the internet. He has written a program to test the size of the internet. The program went through networks, entered Unix terminals, and copied itself. The program became the first popular viral virus and was named Moris worm or Internet worm.[2]Morris worm can be infected by a computer many times, and each additional procedure can slow down the machine, eventually damaging it. Robert Morris has been charged under the Computer Fraud and Abuse Act

### **Types of Cyber-Security Threats:**

While the types of cyber-bullying continue to grow, there are other common online threats that today's organizations need to be aware of. The top 10 online security threats are as follows:

#### **1) Computer malware**

Malicious computer hacking is the most common online security threat. Malicious software is defined as malicious software, which includes spyware, ransom-ware, viruses, and worms that are installed on the system when a user clicks on a malicious link or email. Once inside the system, malware may block access to important parts of the network, damage the system, and collect confidential information, among others.

According to Accenture, the average cost of a malware attack is USD2.6 million.

#### **2) The crime of stealing sensitive information**

Cyber criminals send out malicious emails that appear from legitimate sources. The user is then tricked into clicking the malicious link in the email, which leads to malware installation or disclosure of sensitive information such as credit card details and login details.

Cybercrime accounts for more than 80% of reported online incidents.

#### **3) Crime Theft of sensitive information**

Phishing scams are a very complex form of a phishing scam where cybercriminals target only specialized users such as system administrators and C-suite officials.

More than 71% of targeted attacks involve the use of criminal identity theft.

#### **4) A man in a moderate attack**

The Man in the Middle (MitM) attack occurs when cyber criminals position themselves between two people. If the attacker interprets the connection, he may filter and steal sensitive data and return different responses to the user.

According to Netcraft, 95% of HTTPS servers are at risk.

#### **5) Refusing a Service Attack**

Denial of Service attacks is a immediate flood systems, networks, or servers with high traffic, making the system unable to fulfill official requests. Attacks can cause a few infected devices to launch attacks on targeted systems. This is known as a Distributed Denial of Service (DDoS) attack.

The year 2019 saw a staggering 8.4 million DDoS attacks.

#### **6) SQL Injection**

Structured Query Language Injection (SQL) injection occurs when cyber criminals try to access a website by uploading malicious SQL documents. Once successful, the malicious character can view, modify, or delete data stored on the SQL website.

SQL injection accounts for about 65.1% of all web application attacks.

#### **7) The exploitation of zero-days**

The day-to-day attack occurs when software or hardware vulnerabilities are announced, and cybercriminals use the risk before using a patch or solution.

It is predicted that zero-day attacks will escalate once a day in 2021.

#### **8) Continuous Advanced Threats (APT)**

A progressive further threat occurs when a malicious character acquires unauthorized access

to a system or network and lasts along time unnoticed.  
45% of organizations feel that it may be the goal of the APT.

### **9) Ransomware**

Ransomware is a type of malware attack where the attacker closes or encrypts the victim's data and threatens to publish or block access to data unless the ransom is paid. Learning more about ransomware threats can help companies prevent and deal with them better. Ransomware attacks are estimated to cost USD 20 billion by international organizations by 2021.

### **10) DNS Attack**

DNS attack is a cyber-attack attack in which cyber criminals exploit vulnerabilities in the Domain Name System (DNS). Attackers raise DNS threats to divert site visitors to the wrong pages (DNS Hijacking) and deleted a from corrupted systems (DNS Tunneling). The median cost of DNS attacks stands at USD924,000 by 2020

## **Cyber-Security Best Practices to Protect Cyber-Threats:**

### **1) Create an Insider Threat Program**

Creating a system of internal threats is essential for organizations to protect employees from abusing their access rights to steal or destroy business data. The IT security team should not delay and obtain the approval of senior management to issue policies to all departments.

### **2) Train staff**

Employees are the first line of defense against the online threats of the entire organization. Therefore, organizations should develop comprehensive online safety awareness programs to train employees to recognize and respond to online threats. This dramatically enhances the organizational structure of security and stability on the Internet.

### **3) Maintain Compliance**

Regardless of the level of online security the organization uses, it must always adhere to the data rules applicable to its industry and local environment. The organization must be kept informed of progressive compliance regulations to maximize its benefits.

### **4) Create a Cyber Incident Response System**

In the modern digital age, no organization is free from cyber attacks. Therefore, organizations of all sizes must develop an effective Cyber Security Incident Response Plan (CSIRP) to roam the cyber enemies. It allows businesses to prepare for the inevitable, respond to emerging threats, and recover quickly from attacks.

### **5) Regularly Update Systems and Software**

With online threats emerging quickly, your enhanced security network may expire immediately, putting your organization at risk of cyber-attacks. Therefore, regularly update your security network and software-related programs.

## **6) Storage Data**

Making a backup copy of the data regularly help store duce the risk of data breaches. Keep your website, apps, website, emails, attachments, files, calendars, and more continuous and consistent. Start Imitating Crime Theft of sensitive information Organizations should practice the crime of stealing sensitive information to teach employee show to avoid clicking malicious links or downloading attachments. Helps employees to understand the far-reaching effects of cybercrime.

### **Future of Cyber Security in India:**

33.5% of Indian corporations have been hit with the aid of using a cyber assault in 2018. Not most effective is that this determine alarmingly high, it additionally makes India the 1/3 most-attacked us of an as in keeping with a survey performed with the aid of using Tech Asia Research for Sophos, the famed British safety software program and hardware firm [4].

The simple fact that emerges out of that information is that Asia & India are being issued to greater success attacks, now no longer always in phrases of quantity but in phrases of fulfillment and something wishes to be finished approximately it, with an elevated feel of urgency.

In this eye-commencing webinar, Amar Singh, CEO of Cyber Management Alliance, and Ben Verschaeren, Sophos` Global Solutions Engineer, delve into a few annoying and famous statistics approximately the country of cyber-security in India and the APJ region [5]. Coupled with Sophos` research, mind shared with the aid of using cyber-security professionals with CM-Alliance and Amar`s and Ben`s very own precious insights, this webinar takes an objective, crucial examine what plagues India`s safety state of affairs and gives a few vital inputs on what wishes to change.

The examination performed for Sophosen compassed the pinnacles even commercial enterprise countries with inside the APAC region –Malaysia, the Philippines, Singapore, Australia, Japan, and India, with Singapore and India having the biggest enterprises. The concept in the back of this massive examination and 4 govt. round tables in Malaysia, Australia, India, and Japan became to apprehend what the danger panorama or belief of cyber-security became in every unique region.

Amar and Ben, on this webinar, unpick the findings that emerged from this study, pertaining specifically to India. Here`s a brief photo of a number of the important thing findings:

- India`s cyber-security landscape:
- 36% of the cyber-threats go there in through the internet
- 11% of the cyber-assaults have been observed on cellular
- 10 hours turned into the standard time taken to find out a danger
- 26% of an IT team`s time is usually spent on safety
- The #1 intention for respondents turned in to get Better Threat Visibility

Biggest assault vectors in India are malware, phishing & backdoor vulnerabilities of those findings, wanting higher Threat Visibility is possibly the maximum apparent one. Some of the others are downright surprising [6]. For instance, the 2 hosts of the webinar strain upon how 26% of an IT team`s time being spent on safety every week comes throughout as an clearly sub optimaltilitization of resources. Ben insists that humans in India want to begin innovating and using the generation gear at their disposal to higher manipulate their time

and get the maximum out in their safety endeavors. Similarly, 10 hours for coming across a danger comes through out as are as on ably beneficent variety, for the reason that despite a large breach together with Equifax's, speculations stated that attacker have been with inside the machine for months or maybe years, earlier than the breach turned into detected.

Talking of the excessive variety of cyber-assaults that might be observed on cellular begs loads of questions-Are we speaking of a malicious attachment? Or are we sincerely seeing cellular-primarily based totally malware? Do we want to transport far from multi-aspect authentication due to the fact SMS-primarily based totally authentication probable method that you're being phished via the one's SMS as well?

### **Why Hackers are Targeting and Succeeding in India and Asia:**

- A short study of the grievances and pinnacle frustrations of the respondents makes the solution amply clear:
- 2/3 of Indian respondents sense they don't have fundamental rights
- 69% battle to recruit professional cyber security experts
- 65% say there may be inadequate finances for cyber security
- 66% say that staying up to date with cyber security era could be very hard for them
- Cyber security isn't given sufficient precedence
- Management has attendances to accept as true with that their business enterprise ought to in no way in all likelihood get attacked
- Too lots fear & doubt messaging makes it tough to speak correctly approximately cyber security

What then is the answer to those problems? Putting the focal point returned at the basics and going returned to fundamentals appears to be the loud and resounding answer. While Indian respondents accept as true with that stuff like AI, Digital Transformation etc. will affect their commercial enterprise safety with inside the subsequent 24 months, they ought to in all likelihood be greater targeted on inculcating a tradition of fundamental consciousness and education of their firms. If Phishing and Malware are the pinnacle assault vectors in India, then they ought to be asking their safety employees approximately what screening mechanisms are installed area in opposition to them. The groups which are maximum susceptible to Phishing attacks – together with HR and Accounts – ought to accept unique Phishing simulation education. Such easy steps will, themselves, mitigate the danger publicity of Indian organizations to a completely huge extent, obviating the want for superior and pricey tools.

One in Ten Indian Corporations has no cyber security adulthood or the method is untested. There isn't any consistent, regular, repeatable method – and that is exactly in which Indian firms want to place the highlight if they're truly involved approximately their safety postures.

### **Conclusion:**

Data performs a critical function with inside the fee of many cybercrimes and vulnerabilities to cybercrime. Even though statistics offers customers of it (individuals, non-public companies, operations, and governments) in numerable opportunities, those blessings can be (and feature been) exploited by a few for crook purposes. Specifically, statistics collection, storage, analysis, and sharing each permits many cyber crimes and the huge collection, storage, use, and distribution of statistics without customers' knowledgeable consent and desire and essential felony and protection protections. What is more, statistics aggregation, analysis, and switch arise at scales that governments and corporations are unprepared for,

developing a slew of cyber security risks? Privacy, statistics protection, and protection of systems, networks, and statistics are interdependent. Given that, to guard in opposition to cybercrime, security features are wished which might be designed to guard statistics and user's privacy.

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## Measuring Monetary Policy

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### Abstract:

*The Reserve Bank of India, or any other country's central bank, has the main responsibility of ensuring economic stability. Inflation, interest rates, currency exchange rates, and the money supply are all under control thanks to the central bank's employment of these strategies. Cash Reserve Ratio and Repo interest rates are used to manage liquidity and inflation. Verification and verification of the efficacy of these policy rates in sustaining economic stability is essential. It's crucial for the decision-maker to know how these modifications will effect the affected variable. For the purposes of this research, we're looking at whether or not monetary and policy rate adjustments have any effect on these key variables. A new research adds to the limited corpus of information on monetary and economic policy development that is currently accessible to policymakers.*

**Key-Words:** Monetary policy, media, survey.

### Introduction

*"India's fiscal and monetary policymakers have a major challenge: how to maintain rapid economic growth while also preserving pricing and financial stability,"*

*Rakesh Mohan*

Using quarterly data from 1996 to 2009, Hutchison et. al.(2012) look at the RBI's accumulation of offshore reserves and sterilization.

Their analysis suggest that an increase in financial integration has changed the policy trade-offs faced emerging market states like India. When it comes to the history of the Indian economy, Mohan (2008) emphasizes the role played by fiscal and monetary policy changes from the early 1990s, with a particular focus on those developments. The goal of monetary policy, according to him, is to strike a delicate balance between ensuring price stability and stimulating the economy. According to Palakkeel (2007), more factors beyond interest rate spreads and financial deregulation might affect the compositional variety of financial assets, such as income, preceding periods of financial savings, and inflation rates. There has been some debate over whether or not an inflation targeting system would be successful in Poland, however Gottschalk and Moore (2001) concluded that the country's policymakers should understand how their actions affect inflation, with a focus on these conditions. Since the RBI must continually monitor inflation in order to maintain its credibility and authority in regulating it, inflation targeting, according to Khatkhate (2006), would be an efficient policy framework for India. Bank interest rates respond to changes in monetary policy rates via a process



known as the "interest rate pass through." This approach is simply the rate or mechanism at which the official interest rate is conveyed to other interest rates (Kovanen, 2011). (Kovanen, 2011). (Kovanen, 2011). A low and incomplete interest rate pass-through is a sign of an unstable financial sector (Aydim, 2007) and the incapacity of monetary policy to stabilize macroeconomic shocks (Marotta, 2009). (Marotta, 2009). (Marotta, 2009). Boosting interest rates at the central bank reduces market liquidity by raising the cost of borrowing for banks and consumers alike. The rate of change in interest rates, as well as its magnitude, must be assessed. In the study done by Sander and Kleimerier (2006), it was revealed that there exists a higher response to predicted monetary policy adjustments measures rather than to unplanned changes. It was observed that the interest rates in the market respond quickly by Aziakpono, Wilson, and Manuel (2007).

According to Aziakpono and Wilson (2010)'s study on the monetary policy rate, commercial banks' lending rates in South Africa are more rigid in response to positive shocks to the official monetary policy rate. A comparable set of data was used for regression analysis on macroeconomic factors in Kelulime's 2014 study, which covered the years 2007-2012. For Suthar (2008), RBI bank rates, short- and long-term differentials in domestic interest rates, interest yields, and the rate of change in foreign exchange reserves all have a significant effect on the rupee-to-dollar exchange rate on a monthly average. This shows how monetary policy rates affect exchange rates. Mishra (2013) tried to assess the independence of monetary policy in India from all the available domains and concludes that the inflation targeting framework may be adjusted and targeting inflation band rather than inflation point would be a preferred option for RBI.

## Method

**Objective:** To better understand how various macroeconomic factors interact, this research paper was created. Inflation control, liquidity management, and maintaining a stable exchange rate are the three main responsibilities of the Reserve Bank of India (RBI). RBI has been adopting the policy rates (Repo, Reverse Repo, Bank Rate) and statutory ratios (CRR,SLR) to control inflation and regulate liquidity in the economy but the usefulness of this strategy has always been questioned. These studies use mathematical models and analysis to come to conclusions on the relationship between monetary policy, inflation, and liquidity. In addition, the impact of the new policy adjustments on foreign currency rates has been studied.

The data included in the research is during the span of January, 2011 to December, 2014. The RBI database was used to get the raw data. An explanation of each of the study's variables can be found in the table below. The acronyms used in equations and SPSS analysis are denoted by the sentences in brackets.

Table1: List of variables used along with their descriptions

1. Reserve Ratio (CRR): The percentage of bank deposits that must be held in cash by the Reserve Bank of India
2. Repo rates (Repo): The interest rate at which banks borrow from the Reserve Bank of India (RBI).
3. 10 year government bond yield to maturity, expressed as a percentage of face value (BondYld).
4. 4. The rupee to dollar exchange rate (USD.INR)
5. It's important to note that interest rates on call money are known as "CallMny."
6. Sixth, the WPI is a measure of inflation for wholesale pricing.
7. As a measure of inflation for consumer prices, the Consumer Price Index (CPI) has been established.

8. The banking sector's debts (Bnk.L)
9. Financial institutions' cash reserves (Dep)
10. Banking sector borrowings from the Reserve Bank of India (Brwg.RBI)
11. Banks with the RBI's balance sheet (Bal.RBI)
12. Banks' investment in India (Invst.India)
13. Banking credit (Bnk.Credit): The amount of money banks lend to customers.
14. Credit-Deposit Ratio is 14. (CDRatio)
15. Investing vs. Deposit Ratio (IDRatio)
16. A bank's statutory liquidity ratio (SLR) is the percentage of deposits that must be held in liquid assets, excluding CRR.
17. Repo Rate (ReRepo): The interest rate at which banks deposit money with the Reserve Bank of India.
18. By the RBI, the long-term reference rate for bank lending is known as the "BankRate."

Diverse variables have multiple units of measurement, ranging from percentages to absolute values to index numbers, depending on the nature of parameter. In order to assist a successful analysis, the data for all variables was worked on. In order to convert following period values into index numbers depending on the initial value, we used a base value of 100 for all variables. As a result of the usage of index numbers, size had no effect on the results. The monthly averages were utilized to smooth out the date range. The monthly time series for all variables was thus produced. Basic statistics, such as the monthly average, are calculated for each parameter. Correlation analysis is carried out between a group of variables that have been selected. Linear regression analysis is performed on a limited number of variables depending on the study's goals. When everything is said and done, we have a few graphs to show trends in different variables.

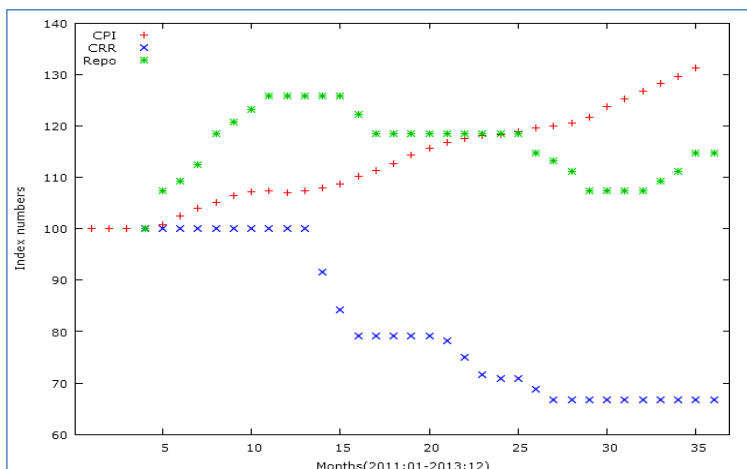
Absolute values are used to assess the basic summary of variables:

Range= The arithmetic average value of the data set is termed the 'Mean,' and the data distribution around the mean is called the 'Kurtosis.' When the Kurtosis of a dataset is negative, it is said to be "Platykurtic," indicating a broad range of values around the dataset's mean. It is a symptom of 'Leptokurtic' behaviour and a concentration of data around the mean if Kurtosis is positive. For a normal distribution, kurtosis should be set at 3.

Slope determines whether or not a data series' peak is totally normal or tilts to the right or left. Having a negative value for Skewness shows that the data series is more inclined toward the lower variables and vice versa.

It is essential to consider the variables in terms of their properties while doing an analysis and generating conclusions. Everything that is negative should be Leptokurtic, with a negative skew, much like inflation. Bank credit and other positively skewed and Platykurtic variables are excellent. All variables' standard deviations should be maintained as low as possible, too.

Chart1:The graphical representation of movements of inflation, CRR and Repo rates



Context-dependent factors have a positive and negative impact on the summary presented here. Repo has a favorable effect on the Reserve Bank of India when inflation is high, and the opposite is true.

Table2: Case Summaries

	WPI	CPI	BrwnsRB I	DTDbank s
Mean	163.56	121.64	141.84	789.40
Range	32.30	33.30	438.44	287.59
StandardDeviation	9.27	9.32	135.83	69.88
Kurtosis	-0.97	-0.96	-0.30	0.05
Skewness	0.02	0.18	0.99	0.87

Table3: Case Summaries (contd.)

	MMRate	BondY	ExRate	CDratio	IDratio
Mean	8.1744	8.1723	55.5336	76.4967	30.1326
Range	4.16	1.79	17.61	4.15	2.23
StandardDeviation	.77369	.38255	4.02034	1.07604	.52015
Kurtosis	.879	-.040	-.015	-.788	-.500
Skewness	.629	-.093	.752	-.287	.178

Table4: Case Summaries (contd.)

	CRR	SLR	Repo	ReRepo	BankRate
Mean	4.8830	23.5106	7.8298	6.8404	8.0408
Range	2.00	1.00	1.75	1.75	4.25
StandardDeviation	.83535	.50167	.46514	.45442	1.48763
Kurtosis	-1.567	-2.027	-.641	-.486	-1.379
Skewness	.363	-.043	-.274	-.291	-.468

Table 5: Correlations amongst few important variables

	CRR	Repo	USD.I NR	CallMn y	CPI	Dep	Brwg.R BI	Bnk.Cre dt	CDRati o
CRR	1	0.333	-.683**	<b>-0.082</b>	<b>-.922**</b>	-.499*	<b>-.837**</b>	<b>-.956**</b>	-.743**
Repo	0.333	1	-.764**	.410*	-0.299	0.075	-.418*	-0.325	-.610**
USD.IN R	-.683**	-.764**	1	0.117	<b>.886**</b>	-0.386	<b>.853**</b>	<b>.842**</b>	.405*
CallMny	-0.082	.410*	0.117	1	0.293	-0.133	.357*	0.279	0.064
CPI	-.922**	-0.299	.886**	0.293	1	.351*	<b>.925**</b>	<b>.986**</b>	.539**
Dep	-.499**	<b>0.075</b>	-0.386	-0.133	.351*	1	0.197	.459**	.403*
Brwg.R BI	-.837**	-.418*	.853**	.357*	.925**	0.197	1	<b>.914**</b>	.598**
Bnk.Cre dt	-.956**	-0.325	.842**	0.279	.986**	.459*	.914**	1	.685**
CDRatio	-.743**	-.610**	.405*	<b>0.064</b>	.539**	.403*	.598**	.685**	1

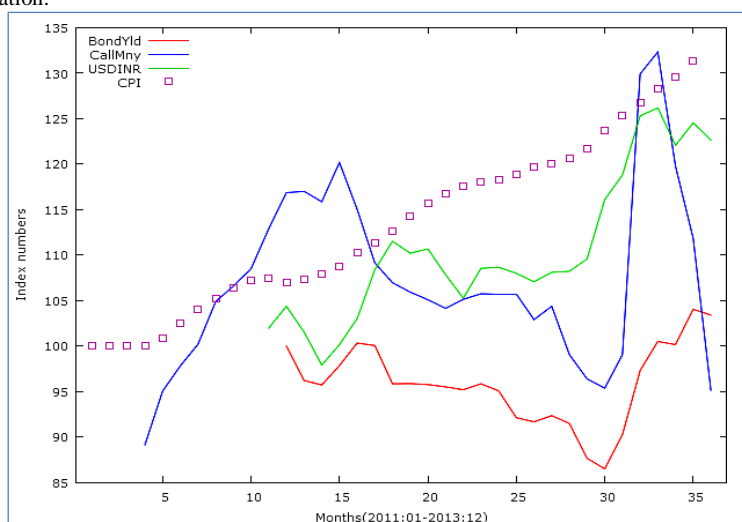
Table 5 Strong or zero correlations between a few variables are denoted by bolded values. To put it another way, it appears that there is a substantial and negative correlation between the Consumer Price Index (CPI), the Consumer Discretionary Reserve (CRR), and borrowings from the Reserve Bank (RBI) (RBI). In contrast, the general public's inflation rate has climbed. A fall in CRR rates to fight inflation is therefore a source for worry for the RBI.

A significant positive link exists between the foreign exchange rate and inflation, bank borrowings, and bank credit, suggesting that the rupee would fall if inflation increases, which would enhance demand for the US dollar.

When banks borrow from the Reserve Bank of India (RBI) at high rates and then lend to their customers, inflation is more likely to increase.

As a means of making loans, banks in India often turn to the Reserve Bank of India (RBI). This is supported by the fact that the two have a strong connection. Raising the repo rate would result in lower bank borrowing. A negative connection between the two variables supports this conclusion. Changes in repo rates have little impact on bank deposits because of the weak link between the two variables.

Chart2: The graphical representation of data for bond rates, money market rates, for ex rates and inflation.



### Regression analysis:

Basic regression analysis of main dependent variables over one or more independent variables offers some indication of the association among variables. Regression summary statistics may be used to gauge a regression model's accuracy in predicting the future. Because it is the square of the correlation coefficient, it is referred to as an R-squared coefficient of determination. The updated R-square provides an explanation for the additional variable's influence on the regression equation.

Table6: The regression summary with Inflation (CPI) as dependent variable

R	RSquare	AdjustedR Square
.299 <sup>a</sup>	.089	.059
Predictors:(Constant),Repo		

Table7:The regression summary with Inflation (CPI) as dependent variable

R	RSquare	AdjustedR Square
.922 <sup>a</sup>	.851	.841
Predictors:(Constant),CRR,Repo		

With addition of CRR in the equation, it improves in fit and explanation.

Table8:The regression summary with Inflation(CPI) as dependent variable

R	RSquare	AdjustedR Square
.940 <sup>a</sup>	.884	.862
Predictors:(Constant),BnkRate,Repo,SLR, CRR, ReRepo		

With addition of Bankrate, SLR and ReRe point the equation,it further improves in fit and explanation.

Table9:The regression summary with Bank deposits as dependent variable

R	RSquare	AdjustedR Square
.075 <sup>a</sup>	.006	-.027
Predictors:(Constant),Repo		

Reports and call money rates don't explain deposits. As a result, deposits and repo have essentially no association, while deposits and call money rates have a negative correlation.

Table 10: Bank deposits are used as a dependent variable in this analysis.

R	RSquare	AdjustedR Square
.133 <sup>a</sup>	.018	-.015
Predictors:(Constant),CallMny		

Table11: The regression summary with Bank deposits as dependent variable

Only 11% of the variance in deposits is explained by bond yields.

Table 12: The regression summary with Call money rates as dependent variable

R	RSquare	AdjustedR Square
.410 <sup>a</sup>	.168	.141
Predictors: (Constant), Repo		
Dependent Variable: CallMny		

There is some effect of repo rates on the interest rates in the call money market as 16.8% variance is explained. Similar bond yields are also explained by repo rates to an extent of 13.5% variance.

Table 13: The regression summary with Bond yields as dependent variable

R	RSquare	AdjustedR Square
.367	.135	.097
a. Predictors: (Constant), Repo		
b. Dependent Variable: BondYld		

With the use of call money rates and bond yields, 58.3 percent of the volatility in FX rates may be attributable to the repo rate. In addition, the adjusted r squared climbs from 56.6 percent to 86.8 percent greatly. Inflows of foreign currency are influenced by changes in interest rates on the money market, the bond market, and the repo market.

Table 14: The regression summary with foreign exchange rate (USD/INR) as dependent variable

	R	RSquare	AdjustedR Square
	.940 <sup>a</sup>	.885	.868
a. Predictors: (Constant), CallMny, Repo, BondYld			
b. Dependent Variable: USD.INR			

Table 15: The regression summary with foreign exchange rate (USD/INR) as dependent variable

R	RSquare	AdjustedR Square
.886 <sup>a</sup>	.785	.776
a. Predictors: (Constant), CPI		

b.DependentVariable: USD.INR
------------------------------

Inflation is responsible for 78.5 percent of the volatility in currency exchange rates, suggesting a weak rupee and a rise in the exchange rate are nearly likely consequences if inflation increases.

Table16:The regression summary with Bank's RBI borrowings as dependent variable

R	RSquare	AdjustedR Square
.418	.175	.148
Predictors:(Constant),Repo		

However, only 17.5 percent of the variance in lending is explained by repo rates, which implies that there are other factors that effect bank borrowings other than repo rates. A total of 69 percent of the variance in bank borrowings can be explained by money market, bank, and repo rates, and the adjusted R-square increases when two more variables are put into the regression equation.

Table17:The regression summary with Bank's RBI borrowings as dependent variable

R	RSquare	AdjustedR Square
.831 <sup>a</sup>	.690	.657
Predictors:(Constant),CallMny, BnkRate,Repo		

Table18:The regression summary with Bank's RBI borrowings as dependent variable

R	RSquare	AdjustedR Square
.984	.968	.955
Predictors: (Constant), Bnk.Credit, CallMny, Dep,BnkRate,BondYld, Repo, CRR		

By including other factors (such as bank credit, deposit levels, CRR, and bond rates), this explanation now accounts for 96.8% of the total, making it almost comprehensive.

Table19:The regression summary with Inflation(WPI) as dependent variable

R	RSquare	AdjustedR Square
.924	.853	.837
Predictors:(Constant),Repo,CRR,SLR		

Wholesale inflation is significantly explained by reporates, CRRandSLRTable20:The regression summary with Bank credit as dependent variable



R	RSquare	AdjustedR Square
.958	.918	.909
Predictors: (Constant), Repo, CRR, SLR		

Up to 91% of the volatility in bank loans may be linked to these three factors in addition to repo rates, CRR, and SLR. This shows that banks would lend more money to their clients when interest rates are low and they have easy access to cash.

We were able to track and assess several factors thanks to the charts in the annexure. The index values of the variables are shown on the Y axis, while the months from the start of the experiment are represented on the X axis. A different line indicates the variable name on the right side of each graph. CRR and repo rates declined simultaneously in the month 25-29, and inflation looks to be keeping constant because the graph does not spike suddenly as it did in prior months, as shown in Chart 1. Chart 2 depicts the irregularity of forex rate swings and discusses how bond market returns and money market returns effect forex rate movements. However, over the same period of time (between months 29 and 32), both bond rates and money market returns have grown, and the rupee has been weaker.

### Conclusion:

More or less everything was found to be in accordance with predictions, such as 5.9 percent explained variation for inflation by Repo rates and 84 percent explained variance for inflation by the combined CRR and Repo (Table 6 and Table 7). (Table 6 and Table 7). Findings from this study, which rely on correlation and regression analysis, may assist policymakers better understand macroeconomic conditions and interest rates, which in turn might improve future research. Even after eliminating the heteroskedasticity, the explanatory variance increased for all of the regressions that had previously included it. In the research, a basic data analysis is carried out. Other sophisticated time series studies, such as co-integration and Vector Auto Regression, may be performed to investigate the data further.

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## National Education Policy (NEP) 2020: A Holistic Approach for Aatm Nirbhar Bharat

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### Abstract

*India is transforming with a vision of a U.S. dollar five trillion economy by 2025, which demands reforms in multiple sectors. Education is one of the main areas that require attention. The significance of this segment is relatively high as our country needs such citizens who understand our heritage, have an analytical thought process to understand the economy and are trained with technical skills that are indeed required for the industries. NEP 2020 was rolled out just after the new economic vision was set. This paper will help to understand how the implications of this education policy will be a key contributor to achieving the USD five trillion economic goals.*

**Key-word:** National Education Policy (NEP), Aatm Nirbhar Bharat, Five Trillion Economies, Indian Economy

### Introduction:

India has a vision to achieve a five trillion economy in the next four years and to have sustainable development which will ensure the growth of the nation in multiple areas. It is evident that the economic development of any society directly depends on its vision, knowledge, and exposure. As a nation has a vision now, there should be a plan to achieve this. Education will be one of the key contributors to realising this economic vision. NEP 2020 is not limited to scientific education; however, it is multidisciplinary in nature. It is being rolled out with various objectives and its contribution will be remarkable to the sustainable growth of our country.

In the year 2014, our thirteenth president, Pranab Mukherjee, quoted: "Science, education, research, and innovation are the four pillars on which the development as well as the work culture of a nation rests." Scientific temperament cannot happen unless we improve the delivery of education at all levels. The President said these words while addressing a meeting of the directors of the Indian Institute of Science (IISc), Bangalore and Indian Institutes of Science Education and Research (IISERs) at Rashtrapati Bhavan. This quote from the head of the country is enough to clarify the thinking of India; what we want to be and the way to achieve it.

Since ancient times, we have had a strong education system which has evolved over a period of time. Post-independence, our leaders have given due importance to the education system. Our constitution has provisions for education and, as a sovereign state, we have defined our education system and updated it as per modern world demands.

Our nation believes in all-round development, which demands multi-disciplinary actions. Education is the fundamental discipline, which requires a robust framework.

### **Objective:**

NEP 2020 was rolled out just after declaring the new economic vision and encouraging a multidisciplinary education system.

### **Background**

NEP 2020 is an effort of five decades. It has seen five decades. During this time, our country has seen various social and economic changes. The first national policy on education was implemented in the year 1968. Since this policy, various changes have been made in the education system on the basis of contemporary situations and reports advised by committees. Post-independence India has experienced various changes in the education system, from elementary education to higher professional education. Since the setup of the University Grant Commission (U.G.C.) in 1948, various commissions have been set up to improve the education system of the country. Governments have implemented these commission reports to upgrade the socio-economic circumstances of the country.

The National Education Policy journey includes:

In 1964, a commission was appointed to examine all aspects of the educational sector in India. This commission was led by U.G.C. chairman Dr. Daulat Singh Kothari.

In 1968, the first National Policy on Education was announced, and it was based on the report and recommendations of the Kothari Commission. This policy proposed equal educational opportunities in order to achieve national integration and greater cultural and economic development.

In 1986, the New National Policy on Education was introduced. This policy called for "special emphasis on the removal of disparities and to equalise educational opportunities," especially for Indian women, Scheduled Tribes (ST) and the Scheduled Caste (SC) communities.

1992, The 1986 National Policy on Education was modified in 1992. This modification was named the Programme of Action (PoA) 1992.

In 2015, the Committee for Evolution of the New Education Policy was constituted with the task of formulating a Draft National Education Policy under the chairmanship of Mr. T. S. R. Subramanian, Cabinet Secretary of India.

In 2017, the Committee for the Draft National Education Policy was constituted. It was chaired by Dr. Krishnaswamy Kasturirangan, former Chairman, Indian Space Research Organisation (ISRO).

In 2020, an extensive effort made by various committees for NEP. The major contributions from the Committee for the Evolution of New Education are further discussed. A final draught of this policy was submitted by a committee led by Dr. K. Kasturirangan.

We know *that continuous efforts are key to success*. This is also seen in the Indian education system, which is improving with time, and this has enabled the country to be self-reliant in multiple domains as well. It is not just a matter of being self-reliant, however. We are helping other nations too. Pharma, defence, space engineering, agriculture, and service are some of

the top domains where India has seen significant growth and which has been noticed by every other country. All this is contributing to the country's growth.

It is evident that governments have taken serious steps to upgrade the education system, and many reforms have taken place from time to time in the education ministry. Many national education institutes were given autonomy, which removed bottlenecks and enabled them to take the right decisions at the right time. To maintain the quality standard and compete at a global level to prepare world-class professionals and participate in quality research, various accreditation bodies were setup.

Apparently, NEP 2020 is a refined version of the Dr. D. S. Kothari education commission. However, it is being said that the new policy will be a game changer in education as its impact is wider than primary education and higher education. Socio-economic factors are definitely considered in this policy. Aatm-Nirbhar Bharat seems to be the main theme of this policy; this theme is the backbone to achieving the USD 5 trillion vision.

As of now, India has academic institutes of good repute. However, these are focused on particular fields like engineering, medical, and humanities etc. This policy will ensure interdisciplinary education, which will widen research and development as technology and science scholars will have the opportunity to learn economic, business, or humanities subjects.

#### **NEP 2020:**

The National Education Policy 2020 is regarded as a watershed moment in the Indian educational system. It may be a disruption to the education world. This policy has considered the fact that India will be in the top position to have the highest population of young people in the world over the next decade. As a nation, we have to prepare well to achieve the vision of a sustainable developed society. This will be possible with a high-quality education system.

Accessibility, Accountability, Affordability, Equity, and Quality are the focused pillars of this policy.

#### **The key aims of this policy are to:**

1. Promote practical-oriented education to develop imagination and thought processes.
2. Promote a healthy, competitive environment to promote innovation and talent.
3. multi-disciplinary education system,
4. To remove barriers to quality education such as language and finances,
5. Professional use of education at every level will ensure the value of earned knowledge if education is left for some reason.
6. Learn from other countries and compete on a global scale.
7. Educate as many citizens as possible.

This policy inherits the legacy education system, which includes local language inclusion at primary level, overall development with physical and mental capability. It will implement a framework to

1. Ensure delivery of innovative and job-oriented education by setting up regulatory.
2. Continuously evaluate the system in order to align it with future requirements.

3. Create a training plan after assessing teachers'/mentors' skills.

4. Ensure learner accessibility

This policy is rolled out after considering various committee reports, discussions from different industries, scholars and executives of diverse profiles, e.g., academic, research, economics and finance. It has also considered opinions at international level and debates through various forums.

The teacher is the centre of this policy and is said to be the most respected and essential member of our society. This policy will help teachers be equipped with the right knowledge and tools to truly shape our next generation of citizens.

The infrastructure and circumstances of educational institutions will be precise, which will motivate students. Students should feel proud and safe when attaining education, as it will boost their motivation as learners.

Higher education will form the basis for knowledge creation and innovation, thereby contributing to a growing national economy.

### **The main features of the NEP 2020**

#### **1. The fundamental principles of the policy are:**

Recognising, identifying, and fostering the unique capabilities of each student, by sensitising teachers as well as parents to promote each student's holistic development in both academic and non-academic spheres.

Flexibility, so that learners have the ability to choose their learning trajectories and programmes, and thereby choose their own paths in life according to their talents and interests.

Creativity and critical thinking to encourage logical decision-making.

#### **2 In the direction of a more holistic and multidisciplinary education**

A holistic and multidisciplinary education would aim to develop all capacities of human beings: intellectual, aesthetic, social, physical, emotional, and moral in an integrated manner.

In the long run, such a holistic education will be the approach of all undergraduate programs, including those in professional, technical, and vocational disciplines.

#### **3. Faculty who are Motivated, Energised and Capable**

"Every classroom shall have access to the latest educational technology that enables better learning experiences."

Faculty will be given the freedom to design their own curricular and pedagogical approaches within the approved framework.

#### **4: Indian Languages, Arts, and Cultural Promotion**

Indian arts of all kinds must be offered to students at all levels of education, starting with early childhood care and education.

Teaching and learning of Indian languages needs to be integrated with school and higher education at every level.

For languages to remain relevant and vibrant, there must be a steady stream of high-quality learning and print materials in these languages, including textbooks, workbooks, videos, plays, poems, novels, and magazines.

Universities dedicated to languages will become multidisciplinary.

### **5. It will help students develop a scientific temper from a young age.**

The NEP aims to make it easier to set up new quality higher educational institutions that will be at par with the global standard.

### **The Grading System of NEP :**

The grading system of NEP explained the school system **5+3+3+4-**

As per the new school education system of 5+3+3+4 outlined in NEP 2020, children will spend 5 years in the foundational stage, 3 years in the preparatory stage, 3 years in the middle stage, and 4 years in the secondary stage.

#### **1. A five-year foundational stage**

**For ages** 3 to 8,

**For classes:** pre-school, class 1, class 2,

The foundational stage of education as per the national education policy will comprise 3 years of preschool or anganwadi education followed by two years of primary classes (classes 1 and 2).

This stage will focus on teaching using play-based or activity-based methods and on the development of language skills.

#### **2. Three years of preparation**

**For ages** 8 to 11,

**For classes:** 3 to 5.

The focus in the preparatory stage will remain on language development and numeracy skills.

Here, the method of teaching and learning would be play and activity-based and also include classroom interactions and the element of discovery.

#### **3. Three years in the middle stage**

**For ages** 11 to 14,

**For classes:** 6 to 8.

As per NEP 2020, this stage of school education will focus on critical learning objectives, which is a big shift from the rote learning methods used in our education system for years.

This stage will focus on experiential learning in the sciences, mathematics, arts, social sciences, and humanities.

#### **4 years of secondary school**

**For ages** 14 to 18.

**For classes:** 9 to 12

This stage will cover two phases: classes 9 and 10, and classes 11 and 12.

The main change in these classes is the shift to a multidisciplinary system where students will have access to a variety of subject combinations that they can choose as per their skills and interest areas instead of being strictly divided into Arts, Science, and Commerce categories.

#### **For Advanced Studies**

Students joining BA or BSc degree courses should opt for two subjects (as Discipline Core) available in their respective colleges. At the start of the 3rd year of the course, they can opt for one subject as a major and another subject as a minor, or they can study by opting for both as major subjects.

- Selecting (Discipline Core) subjects is not necessary for studying subject-based graduate courses such as B.Com, BCA, BBA, BVA, BPA, etc.
- If the student discontinues, for any reason, after completing the first year of graduation (National Skills Qualifications Framework Level 5) by obtaining the necessary credits, he/she shall be given the certificate.
- If the student discontinues, for any reason, after completing the second year of graduation (National Skills Qualifications Framework Level 6) by obtaining the necessary credits, he/she shall be given the Diploma Certificate.
- If the student discontinues, for any reason, after completing the 3rd year of graduation (National Skills Qualifications Framework Level 7) by obtaining the necessary credits, he/she shall be awarded the Bachelors Degree.
- If the 4th year of the course (National Skills Qualifications Framework Level) is available in the college in which the student has studied the earlier years, the study along with the chosen optional subjects can be continued to get awarded the Honours Degree. If a research project is part of the course, such students will be eligible to directly go for Ph.D. studies.
- If the college where the student previously studied does not offer an honours degree, the student can continue his or her studies by enrolling in any other college that offers an honours degree.
- Post-Graduation will be for one year or two years. Those who have obtained an Honours Degree will be eligible to study for a one-year PG and those who have got a degree for 3 years of study will be eligible to join for a two-year PG.
- If the student studying in the 2nd year of PG discontinues after getting the prescribed credits set for the 1st year, he/she can be awarded the Post-Graduate Diploma.



## Conclusion

The world is dynamic and various forces impact the social and economic situation of any given country; our country is not an exception. India maintains a reputed position among the top developing countries. Hence, any disruption in the world also impacts us significantly. We are already under a threat and humanity is living with a fear that came into existence in the year 2019 as COVID. Another top challenge is cyber security, and it will be a great challenge to come up with a solution to this situation and threat. To maintain our international reputation on the political map and align our economic vision, we will need to continuously evaluate and develop our education system. This will require the involvement of scholars from multiple disciplines.

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