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Golden Jubilee Celebration
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One Day International Multidisciplinary Conference

On

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Jointly Organzied by

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Effect of Covid-19, Lockdown on Tapti River Water Quality

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Abstract -

All the activities in India completely stopped during Covid-19 Lockdown the multiple Industries, Cities, Down and Rural People are completely depends on river water. So in last years The water quality deteriorated. The present study attempt to investigate the Tapti river water quality. The water quality of Tapti river at Hatnur Dam had improved relative to pre-Covid-19 lockdown.

Keyword - Corona virus, Water quality, Surface water, Tapti river.

Introduction -

Corona virus diseases Covid-19 mostly affect the global human health. First the virus was discovered at Wuhan city of China in Dec-2019 which spread rapidly from affected persons to unaffected persons through sneezes, coughs etc. No perfect remedial medicine had been discovered till now and thus human body gets seriously exaggerated by severe acute respiratory syndrome due to Corona Virus [1].On this critical conditions World Health Organization suggested to maintain social distancing and mandatory face Mask for people and India announced sudden lockdown to avoid public transmission as well as to break the infection chain. All the Industries are almost closed during this period.²

Water is very important in life the natural resources of water has been polluted by human activities such as industrialization, urbanization, agricultural practice, but in this lockdown period examined that all the activities are remain closed and hence water pollution level remarkably dropped during lockdown^[2]. A recent study on water quality of Tapti river near Hatnur Dam water quality is good. as compared to pre-lockdown period^[3].

In the present study the objective is mainly to evaluate changes of surface water quality in respect of physical and chemical parameter during lockdown period.

Study Area - Tapiriver rises near Multai in the Batul Dist. of Madhya Pradesh at elevation of above 752 meter and flow for above 724 km before out following into Arbian Sea through the Gulf of Combay.

Study Area is at Hatnur Dam which is situated in Jalgaon Dist. near 11 km from Varangaon in Maharashtra.

Material and Methods - At the lockdown period strict restrictions (17th March to 12 Sep. 2020) environmentally survey of Tapti river not possible so after lockdown period successfully survey of Tapti river water at Dam reasons takes placed the main objective was to determine water quality of river after lockdown and compare if with pre-lockdown period^[4].

Sample Collections - Water samples were collected from five stations of Tapti river near Hatnur Dam. Samples were obtained from 2 to 3 feet below the surface water level, pre-cleaned polyethylene bottle (500 ml) were used for the collection of samples from each sampling sites and mixed upto get a bulk contained 1 liter all samples were carried properly for further analysis in laboratory. Samples contains were labeled as S1, S2, S3—— S5. for proper indications. Total seven parameters analysed from each samples of each period. Important parameter such as Total suspended solid, pH, Electrical Conductivity (EC), Temperature, Turbidity, Total dissoloved solid (TDS), Magnissium (Mg2+), Calcium (Ca2+) have been considered^[5].

Consequently, Temperature, pH, EC, were measured at sampling sites using thermometer and thermo probe portable meters. TDS, Turbidity Magnissium (Mg2+), Calcium (Ca2+) all this parameter were analysed by standard procedure which was prescribed American Public Health Association, (APHA)^[1].

Result and Discussions -

Table - 1

1

Parameter	Sampling Stations	Pre-lockdown	Post Lockdown	Difference
	S1	24.30c	24.2°c	00.1°c
	S2	24.30c	24.2°c	00.1°c
Temperature	S3	24.30c	24.2°c	00.1°c
	S4	24.30c	24.2°c	00.1°c
	S5	24.30c	24.2°c	00.1°c

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Table: 2

Parameter	Sampling Stations	Pre-lockdown	Post Lockdown	Difference
	S1	0.5mg/l	0.4mg/l	0.1mg/l
	S2	0.51mg/l	0.4mg/l	0.11mg/l
Total Suspended	S3	0.5mg/l	0.4mg/l	0.1mg/l
Solids (TSS)	S4	0.51mg/l	0.4mg/l	0.11mg/l
	S5	0.5mg/l	0.4mg/l	0.1mg/l

Table: 3

Parameter	Sampling Stations	Pre-lockdown	Post Lockdown	Difference
	S1	270μs/cm	250μs/cm	20μs/cm
	S2	265μs/cm	250μs/cm	15μs/cm
Electrical	S3	270μs/cm	250μs/cm	20μs/cm
Conductivity(EC)	S4	265μs/cm	250μs/cm	15μs/cm
	S5	265μs/cm	250μs/cm	15µs/cm

Table: 4

Parameter	Sampling Stations	Pre-lockdown	Post Lockdown	Difference
	S1	6.9	6.8	0.1
	S2	6.9	6.8	0.1
pН	S3	6.9	6.8	0.1
	S4	6.9	6.8	0.1
	S5	6.9	6.8	0.1

Table: 5

Parameter	Sampling Stations	Pre-lockdown	Post Lockdown	Difference
	S1	180mg/l	150mg/l	30mg/l
Total Dissolved	S2	185mg/l	150mg/l	35mg/l
Solid (TDS)	83	180mg/l	150mg/l	30mg/l
	S4	180mg/l	150mg/l	30mg/l
	S5	185mg/l	150mg/l	35mg/l

Table: 6

Parameter	Sampling Stations	Pre-lockdown	Post Lockdown	Difference
	S1	5 NTU	4NTU	1 NTU
Turbidity	S2	5 NTU	4NTU	1 NTU
	S3	5 NTU	4NTU	1 NTU
	S4	5 NTU	4NTU	1 NTU
	S5	5 NTU	4NTU	1 NTU

Table: 7

Parameter	Sampling Stations	Pre-lockdown	Post Lockdown	Difference
	S1	75mg/l	60mg/l	15mg/l
Calcium (Ca ²⁺)	S2	70mg/l	60mg/l	10mg/l
	S3	65mg/l	50mg/l	15mg/l
	S4	75mg/l	55mg/l	20mg/l
	S5	70mg/l	60mg/l	10mg/l



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Table: 8

Parameter	Sampling Stations	Pre-lockdown	Post Lockdown	Difference
	S1	55mg/l	50mg/l	5mg/l
Magnesium	S2	65mg/l	45mg/l	20mg/l
(Mg^{2+})	S3	60mg/l	45mg/l	15mg/l
	S4	60mg/l	50mg/l	10mg/l
	S5	60mg/l	45mg/l	15mg/l

In pre-lockdown Total Suspended Solid lower at nearly 20 per cent and also TDS Turbidity, Electrical Conductivity, pH, Magnesium, Calcium and TDS lowered after lockdown hencequality of Tapti river wateris good[1].

Conclusions -

The value of water quality parameter such as pH, Conductivity, Turbidity, TDS, EC Mg2+, Ca2+, Total Suspended Solid (TSS) from different sampling stations were found to be within recommended limits of WHO and the quality of water is again pure after lockdown[1].

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New Virtues of Engineering Teachers of India for Modern Era over the Ancient Era

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Abstract -

This research consists of the virtues required for the engineering teachers of modern era. The virtues are mainly classifiedintotwocategoriesas I) Individual/personal virtues and 2) Professional/Educational virtues. These virtues are to be modified from ancient era to modern era asthere are many changes in overall educational system. As educational system rapidly shifting from Gurukul system to the digital modern class room system, the techniques of teaching and learning inengineering education also havebeen changed. Newtechnology is being invented daily in the field of engineering. So, the teachers of engineering have some new virtues which can be applicable intoday's life. By studying these virtues, we may develop new scientific and innovative approach inengineering students. The engineering teachers should not only have the virtues like morality but at the same time then they must have the new virtues like a good researcher, innovative and should have professional ethics and administrative skills too. This research will help to the teacher whowanted to do something new in the field of teaching and learning of engineering. These virtues are useful to the modern teachers of engineering to develop their skills as well as to develop a newinnovative and researchapproachin students of engineering.

Keywords - Virtues, Engineering, Teachers, Modern

Introduction -

The concept of 'Education' has been rapidly changed from ancient time to modern time. In ancienttime the education system was teacher—oriented. The syllabus for the courses was designed by the Gurus (teachers), the medium of education, method of teaching, duration of the course, rules and regulators for the course etc. were final and no one can challenged it. The study of various Vedas & Upanishad was carried out during that time. The main language used in that period were 'Sanskrit' and 'Pakruit'.

Inmoderntimetheeducation-systemhasbecomeveryvast&fast.Ithasbeenshiftedfromteacher oriented system to the student Oriented education system. The modern education systemfocuses on the overall development of the student. Acronym of 21st century engineering teachers isbecomingasT-Technologyoriented,E-EffectiveandEfficient,A-Anticipatefuture,C-ContinuousLearning,H-Healthypeersrelationship,E-EmpathizewithstudentsandR-Research/projectoriented.

In the field of technical education, mostly at engineering, tremendous changes^[1] have been observed from1991. In India, from 1991, various industrial & economical changes observed, different industrial were introduced by the Indian government, various jobs in the field softechnology started during this period. So, most of the students were attracted for getting admissionin engineering and industrial ethics are introduced in education that time ^[2]. In 1950, there wereonly ten thousand students admitted for the degree course of engineering while in 2000, about one lakhs students took admission to the various degreecourses inengineering.

At present, thenum berof engineering colleges has been increased outoflimit; number of students is very less because of very less job opportunities after completing the degree in engineering. So, the attitude of students, teachers and parents about engineering field has become some what negative^[3].

Virtues - In the beginning of 19th century, AICTE had given the permissions to many engineering colleges without considering and gassing the number of possible admissions. It was also not considered thenumber of vacancies available after engineering degree. So, in modern time, the role of professors inengineering is very important. As the education system has been changed from ancient to modern very rapidly, the responsibilities and virtues of teachers working in engineering colleges also changed as per the need of modern era. They can be classified in to two types as personal or individual virtues and professional/educational virtues.

1.1. GroupI - Personal/Individual Virtues -

1) **Knowledge** - The purpose of engineering is not only to have the subject content knowledge butalso the teacher must find other information related to the subject from internet or from any othersocial media to update the knowledge because the modern students are also using internet andother techniques for their study. So, the teacher of engineering must have overall knowledge of teaching subject and other references. Presently some teachers are foc

using other irreverent aspect sthanknowledge[5]thatmayleadtodegradationofeducational system.

- 2) Confidence: the teacher of engineering must have confidence of teaching i.e. he/she must beconfident about what they are teaching in the class. If the teacher is confident enough in the class, the effect in teaching will be more. It can be developed by proper preparation before teaching anytopic inthe class.
- 3) Punctual: The teacher of engineering must be punctual. Hemust report the collegelearn 10minutes before the reporting time and should follow the timings of the institute. He/she must support the class before two minutes of

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starting lecture. The lecture must be planned properly and should complete in time. The teacher must be present to various meetings academic and nonacademic on time. If the teacher reaches to the class on time then the students will not bunk the lecture and they will be pleasant in class before the teacher.

- 4) Discipline: The teacher must follow the classroom discipline as well as academic discipline allacademics and non academic activities of the college must be follows as per the planning with proper discipline. While teaching on the class, the teacher must be well disciplined. All studentsmust be serous in studies lecture. There should not to make any noise and misconduct in the class, then only the teaching—listening will be effective. The teacher should think about perspective [6, 7] of students.
- 5) Regular: The engineering teacher must be regular be regular regarding to his classroom teaching, various, activities, examinations and other co-curricular activities. He/she should not miss any lecture without any intension. He/she must inform to the principal or head of the department regarding the leaves so that the alternative arrangement may be possible on time.
- **6) Systematic:** The teacher should be kept the personal cleanliness as well as the cleanliness of thecampus. He/shemustbegoodlooking. The teacher keeps all the academic records/things systematically.
- 7) Hardworking: The engineering teacher must be hard-working. He/she must be ready to do anywork may be of academic or non academic. The engineering teacher must take effects for the progress of the students as well as the institute. He/she must be ready to take extra effects of anyextrawork of institutions by which the institutions will be develop.
- 8) Interest:Ifthepersondonothaveanyinterestinteachingthensuchapersoncan't become agood teacher for the engineering. There must be a deep interest for the branch and subject which has been selected for teaching. So, without interest no teacher can teach to the students properly. Such interested teacher will not feel teaching as a burden or load.
- 9) Research-oriented: Engineering teacher must have researches attitude. He/she must search newthings, concepts and techniques in teaching. The teacher must carried out experiments by which thenew things will be find out and research attitude in students can be developeasily. Teachers must maintain the ethics in research[8] and its publication. All the articles and write up should be plagiarized. If the teacher uses new research techniques then the students will also take interest inlearningnew concept.
- 10)Skilful: Engineering teacher must be master in his own subject. He/she must be awake about thebranch which is to be thought. He/she should know where it can be used as a sub-branch and howthe new instruments can be develop by using this branch and can co-relate it with other newbranches. The engineering teacher must also know the various uses of machineries of one branchwhichcanbeused for thenew branches.
- 11)Prepared: The teacher must prepare the subject notes, academics notes, notes regarding co-curricular activities etc. Prepared teacher means ready to do any work at any time. If the teacher iswellprepared thenthe teachinglearning will be more effective and attractive.
- **12)Inspiring:** The teacher should motivate students by inspiring them. So, the engineering teachermust be more energetic, pleasant and good looking by which the students will be inspirers to workmore effectively. If the engineering teacher performs some activities by which the students can be motivated then it will be inspiring for them.
- 13)Co-operative: In Modern era, engineering teacher must be co-operative with the staff, students and parents because nowadays there is student oriented education system so only co-operative teachermay be a successful teacher.
- 14)Loving, Peaceful and Polite: The main virtue of any teacher is that he/she must have lovingpersonality. the teacher should have a equal love for all the students then only the students willlistenmoreeffectively andwouldlikethatteacher.

The teacher must listen the problems of students peacefully and communicate with them peacefully then and only then the students will also be quite in the class and will communicate with the teacher spectfully. It is expected that the teacher should be polite with the students, co-teachers, seniors, management and with society i.e. with parents and other people of the society.

15)Honest and Responsible: The teacher of engineering must know the responsibilities regarding toacademics. Teaching work includes theory and practices, co-curricular responsibilities like culturalactivities, Annual function, sports activities activities to.

In engineering, the students have to carry out various practical, projects, small researches etc. So,they should be guided by the teacher properly and accurately. It can be possible only when the teachers of engineering would understand the irresponsibilities. For implementing thee thicsofteaching about the oryand practical, the teacher must behonest with his/her profession.

16) Ambitious: Every in stitute have it sown aims and objectives. To fulfil those objectives, the teachers of that institution have to play very vitalrole[9]. Theteacherofengineeringmust beambitious means there should be some proper objectives. The engineering teachers do not have the limited aim of teaching and completing the syllabus but the teacher must think for his/her up-gradationas wellas the up-gradation of the institution.

The engineering teacher should think about some projects and research work by which the person alstat us of the teacher as well as status of institution would be increase and other engineering teacher swould also be motivated for doing variousres earches and projects.

- 17) Leadership: The engineering teacher should have the virtue of leadership. The teacher must be aleader of the class as well as of the institutions. The leader of the group must motivate the group members fort heirup-gradation. In engineering, most of the practical, projects, co-curricular activities are perform edin group. So, the leaders hip qualities must be develop among the engineering students so that they can complete their work more easily and effectively.
- By developing the virtue of 'leadership' the engineering teacher can make different student leadersthatmaybethefutureresearchesofthe newera.
- 18) Morality: Engineering teacher must follow the educational and social ethics[10]. The teacher must have ago odmoral character because society expects much more good things from the teacher. In moderntime, professional morality



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has become moreimport antthan individual morality[11].

1.2. Group II Teaching Virtues/Educational Virtues

These Virtues are essential for the engineering teacher white teaching in actual class room. These virtues are useful to make learning of the students more easy and powerful to increase the knowledgeof the engineering students and to get professional ethics[12].

- 1) Communication skill: Engineering teacher should be expect to have good communication because teaching-learning process is a two way process. The teacher must have Communication skill for the following purposes.
 - To express the knowledge systematically, the teacher must have proper pronunciation. The voiceoftheteacher shouldbe proper asperthe class room.
 - b) Engineering teacher should be use of small projects, models, graphs etc. To explain particularteachingtopics, the teacher mustusethe Communicationskill.
 - c) The body-Language of the engineering teacher must be proper example the movements of hands, eye contacts, gestures etc should be proper. All these are essential for the engineering teacher inactual classroom.
- 2) Fluent: Engineering teacher must be fluent so that he/she can easily communicate withthestudents. Tomaketheteachingmoreefficient, the teachers hould ask some question on the teaching until after teaching. By this methodology, teaching will become bi-polar two-way.
- 3) A good planner: A teacher should plan for teaching at the beginning of every academic year.He/shouldthinkaboutthemethodologyofteaching. Theyalsoplanforresourcerequiredforteaching. In engineering colleges, the grasping power of every student is different. So for extraordinary students and the average students, the teachers also may plan some extra lectures in theacademicplan.So,engineeringteachermust beagoodplanner.
- 4) Imaginative: Engineering teacher must be imaginative. He/she should imagine something which isabstract in nature. The teacher should have the vision to observe the common objects differently. Various inventions are the outcome of such a vision which can be possible by a good imagination.

Te scientific and analytical attitude must be developing the engineering students by the teachers ofengineeringbecausethecansearchfor thenewinnovativethings.

5) A good reader, thinker and philosopher: 'Reading' should be the passion of engineering teacher. Without reading, noteachercan teach properlyteach any topic tothestudents. In engineering, there are various technical concepts which requires a deep reading for understanding it. So, theteacher first should read it in details, find out some new vocabulary and its meaning and some newtheorems.

Only reading is not sufficient for theeffective teaching for that the teacher should always thinkabout the new concepts, techniques etc which can be applicable for teaching to the engineeringstudents. With the help of some senior students, the teacher can develop some mini projects andresearch papersso engineering teacher must be imaginative to find the new thinks which canpossible only by the deep thinking over any topic so the teacher of engineering should also be 'AGoodTeacher'.

As a philosopher, engineering teacher must read various textbooks, reference books, articles, research paper set cso that span of knowledge can be expanded as technology is day by day changing and it is also the need of modern time. So, the modern teacher must be updated.

- 6) Innovative: Engineering teacher must be conscious about the daily changes happening in the fieldofeducation. He/sheshouldknowthenewconcepts,researchesdoneinthesubjectswhichhe/sheis teaching to the students. The teacher of engineering should have the scientific vision. The teachermust find out the new things, concepts and rules for the common things or objects. 'Innovativeapproach' must be the soul of engineering because when the students will search for the newconcepts in the technology, then and only then they can find out some extra ordinary things. So, aimofeveryengineeringteacherinthemoderntimemustbe'innovative', always reader of newthings or concepts.
- 7) A good Researchers: 'Research' means not always to find new things but to do anything with newtechniques by doing new experiments and extracts new outcomes from any work. The main aim of getting engineering educationist oenhance the capability of human being according to the develop edconcepts bymany researchers.

Engineering teachers must apply several techniques to teach the subjects or contents differently by using techniques that the students can understand the particular topic.

The engineering teacher in modern time must develop 'research Attitude' among the students sothat they can be a further researchers. By applying this concept, they can solve any problem formtheirlife, from society and the problems of industries.

- 8) Positive: the attitude of engineering teacher must be positive towards the students as well astoward the teaching. Most of the students come after passing HSC examination to the engineering. They are somewhat confused regarding to the change atmosphere from school to college so the engineering teacher must motivate to the students to adjust with the new environment and shoulddevelop the positive attitude toward the learning the new technology. Teachers should play a rolemodel for the new students. If the teachers always give positive suggestions to the students the nonlythe development of engineering community inmodern time is possible.
- 9) Impartial: the term 'Impartial' means equal to all. The engineering teachers must be impartialregarding to the sex, class, culture, category etc. In modern era, some teachers gives more internalmarks to the intimates or students, sometimes the private tuition students also getting more marksininternal and external examination.

The teacher of engineering while evaluating the paper or to the student, must give the marks as perthe performance of the students and not on the basis of intimate relations or any other factors. Theimpartial teacher is always respected by all types of students belonging to any race or religion and canalways be recommended by the students.

10)Pleasant and good-looking: the personality of teacher plays an important role in teaching andlearning process. The



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engineering teacher must be up to date in knowledge as well as he/she musthavetomaintain goodpersonality.

A good personality doesn't mean only wearing good cloths but the inner beauty of the teachershould reflect on the face of the teacher. The teacher must be pleasant and happy when he/sheenters the class for teaching. There should be a big smile on the face of the teacher and the teachershould treat each student with the same attitude. Such a teacher is always like by the students. Thestudentsalso cansharetheir feelingwithsuchteacherfreely withoutanyhesitation.

The virtues required for the engineering teachers have been changed from ancient age to modernage. The various outcomes are observed. The educational system has been rapidly changed from Gurukulsystem to the digital class room teaching. The ethics of engineering also changed from moral ethics to professional ethics. The virtues of modern engineering teachers have been shiftedfrom value education to research oriented education. The additional virtue like innovative approach, scientificattitude, technical skills are required formodernage engineering teachers. The role of

modernengineeringteachershasbeenchangedfromteacherasGuruinpasttoaguide.aresearcher and a good friend to the student of modern engineering. The engineering education system has been changed rapidly from 1990 onwards; the new techniques of teaching have been in ventedandare use din the modernera. The engineering teacher should not only moral by virtue but he/she should have the virtue of teaching and learning new things, concept sand latest technologies. As a modern system, education system is a student-centric-system. So, the teacher of engineering should always use the virtues for the up-gradation of the students and to develop a newinnovative and research-oriented-attitude in the engineering students.

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A Study on Unified Payment Interface (UPI) among University Students in Madikeri City

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Abstract -

The Unified Payment Interface (UPI) is one of the great inventions of E-payments introduced by National Payment Corporation of India (NPCI). UPI is advanced and significant payment system in terms of cost, ease of use for consumers, settlement times and security. It has facilitated large number of population to bring within the purview of digital economy. It is a type of payment system through which any customer holding bank account can send and receive money through a UPI-based app. This service allows a user to link more than one bank account on a UPI app on their smart phone to seamlessly initiate fund transfer and make collect requests on a 24/7 basis and on all 365 days a year. The objective of this paper is to study the awareness, preference and level of satisfaction towards UPI among university students in Madikeri City. For this purpose percentage analysis has been used and the sample size is 120. The findings of the study show that respondents are aware of the system because of its ease of usability, user-friendly, security, cash back offer, Google Pay is the highest and Amazon pay is the lowest used apps and majority use UPI apps mainly for fund transfer. It is suggested that to make the 'Digital India' programme a successful and India to become digitally empowered there is a need for further promotional campaigns needs to be held to enhance the users.

Keywords - Cashless, Consumers, Digital Payment, E-payments, Economy

Introduction - The Unified Payment Interface (UPI) is one of the great inventions of E-payments introduced by National Payment Corporation of India (NPCI). To convert the country into digitally empowered, Government of India introduced the program called 'Digital India'. The main vision of this programme is to conduct faceless, paperless and cashless banking transactions in the country. After demonetization, digital payment system gained more importance. Government introduced United Payment Interface (UPI) which is app based to transact across multiple banks. UPI first launched in India by Dr. Raghuram G Rajan, Governor, RBI at Mumbai on 11th April 2016. Digital payment system is an electronic transaction made at point of sale for services and products either through internet banking or mobile banking using smart phone or card payment. UPI is a type of payment system through which any customer holding bank account can send and receive money through a UPI-based app. To use UPI services one should have a valid bank account and a registered mobile number which is linked to the same bank account. This service allows a user to link more than one bank account on a UPI app on their smart phone to seamlessly initiate fund transfer, receive money and balance enquiry both online and offline on a 24/7 basis and on all 365 days a year. There will be no transaction charges for using UPI. This interface is also regulated by the RBI, the apex bank.

Review of Literature

Sunny Gupta and Dinesh Chand (2021) conducted a study on "Consumers Perception towards Unified Payments Interface". They found that maximum number of people use UPI for fund transfer, mobile recharges or cash back, women respondents were rigid in using technologies and cash back alone could not be considered as factor for motivating consumers to use UPI on a daily basis. The study was concluded that mobiles phones were most used devise for transferring and accepting payments and the respondents were having positive attitude towards UPI transactions.

Venkata Siva Kumar .S and Ch. Kavya (2020) in their paper, 'Role of Unified Payment Interface in Digital Banking Services – An Empirical Study on User Perceptions', analyzed the awareness and perceptions of varied age groups of individuals and occupations towards usage of UPI services. They concluded that UPI users were having dissimilar perceptions in using UPI banking services and users of the various occupations were opined that the UPI services are far better than traditional banking services.

Balasubramanian M and Amanullah K.M. (2019) conducted a study on 'Mobile Banking and its Evolution in the UPI Era'. They studied the evolution of the UPI based transactions in India, its impact on the paperless transactions and problems associated with UPI based apps. They found that the UPI is till new in India and developing very rapidly. Google Pay, Pay Tm and Phone Pe are the major contributors of latest payment methods when, it compared to government owned BHIM app and stated that UPI is ideal for smaller fund transfer and other modes of online transfer are preferable for higher amounts.

Arvind Chaudhari and Deepak Chaudhari (2019) an attempt was made "To Study the Consumer Satisfaction on UPI (Unified Payments Interface) with Special Reference to Hyderabad and Suburbs". They studied the perception of the customers towards UPI services and traditional services and the impact of the UPI services in customer satisfaction. In their study they revealed that customer has a positive attitude towards UPI services and highlighted that there is relationship between education of the respondents and usage of UPI services.

Poorna Pushkal C and Pappeswari C (2021), "A Study on Awareness and Customer Satisfaction of Unified Payment Interface (UPI) For Digital Payments With Reference to Ambasamudram Area", in their paper an attempt was made to identify



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the level of awareness and satisfaction among people about UPI and the basis on which they select mode of digital payment and the work was done to identify the adoption of UPI in money transfer system.

Objectives of the study

- 1. To study about the awareness of UPI payment system among university studies in Madikeri City.
- 2. To know the preference and level of satisfaction towards the UPI scheme.

Research Methodology

The primary data is collected through google forms from university students of Madikeri City. The sample size for the study is 120 and the analysis is done with the help of percentage analysis. The secondary data are collected from various websites, articles, journals and magazines.

Data Analysis and Interpretation

Table No.1: Demographic Profile of the Respondents

Sl.No.	Particulars	No. of respondents	Percentage
1.	Gender		
	a) Male	66	55
	b) Female	54	45
	Total	120	100
2.	Age		
	a) 18-21	116	96.67
	b) 21-25	4	3.33
	c) Above 25	-	-
	Total	120	100
3.	Educational		
	Qualification	102	85
	a) Under graduate	10	8.33
	b) Post graduate	8	6.67
	c) others		
	Total	120	100

Table-1 indicates that, 55% respondents are male and 45% are female. 96.67% of the respondents are in the age category of 18-21 years and 3.33% of the respondents are in the age group of 21-25 years. 102 respondents are studying in under graduation, 10 are studying in post graduation and 8 are from other disciplines.

Table No. 2: Prefer to use Digital Payment System

Particulars	No. of Respondents	Percentage
Yes	112	93.33
No	8	6.67
Total	120	100

Table-2 shows that, 93.33% of the respondents prefer to use digital payment system and 6.67% of the represents do not prefer to use the digital payment. It shows that more number of respondents prefer to use digital payment system.

Table No. 3: Familiar to use UPI system

Particulars	No. of Respondents	Percentage
Beginner	32	26.7
Average knowledge	57	47.5
Advanced knowledge	24	20
Expertise	7	5.8
Total	120	100

Table-3 represents that, familiar to use UPI system, 47.5% of the respondents have average knowledge, 26.7% are beginners, 20% are having advanced knowledge and 5.8% are having expertise.

Table No. 4: Use of UPI apps

Particulars	No. of Respondents	Percentage
Google Pay	61	50.83
Phone Pe	41	34.17
Amazon Pay	2	1.67
Pay TM	7	5.83
Other	9	7.5
Total	120	100

Table-4 shows that, 50.83% of the respondents use Google pay, 34.17% use Phone Pe, 7.5% use other apps, 5.83% use Pay TM and 1.67% use Amazon Pay. It shows that Google Pay is the highest used UPI app and followed by Phone Pe.

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Table No. 5: Factors influence to use UPI digital payment system

Particulars	No. of Respondents	Percentage
Cash back offer	35	29.16
Ease of Usability	47	39.17
Trusted payment	27	22.5
system		
Other	11	9.17
Total	120	100

Table-5 shows that, 39.17% of respondents use UPI digital payment system because of ease of usability, 29.16% use for cash back offer, 22.5% use for trusted payment system and 9.17% use for other factors. It shows that digital payment system is very easy to access.

Table No. 6: Digital payment system prefer

Particulars	No. of Respondents	Percentage
Internet Banking	15	12.5
Mobile banking	57	47.5
Smart phone	35	29.17
Card payment	9	7.5
Other	4	3.33
Total	120	100

Table-6 shows that, 47.5% of the respondents use mobile banking, 29.17% use smart phone, 12.5% use internet banking, 7.5% use card payment and 3.33% use other digital payment system. The study shows that highest respondents use mobile banking for their financial transactions.

Table No. 7: UPI services contribute to the customer needs

Particulars	No. of Respondents	Percentage
Yes	115	95.83
No	5	4.17
Total	120	100

Table-7 shows that, 95.83% of respondents agreed that UPI services contribute to the customer needs and 4.17% do not agree the UPI services contribute to the customer needs. The study shows that UPI app based services contribute in fulfilling customer needs significantly.

Table No.8: UPI payment is fully secured

Particulars	No. of Respondents	Percentage
Yes	99	82.5
No	21	17.5
Total	120	100

Table-8 shows that, 82.5% of the respondent agreed that UPI payment system is fully secured and 17.5% respondents do not agree UPI payment system is fully secured. It shows that UPI payment is fully secured as the transaction held is fully secured.

Table No. 9: Purpose to use UPI

Particulars	No. of Respondents	Percentage
Money transfer	82	68.33
Utility bill payment	9	7.5
(Electricity, Water,		
Telephone Bills)		
Payment of college fee	5	4.17
Movie, bus, train booking	24	20
and Payment at shops		
Total	120	100

Table-9 shows that, 68.33% of the respondents use UPI digital payment system for money transfer, 20% use for movie, bus, train booking and payment at shops, 7.5% use for paying utility bills and 4.17% use for the payment of college fees. The study shows that more respondents used UPI app for fund transfer.



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Table No. 10: UPI Apps are user-friendly

Particulars	No. of Respondents	Percentage
Yes	110	91.67
No	10	8.33
Total	120	100

Table-10 shows that, 91.67% respondents agreed that UPI apps are user-friendly and 8.33% do not agree UPI apps are user friendly.

Table No. 11: Frequency of using Digital Payment System

Particulars	No. of Respondents	Percentage
Once in a week	75	62.5
Once in a month	20	16.67
Twice in a month	6	5
Use rarely	19	15.83
Total	120	100

Table-11 shows that, 62.5% of the respondents use digital payment system once in a week, 16.67% use once in a month, 15.83% use rarely and 5% use twice in month. It shows that respondents are very familiar in using UPI apps for their financial transactions.

Table No. 12: Period since using of UPI payment system

Particulars	No. of Respondents	Percentage
Less than 1 year	62	51.67
1-2 years	39	32.5
2-3 years	9	7.5
More than 3 years	10	8.33
Total	120	100

Table-12 shows that, 51.67% of the respondents use UPI payment system in less than one year, 32.5% are using 1-2 years, 8.33% are using since more than 3 years and 7.5% are using 2-3 years. It reveals that respondents have started to use this system in less than one year.

Table No.13: Satisfied with the payment system of UPI

Particulars	No. of Respondents	Percentage
Yes	110	91.67
No	10	8.33
Total	120	100

Table-13 shows that, 91.67% respondents are satisfied with the payment system of UPI and 8.33% are not satisfied. The study shows that UPI digital payment system has satisfied the respondent exponentially.

Table No. 14: recommending family and friends to use UPI payment system

Particulars	No. of Respondents	Percentage
Yes	111	92.5
No	9	7.5
Total	120	100

Table-14 shows that, 92.5% of the respondents recommend their family and friends to use UPI payment system and 7.5% of the respondents do not recommend to use UPI payment system. The reveals that respondents are satisfied with the payment system.

Findings

- 93.33% of the respondents prefer to use digital payment system. It shows that they are aware of the digital payment system and its usefulness.
- 47.5% of the respondents are having average knowledge about the UPI payment system. The percentage needs to be increased and encourage them to have further advanced knowledge.
- Google Pay is the highest used app (50.83%) and followed by Phone Pe (34.17%).
- 39.17% of respondents use UPI apps because of ease of usability and cash back offers.
- 47.5% of respondents use mobile banking for their banking transactions.
- 82.5% of the respondents opined that UPI apps are fully secured.
- Most of the respondents use UPI apps for fund transfer.
- 62.5% of the respondents use digital payment system once in week, it shows that frequency of using digital payment system is increasing.
- 91.67% of the respondents are satisfied with the digital payment system.



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- 92.5% of the respondents recommend their friends and family members to use digital payment system.
- UPI services are contributing to go for cashless economy.

Suggestions

- The main objective of introducing digital payment system is to have paperless and cashless transactions in the
 country, it is necessary to organize campaigns to create awareness among the citizens of India to use digital
 payment system.
- The average knowledge of the respondents to be upgraded through different means of promotional channels.
- Women have to be encouraged more to use digital payment system.
- Apart from using Google Pay and Pay TM apps, the other remaining apps are to be made known to public and encourage them to use.
- Cash back offers to be continued to motivate users to use digital payment system.
- The digital payment system is used mainly for fund transfer. Steps must be taken to use for other financial/banking transactions.
- Universities can initiate students to pay their college fees/examination fees through these digital payment apps.
- If the transactions get failed due to connectivity or technical issues, those are to be redressed within a short span
 of time.

Conclusion

UPI is a significant advancement of payment system in terms of cost, ease of use for consumers, settlement times and security. UPI is application in the smart phones allow users to send money between bank accounts. It is a real time payment system and user-friendly. UPI allows a customer to pay directly from a bank account to different merchants, both online and offline. The study concludes that people are more aware of digital payment system and use UPI apps as they are user-friendly and secured. Most of the people use Google Pay and Phone Pe for fund transfer. As the respondents are satisfied with the digital payment system, they recommend to use their family and friends. Increase in the number of users lead to achieve the vision of the Government programme 'Digital India'.

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Relationship of Sport Activities and Health

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Abstract -

Aim of this research paper is to determine the relationship of sport activities and health with reference to the evidences and analysis of different scholars and World Health Organization's guidelines on health. The concept of sports includes health promotion, mastering, the knowledge of the basic of physical culture and healthy lifestyle; achieving an optional level of physical qualities. In addition to the influence on the physical side of a person's development, sports contribute for professional activity. It is sport that can be a powerful mean in facing different mental and physical challenges; it can be resource in the global fight against any kind of diseases. But what it needs its understanding and implementation. It is never been claimed that sport is the sole, or even the major source of variation in health status. But considering the facts and initiative of sport as offered by the international and national sport and health organization, sport is inseparable part of human life. Sport participation either indoor or outdoor seems to make some remarkable, specific, positive and widespread contribution in nurturing fitness and health practices.

Keywords - Physical fitness, muscles, blood circulation, body structure, personality.

Introduction -The present age is fast approaching; also electronic devices have become widely available for entertainment, so many people, especially children have forgotten to go to the file to play. But it also has its downsides so outdoor sports are essential for overall development. Movies from Hollywood and Bollywood have shown that the central characters have to play specific sport game though they are not well acquainted with them but for leaving impact on the spectators they use to learn the skills of sports. The actors used to make their own body shape to play the role in the film, even if they did not have any kind of body. Nowadays, even when children come together to play, they can be seen playing games on their mobiles. Even though they are together, they do not get enough time to talk to each other. Even when they come home, parents put pressure on their children to study. Despite all free time they can see mobile, and handle Television remote. Due to all these things, children do not go to field in spite of their leisure time. Consequently, slim physical health is seen and they look weaken too. (Dr. Jogalekar, 2009)

What Dr. Jogalekar insist in his views that being a leisure time, should be implemented for physical activities like sport as it has direct impact on the physical and mental health of human being. Hence, healthy human development is necessary foundation for all development progress. That is why Dr. Jogalekar insisted on children's sport participation for their better health. Without healthy population the achievement of development objective will be out of reach. Good health is a foundational ability of an individual to realize their physical potentials. A good sport and physical practice......

- a. Reduces human mortality.
- b. Improves mental health.
- c. Combat different diseases.
- d. Calibers muscle powers.
- e. Improves physical fitness.

According to the report of World Health Organization 2015, many countries are working to improve their health-care services, better health services will alone will not improve health outcomes. O. P. Sharma (1995), in his book Physical Education in Modern School, has stated that being a social animal, human being is influenced by different inner and outer factors like stress, anxiety, poverty, depression, social status, economic background, education, employment, living area, food, gender, as well social and physical disabilities. These social parameters also determine the health inequality among the people living within. Kelley, M. and his Colleagues (2007) in this regard stated that 'the poor and the disadvantaged social groups have worse experience with their personal health as compare to the rich people. As the earlier group lacks good living things and food as well as social services; die in hunger and starvation.'

SPORTS: A MEDIUM TO PROMOTE HEALTH:

The concept of sports includes health promotion, mastering, the knowledge of the basic of physical culture and healthy lifestyle; achieving an optional level of physical qualities. In addition to the influence on the physical side of a person's development, sports contribute for professional activity. (Saparniyazovich and Ismetullaevich, 2021). The very concept of sports made by these scholars initiates psychomotor development of a person through active participation on ground. Thus Sport's unique and universal power to attract, motivate and inspire makes it highly effective tool for engaging and empowering individuals, communities and even countries.

It is sport that can be a powerful mean in facing different mental and physical challenges; it can be resource in the global fight against any kind of diseases. But what it needs its understanding and implementation.



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The scientific evidences and experiences of WHO has already regulated the relationship between the active sports participation and good health practice. Report further also states that appropriate physical activity and sport provides people of both sexes and all ages and conditions, including persons with disabilities, with wider range of physical and social mental health benefits. sport supports strategies to improve diet and discourage the use of harmful and addict practices like alcohol and tobacco. Sport and physical activities also remedies in overcoming violence, aggressiveness, and helps to enhance functional capacity. (WHO-2003).

United States Report on Health Development (2004) also indicated that 'Sports generates health benefits in two primary ways- through direct participation in sports and through the participatory and spectator sport as a platform for communication, education and social mobilization. And well defined and designed sport for health initiatives often work on both levels.'

SPORTS; A BOOSTER TO DIESEASES:

According to the study of Saparniyazovich and Ismetullaevich, 2021, in order to avoid the occurrence of diseases and to improve health, one must choose suitable sport. For this these scholars have suggested different sports with their benefits with reference to health and overcoming the diseases. According to the study, sport events like swimming are beneficial for women because in the process of swimming muscles are tightened and during the feeling of fatigue and exertion, water is a subject of relaxation and allow they to calm the nervous systems. Talking about Jogging, the authors stated that it improves blood circulation and maintain good body figure which not only makes healthy but also improves personality. Sports event like Cycling also allow a person to maintain body shape and strengthen muscles as well as improve blood supply. So far sport event like Ice skating is concern, it is helpful in strengthening muscles and also structures rider's body. Variety of sport is not essential over here what necessary are the benefits behind them as they improve body, fitness, and keep person away from all kind of diseases.

According to World Health Organization: 2003, following are benefits of regular sport practices.

- a. Reduces the risk of dying premature.
- b. Avoid heart related diseases.
- c. Reduces the risk of colon cancers and other hearth related problems.
- d. Helps to prevent hypertension, which exists in one-fifth world population.
- e. Lowers the risk of becoming obese.
- f. Reduces and Maintains weight.
- g. Reduces the risk of hip fracture in women.
- h. Reduces lower back pains in the management of painful situation.
- i. Builds healthy bones, muscles, joints and make people chronic.
- j. Controls psychological factors like stress, anxiety, depression.
- k. Helps to prevent risky behavior, especially among children.

Dr. VivekPathak (2012) writes in this context that chronic illness leads to inactivity. The result is either the result of the underlying disease or a combination of both, which leads to unwanted physical disability. The extent of the disease if any, must be acknowledged; but if that is not the case, then the disability caused by proper exercise and sport can be reduced. Regular practice and sports increase the efficiency of such people. Such a therapeutic effect of exercise is seen not only in heart disease but also in those whose circulatory system is at risk. It can also be used to improve the performance of people with chronic respiratory disorders. Although the help of experts is required everywhere, the goal in deciding the sports program for such people is to increase their ability to perform the moral tasks of daily life. Its main condition is that such programs should be well-controlled and fatigue-free.

SPORT: PROMOTES HEALTHY ATTITUDE:

In the disadvantaged communities, it has been proved that people in such communities are defined in terms of their needs and deficits. It is sport that makes a counter-balance within these perceptions. Participating in sport draws on people's strength and assets- energy, enthusiasm, natural and acquired skills. The acquisition of life skill and sport skills, the acceptance of friendship of others, the attention and guidance of coaches, and the examples set by them and other positive sport roles models, all encourage sport participants to believe in them, disabilities and conflicts, the development of self-esteem are the different initiatives of sport that leads to maintain the healthy attitude of a sport persons.

SPORTS: PROMOTES PERSONALITY:

Human personality develops in different ways. Sport plays a key role in shaping the personality of a participant. Sport develops the qualities of the players; keep the body healthy and fresh. Weakness, strength, cleanliness in force movement is seen in the game. These qualities are useful in his appearance but also in his work.

Emotions come in many forms. Participating in sports creates a feeling of happiness satisfaction; unwanted bad feelings in the mind can be expelled through sports. The killing spirit is useful for winning and a versatile personality is created while plying with such enthusiasm. Getting injured is a part of sport and players are well known about that. He knows sorrow, pain, deformity, sickness, disability, endurance are the part of life. Sport also allows him think about the teammate. In the team, he learns the essentials for mental health, such as giving and receiving love and respect. He is more concerned with how others will benefit him than with his own personality. So the game shows the way to live life. The ideology that a player should live life with an attitude makes the player a part of his personality. (Dr. VivekPathak 2012)

CONCLUSION:

It is never been claimed that sport is the sole, or even the major source of variation in health status. But considering the facts and initiative of sport as offered by the international and national sport and health organization, sport is inseparable part of human life. Sport participation either indoor or outdoor seems to make some remarkable, specific, positive and widespread



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contribution in nurturing fitness and health practices. On the basis of the above analysis related to sport and health relationship, sport has shown its remarkable impact on the health and physical fitness of human being. It not only builds body, but builds good and moral character which is a need of the society.

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Blue Print of Azadi Ka Amrit Kaal- Union Budget 2022-23

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Abstract -

This Research Paper focus on Union budget 2022-23 which is presented by Honorable Finance minister Smt. Nirmala Sitharaman. This Union budget is "BLUE PRINT OF AZADI KA AMRIT KAAL," which is India's vision for next 25 years, hence the examination of this budget is crucial. During this Amrit Kaal government seeks to achieve a number of objectives which includes complementing macroeconomic growth with a microeconomic level all-inclusive welfare focus, Digital economy & fintech development, Technology-assisted development, Energy transition & climate action. This budget has set four priorities:

- 1) PM Gati Shakti,
- 2)Inclusive Development,
- 3)Productivity Enhancement & Investment, Sunrise Opportunities, Energy Transition & Climate action,
- 4) Investment Financing,
- which can archive through "sabka prayas"

Introduction - This budget aims to lay the foundation as well as provide a roadmap for the economy over the next 25 years, from India at 75 to India at 100. Incentives linked to productivity The vision of Atam Nirbhar Bharat has received excellent response in 14 sectors, with the potential to create 60,00,000 new jobs and an additional production of 30 lakh cores over next five years, indicating that this Budget continues to provide growth impetus. It lays a parallel track of

- (I) A futuristic and inclusive blueprint for the Amrit Kaal that will directly benefit our youth, women, farmers, Scheduled Castes, and Scheduled Tribes.
- (II) A significant public investment in modern infrastructure, in preparation for India at 100, will be led by Prime Minister GatiShakti and will benefit from the synergy of a multi-modal approach. FM outlined the following four priorities:-
 - *PM Gati Shakti (Master Plan of Nation)
 - *Inclusive Development
 - *Productivity Enhancement & Investment, Sunrise Opportunities, Energy Transition, and Climate Action
 - *Financing of Investments

PM Gati Shakti is a transformative approach for economic growth and sustainable development. The approach is driven by seven engines namely, Roads, Railways, Airports, Ports, Mass Transport, Waterways, and Logistics Infrastructure. All seven engines will pull forward the economy in unison. These engines are supported by the complementary roles of Energy Transmission, IT Communication and Social Infrastructure. Finally, the approach is powered by Clean Energy and Sabka Prayas - the efforts of the Central Government, the state governments, and the private sector together - leading to huge job and entrepreneurial opportunities for all, especially the youth.

The scope of PM Gati Shakti national master plan will encompass the seven engines for economic transformation seamless multi model connectivity & logistic efficiency. It will also include infrastructure development by state governments as per this master plan focus will be planning, financing including to innovative ways, use of technology & speedier implementation. The project pertaining to this seven engines in the national infrastructure pipeline will be aligned with pm Gati Shakti framework. The touch stone of master plan will be world class modern infrastructure & logistics synergy among different modes of movement of goods & location of project this will help raise the productivity and accelerate economic growth & development.

Master plan for express way will formulated in 22-23 to facilitates faster movement of people and goods. The national highway network will be expanded by 25000 kms in 2022-23. 20,000 cores of rupees will mobilized through innovative financing to compliment the public resources. The data exchange among all mode operators will brought into unified logistics interface platform design for application programming interface. This will provide for efficient movement of goods though different modes reducing logistics cost and time assisting just in time inventory management and eliminating tedious documentation most importantly this will provide real time information to all stakeholder and improve international competitiveness open source mobility track for organizing seamless travel of passengers will also be facilitator. Contracts for implementation of multi-model logistics parks at four location of though PPP MODEL will awarded in 2022-23.

In case of rail transport concept of 'One Station-One Product' will help local businesses & supply chains. Moreover, as a part of Atma Nirbhar Bharat, 2,000 km of network will be brought under Kavach, the indigenous world-class technology for safety and capacity augmentation in 2022-23. 400 new-generation Vande Bharat Trains with better energy efficiency and passenger riding experience will be developed and manufactured and one hundred

PM GatiShakti Cargo Terminals for multimodal logistics facilities during the next 3 years.



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Innovative ways of development of metro structure for urban connectivity is on priority list.

Rope ways "Parvatmala"- as a preferred ecological sustainable alternative to conventional road in difficult hilly areas national rope way development program will be taken up on PPP model. The aim is to improve connectivity & convenient for commuters besides promoting tourism. Contracts for 8 such rope way projects for length of 60kms will awarded in 2022-23.

In case of Agriculture sector development 2.3lakhs crores will be direct payment of MSP value to their accounts. Chemical free natural farming promoted throughout the country with the focus on farmers land of in 5kms wide corridor along with river Ganga at the first stage. Use of 'Kisan Drones' will be promoted for crop assessment, digitization of land records, spraying of insecticides, and nutrients. She said, to reduce dependence on import of oilseeds, a rationalized and comprehensive scheme to increase domestic production of oilseeds will be implemented. As 2023 has been announced as the International Year of Millets, the government announced full support for post-harvest value addition, enhancing domestic consumption, and for branding millet products nationally and internationally. Implementation of the Ken-Betwa Link Project, at an estimated cost of Rs 44,605 crore will be taken up aimed at providing irrigation benefits

In case of MSME, Udyam, E-Shram, NCS and ASEEM portals will be interlinked and their scope will be widened. Now they will perform with live organic data base provide G2C,B2C,B2B services. This services relates to credit facilitation, skilling & recruitment to further formalized the economy and enhance the entrepreneurial opportunities for all. Emergency Credit Line Guarantee Scheme (ECLGS) has provided much-needed additional credit to more than 130 lakh MSMEs to help them mitigate the adverse impact of the pandemic. However the hospitality and related services, especially those by micro and small enterprises, are yet to regain their pre-pandemic level of business and after considering these aspects, the ECLGS will be extended up to March 2023. Similarly, Credit Guarantee Trust for Micro and Small Enterprises (CGTMSE) scheme will be revamped with required infusion of funds. Raising and Accelerating MSME Performance (RAMP) programme with outlay of Rs 6,000 crore over 5 years will be rolled out to make the MSME sector more resilient, competitive and efficient.

Digital eco-system with skilling & livelihood with Desh stack E-portal will be launching which aims to empower citizens to skill, up skill or re-skill the online training. Dwelling on the subject of Skill development and Quality Education, the Finance Minister said that Startups will be promoted to facilitate 'Drone Shakti' through varied applications and for Drone-As-A-Service (DrAAS). In vocational courses, to promote crucial critical thinking skills, to give space for creativity, 750 virtual labs in science and mathematics, and 75 skilling e-labs for simulated learning environment, will be set-up in 2022-23.

Due to the pandemic- closure of schools, children, particularly in the rural areas, and those from Scheduled Castes and Scheduled Tribes, and other weaker sections, have lost almost 2 years of formal education and mostly, these are children in government schools. Thus to impart supplementary teaching and to build a resilient mechanism for education delivery, the Finance Minister informed that 'one class-one TV channel' programme of PM eVIDYA will be expanded from 12 to 200 TV channels and this will enable all states to provide supplementary education in regional languages for classes 1-12.

A Digital University will be established to provide access to students across the country for world- class quality universal education with personalized learning experience at their doorsteps. This will be made available in different Indian languages and ICT formats.

In case of Health care, under Ayushman Bharat Digital Mission, an open platform for the National Digital Health Ecosystem will be rolled out and it will consist of digital registries of health providers and health facilities, unique health identity, consent framework, and universal access to health facilities. Because the pandemic has exacerbated mental health issues in individuals of all ages, a "National Tele Mental Health Program" will be developed to provide access to high-quality mental health counselling and therapy. A network of 23 tele-mental health centers of excellence would be established, with NIMHANS serving as the nodal center and the International Institute of Information Technical-Bangalore (IIITB) providing technology assistance.

Recognizing the importance of NARI-SHAKTI as a harbinger of our bright future and for the improvement of women's lives during Amrit Kal, the government overhauled the scheme: -

- 1) MISSION SHAKTI
- 2) VATSALYA MISSION
- 3) POSHAN 2.0 & SAKSHAM ANAGANWADI

Har Ghar, Nal Se Jal will receive Rs 60,000 crore in 2022-23 to reach 3.8 crore homes. The current coverage is 8.7 crores, with 5.5 crore homes receiving tap water in the previous two years alone.

Similarly, with Rs 48,000 crore allocated for PM Awas Yojana's, 80 lakh homes would be built for PM Awas Yojana's identified eligible recipients, both rural and urban, in 2022-23.

A new scheme, Prime Minister's Development Initiative for NorthEast(PM-DevINE), will be implemented through the North-Eastern Council to fund infrastructure, in the spirit of PM GatiShakti, and social development projects based on felt needs of the North-East.

In case Banking, In 2022, 100 per cent of 1.5 lakh post offices will come on the core banking system enabling financial inclusion and access to accounts through 11 net banking, mobile banking, ATMs, and also provide online transfer of funds between post office accounts and bank accounts. This will be helpful, especially for farmers and senior citizens in rural areas, enabling interoperability and financial inclusion. To mark 75 years of independence, the government has proposed to set up 75 Digital Banking Units (DBUs) in 75 districts of the country by Scheduled Commercial Banks.

The issuance of e-Passports using embedded chip and futuristic technology will be rolled out in 2022-23 to enhance convenience for the citizens in their overseas travel.

The Finance Minister announced that for developing India specific knowledge in urban planning and design, and to deliver certified training in these areas, up to five existing academic institutions in different regions will be designated as



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centres of excellence. These centres will be provided endowment funds of Rs 1,250 crore.

The animation, visual effects, gaming, and comic (AVGC) sector offers immense potential to employ youth and therefore an AVGC promotion task force with all stakeholders will be set-up to recommend ways to realize this and build domestic capacity for serving our markets and the global demand.

Telecommunication in general, and 5G technology in particular, can enable growth and offer job opportunities & informed that required spectrum auctions will be conducted in 2022 to facilitate rollout of 5G mobile services within 2022-23 by private telecom providers.

Sunrise Opportunities, Artificial Intelligence, Geospatial Systems and Drones, Semiconductor and its ecosystem, Space Economy, Genomics and Pharmaceuticals, Green Energy, and Clean Mobility Systems have immense potential to assist sustainable development at scale and modernize the country. R&D in sunrise opportunities collaboration with academia, private institute government contribution will be provided which provide employment opportunities for youth, and make Indian industry more efficient and competitive.

To facilitate domestic manufacturing for the ambitious goal of 280 GW of installed solar capacity by 2030, an additional allocation of RS 19,500 crore for Production Linked Incentive for manufacture of high efficiency modules, with priority to fully integrated manufacturing units from polysilicon to solar PV modules, will be made.

As a part of the government's overall market borrowings in 2022-23, sovereign Green Bonds will be issued for mobilizing resources for green infrastructure. The proceeds will be deployed in public sector projects which help in reducing the carbon intensity of the economy.

The Government proposed to introduce Digital Rupee, using blockchain and other technologies, to be issued by the Reserve Bank of India starting 2022-23 for more efficient and cheaper currency management system.

Reflecting the true spirit of cooperative federalism, the Central Government enhanced the outlay for the 'Scheme for Financial Assistance to States for Capital Investment' estimates to Rs 15,000 crore.

The Union Budget 2022-23, while continuing with the declared policy of stable and predictable tax regime, intends to bring more reforms that will take ahead the vision to establish a trustworthy tax regime. Smt Nirmala Sitharaman said that proposals relating to taxes and duties will further simplify the tax system, promote voluntary compliance by taxpayers, and reduce litigation.

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Mental Health - Pre and Post Covid 19

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Introduction - Covid-19 appears to have had a devastating effect on human life, many lost their lives due to covid-19 in the world and in India, and also many people lose their close person, jobs and businesses. Covid-19 caused lockdowns all over the world and in India, So many people had to stay at home People who have covid-19 needed mental supportbut many people were not getting mental support because no one could contact the patient. Also in the house where there were covid patients they had to face many mental problems due to lack of bed and oxygen cylinder in the hospital. There was also a need to be careful not to get covid, such as frequent hand washing, social distancing and wearing the mask. Many people also had to face financial problems as they had to stay at home due to Lockdown, Some people did not even get two meals a day. Covid-19 and Lockdown also appear to cause a number of mental health problems such as a stress, PTSD anxiety, depression, loneliness, aggression, adjustment, mobile addiction, alcoholic and poor sleep quality etc.

COVID-19

The novel coronavirus, later designated as COVID-19, is an infectious disease that can spread among humans. It emerged at first in the city of Wuhan in China in December 2019, when cases of pneumonia of unrevealedetiology were reported. Following its emergence, in mid-March 2020 the World Health Organization (WHO) concerns it manifested as an outbreak that led to serious public health, the WHO announced a global pandemic due to the substantial global-wide spread of the disease affecting many countries. By 14 February 2021, over 108 million cases were confirmed worldwide, of which 5.99 million cases were reported in the Eastern Mediterranean region.

The COVID-19 pandemic in India is a part of the global pandemic of coronavirus disease 2019 (COVID-19) effected by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). As of 28 March 2022, according to official figures, after the United States of America, India has the second-highest number of confirmed cases in the world with 43,020,723 reported cases of COVID-19 infection and the third-highest number of COVID-19 deaths (after the United States and Brazil) at 521,035 deaths.

In India the first cases of COVID-19 were reported on 30 January 2020 in three towns of Kerala, among three Indian medical students who had returned from Wuhan, the epicenter of the COVID-19 pandemic. In Kerala lockdowns were announced on 23 March and in the rest of the country on 25 March. On 10 June, India's recoveries exceeded active cases for the first time. In September Infection rates started to drop, along with the number of new and active cases. Daily cases peaked September mid with over 90,000 cases reported per-day, dropping to under 15,000 in January 2021. A second wave beginning in March 2021 was much more restructuring thanthe first, with shortages of vaccines,oxygen cylinders, hospital beds and other medical supplies in parts of the country. Late April, India led the world in new and active cases. On 30 April 2021, it became the first country to announce over 400,000 new cases in a 24-hour period. Experts revealed that the virus may reach an endemic stage in India rather than completely disappear; in late August 2021, Soumya Swaminathan said India may be in some stage of endemicity where the country learns to live with the virus.

Mental Health

19

Mental health which today is recognized as an important aspect of one's total health status is a basic factor that contributes to the maintenance of physical health as well as social effectiveness. It is a normal state of well-being, and in the words of Johns, Sutton and Webster, "is a positive bat relative quality of life. It is a condition which is characteristic of the average person who meets the demands of life on the basis of his own capacities and limitations". By the word 'relative' we imply that the degree of mental health which an individual enjoys at a time is continuously changing. According to Hadfield 'mental health is the full and harmonious functioning of the whole personality. It is a positive, active quality of the individual's daily living. This quality of living is manifest in the behaviour of an individual whose body and mind are working together in the same direction. His thoughts, feelings and actions function harmoniously towards the common end. It means the ability to balance feelings, desires, ambitions and ideals in one's daily living as well as ability to face and accept the realities of life. It connotes such habits of work and attitudes towards people and things that bring maximum satisfaction and happiness to the individual. But the individual gets this satisfaction and happiness without any function with the social order or group to which he or she belongs.

From this one can conclude that mental health has two important aspects. It is both individual and social. The individual aspect connotes that the individual is internally adjusted. He is self-confident, adequate and free from internal conflicts and tensions or inconsistencies. He is able to adapt himself to the new situations. But he achieves these internal adjustments in a social set up. Society has certain value systems, customs and traditions by which it governs itself and promotes the general welfare of its members. It is within this social framework that the internal adjustment has to be built up. Only then, the individual becomes a person who is acceptable as a member of society. It is an undesirable fact that social forces are in a constant flux. They are constantly moving and changing. Similarly, our internal adjustment is also affected by various stresses. As such,

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mental health is a process of adjustment which involves compromise and adaptation, growth and continuity. Because of the significance of individual and social aspects, some psychologists have defined mental health as the ability of the individual to make personal and social adjustments. It will be pertinent here to explain the word "adjustment". If one can establish a satisfactory relationship between himself and his environment, between his needs, desires and those of other people, or if one can meet the demands of a situation. He has achieved adjustment. Adjustment results in happiness because it implies that emotional conflicts and tensions have been resolved and relieved. Other definitions of mental health refer to such abilities as of making decisions of assuming responsibilities in accordance with one's capacities, of finding satisfaction, success and happiness in the accomplishment of everyday tasks, of living effectively with other and of showing considerate behaviour.

Review related Literature

Dhaheri et al. (2021) Conducted study on mental health and quality of life in the MENA region due to the COVID-19 pandemic The findings of this study indicate that the COVID-19 pandemic was associated with mild psychological impact among adults in the MENA region. However, it also encouraged some positive impacts on family support and mental health awareness. There is a need to increase the awareness among the various media platforms about psychological challenges during pandemics and highlight the importance of seeking help and engaging in physical activity for the management of mental health disorders. Furthermore, an increase in awareness among the health care professionals in identifying and targeting the high-risk groups of the population who are at risk in developing mental health problems is vitally important. Governments and policymakers must offer moral and financial support for low-income families and those who lost their jobs. Also, regulating working hours is needed to reduce the burden on individuals during the current pandemic. Future large-scale comparable studies among other age groups such as adolescents and children will help public health authorities shape their reactions and interventions in the future in response to similar crises.

Gloster et al. (2020) conducted study on Impact of COVID-19 pandemic on mental health: An international study. These results showed that on whole, respondents were moderately mentally healthy at the time of a population-wide lockdown. The highest level of mental health difficulties were found in approximately 10% of the population. Findings suggest that public health initiatives should target people without social support and those whose finances worsen as a result of the lockdown. Interventions that promote psychological flexibility may mitigate the impact of the pandemic.

Xionga and et.al (2020) conducted study on Impact of COVID-19 pandemic on mental health in the general population: A systematic review. This systematic review examined the psychological status of the general public during the COVID-19 pandemic and stressed the associated risk factors. A high prevalence of adverse psychiatric symptoms was reported in most studies. The COVID-19 pandemic represents an unprecedented threat to mental health in high, middle, and low-income countries. In addition to flattening the curve of viral transmission, priority needs to be given to the prevention of mental disorders (e.g. major depressive disorder, PTSD, as well as suicide). A combination of government policy that integrates viral risk mitigation with provisions to alleviate hazards to mental health is urgently needed.

Son C and et.al (2020) conducted studyEffects of COVID-19 on College Students' Mental Health in the United States: Interview Survey Study. Sample consisted on 195 students, 138 (71%) indicated increased stress and anxiety due to the COVID-19 outbreak. Multiple stressors were identified that contributed to the increased levels of stress, anxiety, and depressive thoughts among students. These included fear and worry about their own health and of their loved ones (177/195, 91% reported negative impacts of the pandemic), difficulty in concentrating (173/195, 89%), disruptions to sleeping patterns (168/195, 86%), decreased social interactions due to physical distancing (167/195, 86%), and increased concerns on academic performance (159/195, 82%). To cope with stress and anxiety, participants have sought support from others and helped themselves by adopting either negative or positive coping mechanisms. Due to the long-lasting pandemic situation and onerous measures such as lockdown and stay-at-home orders, the COVID-19 pandemic brings negative impacts on higher education. The findings of our study highlight the urgent need to develop interventions and preventive strategies to address the mental health of college students.

Effect of COVID-19 on Metal Health

Covid-19 appears to have had a devastating effect on human life, many lost their lives due to covid-19 in the world and in India, and also many people lose their close person, jobs and businesses. Covid-19 caused lockdowns all over the world and in India, So many people had to stay at home People who have covid-19 needed mental supportbut many people were not getting mental support because no one could contact the patient. Also in the house where there were covid patients they had to face many mental problems due to lack of bed and oxygen cylinder in the hospital. There was also a need to be careful not to get covid, such as frequent hand washing, social distancing and wearing the mask. Many people also had to face financial problems as they had to stay at home due to Lockdown, Some people did not even get two meals a day. Covid-19 and Lockdown also appear to cause a number of mental health problems such as a stress, PTSDanxiety, depression, loneliness, aggression, adjustment, mobile addiction, alcoholic and poor sleep quality etc.

Conclusion

- 1. Covid-19 appears to have affected the entire world.
- 2. Covid-19 affected intrapersonal and interpersonal relationships.
- 3. Covid-19 caused a number of mental problems.
- 4. Covid 19 increases the level of stress, anxiety and depression.
- 5. The Covid-19 patient needs mental support and counseling.

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Study of Nationalism in Indian folk Art: Special Reference to Powada

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Abstract -

The country like India has faced many conflicts and challenges for thousands of year. Many foreign rulers attacked and established their empires in the nation. Although the people of India lived under the slavery of the foreign rulers but they were bounded by the strong bond of nationalism. The heroic fight by Indian rulers like Prithiwiraj Chauhan, Maharana Pratap, Chatrapati Shivaji Maharaj, etc were their motivation. The stories of the fight of these heroes of the nation percolated among the people of India mainly through folk art, which inculcated the nationalism in them. During the freedom struggle also the folk art played important role to develop strong sense of nationalism amongst the common Indian. In the state of Maharashtra the folk art like Powada played an important role to inculcate and groom the feeling of nationalism amongst the people. The folk art which mainly started form the era of Chatrapati Shivaji Maharaj playing an important role by telling heroic stories of the struggle of Maratha emperors and the leaders in today's modern world also. In this research paper the concept of nationalism, powada and relation among the both has been discussed.

Introduction - From ancient times, India has been very rich in folk art. Folk art includes dance, drama, musical instruments, and music. Folkart created unity among humans in ancient times. Due to mutual affection, folk culture survived. Folk art has a connection to this soil. Adapting to changing times while carrying on the legacy of tradition, they are transformative. Folk art is a social art combining tradition and innovation. In Indian history, folk art has been emphasized from time to time. In India, which has been victimized by a variety of foreign invasions, folk art often works to ignite a spirit of nationalism in its people. In all these stories, Powada, born in Maharashtra, awakened the spirit of nationalism in the minds of the Marathi people who had been enslaved by injustice and oppression since Chhatrapati Shivaji Maharaj. It is not an exaggeration to say that Powada created nationalism in the country by expressing Maharaj's various campaigns. Whether during the period of Indian freedom struggle or during the current period of globalization, Powada's folk art continues to sow nationalism and nationalistic ideas through matches. For an understanding of the relationship between nationalism and Powada, it is necessary to know both concepts.

Nationalism

In modern day nationalism, the words nation and nationality are derived from the Latin word. People are united in a spirit of nationalism and maintain unity. Such people are called nations when they have strong motivations and feel so connected that they are willing to stay together. The loyalty to one's birthplace, homeland, nation, and region is called nationalism.

In the 19th century, nationalism developed strongly after the French Revolution of 1789. The French Revolution completely transformed France during this period. At the same time, he worked to bring Europe into the modern age by ending the Dark Ages. Through the French Revolution the world became familiar with the Universal Declaration of Human Rights and the motto of freedom, equality, and brotherhood, and the French Revolution led to the beginning of modern nationalism.

There are indications that in the modern era, man must have nationalism in his brotherhood regarding his nation. All cultures throughout history have made the distinction of human life clear by prioritizing national allegiance. As a result of the French Revolution in 1789, the minds of the people changed, love for the country developed, and a spirit of nationalism began to develop.

Since the concept of a nation is a primarily Western concept, the word nationalism is used as a synonym for nationalism and nationality in Indian language. Nationalism is derived from the Latin word Natio, which means birth. It has been accepted by Indians since the 20th century. The concept of nationality is spiritual, and this sense can arise among people of the same race, language, traditions, culture, religion, or geographical location.

Nationalism has been defined as follows:

Nationalism is certainly one of the most powerful forces in the world today, especially in non-western countries and areas. It helps to explain the almost paranoic sensitivity of leaders and people of former colonies to any infringement, real or imagined, on their newly-won independence.1

Nationalisum can be defind " in the words of Couloumbis and Wolfe" as a perceived identity of oneself with a territorially organised collectivity such as the United State, The USSR and other countries. The phycological need to define oneself in terms of membership in a given community is at the root of nationalist sentiment.2

Powada:

In Maharashtra, different folk arts, traditions, and cultures have existed since ancient times. It is mainly made up of Gondhali, Mang, Dauri, Kolhati, Bharade, Mahar, Dangat, Vasudev, Pangul, and other castes and tribes that have created and preserved forms of Marathi folklore in traditional oral form. This led to public awareness and social enlightenment. From this came the artist who would create his own place. In recognition of his work, the people of the area conferred on

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him the honourary title "Shahir". Shahir is derived from the Arabic word "shayar" from this discussion on the term "shahiri".

The origin of the word 'shahir' lies in the Arabic language. There is a possibility that it has come into Marathi from the Arabic word 'shayar'. Today, the word 'shayar' is defined as a poet who writes love, erotic, and sorority poetry; but in Shahiri literature, the word 'shahir' is viewed as a poet of folklore. Among the reasons for this are that Shahiri poetry is rooted in folk art, and the strength of Shahiri can be seen in the folk songs and ritual songs of Marathi. Moreover, the thoughts, opinions, actions, and feelings of the people have played a very important role in Shahiri poetry. This tradition is carried on by Shahiri Wangmaya. Generally, someone who writes or sings compositions like Povada, Lavani, and Lok Natya is called 'Shahir'. Sahastrabuddha says, "Shahir is a category of poets who write a particular type of poetry. Rotibandi, Betibandi is not going to be different."3 he Classifies "Shahir means Powada, a poet who composes poetry akin to Lavanya,"4 Therefore it appears that there are different types in Marathi folk culture and shahiri literature. The concept of 'Powada' is summarized as follows:

Etymology of the word 'Powada'

The word 'Powada' comes from the Kannada language; presented by shri. Ba. Joshi. He says that the ancient Kannada pronounce of 'pavad' helps to understand the meaning of the word powada. Pavad can also mean 'miracle', 'divine', and 'superhuman. Hence, the term 'Powada' had come to mean one's majesty song.5 According to Tara Bhawalkar "According to the Dravidian culture in the south, especially Karnataka, and Marathi culture, 'Pawad' came to Marathi from Kannada."6

Hence, it is an easy conclusion to draw that Powada is a literary form that originated from the folk culture of Karnataka and Andhra Pradesh. Apart from this, other scholars have reported the origin of Powada as a Sanskrit literary form that derived from pra + Vad. Hence the origin of the word Povada, derived from Sanskrit Pra + Vad = Sangane.

Definitions of Powada

Scholars have analyzed the meaning of the word 'Powada,' which has existed since the eleventh and twelfth centuries As Dr. Sharad Vyavahare explains in his interpretation of Powada, "In India, there is a tradition of singers who tell stories about the merits of different kings and their skillful administration. These heroic men's mythological narrative song is called 'Powada' According to Dr. Vyavahares's Thoughts, the nature of 'Powada' becomes clear and a definite meaning emerges.

This shows that the Marathi form of Powada, an independent type of poetry, is linked to the heroic deeds. Powada is defined in detail in the Maharashtra Dictionary. "Powada means to praise the skills of the heroic, the intellect of the scholars, or to describe one's qualities, skills, etc., as well as a poetic description of personal strengths.8

Tradition of Powada:

In 1659, Shahir Agyandas composed the first powada in marathi, 'Afzal Khanacha Vadh', as a situation of Pratapgad's. Thus, the beginning of the poetic type, is believed to have occurred in 1659. However, there is evidence that Powada already existed before that. The origin of the term 'Powada' can be traced back to the Vedic period. There are many alternative words for powada, including kadaka, pavad, powada, kirtigan, yashogeet, and birid (Birud). After Gyan Deva, the word Powada was suggested by many saint poets, Mahanubhav poets and Pandit poets. There are many meaning of the term Powada: magnificence, strength, prowess, fame, eulogy, miracles, etc. Also, Powada is mentioned in the 'Dnyaneshwari' of Saint Dnyaneshwar-

"Tuva Sangrami Haru Jitla | Niwat Kavachacha Thao

Fedita | Pavada tuva kela gandhvansi ||9

Everyone will sing the praises of your might after you win this war. This supernatural work of yours will be ideal for all. Many times, Saint Tukaram has used the word 'payade' in his abhanga.

"Udar tu hari aisi kirti charachari

Anant he thori garjatil pavade ||"10

The Lord, who is infinite like the earth, your way of life is immeasurable. You have covered all the areas, such as burnt, splotches, sticks, and stones. Powades of your great great fame will be heard everywhere.

Thus it is seen that the word 'Powada' was used by the saints in different meanings from Sant Wangmaya. Even so, Shahiri poetry originated from the time of Chhatrapati Shivaji Maharaj. As Shivaji laid the foundation for Maratha Rajya, Shahiri poetry flourished because the topic of giving true thrill to Povade song was for the first time given to this literary form by Shivaraya. Chhatrapati Shivaji Maharaj was the epoch maker who established self-respect in Marathi and taught us to fight for freedom. This Gatha was composed by poets of that time for the purpose of communicating to the masses. The performance of Shivaji Maharaj created a kind of renaissance in the Marathi people. A sense of nationalism was on the rise. The combined efforts of Duff, Tuntune, Sambal, and Ranshing formed a new class of Maharashtrian poets who sang heroic and passionate poems. In 1642, Agyandas, Yamaji, and Tulshidas were singing the heroic songs of the heroes. Agyandas is noted as being the oldest of these poets. All these poets popularized the genre of song 'Powada'. they composed poems on heroic men like Shivaji, Baji, Tanaji and listened to Marathi Mavals. There is mention that the King who listened to Powade awarded prizes for poetry like 'Savva Shercha Langer', 'Savva Sher Sonyacha Toda', 'Ghoda' or 'Hatti'. This indicates that the word 'Powada' means heroic song, epic song.

Nationalism in Powada

Awareness and awakening have been occurring in Powada both during the pre-independence and post-independence periods. Jyotirao Phule began Navpowada by composing 'Kulwadi Bhushan Chhatrapati Shivaji's Povada' during the pre-independence period. Later Shahir's continued the tradition. As India became independent, Shivaji and the poet-composers of the Shiva period composed and sung intimately about the heroes who contributed and sacrificed their lives in the independence movement. Powade was written and presented in the program in the post-independence period. The response from fans was overwhelming. Due to this, the traditional shahir's shifted their focus and started addressing national, national, political, and social issues with Powada. To prepare activists for the Indian independence movement, Powada worked. Created a sense of



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freedom for the people, inspiring them to fight for freedom. The meaning of this powada relates to the concept of 'Nation'. Thus, his compositions became known as 'Rashtriya Powade'. His programs became national ones. Following independence, a large number of national powades were written. Although Marathi Povada started with an indigenous twist, it later gained wider appeal at the regional, state, national, and international levels. Therefore, by extending these limits, Marathi Povada has reached across the globe. Hence, the Marathi Powada has also narrated international events such as special events, nation's relations, and wars. Therefore, the national povada has also reached international level.

From Shahir Khadilkar's 'Swatantryachi Pahat' we learn about the political journey to independence. After the end of the Peshwas in 1818, India fell into slavery. In order to escape this trap, the revolutionary office was set up in 1908, and freedom fighters like Savarkar and Chafekar began working. After Tilak's death, Mahatma Gandhi initially led the movement. He was followed by Nehru, Sardar Patel, Sarojini Naidu, Subhash Chandra Bose, etc. He declared 'Leave India' after being imprisoned in 1942. India became independent on 15th August 1947 through non-violence. Happy with this incident, Shahir Khadilkar composed powda What's next for freedom? Shahir Khadilkar says,

"Swatantrya anala darala | ata pudhe karaych kay bola | bhandana paar visarun | Deshach karav kalian | ekjutine mothi karun | deshach karav kalian | Addhyan paar jalun | dhyanachi gudhi ubharun | rashtracha zenda rovun | manan karav vandan | asa rashtra balvan kara | ki abhiman vatel sarvala | asa sonyacha divas ugavala ||"11

Throughout this poem, Shahir considers what should be done to make the country prosperous after independence. The message is to unite and eradicate ignorance so that the nation will be strengthened. From this structure comes the suffix genuine nationalism. This is a good example of a national powada.

Additionally, if you think of the International Povada, you can recall Khadilkar's 'Chini Bhasmasur Povada'. In this composition as a result of the Chinese invasion of India in 1962, he calls on the youth to wake up and join the army to prove the war and defend the country.

"Maaybhumichi Ijjat Ghyaya, chini Bhasmasur ha aala | utha utha zunjaraano | palavuni lava drushtala | drusht duratmak kapati ranati krur landaga ha aala | sahyadrichya narasinhaano, zadap ghaluni thar kara | himalayachya khindikhinditun rakshas ha chalun ala | sankat mothe rashtravarati mani dhara ya boalala | eka dilana zunja devuni hakalun lava shatrula ||"12

After India gained its independence, China declared war on border demarcation and the Indian military, unprepared for war, went to war. In such a time, Shahir created this inspiring structure to increase the courage of the army. Shahir reminds us that your ancestors were very powerful and that Chhatrapati Shivaji Maharaj had a mighty history. And Shahir tells us to always be prepared to defeat the enemy.

Conclusion:

Overall, you can see from all these features that Powada is an important literary genre in Marathi literature. From this arose individuals who fought for Swarajya. There was a generation born fighting for independence. A society was formed that nurtured democracy by maintaining its independence. Similarly, Shahirs have carried out the work of social awakening through the Satyashodhak movement, Goa Mukti Sangram, Ambedkar Jalsa, Rashtra Seva Dal, and Kamgarchi Shahiri. While at the same time, Powada has been working create in the minds of the people a deep sense of love, faith, and pride for the nation. This national feeling is emphasized in the powada of Marathi shahir. The national shahir raised awareness in the country. Through his appeal to the mighty he worked to inspire the nation for defense and created the allure of nationalism. Therefore, Powada becomes a national poem.

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Exploring Evaluation Processes and Practices to Understand Technology Integration in Education

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Abstract -

Evaluation of technology integration is considered as an effective method to provide valuable information about the nature and implications of technology integration. In addition to these, Reporting and Documenting of the results one gathers as a result of the Evaluation process also become an imperative tool for recording such implications. Planning, Preparing and Presenting become the three major milestones that this study intends to include while understanding the various facets of Integration and subsequent Evaluation of Technology in Teaching-Learning Pedagogy. Building upon these pillars, this paper attempts to understand the various aspects related to judging the efficacy of Integration of Technology. More concrete efforts are needed in terms of policies and practices to effectively record the impact of Technology in Education. Micro-level studies and even randomized controlled trials, which are carried out at the school level, should be used as a catalyst to improve the chances of converting policies into reforms.

Keywords - Technology Integration, Assessment, Reflective Learning, Evaluation, Information, Communication, Technology, ICT

Introduction - Integration of Technology into the classroom should be utilizing the here and now of the technology that is available to us. It is understandable today to overlook and misuse the plethora of technology available at our disposal much the same way we turn on the radio in our car or switch on our mobile phones. Nevertheless, one interesting fact is that Generic Software or content-free software is ideal for integrating ICT tools and resources as it allows students to utilize computers as tools. They also allow you as a teacher/instructor to challenge students intellectually. Moreover, students gain complete control along with the added bonus of decision making, thus promoting the development of High Order Thinking Skills. These attributes and capabilities are preferred in the 21st century. In addition to High Order Thinking skills, one should add that along with learning new ICT modalities, students will also need to realise the process of deciding the appropriateness of using a computer for completing a given task.

Review of Literature

The primary motivation for teacher training institutes is that Teacher educators are often termed as the gatekeepers for the future generation of teachers to usher in a requisite, desired, and planned change in the teacher-student learning paradigm (Tondeur and others, 2019).

Technology integration, in the current scenario, is highly dependent on the willingness and capability of the teachers to explore a possible and intricate relationship between pedagogy and the intended use of technology. Technology integration must therefore be considered along the lines of developing successful learning objectives, selecting appropriate methods of instruction, reporting, and documenting through a system of feedback and follow-up activities (Okokjie, 2006).

In certain studies, it was found to be evident that technology integration assisted in increased proficiency of Integration of Technology within the instructional methods and also the integration of technology and faculty education (Vannatta, 2000).

Successfully integrating any technology in the education system must have certain prerequisites like policy planning, discussion and implementation clubbed with dynamics involved with such integration (Jhuree, 2005).

It is however needed to be noted that even though technology may enhance the learning process, learning does not necessarily take place simply because technology is used (Davies, 2008). However, in some studies, it was noted that Evaluation of technology integration takes a back seat when there is a sustained resistance from the part of the teachers which is mostly based on perceived analytical and effective risks and the influence they have on decisions to apply technology integration in their teaching praxis (Howard, 2013). For our purposes of Evaluation, we take into consideration the analytical evaluation, which is more of a risk assessment while the evaluation of effect pertains to the emotional response of the perceived risk.

In another study faculty and student, the perception was taken into account when it came to technology integration. The study took into consideration faculty comfort levels with the use of technology, the perceptions they held with respect to the frequency of use of technology integration, and perceptions of students with respect to frequency of use (Savery, 2002).

Meaning of Evaluation of Technology Integration?

Evaluation is a more extensive term that refers to the entirety of the strategies used to discover what occurs because of utilizing a particular methodology or practice. Evaluation is the systematic study of the value or merit of some article. It is the deliberate procurement and assessment of data to give valuable input about some article.

Technology innovation in Education has been affirmed to have extraordinary possibilities that have a lasting impact on instructing and learning. It inspires and draws in students to learn and to expand on their abilities, and assists with simulating the work environment that one encounters along these lines thus training students for facing real-world challenges. This

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revolutionizes the school environment, facilitates teaching by providing resourceful teaching aids for teachers, and connects the school to the outside world.

Developmentally appropriate technology in school education needs to carefully be chosen in alignment with the 8 principles given by DATEC (Developmentally Appropriate Technology in Early Childhood) project . These are-

- 1. Applications should be Educational
- 2. Technology must support and encourage collaboration
- 3. Whether or not the technology can be integrated into the curriculum and play
- 4. Whether or not the technology gives the student complete control. This way one may assess the best way to develop a students ICT capability
- 5. Whether or not the application is transparent and intuitive
- Whether or not the application consists of violence or stereotypes. If so, it must be discarded and cannot be integrated.
- 7. The health and safety issues that are a part and parcel of the ICT use
- 8. Whether or not it allows for the educational involvement of parents/guardians

Parameters involved for Evaluating Technology Integration

In terms of research approaches Evaluation can come to mean the acquiring & assessing of vital information to provide for useful feedback about an object (Trochim, 2006). Evaluating involves the meticulous process of searching through and selecting the items of utmost relevance to the involved stakeholders.

To use technology impact fully and support student-centered education, educators should have relevant pedagogy related, technologically sustainable, and content-dependent knowledge, and should also be able to comprehend the interaction between these various levels of knowledge.

Evaluation of Technology Integration involves the following process:

- Identification of technology that is relevant to the needs in terms of subject, content, age group and method,
- Following standardized tests and measures for Evaluation, and
- Selecting the appropriate technology to suit the requirement of learners and teachers.

The infographic below elaborates on the example that parameter entails.



Figure 1. Parameters for Evaluation of Technology Integration

Types of Evaluation Techniques

Development programs need to demonstrate that they have had a long-lasting and positive effect. Various kinds of



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evaluation practices are priceless in demonstrating the advantages of a program to the different partners.

Earlier, estimating development programs included per-and-paper reviews and numerous individuals. This was wasteful, costly and tedious, and on occasion it brought about erroneous information. The outcomes would regularly just be accessible after months.

Today, on account of enhancements in innovation, Monitoring and Evaluation (M&E) has got highly advanced. This has expanded proficiency and exactness while diminishing costs, making it simpler to direct various sorts of assessment at various phases of a program. Observing and Evaluation faculty would now be able to convey the viability of their program to accomplices, support team, program officials, and the network at large.

Picking the best kinds of assessment relies upon the stage at which your development program is. Every assessment can help you settle on better choices by giving you the perfect sort of information at the perfect time.

Table 1. Types of Evaluation classified on the basis of Stages of Project

Stage of Project	Purpose	Types of Evaluation
Conceptualization Phase	Targeting waste and recognize potential areas of reflections	-Formative Evaluation
Implementation Phase	Enhances the project, quantifies its ability to meet set goals	- Process Evaluation -Outcome Evaluation -Economic Evaluation
Project Closure Phase	Underlines the potential areas of change for subsequent projects.	-Impact Evaluation -Summative Evaluation -Goals-Based Evaluation

Various Evaluation Tools and Techniques

One of the several challenges educational decision makers face is assessing the integration of technology in the classroom accurately. While there is no doubt with respect to technology integration and its subsequent impact, they want to know to what degree it is happening and whether it is proving to be effective in teaching both technical and subject content? Some researchers and institutions studied to assess and evaluate the integration of technology at various levels of educational environments. Tools and frameworks based on these studies are developed to meet educational stakeholders assessment requirements. Some of these tools are examined below.

1. Level of Technology Implementation (LoTi)

What- The LoTi framework and Questionnaire was created in 1995 to measure and gauge the levels of technology implementation to assist teachers in restructuring the curriculum needs and ease in the inclusion of concept based instruction.

Why-The rationale behind the LoTi framework is that teachers may progress from low levels of technology integration, which are more or less teacher centered, to higher levels of usage, which are primarily learner centered. Based in part on the Concerns-Based Adoption Model (CBAM) and research results from Apple Classrooms of Tomorrow (ACOT) research the LoTi instrument measures eight specific stages of technology implementation namely Being Aware, Exploring, Infusing, Integrating, Periodic Re-Integrating, Expanding, and Refining.

How- In the LoTi framework, 7 implementation levels are included where teachers may showcase, propose and ideate, ranging from Non-use (Level 0) to Refinement (Level 6). As a teacher climbs up from one level to the another, a number of changes to the instructional curriculum are witnessed.

When- In order to cover all the related stakeholders within the ambit of the survey, there are six separate surveys for the following personnel based on the different contexts they all come from. (a) higher education teaching personnel; (b) school administration; (c) media persons; (d) personnel specialising in instructional methodologies; (e) in-service teachers; and (f) pre-service teachers.

2. NETC OPTIC

What- The Northwest Educational Technology Consortium(NETC) developed the Observation Protocol for Technology Integration in the Classroom (OPTIC) for assessing the degree of technology integration in classroom and whole school (Holznogel, 2005; NETC, 2009).

Why- OPTIC was not designed for or validated in teacher evaluation (NETC, 2009). This protocol is systematically designed to assist the evaluation of classrooms or technology labs to collect data on the various ways curricular integration of technology is taking place.

How- A rubric format is used in part of the protocol. Rubric has two parts and two other versions (continuum and scale versions). Firstly, named as Setting and Circumstances, general information about the observations like Grade Level of Students observed, Activity type, Curricular area addressed, Primary nature of student activity, Technologies in use, Software being used by class during the such an observation, objectives and targets of student addressed for that time period are accumulated and consolidated. In the second part, the observer grades the involvement level of the students in classroom activities and use of technology for instructional purposes. Observers may select one of different versions (rubric, continuum and scale) of OPTIC tools based on their convenience.

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Where- Protocol, Rubric and other supporting documents are available on the NETC's official website.

3. SETDA PETI

What-American State Educational Technology Directors Association (SETDA) instituted by the Metiri Group in 2002 to develop Profiling Educational Technology Integration (PETI). PETI consists of a framework and plethora of tools designed to assist educational stakeholders in profiling their progress with technology over time.

Why- The tools are interdependent, meant to work in concert with one another. Using them any other way completely avoids the confidence in the accuracy and reliability of the techniques and tools being used.

How- The PETI includes, three different surveys (for teacher, school administrator and district administrator), site visitation protocols (for classroom observations, focus groups with students and teachers etc.), a report structure, and various sampling methods for significantly lowering the data collection load on schools.

Where- The instruments, protocols and other tools are available at no cost with some rules and can be accessed via SETDA's website.

4. TAGLIT

What- Taking A Good Look at Instructional Technology (TAGLIT) is a set-up of online appraisal devices intended to give instructive organizations successful information to assess innovation use and coordination in the educating and learning climate.

Why-TAGLIT assists school heads and other school leaders collect, consolidate, and report valuable information about how technology is effectively being used for teaching and learning in their respective schools. (Moersch, 2002).

How- TAGLIT incorporates six distinctive poll adaptations (elementary educator, student, executive administrator, Middle and High School teacher, and general administrator) and one summative report. School Leader poll gathers data about technology arranging, strategies, financial planning, assets, specialized and instructional support, professional development, and network involvement. Teacher survey assembles data about innovation abilities, classroom coordination, involvement of students, resources, specialized and instructional help, professional development, and school technology blueprint. Student survey gathers data about student technological literacy level with respect to assets, abilities, information, use, and application in the classroom.

Where- All tests are provisioned online on TAGLIT's official website for schools and various districts.

Issues persisting in Evaluating Technology Impact in Teaching and Learning

Assessing innovation in instructing and learning requires one to be aware of an expansive scope of issues which are frequently subverted when ICT impact researchers are being completed.

Basic to evaluating ICT impact in teaching and learning are issues as mentioned below:

- the environment wherein instructing and learning will happen,
- b) the status of innovation incorporation in the learning environment,
- c) the students' and educators' technology capabilities and proficiencies,
- d) their attitude towards innovation,
- e) access to innovation and training facilities intended for teachers' portrayal of teaching methodologies, and
- f) students' learning pace and method.

Researchers should zero in on each of these issues to decide whether the adoption of technology in various teaching and learning processes produces the desired impact on what elements block the achievement of expected results (Adedokun-Shittu & Shittu, 2011; Newby, Stepich, Lehman, Russell, & Leftwich, 2011).

Working around the issues to Evaluate Teaching and Learning with ICT

Proceeding in the lines of evaluation in training and education it is imperative that when utilizing innovation in a classroom setup you invest time & energy reflecting upon your educating and learning with ICT. So here we demonstrate how to assess learning exercises after innovation use in classroom practice.

As indicated by QCAA (2020), educator reflection is basic as it urges instructors to:

- a) Consistently assess their ways to deal with instructing and learning.
- Appreciate and understand more about the positive effects of effective successful teaching methods on pupil's learning
- c) Become more mindful of the significance of excellent cooperation, including vital intercession and meaningful discussions to augment learning
- d) Use action research process and praxis for example drawing on elective instructing procedures to assist pupil with realizing when recognizable techniques fall short of reaching the desired goals
- e) Co-develop learning with youngsters and different accomplices, so it is receptive to the pupil's family and network It is significant that instructors do ponder over practices and find a way to improve them. These instructing procedures for the classroom can have far-reaching effects in guaranteeing that desired outcomes are achieved by students.

As educators, one ought to urge students to reflect fundamentally and assess their own work with ICT, so too should learners.

It must involve ascertaining which parts of the subject plan went well and which ones require a reassessment. From here, they can make adjustments and plan for better plans accordingly.

For this to happen, they need to look further into the practices and question the overall implications that may arise for what valid reason a specific methodology was a triumph or disappointment.

Conclusion

Learning centred evaluation is a tedious and time taking process. While learning is a complex human activity, learning



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with Information Communication Technology is even more complex and uncertain. This paper assessed the meaning of Evaluation and attempted to understand and differentiate between three interlinked but varied terms of Evaluation, Assessment and Measurement. The paper further describes the various parameters involved for Evaluating Technology Integration that range from target Audience to Content, Presentations and even Administrative Considerations among others. Once knowing the parameters involved, it becomes imperative to understand the types of Evaluation ranging from Formative, processual, Outcome based to Economic, Impact based, Summative and Goal-based Evaluation. There are various tools and techniques involved in conducting an Evaluation process. Most of them centre around a survey based methodology, some even employing a likert scale to collect feedback. We also took into consideration the issues involved in Evaluating Technology Integration in Teaching and Learning. Taking these into account, we learned as to how effectively we may undertake an Evaluation Process. However, taking into account the relationship between what we learn and what we intend to learn using ICT, should make us more adept at understanding the machine mediated learning activity.

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Diasporic Perspectives in Bye - Bye Blackbird by Anita Desai

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Abstract -

Literature is the mirror of society. It is an expression of human feeling and emotions. The aim of the present paper is to describe and evaluates the diaspora literature or diaspora living abroad. Diaspora literature encompasses stories about those who disperse or scatter away from their home land. These novel follow characters who try to assimilate life in a new country who for several reasons leave home. Diaspora literature projected the experiences of the emigrants. Actually, diaspora mainly related with emigration and settlement of the people beyond the boundaries of their homeland because of sociao, economic and political reason. Diaspora may be explained as "The voluntary or forcible movement of people from their homeland into new one". A diaspora text may be examined in terms of location, dislocation and relocation. In order to explain the meaning of diaspora Anita Desai's novel Bye-Bye Blackbird is evaluated. The theme of this novel is related to the immigration of Indian to England, the clashes between ideology, tradition and culture of two countries. Central character of the novel migrate to England for their better future face the problem of settlement. Emigrants feelings, emotions, moral values, cultural heritage, customs have no value. Adit, Dev and Sarah this tangle torn between two nations culture that is Indian and British. All the character in the novel go throw the problem of racism, crisis of personal identity, nationalism, isolation and loneliness. All this factor diaspora communities are facing today living all over the world.

Today diasporic writing has been receiving academic recognition throughout the globe. The term diaspora refers to scattering or dispersion. When it refers to human being it implies the scattered populations with a common origin in small geographic area. It also refer to the movement of the population from its original homeland. In other words diaspora literary means dispersion of people from their native land across the globe where they spread or sow the seed of their culture means this dispersion spread hybridizes people and their culture.

In simple words we can say that diaspora literature is the work or production of such a writer who are away from their homelands. Their sense of yearning for their homeland, their attachment to its traditions, religions and languages give birth to diasporic literature. This literature concerned with individual or community's attachment to the customs and traditions of their homeland because it is inbornly rooted in every individual blood. That is why they fell on various ground which is finally reflected in literature. Diasporic fiction presents alination, loneliness, homelessness, existential rootlessness, nostalgia, crisis of identity. It is also related to amalgamation of cultures. Here lies clash between past and present, between two generation, concern for root and rootlessness, native land and new land, singular and multicultural. Such trends always occur in all diasporic literature. On this ground when we tried to explain Indian diaspora, we can say that Indian diaspora is one of the largest diaspora of modern time. It dates back several centuries. In modern time there is huge flow of immigrants from India to U.S.A. started after enactment of immigration act in 1935

After this act large number of the people from India went to U.S.A. in search of job and settled there. But they fell to adjust themselves to the life of this new land. No doubt they achieved financial security but at the same time sense of alienation become very deep in their mind. They struggled to adjust and to accept with new cultural scenario. This cross cultural experience in turn increase number of creative writing by Indian American.

Indian diasporic writing can be divided into two parts: -First generation writing and second-generation writing. Nostalgia is the important part of first generation writing while second generation writing focus on the cultural and inner psychological experiences of Indian immigrants.

Salman Rushdie, Amitav Ghosh, V.S. Naipual, Bharati Mukharjee, Jhumpa Lahiri, Anita Desai, Chitra Devika runi, Meena Sayal secured a significant place in this fiction. When we talk about Anita Desai as a diasporic writer, she has mix parentage as her mother belong to German Christian and Father is Bengali Indian. This complex background has given her suitability to become a diaspora literature writer. When we go through the novel of Anita Desai we come to know that Anita Desai very sensitive in portraying sensibility of Diaspora in every character of her fiction Bye-Bye Blackbird and Baumgartner's Bombay. In her novel she presented problem and plight of alienated person who is caught in the crises of changing new society.

The novel Bye-Bye Blackbird by Anita Desai is based on her real experience of living with Indian immigrants in London. In this novel authentic human relationship is presented by writer where we come in contact with cultural encounter. Novelist maintained the tension between local and immigrant Blackbird regarding the issue of alienation and accommodation the immigrant confronted. The theme of the novel is related with immigration of Indian to England and clashes between ideas, tradition and cultures of two nation, two culture. Bye - Bye Blackbird deals with the problem of acculturation. It is the story of an Indian Adit Sen, his English wife, Sarah and Dev his Bengali friend from India. Story move around this tringle. Adit Sen, a young man from inida lives in England with Sarah his English wife and settled there. He modified himself with British

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way of life. Dev newly arrives from India in search of employment. He went to England to take admission in London school of Economics. Adit tries to prove himself equal to British people so he think himself superior to new Indian immigrants like Dev. In the beginning of the novel Adit is critical of everything Indian. He leaves India and settled in England because of his romantic attraction for England which later in the novel change into repulsion. He tries to persuade Dev to accept English way of life. But Dev is critical of England and tries to stick to Indian culture. But Adit is completely alienated from Indian culture. Dev feels lonely in London. Dev is unhappy with the treatment given to immigrants in England. Immigrants specially Asian are look down as the 'other' in England. He does not like English habit of to remain in the houses keeping all doors and windows shut. He longs for to go back to India and feels stranger in England. Sarah represent in a sense, all immigrants wives who have their own problem of adjustment Sarah had romantic image of India before her marriage with Adit. But very soon her romantic image gets broken into pieces because she incurs the anger of white society by marrying a Asian as she had broken the social code of England so she is always subject of taunts and comments not only her colleagues but even of pupils of her school where she work as a clerk. Adit's romantic love for England is matched by the romanticism of Sarah's imagination about India. Her predicament becomes more acute when she had face identity crisis. She always avoids questions regarding her husband and family life. Her experiences are tormenting and she feels an 'outsider' in the company of her country men. She has to leave with the mannerism of her husband and to learn Indian way of working. She torn between two culture. In the course of the novel we see that Adit's attraction for England does not change the sense of his own cultural identity. He secretly long for Indian food, music and friends. Both are suffering. Sarah's problem is rooted in her cross-cultural marriage. Sarah is overwhelmed by the change because she can not fully involved herself in her husband's culture, nor can she adopts herself to her own society. Her frustration is the result of 'cultural shock' which Asian immigrants experience in England. Both of them maintain their cultural identities. Sarah understand that she has to adjust to the situation. When Adit tells her his longing to return back to his motherland with her, she becomes ready. She is the victim of her own decisions. She can not leave her native English culture and would not accept the adopted Indian culture.

Adit, Dev & Sarah these tringles visit to Sarah's parents nostalgic because Adit realizes that his mother in law treats him differently. This make him very unhappy so there is the development of the feeling of hatred for England in his mind. Thus, we see Diaspora communities faces frustration. There is the question of settlement in their life. The predicament of this tringle proves the reality that we can not associate ourselves with any two lands.

When we read complete novel we come to know that there is a sense of superiority is alive among the British people in post-colonial era also. The marriage of Sarah with an Indian is not accepted in their society. There is always feeling of insecurity in Sarah's mind as a result she suffer from identity crisis and from a inferiority complex being married with an Indian. At the same time Adit her husband possesses his racial inferiority. Adit loved England because it is the land of opportunity so he tries to mould the mind of Dev tried to develop optimistic attitude towards England in Dev's mind. But Dev realizes the uselessness living in England and left the country. But Adit only collect the memory of nation. Memories of Indian festival only with him. But the news of war between India and Pakistan make him uneasy, his love for India came out. He wanted to join Indian army to fight against Pakistan. All these character of Anita Desai face the problem of personal identity, nationalism, hybridity. These factors are real to Diaspora communities living all over the world.

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New Trends in the works of Pankaj Mishra

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Abstract -

Literature is a witness of sea changes as per the situation. In the pandemic situation and after covid- 19 the biggest publications are suffer by lack of publication. This situation makes us to rethink about the great trends which are going to peeped out again. Although afterindependence the great change in the form of colonial and post Colonel literature which is portraits of freedom fight and revolution came with few trends but now a days, literature is appeared in new forms, with new trends. These trends depict the contemporary Indian society.

The attitude of modern 21st century readers have been completely changed in this modern age. This modernity brings the revolution in internet services, easily availability of electronic media made the tremendous changes in the literature and lifestyle of people. The reader feels the comfort and easiness in their life due to the multimedia. They do not have time to read and write the literature. Instead of wasting their time on a long novel they like to the short stories and poetry in short of YouTube and other electronic media. The modern technology changing their psychology regarding literature, education, hard work and presentation. Everybody hopes for quick and easy methods to get answer about the problems. However, students losing their interest in classes because they get the solution by browsing the net and YouTube. This psychology creating the problems in the society which is presented by Pankaj Mishra in his works with new trends which brings a new approach to the Indian English literature.

Keywords - modernity, demolition, culture, loneliness, new trends and diaspora

Introduction - Indian literature is witnessing the various outstanding writers from different parts of country. They delineate the various crisis like economic, political and complications in urban and rural life. Many writers dealt with preindependence subjects like nationalism, patriotism, martyrdom and Indian freedom struggle. Khushwant Singh's Train to Pakistanand Rabindranath Tagore's poetry are the best examples of patriotic form.

Today's readers are mesmerized with the new trains which comes with post collinear writers like Anita Desai, Anita Nair, Manju Kapoor Arvind Adiga, Chetan Bhagat and Pankaj Mishra.

These writers delineate the situations of contemporary Indian society which is possess with poverty, literacy, illiteracy, corruption, Naxalism, social Chaos, cultural clashes, feminism and islamophobia. Among these writers Pankaj Mishra (1969) seems more attached to the new trends. He is a writer who portrays ancient and modern India with different views. His worksincluding are Butter Chicken in Ludhiana(1995), only a novel The Romantics (1999), Age of Anger(2017) and AnEnd to suffering: The Buddha in the World(2004) and his most famous book chapter is Introduction to Kashmir the case for freedom(2011) are the best example which are attached to the new trends in English literature. The new trends that emerge in Pankaj Mishra's works are following.

1. Cultural study: -

Cultural Study is a new trend in Indian English Literature where the works focuses on different culture and its values. It also shows how culture works for people. Being the Indian English writer Pankaj Mishra portrays the Indian culture in his works. His presentation shows his intention about the culture. His The Romantics (1999) and Butter Chicken in Ludhiana (1995) are covering the cultural study as a new trend. Through these works he presents the real picture of Indian cultural society. The Romantic is a portrait of Hindu Brahmin culture through the protagonist Samar. The setting of the novel is in the Banaras City. The city is an exotic site for mythology and spirituality. "Banaras was centrally situated astride the Ganges and at the hub of an ancient sub-continental road network, within reach of western, central, and eastern India" (Vinain.p). It means the city has its own importance that indicates the Hinduism which is a large culture in India. As per the opinion of San Andrea Freitag,

"More importantly, Banaras was perceived as the center of the world, the place of creation, the holiestspot-on earth, and the ultimate destination for all Hindus. Endowed with such authoritative religious sanction, it easily surpassed other centers in importance Centers in importance (232).

Through the setting of the novel Pankaj Mishra wants to show the influence of Hindu mythology and culture in his novel. The influence of Indian culture on each character including western people of these novel indicates how cultural study seems important now a days.

In Butter chicken in Ludhiana,he depicts the cultural people who become departed from their cultural values. The convent education makes them to think like a hypocritic person of the society who wanted to show the hypocrisy of his knowledge and status.

2. Religion/ Religious literature: -

Nowadays, readers are following the religious view and seems possess by different religion thoughts. The enrichment



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of particular religion in the society started to show the domination of religion to other religion. Pankaj Mishra who is considered as the master to depict the religion touch in his works. He presents the Hindu religion and its rituals in his only novel. He also shows how people come in Banaras. They worship the God Shiva and Ganga River, perform the funerals, garland, dead body, ashes of death bodyon Ghats are shows the religious picture. In this regards he narrates the memory of Samar about Banaras City that,

The thick river mists through which we rowed onecold early morning to scatter my mother's ashes; the priest with the tonsuredhead reciting Sanskrit mantras in a booming voice and waving incense sticksover the rose petals bobbing on the ash-smeared water; the temple bells and conches ringing out in unison from the great mass of the city(TR 8)

This religious literature fulfils the inner desire of Dharm as per Indian culture and attracts the great mob of people to such kinds of novel.

3. Cultural clash: -

Culture is the mirror of society. This culture never allows other culture to encroach its values and affects the life of indigenous. But after the colonialism those countries became the independent are suffering from the cultural problem. Thus, Cultural clash seems one of the recent trends where the both cultures come front each other and started to dominates each. In this clash the weak culture lost its all traditional and cultural identity and their people become hybrid.

Pankaj Mishra wants to save an Indian culture as it remains as little pristine as it is. After independence India and the Indian culture notice more affected by Western cultural values and its thoughts. The Romantic is his best example of cultural classes where Indian culture clashes with the Western a culture value. These clashes are represented in the appearance of the protagonist Samar who presents Indian Hindu culture and Miss Waste as a representative of colonial culture. The western culture is presented as bondless where only material things got importance instead of emotions. That's the result Catherine return to her home in France and Samar suffers due to her love. Due to the marry making of western culture sense, the Indian culture could not remain pure and lost its identity in the form of Catherine. Pankaj Mishra points out the views of both culture where the western culture seems free, practical and more materialistic. This clash drags the people into the cogmire of loneliness and inferiority of their existence which portrays in Samar who lost everything and could not complete his dream at the end of The Romantics.

Mishra shows the colonial views in the old city of Banaras which indicates that still the Indian culture has a great influence of western culture. This influence indicates the cultural clashes. In this regards the research scholar Maya Vinai writes in her research paper "Negotiating Faith and Culture:De-Orientalisinghegemonic representations of the ancient city of Banaras" that,

Except for a few changes like modern gadgets introduced into the markets, change in the consumption pattern of the middleclass and their materialistic desires, Mishra's Banaras reinforces the colonial view of a certain India which has remain stuck in antiquity. It resonated the acceptance of textual view of thesociety in antiquity by Orientalist and also led to a picture of Indian society as being static, timeless and spaceless. (Bernard.S. Cohn qtd from Vinay Lal, 2).

4. Diasporaand Pankaj Mishra: -

Diasporic literature is the new trend in modern Indian English literature. The diasporicliterature implicates an idea of homeland. The journey of few people or particular group of people are displaced to new land where they become more nostalgic about their homeland. It is like a displacement from one country to new place due to the various reasons where they remember their country, their culture, their people, their love and affection. Diasporic literature mostly a memoir of a particular person's life from one place to another place where he seems lonely and alienated. This translated people are considered as a minority community who are living in an exile due to some reasons like war and migration.

Pankaj Mishra portrait the same trends with The Romantics. Samarcomes back to Banaras after several years and find out no scared the experience with Catherine. He seems alone in Dharamshala where he losses himself in the memory of Banaras and Catherine. The result of his thinking is in the long tracking that he goes always. Another example of diaspora thinking or element in the same novel that is Anand. Anand leaves India with Catherine. He tells the table player that "When I come back, I want to openup a school for sitar players, free training, free meals, everything" (TR13). This line shows her inner desire to come back to his motherland and want to live there. In the hope of return he goes there.

Pankaj Mishra Puts another example of diaspora culture that is Miss Waste who appeared in the memory as a mysterious lady to Samar. He observes her as "I hada sudden oppressive sense of the density of memories, wounds, ambitions, regrets, seething inside the body leaning against mine" (TR 27).

It means the diasporic literature is a literature of intensive memoir.

5. Nonfictionnovel: -

Due to the awareness of readers they want to read the real stories about the real incidents. They seem bore about the imaginary stories. They want to read something new and real where readers are finding out more enthusiastic. This type of literature indicates the social chaos and few crucial political issues that brings the problems in social life. The non-fiction has a touch of realism with the social chaos. Age of Anger(2017) is one of the best nonfictions by Pankaj Mishra. He points out the threat to social life from this work. He shows that it is a difficult to in escapable in our closed knit world from the wave of paranoids hatreds. Here he depicts political situation which brings the tremendous problems in the form of ISIS and American shooters.

Pankaj Mishra puts the burning issues of the society front of the readers which arises due to the political thirst. This novel also touches the new trends that is secularism and terrorism. Secularism indicates how the Indian society changing its mood and walking to the secularism. The reason behind it is more and highly educated people. Terrorism seems the result of secularism which disturbs the social life. Pankaj Mishra delineates this all in the Age of Anger.



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6. Political novels with Racism:

After 20 years Mishra published his second novel Run and Hidewhich is based on the social mobility. He portrays the life of Arun, his hard work and the political crisis with the other minorities which makes us to think about the political problems. In the words of Jahnavi Sen,

Run and Hide sets out to describe the crises this India can create for an individual, particularly one able to climb the elusive ladder of social mobility, and that too on his own terms. But in latching on to this one man's very personal, even individualistic, angst, the light that the book could have shone on contemporary society hits a black wall inside the narrator's head. (n.p.)

The problems of racism can't give a chance to the man to move ahead. The great example of that is Aliya, Aseem, Virendra and Arun who became the victim of racism and political crisis.

Conclusion

Pankaj Mishra is one of the Indian English writers who covers the all-new emerging trends in Indian literature. He gives the new heights to the literature. The world literature getting expanded by the above mention trends including the new words, concepts, symbols and the cultural points. This expansion seemsunpredictable which mesmerizing the new readers in the world of internet. The writing styles of the Indian English writers indicates that English literature is not the soul franchise of colonial and European land only. This new trend mostly comes to know as the outstanding literature where the writers like Pankaj Mishra covers the autobiography, corruption, Islamic phobia, education, lack of communication, psychological dilemma and all modern social problems.

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Correlation Between Mean Body Mass Index in The Population and Prevalence of Obesity in The Adult Male Population (20-54 Years) Living in Indian Sates: Empirical Evidence for a Population Based Approach of Obesity

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Introduction - Obesity has become a major public health problem both in developed and developing countries (1). Overweight and obesity are the fifth leading risk for global deaths (2). At least 2.8 million adults die each year as a result of being overweight and obese (3). Currently, a simple anthropometric measurement, the body mass index (BMI), is widely used to diagnose obesity. However, BMI can be affected by many factors such as race and socioeconomic factors, which makes formulating a unified diagnostic criterion difficult.

Many research studies are carried out on evaluation of under nutrition among Indian men (4) and women (5,6). Some research studies are also carried out on evaluation of overweight and obesity among Indian women (7,8) and among 36 low to medium countries (9).

Patil and Shinde (2014) studied zonal and state-wise prevalence and risk factors of undernutrition among Indian men in the age-group of 15 to 54 years based on sampled data of 74,369 respondents from the 3rd National Family Health Survey (NFHS-3). Patil and Shinde reported that among Indian men,overall 28.6% Indian men are classified as underweight (BMI< 18.5 kg/m2) and 52.5% younger (15-19 years) are underweight. Highest prevalence of underweight men in Indian states is observed in Tripura followed by Rajasthan, Chhattisgarh and Gujarat. Patil and Shinde concluded that the distribution of underweight in India remains segregated by socio-economic status.

Chockalingam et al (2011) analyzed a sample of 118,734 women from India based on NFHS-3, with multiple categories on BMI (underweight, normal weight, overweight, obese). Chockalingam et al (2011) reported that the female respondents, who are married, employed and having higher level of education had a lower prevalence of undernutrition. Sengupta and Syamala (2012) studied the changing face of malnutrition in India by analyzing the 2nd National Family Health Survey (NFHS-2) and NFHS-3 data to assess the levels and trends of malnutrition among women (both underweight as well as overweight) in India and its states. Sengupta and Syamala reported that underweight (BMI< 18.5 kg/m2) in India was a problem that cuts across all social and economic categories; where as being overweight or obese was a problem of the wealthier, urban women. Sengupta et al. (2014) studied the gravity of the double burden of malnutrition among 21 states of India, through a comparative analysis of traditional and Asian population-specific BMI categorizations for overweight (BMI ranging between 23 to 27.4 kg/m2) and obesity (BMI? 27.5 kg/m2) among women by analyzing the NFHS-2 and NFHS-3 data. Sengupta et al. reported that with Asian population-specific cutoffs, 11 states can be classified as double burden states; however, following traditional categorization, only 4 states face such dual pressure.

Mamun and Finlay (2015) studied the shift from undernutrition (BMI<18.5) towards over nutrition (BMI? 25) among women in the age-group 20-49 for 36 low to medium countries within 95 surveys conducted between 1991 and 2008 and investigated the potential determinants of shift using the nationally representative survey data. Mamun and Finlay reported that the prevalence of underweight significantly declined for one in two countries and the prevalence of overweight increased significantly among 80% of the 36 countries.

In this paper, we have studied the association between mean BMI and point prevalence rates of obesity in the adult population among men living in 29 Indian states based on sampled data from NFHS-3.

Methods

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Data for the present study is taken from NFHS-3. NFHS-3 covers a sample representative of 99% of the Indian population. NFHS-3 included 124,385 women aged 15 to 49 years and 74,369 men aged 15 to 54 years from 29 Indian states. The principal objective of NFHS-3 was to provide state and national estimates of fertility, family planning practices, infant and child mortality, maternal and child health and utilization of health services by mothers and children. The survey also includes information on the quality of health and family welfare services and provides indicators of the status of women, women's reproductive health and domestic violence. The survey provides state-level estimates of demographic and health parameters as well as data on various socioeconomic and programme dimensions, which are critical for bringing about the desired change in demographic and health parameters. The NFHS-3 was conducted under the scientific and administrative supervision of the International Institute for Population Sciences (IIPS), Mumbai, India. The institute conducted an independent ethics review of the 2005-06 NFHS protocol. Data collection procedures were also monitored and approved by the ORC Macro institutional review board (IIPS and Macro International 2007).

Random sampling technique was adopted for NFHS-3. The urban and rural samples with each state were drawn separately and were allocated proportionally to the size of state's urban and rural populations. In each state, the rural sample was selected in two stages, with the selection of villages at the first stage, followed by the random selection of households. In urban areas, a three stage procedure was followed. In the first stage, wards were selected with PPS sampling, followed by random selection of census enumeration blocks (CEB) and households (IIPS and Macro International 2007). The survey interviewed men and women of age groups 15 to 54 and 15 to 49 respectively and interviews were conducted in one of the

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18 Indian languages along with English langue in respondents' homes with an 84.9% in men.

This study followed the WHO expert committee (2004) recommendation and modified guidelines given by the Health Ministry of India jointly with Indian Council of Medical Research for the new set of BMI classification for assessing overweight and obesity among the Asian population where people with a BMI ranging between 23 to 24.99 kg/m2 are classified as overweight and those with a BMI of more than or equal to 25 kg/m2 are classified as obese. In the present analysis we consider the adult men in the age group 20-54 and adult women in the age group 20-49 years.

Results

Prevalence of obesity in Indian Adults

Using NFHS-3 data, we have estimated prevalence of obesity (BMI? 23) among Indian adults for the age-groups 20-39 and 40-54 in men. Results are presented in Table 1.

Figure 1 shows the BMI distributions of adult populations living in the five states with the lowest mean BMI and the five with the highest mean BMI values for men.

Table 1 Mean BMI and prevalence of obesity in adult men (20-54 years) in Indian states in adult populations

	Mean BMI			Mean BMI			Prevalence of Obesity			
State	(all men	ll men)		(Non-obese)			(in %)(all men)		
State	20-	40-	20-	20-	40-	20-	20-39	40-54	20-54	
	39	54	54	39	54	54	20-37	40-34	20-34	
Jammu and	20.69	21.21	20.84				19.31	26.15	21.25	
Kashmir				19.61	19.58	19.62				
Himachal Pradesh	20.85	21.66	21.13	19.64	19.53	19.69	20.43	33.25	24.92	
Punjab	22.30	23.66	22.73	19.69	20.19	19.69	38.17	50.31	41.97	
Uttaranchal	20.97	21.14	21.02	19.59	19.40	19.59	25.05	27.72	25.86	
Haryana	20.84	21.55	21.05	19.39	19.31	19.38	22.99	33.21	26.01	
Delhi	22.35	23.77	22.72	20.27	20.42	20.14	38.85	56.30	43.38	
Rajasthan	20.01	20.67	20.22	19.09	19.12	19.11	14.64	22.97	17.28	
Uttar Pradesh	20.15	20.58	20.28	19.11	18.98	19.22	15.62	21.60	17.36	
Bihar	20.23	20.44	20.30	19.38	19.35	19.43	13.69	17.22	14.86	
Sikkim	21.84	23.07	22.18	20.44	20.62	20.49	29.79	49.52	35.22	
Arunachal Pradesh	21.15	21.50	21.25	20.17	19.99	20.16	21.74	30.04	24.15	
Nagaland	20.99	21.61	21.17	20.24	20.29	20.22	16.77	26.56	19.66	
Manipur	21.13	21.83	21.34	20.06	20.07	20.06	20.42	31.60	23.87	
Mizoram	21.63	22.37	21.84	20.41	20.38	20.40	27.20	38.41	30.40	
Tripura	19.80	20.02	19.87	18.87	19.20	18.87	15.35	14.86	15.18	
Meghalaya	21.43	22.09	21.61	20.60	20.34	20.58	21.93	36.64	25.92	
Assam	19.90	20.21	19.99	19.15	19.23	19.15	12.11	16.05	13.34	
West Bengal	20.15	20.52	20.28	19.26	19.20	19.47	15.81	22.16	17.98	
Jharkhand	19.86	20.39	20.03	19.09	19.21	19.16	12.35	19.37	14.58	
Orissa	19.93	20.54	20.13	19.19	19.19	19.23	12.27	18.61	14.38	
Chhattisgarh	19.83	20.39	20.00	19.09	19.13	19.13	11.77	19.11	14.04	
Madhya Pradesh	19.60	20.37	19.84	19.07	19.12	19.29	9.03	19.52	12.32	
Gujarat	20.36	21.95	20.89	18.96	19.31	18.95	20.11	36.27	25.46	
Maharashtra	20.70	21.86	21.04	19.25	19.43	19.23	22.07	36.09	26.22	
Andhra Pradesh	21.03	21.59	21.21	19.34	19.36	19.47	25.40	33.30	28.04	
Kamataka	20.65	21.61	20.95	19.18	19.44	19.17	22.66	33.02	25.90	
Goa	21.39	22.34	21.71	19.55	19.86	19.54	30.01	39.26	33.17	
Kerala	22.04	22.49	22.22	19.77	19.83	19.77	37.24	45.30	40.46	
Tamil Nadu	21.28	22.00	21.53	19.48	19.71	19.48	28.92	36.06	31.45	

Figure 1: BMI distributions of adult male populations (20 to 54 years) from five states with the lowest and highest BMI mean

From Table 1 and Figure 1 we observed that the higher prevalence rates are observed for men from the south, north and west zones and the states Delhi, Kerala, Punjab and Sikkim and the changes in the distribution of BMI for the five states with highest and the lowest mean BMI values.

Correlation between mean BMI and prevalence of obesity in Indian states

In this section, we have studied the association between mean BMI and point prevalence rates of obesity in the adult population among men living in 29 Indian states based on sampled data from NFHS-3.

The correlation between mean BMI and obesity prevalence for the total population was stronger and highly statistically significant in men (are reported in Table 2. After excluding obese individuals (BMI?23) from the calculation of the mean BMI, a moderate correlation was seen only in men (. When correlations were examined by age, the patterns were similar to those seen for the total population when obese individuals were not excluded.

Table 2 Association of mean BMI and prevalence of obesity in the adult men populations (20-54 years) Indian states

BMI	Age Group		p value		95% CI for
A11	20-39	0.94	< 0.001	9.76	8.41-11.12
Non-obese	20-39	0.54	0.003	8.75	3.34-14.17
A11	40-54	0.98	< 0.001	10.70	9.94-11.45
Non-obese	40-34	0.75	<0.001	17.11	11.18-23.05
A11	20-54	0.96	<0.001	10.15	9.06-11.24
Non-obese	20-34	0.60	0.001	10.94	5.25-16.63

A one unit decrease in mean BMI was found to be associated with 10.1% lower obesity prevalence in men, When obese individuals were excluded, a significant relationship between "non-obese" mean BMI and obesity prevalence was seen in men, in whom a one unit reduction in mean BMI was related to a 10.9% decrease in obesity prevalence (Table 2). Significant and positive correlations were observed in all age groups. In men, ages 40-54 years showed stronger associations (10.7%) than

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those seen in ages 20-39 years. The results of this study provide quantitative empirical evidence supporting the population based approach as an effective way to control obesity among India.

· Conclusion and Discussion -

A number of previous studies have reported the emergence of overweight and obesity in developing countries (Prentice, 2006; Kelly et al., 2008; Subramanian et al., 2011; Ng et al., 2014). According to Rose and Day (1990) as a distribution of a particular health related characteristic in a population shifts up or down as a whole, while keeping its dispersion unchanged, the mean and the prevalence of extreme values will be correlated. In the present study, the mean BMI of male adult populations of 29 Indian states is positively correlated with obesity prevalence. With the exclusion of obese individuals from the calculation of mean BMIs, the correlations are weak in male populations. Weaker correlations following the exclusion of higher BMI values suggest that the variance in obesity prevalence in the adult populations of Indian states are likely related not only to the displacement of BMI distribution, but also, as expected to the skewing of the curves towards high values, a finding that also been seen in the other populations (Rose and Day, 1990). The results from our study indicates that, in Indian states, obesity in adults should be understood not only as a problem restricted to high risk groups, but also that extend throughout the entire population.

In our study, in adult populations living in Indian states, a one unit decrease in population mean BMI is associated with a decrease in obesity prevalence ranging from 9.7% to 10.7%. This finding strengthens the evidence supporting the understanding of obesity as a response to an "obesogenic" environment, the control of which requires population-wide strategies. To the extent that it promotes high energy intake and reduced physical activity, the environment has an important role in the increasing prevalence of obesity (Papas et al., 2007). Living in locations that facilitate and promote physical activity, access to healthy foods, leisure activities, and reduced commuting time are some environmental factors that have been shown to be inversely associated with obesity (Papas et al., 2007).

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Horrors of Pandemic Influenza and World War First in Virginia Woolf's Mrs. Dalloway

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Abstract -

Virginia Woolf's 'Mrs. Dalloway' is set in 1923, five years after the global influenza pandemic. Mrs. Dalloway deals with the theme of isolation, madness, physical and mental sufferings dueto Spanish Influenza and World War I. In this novel, Virginia Woolf gave an account of her personal illness through the central figure Clarissa Dalloway. She had been attacked By Spanish influenza for several times between 1916 and 1925. She had to quarantine herself to take rest. She penned down her experiences of Spanish influenza in her diary in 1918. There were certain incidents in Virginia's life which caused serious mental breakdowns in her life. Her mother's death in 1895 at the age of 49 and her newly married half-sister, Stella's death due to peritonitis in 1897, her father's death due to cancer in 1904 and her beloved brother's death due to Typhoid in 1906 caused mental illness in her life.

Key words - Pandemic, Spanish flu, influenza, isolation, quarantine.

Introduction -

Mrs.Dalloway is the famous novel written by Virginia Woolf.It was published in 1925. Virginia Woolf isone of the great English novelists in 20th century. She was born on January 25th 1882 in London, England. She was the seventh child of Julia Prinsep Jackson and Leslie Stephen in a blended family of eight which included the modernist painter, Vanessa Bell. She belonged to Bloomsbury group, a group of associated English writers, intellectuals, philosophers and artists like John Maynard Keynes, E. M. Forster and Lytton Strachey in the first half of the 20th century. She was one of the practitioners of stream of consciousness technique and a prominent feminist writer ofher time.

Virginia Woolf's Mrs. Dalloway -

Mrs Dalloway is set in London, England. It narrates an account of a single day in the life of Clarissa Dalloway inmid-Junein 1923. Mrs. Clarissa Dalloway is the protagonist of the novel. She is not more than 52 years old lady. She belongs to upper middle class society. She is Richard's wife and Elizabeth's mother. She dedicates herself to be a good wife and an affectionate mother. Clarissa loves to throw parties. She prepares to host a party in the evening. She is very social. She likes to visit people, to talk, to lunch and to spend time with them. She has the capacity to enjoy life. Her immense zest for life can be seen through the parties which she gives. She finds beauty in everything like beauty in nature, trees, birds, flowers, shops in London, etc. Mrs. Clarissa Dalloway decides to go and buy flowers for herself for the evening party. Though the novel describes a single day, Clarissa gives a vivid description of her past and presentthrough the use of stream of consciousness narrative.

The novel intervenestwo seemingly unconnected storylines. Clarissa returns home, after purchasing flowers. As she looks herself in the mirror, she found her face pointed, dart-line, definite. She notices that she had turned almost white because of the effects of Influenza. Clarissa's maid Lucy, informs her about the arrival of someone. Peter Walsh, her former lover comes before her. They feel happy to see each other and struggle with their emotions for each other. Clarissa once rejected his marriage proposal. She married with Richard Dalloway and chose a safe and free life for herself. Both of them think of their past and the decisions the made at that time until they are interrupted by Clarissa's daughter Elizabeth.

Peter then leaves her house. Before his departure, Clarissa invites and reminds him of her evening party. Peter goes to the Regent's Park and sits there for some time. There he notices Septimus Warren Smith with his Italian wife Lucrezia. Septimus was obsessed with the thoughts about death and suicide because of the shell-shock and the death of his friend Evans in the World War l. Lucrezia tries to distract him as they wait for an appointment with Sir William Bradshaw, an old psychiatrist. After the war and Evan's death, Septimus becomes emotionally numb. He can't feel anything. He is driven deeper into madness including some crazy hallucinations.

Clarissa rests for some time and prepares for the party. She is all alone in her room. So, she remembers of many incidents in her past life like her strong friendship with Sally Seton, her decision of marrying Richard and the independence she got in her marriage. By the time, Septimus and Lucrezia wait for Sir William Bradshaw in their apartment. Bradshaw wants to take Septimus to a psychiatric home for his treatment. But before he would come, Septimus throws himself out of the window and commits suicide.

In the evening, Clarissa's party goes on. Everyone remains present in her party. Sir William Bradshaw also attends the party. He tells everyone about the suicide of Septimus Warren Smith. As Clarissa hears the news in the middle of her party, she feels very angry. She leaves the party and confines herself in her room for some time. Though she never knows him or meets him personally, she feels very sad for him. His suicide leaves a great impression on her. She admires him for his action because he did what she could never do in her life. She feels that he has made a beautiful and noble sacrifice that allows her to see life with fresh eyes. She finally returns to the party and the novel ends.

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Horrors Pandemic Influenza and World War I-

Virginia Woolf's Mrs.Dallowaygives an intense account of personal experience with Spanish Influenza. In her novel, she has described long term effects of Spanish Influenza. Along with Spanish Influenza, the nocel also brings out a traumatic experiences of World War I. Mrs.Dalloway is based on Spanish Influenza, though it is never read in this way. The protagonist Mrs. Clarissa Dalloway is a pandemic survivor and Clarissa's double, Septimus Warren Smith is a composite figure of war and Influenza. Clarissa has turned almost white Because of Influenza and has come close to death because of it.Clarissa's character brings out physical and psychological damage caused by virus. She experiences a state of living dead.

Clarissa has given a picture of London through the eyes of illness and shows how the language and perception of reality are shaped by a disease. On the London streets, she feels exhausted and thoughts of death constantly returns to her mind. Virginia Woolf frequently links the ringing bells with Clarissa's Influenza. She says, "For having lived in Westminsterhow many years now? Over twenty, -one feels even in the midst of the traffic, or waking at night, Clarissa was positive, a particular hush, or solemnity; an indescribable pause; a suspense (but that might be her heart, affected, they said, by influenza) before Big Ben strikes. There! Out it boomed. First a warning, musical; then the hour, irrevocable. "Woolf again talks about the connection between the bells and Clarissa's Influenza as a pandemic mourner who witnesses the sufferings of near and dear ones while dealing with denial and shock at a sudden death.

When Clarissa returns to her room, she feels stretched, shivered, aged and breastless because of her corpse-like body. Her husband advices her to take a peaceful sleep even after her recovery from Influenza. She always feels tormented because of Influenza attack. She always finds solace in imagining death and thinks that death may come to her as a welcome relief. In her party also, her guests metaphorically represents Death, living death, guilt, mental and physical illness, and a temptation to Forget.

Septimus is both survivor of war and a patient of Influenza. He is suffering from nervous breakdown caused by war But he at the same time echoes the experiences of Influenza experienced by Clarissa and Woolf. Hence Septimus is a mixture of violence of war and illness. His day to day experiences reflects this amalgamation of physical traumas, painful war experiences and mental and physical sensation.

Clarissa has experienced the deaths of her father, mother, and sister and has lived through the calamity of war. When the news of Septimus' suicide reaches to Clarissa in the party, she thinks about the physical details of his suicide. Clarissa has always desired of the suicide. Septimus' death ultimately helps her to find peace in her own mortality.

Conclusion -

Literature acts as a form of expressions for each individual author. Some books mirror the society and allow us to understand the world better. Woolf's ability to show how hard it is to explain death helps us understand the difficulty of living with its presence. In the face of the loneliness of death, the growing demise of its communal forms, the diminished structures of public mourning, she provides a language for death outside of national structures of commemoration.

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Women Entrepreneurship Development in India

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Abstract -

Women entrepreneurship has been recognized as an important, untapped source of economic growth. With the spread of education and awareness, Indian women have shifted from the extended kitchen, handicrafts, and traditional cottage industries to non-traditional, higher level of activities. Since the turn of the century, the status of women in India has been changing due to growing industrialization, globalization, and social legislation. She is shifted to higher level of professional activities. Entrepreneurship has been a male-dominated phenomenon from the very early age, but time has changed and brought women as today's most memorable and inspirational entrepreneurs. The role of Women entrepreneur in economic development is inevitable. Now-a-days women enter not only in selected professions but also in professions like trade, industry and engineering. Women are also willing to take up business and want to contribute in thegrowth of nation. Their role is also being recognized and steps are being taken to promote women entrepreneurship. There are variousgovernment policies for promoting women entrepreneurship in India. Nevertheless, women entrepreneurs are faced many problems in their business. Especially in rural area, the women are till facing with some basic problems. Adversely lesswomen entrepreneurship development we see there. For women entrepreneurship development, different ways are suggested in this paper.

Key words - Entrepreneur, Entrepreneurship, Entrepreneurship Development, Women Entrepreneurship.

Objectives of the study -

- 1) To study the Entrepreneurship Development.
- 2) To study the role of women entrepreneurs in economic development in India.
- 3) To study the problems of women entrepreneurs in India.

Methodology -.

The paper is based on secondary data. The study is not more descriptive in nature. Information has been collected from various articles, books, website. The information on internet have been studied.

Introduction -

Entrepreneur -

The word entrepreneur comes from a French verb of 13th century 'entreprendre', which means "to do something" or "to undertake". In the year 1730, Richard Cantillon, a renowned economist expressed in his work the concept of entrepreneur as a person bearing risk-engaging in business without an assurance of profits, one who is ready to risk his investments in business with a sheer drive for achieving his goal.

Economist Jean Baptiste further popularized the term entrepreneur in the 1800s. He referred the term to describe individuals who create value in an economy by using resources for higher productivity and greater yield and they do this swiftly by moving resources out from low productivity areas to higher productivity areas.

An entrepreneur is a creator or a designer who designs new ideas and business processes according to the market requirements and his/her own passion. To be a successful entrepreneur, it is very important to have managerial skill and strong team building abilities. Leadership attributes are a sign of successful entrepreneurs. Some political economists regard leadership, management ability, and team building skills to be the essential qualities of an entrepreneur.

The performance of an entrepreneur is dependent on his/her ability and willingness to perform. Here, by ability we mean a function of education, experience and skill and by willingness we mean to perform depending upon the level of motivation. Motivation is one of the fundamental factors required for an entrepreneur to promote his/her ideas.

An entrepreneur perceives everything as a chance and displays bias in taking decision to exploit the chance.

Entrepreneurship -

Entrepreneurship is the practice of forming a new business or commercial enterprise, usually in an industry or sector of the economy with a large capacity for growth. Entrepreneurship is generally synonymous with resourcefulness, ingenuity and ability to take calculated risks in order to introduce a new, untested product or service into the market place.

Entrepreneurship is an art of starting a business, basically a start-up company offering creative product, process or service. We can say that it is an activity full of creativity.

Entrepreneurship Development -

Entrepreneurship development is defined as a process of enhancing the skillset and knowledge of entrepreneurs regarding the development, management and organization of a business venture while keeping in mind the risk associated with it. This is carried out through training programmes and sessions which are aimed at focusing entrepreneurial skills. Pursuing this field as a career, we have to working towards facilitating skill development among entrepreneurs and assist them to tackle



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their struggles with building their businesses.

Entrepreneurship development is a strategic process which incorporates various tools that concentrate on skill development of the individuals in an array of ways.

Concept of Women Entrepreneurs -

Women Entrepreneurs may be defined as the women or a group of women who initiate, organize and operate a business enterprise. The Government of India has defined women entrepreneurs as an enterprise owned and controlled by women having a minimum financial interest of 51 per cent of the capital and giving at least 51 per cent of the employment generated in the enterprise to women. Women entrepreneurs engaged in business due to push and pull factors which encourage women to have an independent occupation and stands on their legs. A sense towards independent decision-making on their life and career is the motivational factor behind this urge. Due to household chores and domestic responsibilities women want to get independence. Women entrepreneurs choose a profession as a challenge and as an urge to do something new. Such a situation is described as pull factors. While in push factors, women engaged in business activities due to family compulsion and the responsibility is thrust upon them.

Skills of an Entrepreneur -

Every entrepreneur should have the following necessary skills to run his/her business smoothly.

Confidence to Delegate Tasks -

An entrepreneur likely has a full plate and feels that he/she can take on any task. But in reality, they keep adding to the already-full plate and eventually it is going to collapse and create a mess. An entrepreneur should be confident to delegate tasks to an experienced member of the company, who has the ability to get tasks completed.

Effective Time Management -

Proper time management is necessary to differentiate between the extremely urgent tasks and those that can wait. An entrepreneur should use a notebook or whiteboard to prioritize tasks by writing them down. Mobile devices and tablets have calendars and notepads, but nothing is more effective than actually making a "to-do" list. Concentrate on one task at a time and don't let new "to-dos" disrupt your focus. Check them out one at a time.

Visualizing Aim and Success -

Entrepreneurs need to visualize their goals and success in their mind first, if they wish to plan on making it a reality. Not only do they need to visualize the end result, but also every step that it is required to get there.

Proper Listening and Communicating Well -

Entrepreneurs need to be good at listening and communicating. If they lack this quality then this may result in miscommunication and wastage of time. Apart from this, extra work is required to correct the miscommunication. Time is something that all entrepreneurs would like more of. There were no more hours in a day. Wasting time repeating and redoing tasks due to poor communication should be avoided.

Understanding the Importance of Time -

It is not possible to give everyone the time they want, as it would leave the entrepreneur with little to no time to complete the things that is to be done. If a sales representative has a question, they should discuss it with the sales manager. If a customer has a question, they should be speaking with the company's customer care representative. While people might demand time, it doesn't mean that it is a must to grant them the time. Time is valuable, so it shouldn't be wasted on disruptions that can be handled by other members of the organization.

Seeking Help When Needed -

We often let our adamant nature to prevent us from asking for help. There were times when we were stumped and someone came along with the answer. Sometimes clear mind and a different viewpoint can quickly solve a problem or provide a solution to a question. One should not be afraid to ask for help when needed, as it can also help to strengthen the communication within the organization.

Giving Back -

It is important to understand how blessed entrepreneurs are to do what they love to do. When we are appreciative of what we have achieved, we should just take a step back to see what we can do to give back, it gives a feeling like no other. Nobody said being an entrepreneur is an easy task and while these qualities will not transform into automatic success, they sure can help in the journey to success.

Basic Problems of Women Entrepreneurs in India -

There is indeed no debate that the very basic problem for women entrepreneurs in India is sexism. The deep-rooted social roles instilled in the minds of parents makes girls at an early age restrict to home. Even the family steps ahead and educates a girl and motivates her to work. It is still a "male-dominated" world. In the professional world, it creates hurdles for women in places where men seem to easily move ahead. The Constitution of India speaks of equality between sexes. But, in practice, women are looked upon as abla, i.e. weak in all respects.

Shortage of Funding -

Funding is an issue for every entrepreneur as it is a big gamble to invest in something that is novel and essentially never existed. For women this problem has a finance gap added to it. Investors across the world are more likely to give money to males than to females. Intentionally or not, this choice makes only a small fragment to women who choose to live their dreams get finance for the same. On one hand, generally, women do not hold property or collaterals in their name and have to resort to external sources. On the other hand, banks also consider women less creditworthy.

Stiff Competition -



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Once a women entrepreneur enters the market, due to limited money, she does not have money to pump into marketing and hence, she has to face stiff competition. Adding to this hustle is the struggle to be taken seriously in the male-dominated industry. This is a basic problem of women entrepreneurs in India which makes sense why we see a huge gap in numbers.

Limited Mobility -

It is painful to see the reality of today where minorities and women, both faces raised eyebrows if they are trying to find a room to stay into work remotely. It is a cumbersome process in various such areas while safety is a concern on one hand and humiliating behaviour from people is on the other hand. Many women entrepreneurs get discouraged from the same idea which is harmful to growth of women.

Scarcity of Raw Material - Most of the women enterprises are suffered by the scarcity of raw material and necessary inputs. The high prices of raw material and getting raw material at the minimum of discount are the reasons of scarcity of raw material. It's a big hurdle in production.

Lack of decision making -

As women are accepting a subordinate status, as a result they lack confidence of their own capabilities. Even at home, family members do not have much faith in women possessing the abilities of decision-making.

Family Ties -

In India, it is mainly a women's duty to look after the children and other members of the family. Man plays a secondary role only. In case of married women, she has to strike a fine balance between her business and family. Support and approval of husbands seem necessary condition for women's entry into business. Accordingly, the educational level and family background of husbands positively or negatively influence women's entry into business activities.

Lack of Education -

In India, around one third (29.7 %) of women are still illiterate according to report of National Statistical Office (NSO). Illiteracy is the root cause of socio-economic problems. Due to the lack of education and that too qualitative education, women are not aware of business, technology and market knowledge. Also, lack of education causes low achievement motivation among women. Thus, lack of education creates one type or other problems for women in the setting up and running of business enterprises.

Low Risk-Bearing Ability -

Women in India lead a protected life. They are less educated and economically not self-dependent. All these reduce their ability to bear risk involved in running an enterprise. Risk-bearing is an essential requisite of a successful entrepreneur.

Fear of failure -

Failure is real, hard and can manage to break you. And it is highly possible in a business venture. Naturally, failure is a huge threat to anyone with dreams, man or woman, due to its implications. This insecurity and self-doubt would make women refrain from dreaming big and sticking to their lane when they should be out making things happen.

Low level Management skills -

women entrepreneurs have low-level management skills. They have to depend on office staffs and intermediaries, to get things done, especially, the marketing and sales side of business. Here there is more probability for business fallacies like the intermediaries take major part of the surplus or profit. Marketing means mobility and confidence in dealing with the external world, both of which women have been discouraged from developing by social conditioning. Even when they are otherwise in control of an enterprise, they often depend on male members of the family in this area.

In addition to above problems, inadequate infrastructural facilities, shortage of power, high cost of production, social attitude, low need for achievement and socioeconomic constraints also hold the women back from entering into business

Government Policies for Promoting Women Entrepreneurship in India -

Development of women has been a policy objective of the government since independence. Women were given priorities in all the sectors including SSI sector. Government and non-government bodies have paid increasing attention to women's economic contribution through self-employment and industrial ventures. The First Five-Year Plan (1951-56) envisaged a number of welfare measures for women. Establishment of the Central Social Welfare Board, organization of MahilaMandals and the Community Development Programmes were a few steps in this direction. In the second Five-Year Plan (1956-61), the empowerment of women was closely linked with the overall approach of intensive agricultural development programmes. The Third and Fourth Five Year Plans (1961-66 and 1969-74) supported female education as a major welfare measure. The Fifth Five-Year Plan (1974-79) emphasized training of women, who were in need of income and protection. The Eight Five-Year Plan (1992-97) focused on empowering women, especially at the Gross Roots Level, through Panchayati Raj Institutions. The Ninth Five-Year Plan (1997-2002) adopted a strategy of Women's Component Plan, under which not less than 30 percent of funds were earmarked for women related sectors. The Tenth Five-Year Plan (2002-07) aims at empowering women through translating the recently adopted National Policy for Empowerment of Women (2001) into action and ensuring Survival, Protection and Development of women and children through rights-based approach.

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- Consider women as specific target group for all developmental programmers. 1.
- 2. Better educational facilities and schemes should be extended to women folk from government part.



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- 3. Adequate training program on management skills to be provided to women community.
- 4. Encourage women's participation in decision-making.
- 5. Vocational training to be extended to women community that enables them to understand the production process and production management.
- 6. Infrastructure, in the form of industrial plots and sheds, to set up industries is to be provided by state run agencies.
- 7. The financial institutions should provide more working capital assistance both for small scale venture and large-scale ventures.

Conclusion -

The struggle for equality for women in India is long, but many women entrepreneurs are overcoming these challenges and turning their business ideas into realities. Women business owners have become increasingly entrepreneurial in India over the past few years, especially among women. As a result, many women have substantial experience before starting their own business. Women are recognized as hardworking and have a history of professional success. Women entrepreneurs have a lot of potentials. It would be much faster for the economy to grow if women were employed. But there are so many problems in doing the business for women entrepreneurs. Most of these problems faced by women entrepreneurs especially in rural area. Right efforts on from all areas are required in the development of women entrepreneurs and their greater participation in the entrepreneurial activities.

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Contagion as Metaphor in Blindness by Jose Saramago

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Abstract -

The aim of the present research paper is to examine Jose Saramago's Blindness as a metaphor of modern civilization. The story of the novel revolves around the epidemic of white blindness thatmakes everyone go blindin an unnamed city and its aftermath. This blindness in the novel functions at two levels-physiological and metaphorical. The metaphorical blindness represents the social, psychological, political, moral, and spiritual blindness of a typical modern society. It demonstrates thefragility of modern civilization. Throughout the novel, the concept of seeing and blindness is presented in such a way that it represents the general human condition. Saramago suggests that if modern civilization has to survive, it must be rooted in reason. According to him, moral strength, hope, compassion and intelligence can defeat this blindness.

Keywords - Blindness, Contagion, Epidemic, Quarantine.

Jose Saramago was born on November 16, 1922 in Portugal. He was awarded the Nobel Prize for Literature in 1998. He was the first Portuguese author to win this honour. He has been a successful author of poems, plays, novels, short stories and essays in Portugal. He is known for writing religious and political satires. He has published many critically acclaimed novels, but his best known is Blindness, published in Portuguese in 1995 and translated into English in 1997 by Giovanni Pontiero. The sequel Seeingwas published in English in 2006. Blindness is an allegorical novel. It is an allegory of the totalbreakdown of modern civilization. The novel has no specific setting, no proper names for characters and evenchapters don't carry any title. It is written in Saramago's own style of using little punctuation marks and long run-on sentences.

Jose Saramago's Blindness -

Jose Saramago's Blindness is the story of an unexplained epidemic of white blindness that spreads in an unnamed city and the devastation that follows it. The novel opens with an epigraph from the Book of Exhortations, "If you can see, look. If you can look, observe". In the beginning of the novel, a man sitting in his car and waiting at a traffic signal suddenly goes blind. When he is taken to an ophthalmologist, the ophthalmologist is not able to find out the causeof this sudden blindness. While researching on this mysterious blindness, even the ophthalmologist loses his sight. This is followed by a series of similar cases of blindness in the city and soon the blindness spreads like an epidemic. Only the ophthalmologist's wife is immune to the blindness miraculously and witnesses the gradual fall of the city due to blindness. The ophthalmologist informs the ministry of health, and they quarantine the blind people in an empty asylum to contain the further contagion. The ophthalmologist's wife, though not infected, pretends to be blind and goes to the quarantine centre with her husband.

The quarantine centre is guarded by armed soldiers. Authorities declare the rules and regulations of quarantine that must be followed toavoid further contamination. Armed forces threaten to kill anyone who tries to escape the quarantine and they even shot dead those who waited for food delivery in the yard. The only sighted character, ophthalmologist's wife, emerges as the leader of the group. Thenumber of infected people increases day by day in quarantine centre and so the problem of living, nutrition, medicine and sanitation there. The spread of influenza causes more panic and the arrival of blind thugs in the quarantine centre worsens the situation. They overpower and exploit the remaining people in every possible manner. They demand money and valuables in exchange for food and later they also want women for the same. After much violence at the quarantine centre, it is burneddown and quarantined people come out in the city, only to find out that the entire cityhas gone blind.

These blind people wander in the city in search of food. The entire social system has collapsed in the city. There is no law and order, no government, no food and water and social services functioning there. The city is full of dead bodies to be buried, some people have died due to lack of care at quarantine centres, some of the starvation, some of the violence and accidents in their blindness. The ophthalmologist'swife arranges food for her group and takesthe group to her house. In the church, the ophthalmologist's wife realizes that the eyes in all the images in the church are covered and she discusses the symbolic meaning of it with her husband. By the end of the novel, sight returns to all blind people mysteriously as they have lost it. People celebrate thereturn of their sight and the doctor's wife remarks, "I don't think we did go blind, I think we are blind, Blind but seeing, Blind people who can see, but do not see."

Epidemic as Metaphor -

The opening and closing lines of the novel clearly indicate its metaphorical connotations. The novel is a critique of contemporary society. It is symbolic of general disorientation of the present civilization. Through the spread of the epidemic of blindness, the novelist brings out the complete picture of social breakdown. The unnamed city in the novel is just the microcosm of it. The novelist wants to suggest that social disintegration is even possible in modern societies. In order to make his point clear, he takes the example of an epidemic of blindness. Like the epidemic blindness in novel, any catastrophe

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can disturb the well-established social order anywhere in the world. Therefore, Saramago appeals to readers to build moral conscience to deal with such tough times. He reminds readers that peace is handed down in modern societies from previous generations and those who have not struggled to achieve it must be taught its significance. The societies that havepeace, social orderand structure must maintain it with utmost care because in times of crisis it can be disturbed completely. Saramago teaches us to enjoy the activities of everyday life that we always take for granted because during catastropheseven these little things are far-fetched.

Blindness as a critique of modernity, talks about a new kind of blindness. In the novel, blind people are sightless not because ofthe darkness in their eyes, but what they can see is only impenetrable whiteness in front of their eyes. The literal blindness in the novel is symbolic to metaphorical blindness endemic to the modern world. The literal sight is responsible for visual perception and an important aspect of human existence. The loss of sight makes the individuals start losing their humanity. Saramago emphasises the point that how people capable of literal sight are metaphorically blind about the nature of their own existence. They are blind with ignorance, deception, selfishness, intolerance and most importantly when it comes to others, they are blind to what is happening in front of their eyes. Saramago makes use of figurative language when he says, "Illnesses may differ from one person to another, but what is really killing us now is blindness". He invites his reader to reflect on this blindness deeply by removing their sense of sight. Many characters in the novel admit that their blindness is the result of their own spiritual malaise. In the novel, there are many situations in which there is the test of humanity and moral conscience of characters. Thus, Blindness exposes the various evils of modern society.

Blindnessalso questions the strengths and weaknesses of human nature. The purpose of the novel is to make a statement about human conduct. It brings out the best and the worst in human nature through the reactions of various characters to the epidemic. The best kind of response is seen in the character of the Ophthalmologist's wife, who tries her best to lead the group and guides them back to civilization. While the worst kind of behaviour is visible in the treatment of blind thugs who leave no opportunity to exploit the same group. The worst kind of response to the epidemic is evidentin the form of government. When it fails to control the epidemic, the government does not care to protect its people and provide them the basic medical facilities in quarantine. It doesn't take into consideration that infected people are also human beings. The condition of people in asylum are similar to those in concentration camps used by Nazis during World War II. Hence, the novel criticises the totalitarian governments. Quarantined people in asylum like victims of concentration camps undergo a process of dehumanization. All of them begin to lose what makes them human. The ophthalmologist in asylum feels as if he is becoming an animal. According to a reviewer, Craig Nova, epidemic blindness addresses almost all the horrors of the twentiethcentury like concentration camps, the excesses of capitalism, bureaucratic aloofness, militarism, and the endless darkness of the human heart.

Conclusion -

Pestilence, epidemics and pandemicshave played a major role in storytelling in literature. These narratives reflect on human behaviour, examine responses to the fear of contagion, and show how humans have survived such catastrophes in the past. It also offers an opportunity to contemplate on morality, justice, and redemption. Often the outbreak of disease gives rise to greed, corruption, irrationality, and selfishness. Such dehumanizing aspects of contagion lead to political anarchy and social disintegration.

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Union Budget 2022-23; Budgetary allocation and scope for MSME's and Manufacturing sector in India.

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Abstract -

In recent years the Manufacturing sector has been getting more attention from the policy makers. As in India 'MSME' sector is responsible for 45% of the country's manufacturing output and 40% of exports. The overall manufacturing sector accounts for almost 30% of the GDP of the county therefore manufacturing sector deserves to be on top priority of policy making. However, budget allocation has important role in the future growth of Manufacturing sector and MSMEs. Hence, it is important to study the allocation of budget and its impact on different sectors of Indian economy.

Introduction -

Demonetisation and implication of GST are two major headwinds for Indian economy for past years. It has negative impact on economy as GST has not delivered on its promises, the economy was in shock due to complex nature of GST as a result it has adversely affected the manufacturing sector and unorganised sector¹. Apart from the shocks related to the goods and services tax (GST) and demonetisation, another prominent reason cited for the declining growth rate of both manufacturing and aggregate GDP is the domestic demand deficiency²

Similarly, the manufacturing sector has undergone drastic losses due to COVID pandemic which has disrupted its established supply chain. Indian manufacturing sector is highly dependent on imported raw material. However, to cope with the situation government initiative, policy making and financial support is necessary. To determine the goal of manufacturing sector allocation of budget is a necessary step.

In union budget 2022-23 special attention has given to manufacturing sector and MSMEs. also this budget has promoted programmes like Make in India, Production Linked Incentive Scheme (PLI) as a part of 'Atmanirbhar Bharat' similarly, budget lays the foundation for economic growth for the next 25 years (Amrut Kaal) this budget has provision to support manufacturing industries. To improve mobility and connectivity of manufacturing sector 'Gatishakti National Master Plan' has introduced. It aims to create modern infrastructure to promote MSMEs, this budget provides a framework for growth of various sectors by focusing on four key themes viz. 1) PM Gatishakti- public investment for modern infrastructure 2) Inclusive Development which will focus on Agriculture and food processing, similarly, to promote skill development Udyam, E-Shram and Atmanirbhar portal will be introduced.3) focus on productivity and investment 4)financing and investment etc.

Scope for MSME's .

MSME sector is a prime engine to the Indian economy over the past few years. These enterprises generate employment in low income countries, especially MSMEs. It makes critical contribution to GDP and employment generation in private sector of any country. There are 6.3 crore MSMEs in India till 16 May 2021 which contributes 29% to the total percentage of countries GDP3.

The government previously in 2021-22 has launched the ECGLS (Emergency Credit Line Guarantee Scheme) scheme of Rs.20 Lakh crore to strengthen MSMEs during COVID 19 pandemic. However, this scheme will be extended upto 2023 in budget 2022-23 and its guarantee cover will be expanded up to Rs.50,000 crore which will increase the total amount up to Rs 5 lakh crore under the scheme. To facilitate additional credit of 2 Lakh crore credit guarantee trust for Micro and Small enterprises (CGTMSE) will be revamped. this scheme will provide collateral free credit to MSMEs. However, in the union budget 2022-23 "Raising and Accelerating MSME Performance Scheme"(RAMP) scheme has announced "preparation of Strategic Investment Plans" (SIPs) which is important component of the scheme which will allow all states and UTs to participate in all decision making regarding investments. The total outlay of RAMP Scheme is Rs 6,062.45 crore out of which Rs 6,062.45 crore would be a loan from the World Bank and the remaining amount of Rs. 2312.45 crore would be funded by India.

The government has launched various schemes specifically to cope with losses incurred by COVID-19 pandemic, these schemes allow for ease of business and it aimed to help MSMEs grow faster and contribute to create more employment. However, the overall allocation was not satisfactory for MSME sector .Total outlay for the previously introduced schemes in the last budget has got zero allocation or seen the marginal reduction in this budget. e.g. MSME Champions Scheme which was introduced in last budget to support MSMEs in terms of finance, opportunity to explore, and promote the business had an allocation of Rs. 60.72 crore but in this budget it has got zero allocation.

Similarly, in ZED certification scheme of technology up gradation and quality certification previous allocation amount was Rs 330.31 crore which has cut down to Rs. 80.72 crore (total decreased by 75.56%). Also credit linked capital and technology scheme has got zero allocation in this budget whereas this scheme had allocation of Rs.315.31 crore in previous budget. However, allocation to the projects and schemes for 'Development of Khadi, Village and Coir Industries' also reduced in this budget.



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Manufacturing sector -

The Manufacturing sector plays crucial role in economy by providing employment and industrial progress. During the period of 2015-16 manufacturing sector has been creating 360.41 lakh jobs in which the employment generation of manufacturing sector in rural economy it was 186.56 lakh and 173.86 lakh in urban area(as per the National Sample Survey)

Indian manufacturing sector is mostly dependent on foreign producers for raw materials such as spare parts, semiconductors and many more. However, for the self sustenance in the manufacturing sector initiatives should be taken by the government.

Hence, to meet the need of manufacturing sector, in this budget government has announced withdrawal of customs on 350 tariff items which are raw material. Similarly, to promote new domestic companies to set up their manufacturing units in India the budget has proposed that the corporate tax will be available at 15% until March 2024. The Government proposed to replace the existing law SEZs (special economic zone) with a new legislation to enable states to become partner in 'Development of Enterprise and service Hubs' aim is to boost the overall investment and export competitiveness of the country.

To provide relief to the secondary steel producers in manufacturing sector government will extend the customs duty exemption on steel scrap by one year however certain anti dumping duty (ADD) and countervailing duty (CVD) will be revoked on coated steel products and stainless steel products considering high prices of metals. The import duty on still is unchanged to 7.5% while aluminium on 10% basic customs duty and copper on 5%.

For skill development and creation of skilful employable people NSQF (The National Skill Qualification Framework) will be aligned with dynamic industrial needs. The main purpose of this initiative is to generate employability. It includes the launch of a digital ecosystem for a skilling and livelihood e portal.

In previous budget government has assigned an outlay of Rs. 1.97 lakh crore for the Production Linked Incentive schemes (PLI) in this budget an allocation of Rs 19,500 crore to augment solar module manufacturing under this scheme. This scheme has been announced for sectors including telecom sector, auto sector and pharmaceuticals. The main objective of the scheme is to create 60 lakh jobs in 14 sectors and expectation of generation of Rs 30 lakh crore in production over next five years. The 13 key sectors including already existing 3 sectors and addition of 10 new key sectors have been approved by government in 2020.

Conclusion -

The growth rate of manufacturing value added has been declining continuously since 2016-17. On the grounds of COVID-19 crisis it was expected that budget will address the structural imbalance of the economy. However, this budget is mix bag for MSMEs and Manufacturing sector. This sector of economy may have led to disappointment reason being this budget was expected to address issues like special incentives for industries to create new employments instead of loan guarantees.

In this budget some new schemes are introduced while some schemes are discontinued or secured decreased allocation in this budget. However, continues support and special attention is needed for the growth of manufacturing sector as well as MSMEs. Providing loan guarantee schemes will not improve the performance of MSMEs especially when the economy has been hit hard by the pandemic.

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Causes of Brexit and its Impacton European Economy

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Abstract -

In 1973 United Kingdom joined European Economic committeeto booster its economy. Just 2 years after the joiningthe UK held a referendum onwhether it should remain in the European Economic Community or to leave. 67 percentage People voted for remain. After 47 years of membership UK left the union. It could affects on UK's foreign and security policy. In 2016 after the referendum passed by the people of UK London Stock Exchange market was collapsed it was at its lowest point more than 30 years. UK citizens are facing economical challenges. Major companies left the UK and establish in European Union. Brexiteffectson food and agriculture sector, Manufacturing sector, financial service industry of European Union and United Kingdom.

Introduction -

When the European Union was formed it's main purpose was promotion of peace among the European countries. Peace could only be maintainedif they work together as a union. Together European Unionstands as a power on the world map. European Union promotes equality, social justice, scientific and technological progress, freedom, and security, rule of law, democratic values, human rights and peace among the countries. In the World War 1 and 2 all the European Countries Were fighting amongst each other After the World War 2 they decided to stop violence and promote peace. In the 1950s and 1960s they opened there trading boundaries and formed a unionfor trading. Many countries started joining in and union become stronger. In 1993 European Union was established and becomes a superpower. European Unionis an economic and political partnership. Britain was the part of European Union. There are 27 countries left after the Britain exit from European Union. The Brexit referendum in UK took place In 23 June 2016. 52% people voted to leave the European Union. After 4 years of Brexit referendumin 31st January 2020 Brexit finally happened. UK is the first country to leave the European Union. Brexit means Britain exit from European Union it is 585 page withdrawal agreement.

Objectives -

- 1. To study the grounds of Brexit.
- 2. To study the consequences of Brexit.
- 3. To studythe political impacts of Brexit.

Hypothesis -

- 1. Brexitcreates economical challenges for UK and European countries.
- 2. Brexitcould affectsonDomestic politics of UK and European countries.

Causes of Brexit -

After the 2015 Syrian crisis European Union decided that every country hasto take a fixed number of refugees within their country in Proportional of their population. Countries like Poland and hungery were against the refugee laws. In 2018 global surveywas shown that 10 European Union countries disapprove of how European Union is doing with the refugee issue. In a survey 66% people of the United KingdomWas disapprovedand 23% was approved how European Union has handled the refugee crisis. In Netherlands 58% disapproved and 37% approvedby the people Of Netherlands. In Germany 66% disapprove and 27% approved. In Greece 92% disapprove and 7% approved.InSweden 84% disapprove and 13% approved by the people. In Hungary 80% disapproves and 15% approved by the people. In Italy 78% disapprove and 16% approved by the people. In France 74% disapproved and 22% approved by the people. In Spain 71% disapproved and 26% approved by the people. Poland 67% disapprove and 23% approved by the people. Among the 10 countries of European Union Majority of people Disapproved of how the European Union has handled the refugee issue.

53% people voted to leave the European Union. A study of 2017 has stated that People, who voted in favour of Brexit most of them belonged to the lower income group, were Victims of unemployment lived in the rural regions and were aged people. They had feared that immigrants would come and take over their jobs. No jobs would be available for them.

Political impact of Brexit -

- 1. England Votedto leave the European Union by 53.4% and to remain 46.6%.
- 2. Wales voted to leave the European Union by 52.5% and remain 47.5%.
- 3. Scotland voted for remain a part of the European Unionby 62.0% and 38.0% for leave. Majority of the peoplein the region of Scotland stated that they want to remain with the European Union.
- 4. Northern Irelandvoted for remain by 55.8% and 44.2% voted for leave the European Union.

Overwhelming majority of the people in the region of Scotland stated that they want remain with the European Union. But Scotland is one of the four regions in the UK. The overall vote percentagewas in favour of Brexit. But the people of Scotland were still in favour of European Union. They wanted another referendum to be conducted to break away from the



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United Kingdom and join European Union. The Prime Minister of UK Boris Johnson rejected the Scottish Governmentrequest of second independence referendumbecause it would be greater economic effect if Scotland leaves the United Kingdom. Before the Brexit referendum in 2014 A referendums was conducted in Scotland in which the people were askedwhether they wanted Scotland to remain a part of UK or whether they wanted to be an independent country. Then 55% of the people voted for Scotland to remain apart of the United Kingdom.

Ireland Government opposed Brexitduring the referendum campaignbecause it could affect to the country economically and politically. Level of trade between the United Kingdom and Ireland are extremely high between£800m and £1bn per week.Ireland imports more from the United Kingdom then from any other country. Brexit would have an impact on this Trade. Whichever type of trade deal isthere would be new barriers to trade. Even without tariffs, Customs checks would be needed. This could be damageIreland's economy.¹

60% People of 27 other member states said they would like to UK to stay in the European Union. 30% said it didn't matter and 10% preferred the UK to leave from the European Union.Ireland, Lithuania, Malta, Portugal, Romania and Spain were the keenest for the United Kingdom to stay.Austria, Cyprus, France and Luxembourgwere happiest for the UK to leave or listConcerned.² Brexit would not just only effect on economy but also itaffectsdomestic politics of European Union countries

Impact of Brexit on European Union and UK -

After the Britain exit from European Union Britain has right to close their borders for European countries it would costs European Union economy. After the referendum passed by people of England the London Stock exchange market was collapsed it was at its lowest points more than 30 years. For Europe the negative consequences and challenges of Brexit go away beyond the GDP effect. The European Union last about 1/6 of it's economic power and for greater share of its foreign and security policy weight with the exit of a country which has considerable global influence.³

Brexit has an unfavourable impact on trade between the European Union and United Kingdom. The UK's share of EU27 Goods exports fell from 6.2% in 2019to 5.2% in 2021while its share of EU27 Goods imports fell from 3.9% to 2.6%. Brexit would be a major negative impact on United Kingdom and the European Union countries. It effects on all sectors. It effects on food and Agriculturesector, manufacturing sector, financial service industry off European Union and United Kingdom. Brexit affects on every member states. Regulations and border controls affecting agricultural exports and imports create issues for everyone in the European Union and United Kingdom. It affects farmers, distributors, grocery Store chains, Restaurants, and consumers. 5

The effects of Brexitwill beseenon a large scale in the upcoming years. Separation from the European Union tariffs will be imposed on Imports and exports between the United Kingdom and European Union. Trade will become difficult for UK because 1/3 of the imports of United Kingdom come from European Union. Now tariffs would be imposed on them and they would become costlier. All the goods that are imported by United Kingdom Will become costlier for the people living in United Kingdom. The companies of United Kingdom would have to bear a huge loss. Because they cannot participate in bidding for the public contracts in the rest of the European Union countries. They could not access the rest of the European Union markets and Employee workers from the rest of European Union in their companies. Because of these losses All major companies leaving the United Kingdom and shifted to the European union or Ireland because Ireland is a part of European Union. Even from the perspective of jobs there is a huge loss for the citizens of United Kingdombecause when it was a part of European Union then any citizen of UK could get job in any country in Europe. There were no borders and free movement of the people was allowed. After The Brexit they would remain limited within one country. Due to these reasons an immediate impact was seen on the economy of UKWhen the vote for Brexit happened. In a study of 2018 there was a loss of 2.5% of GDP on UKs economy. Investments dropped by 6%. Unemployment increase by 1.5% and per capita income reduced by 1%. Travels between UK and European Union may also have to pay roaming charges. European students can study in British university at local rates. Citizens, students, Workers are facing the huge problems.

In September 2021the citizens of United Kingdom are facing The Food shortage. Due to Brexit truck drivers and workers the country. In UK shortages in the labour force in the food industry and truck drivers are causing supply chain issues in the availability of food products because of Brexit6. More than 7000 finance job have moved from London to the Europe European a Union as a result of Brexit7.

Conclusion -

After Brexituk and European Union facing the economic challenges. It also affects onpolitical weightage of European UnionIn the world. It affects on UK and European Union countries domestic politics. It creates political chaos between Scotland and BritainBecause Scotland wanted to be a part of European Union. Immigration issue isone of the Major reasons to vote for leave the European Union. People had fear that immigrants would takeover their jobs. UK has facing shortage of Labour force in food industry. Major Companies are leaving the UK and shifted to the European Union. The effects of Brexit will be seen on a large scale in the upcoming years.

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Effect of Covid-19 Pandemic On Sports

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Abstract -

The outburst of Covid-19 from China and later declared as pandemic by the World Health Organization has had a significant impact on the lives of sport persons and common people all over the world with variety of domains. Almost 188 countries remained closed during the pandemic as lockdown was declared and people were enforced in reaming inside their dwellings. This paper focuses on the potential impact of Covid-19 on the sport industry. This paper reviews different data from different sources in highlighting impact on major sport events. Implementation of lock down for social distancing allowed sport persons and authorities outside ground which led economical, physical, mental, and educational and loss of opportunities among them. Covid-19 pandemic has had and will continue to have its impact on the sport industry as well as physical and mental will-being of people around the world. What it needs is a guidance related to safety, health, labour, and other international standards and protocols that would apply to future sport events and related self-working conditions. Stakeholders are also expected to work in cooperation as team with their objectives for generating confidence among the players, children, parents, coaches, and other members of sport events.

Key Words - Covid- 19, Pandemic, Lockdown, Corona virus, Social Distancing.

Introduction -

The spread of COVID-19, Corona Virus, has profoundly affected every part of India and the world. Seeing all this, one cannot help but remember the 1963 film 'Birds', a masterpiece of Alfred Hitchcock. The film is reminiscent of such anxious and frightening experiences. A complete lockdown was imposed on Bodega Island after a series of bird attacks. There was an atmosphere of terror everywhere. Roads, Offices, and Radio Stations were all deserted, everything was jammed. What happens next was the worry of and on every human faces. There was a single outbreak in 2020, but this time it was not a bird but a deadly virus, called Novel Corona Virus or what it is known as COVID-19. But the similarities between anxiety, worry, fear and lockdown are all the same in film and in the outburst of Corona Virus. In Hitchcock's film the fear of the parties was only in a certain area. And the big difference is that nothing like this has ever happened in the real world. So the challenges now are to go deeper. In many parts of the world, including India, all areas such as human movement equipment and transportation were paralyzed. Everything was stunned; all small businesses in the service sector are trying to make up for this loss through work from home. Educational institutes of all level of learning have offered different technological platforms in offering online education and online examinations so that there should be no educational loss of children.

Though no specific day and dates are available about the first person being infected by the novel corona virus causing Covid-19, subsequently named SARS-CoV-2, it is fact that the first case of infected person was from Wuhan city of China in the month of December 2019. Numbers of samples from Wuhan market was collected and were observed positive with SARS-CoV-2 and conclude that Wuhan market was the center of outburst of Covid-19, consequently the whole market closed in the month of January. This was the beginning of Lockdown in the city and in the country. (WHO.2019) The outburst of Covid-19 later spread all over the world with numbers of death cases and leaving economic impact as cities and countries remained closed due to Lockdown. On March 11, 2020, WHO declared Covid-19 as pandemic. And this pandemic later also threatens people to live inside their houses as authorities of cities and states declared total lockdowns. Students, workers, businessmen, office employees started using work from home and learning from home in order to overcome the financial crises aroused from the pandemic.

Sport's Role in Economic -

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Physical activities lead human life towards fitness and active movements. According to the report of WHO, 2009, physical inactivity is the fourth risk factor for mortality and globally and is responsible for 6% deaths worldwide and for around 10% in Europe only. Report further also stated that around 8 million people in European region adjust with physical disabilities due to inactive physical activities. This is one of the parts of benefits of sports in human life. Sport plays significant role abiding human life not only in the form physical fitness but also in the form of livelihood and source of economic in building up the society and the nation.

Economists and scientists have widely studied the sport's role in economic growth, as well as the importance of sport for people's physical fitness and their health with their active motions. Sports economic is playing significant role in our lives, which associated with tickets, media streaming, sponsoring, and merchandising. Sport also leads tourism as each sport event gather people from different geographical regions to come together and during the break in events, used to visit nearest tourist point. According to the study of Opolska (2017), there were forecast that in 2015, professional globally should generate \$145 billion in revenue. The author has found no specific proof whether the target is achieved or not but looking

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at recent figures of professional sport revenue the forecast was almost nearby to the figure mentioned. Because in the study of Christania Gough (2020), he has shown a graph of worldwide revenue of sport before and after the Covid-19 pandemic. According to his study, before Covid-19 sport revenue all over the world was 135.3 billion and during the pandemic this revenue drowned and just could acquire 73.7 billion the highest down fall in the history of sport.

It is through the varied figures of revenue during the pandemic of Covid-19 and before the pandemic, quite clear to understand that pandemic had left its significant impact on the sport industry and economic, as well physical impact on the mindset of human beings.

In this study, the researcher aims to review the effect of pandemic on sport sector and also determines to review the economic impact of pandemic on the sport industry. As already mentioned that Sport not only deals with physical fitness but also deals with social, cultural, tourism and economic aspect of society and the country. This study also aims to understand the effect of Covid-19 pandemic on these aspects.

Effect of Pandemic on Sport Industry -

a. On Economic -

When the first case of corona virus came to light from Wuhan city of China, no one knew that it would take such a formidable form. From the first case in December 19 till the World Health Organization declared it a pandemic on March 11, 2020, about 1.5 lakh people were affected by it. And after the instruction of W.H.O., the decision was taken to postpone or cancel many big sports tournaments. Some tournaments that were being played were also stopped. Now if the tournament being played is stopped midway, then it will have an effect on the market. The European Football league, which is included in the World's most popular tournament, also had to bear the burnt. The Olympic which was going to started after three months in Tokyo, were also clouded by the crisis.

NBA, which is called the biggest league of basketball, was also on the verge of being postponed or being played in an empty filed or even being cancelled. If such a situation occurs or created then the game market was to lose about \$8 billion. If this tournament was postponed, then the organizers would have to spend the most on the facilities of the players at the venue. Playing on the same empty ground would result in around 21 percent less profit for the tournament's beneficiaries. It is only form this one league that the damage caused to the sports world by Corona Virus and pandemic aroused from can be gauged.

Following table though only show economic figures of major sport leagues and events, is sufficient to understand as to how much loss Covid-19 and pandemic has made on sport industry.

Sr.	Country	Sport Income
No.		
1	Spain	3790 million URO
2	Italy	2570 million URO
3	Germany	3720 million URO
4	France	1930 million URO
5	English Premier League	5940 million URO

(Bhushan, Sandip, 2020)

From the leagues played in the country given above and the earnings from it, it is quite to understand that the biggest part of the profit is from selling the rights of the media and after comes advertisement. Fans come to the stadium in large numbers to watch. In such a situation, the decision to hold matches in an empty stadium to avoid the risk of corona virus infection also caused great harm to the team owners and the organizers.

b. On Mental Health -

Reardon, C. 2017, in his study has demonstrated that sports participation of children and all age groups protects mental health symptoms and mental disorders. Having reference to children's physical activities, the author further stated that physical activities are helpful in reducing symptoms of depression and anxiety. The spread of Novel Corona virus and fear of community infection made its deepest impact as children and people who engaged in their physical activities on the regular as all gyms, grounds, school grounds, activity rooms and other auditorium of sports remain closed since government of states and countries declared lockdown. People engaged in their physical and sports activities remained absent in front of their coaches and physical guides which led them to do without them.

Having feeling of isolation from the community and other sport members, cancellation of sports event even after having much practice session also led them to depression and loss of confidence as well fear. Whatever events arranged were in the absence of supporter i.e. in empty ground. This fact also made another mental effect on players and athletics.

c. On Physical Fitness -

The outburst of Covid-19 though not seriously made impact on children around the world, but the continuous stay inside the houses made impact on physical fitness of children. In survey study of Italy, Netherland, and Iceland, there was low infection of virus among the children. The data from these countries covered age group from 10 to >20 showed that the percentage of infection was 2.5%, 8.01%, and 13.07% respectively in the above mentioned countries. (rivm.com 2020) According to the report of United Stated 2020, the closure of educational institutes for long time suffered students and other ground members, coaches, physiotherapists, dieticians, teachers, and parents as educational institutes remained closure due to the fear of infection and lockdown forced on them to remain at home. This crisis aroused fear and kept them away from doing physical fitness activities.

d. On Opportunities -



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The outburst of Covid-19 led different sports organization and federation either to cancel or postponed their scheduled sports events. The significant among these was Olympic even which was scheduled in Tokyo; has to be postponed up to the year 2021. This postponed schedule might have been an opportunities to those young athletes who would not have been reading for their performances in 2020 or might have negative impact on those who prepared and practiced well for long time and at the close moment, the schedule postponed. Other major sporting events which were scheduled between 2020 to 2021/2022 were postponed were Africa U-17 National Morocco (2021), Youth Games in Lesotho (2022) and were postponed due to the spread of corona virus. This cancellation of schedule and playing without audience led players to miss their opportunities in playing in front of their loving and caring persons.

Conclusion -

It can be concluded from the above effects of Covid-19 on sport event that the Covid-19 pandemic has had and will continue to have its impact on the sport industry as well as physical and mental will-being of people around the world. What it needs is a guidance related to safety, health, labour, and other international standards and protocols that would apply to future sport events and related self-working conditions. Stakeholders are also expected to work in cooperation as team with their objectives for generating confidence among the players, children, parents, coaches, and other members of sport events.

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Role of Sports Psychology for Athletes

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Introduction -

The increased stress of competitions can cause athletes to react both physically and mentally in a manner that can negatively affect their performance abilities. They may become tense, their heart rates race, they break into a cold sweat, they worry about the outcome of the competition, they find it hard to concentrate on the task in hand. This has led coaches to take an increasing interest in the field of sports psychology and in particular in the area of competitive anxiety. That interest has focused on techniques that athletes can use in the competitive situation to maintain control and optimize their performance. Once learned, these techniques allow the athlete to relax and to focus his/her attention in a positive manner on the task of preparing for and participating in competition. Psychology is another weapon in the athlete's armory in gaining the winning edge. The specialized field of sports psychology has developed rapidly in recent years. The importance of a sports psychologists as an integral member of the coaching and health care teams is widely recognized. Sports psychologist can teach skills to help athletes enhance their learning process and motor skills, cope with competitive pressures fine-tune the level of awareness needed for optimal performance, and stay focused amid the many distractions of team travel and in the competitive environment. Psychological training should be an integral part of an athlete's holistic training process, carried out in conjunction with the other training elements. This is best accomplished by a collaborative effort among the coach, the sport psychologist, and the athlete's however, a knowledgeable and interested coach can learn basic psychological skills and impart them to the athlete, especially during actual practice.

Preparing for competition -

- 1. Learning relaxation skills (e.g. progressive relaxation; slow, controlled, deep abdominal breathing; or autogenic training;)
- 2. Mastering all of the attention styles (types of concentration)
- 3. Imagery (both visualization and kinesthetic)
- 4. Appropriate self-talk; and
- 5. Developing a pre-competition mental routine to be employed immediately prior to competition on game day (These routines are short 1-2 min. and use all of the mental skills just presented.)

Psychology Skills Training -

Psychology skills training for the athlete should aim to improve their mental skills, such as self-confidence, motivation, the ability to relax under great pressure, and the ability to concentrate and usually has three phases:

Purpose of the study -

The purpose of the study to find out the role of sports psychologist in improving the athletes performance. This study will be significant regarding the role of sports psychologist in the improvement of performance in sports.

Hypothesis -

Not given the sports counseling players have significantly high stress than the given the sports counseling.

Methodology ·

The purpose of the study to find out the role of sports psychologist in athletes performance. For the present study 100 athletes were selected from K.B.C.N.M.U. Jalgaon. The effective sample consisted of 100 athletes 50 athletes given the sports counseling and 50 athletes not given the sports counseling and the age range between the 19-23 years. Since personal stress source inventory were used for the study.

Data Collection -

The data was collected through questionnaire of two groups i.e. sports counseling group and non-sports counseling group.

The athletes not given the sports counseling have significantly high stress than the athletes given the sports counseling.

It is an essentially need of sports psychologist in Athletes Performance.



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Table 1 - Showing the Test Scores of Stress among Athletes Counseling Group and Non Counseling Group.

Test	Group	Mean	SD	S.E	N	df	't'
Stress	Athletes with Counseling	24.69	7.19	1.01	50	98	6.90**
	Athletes without Counseling	36.12	9.28	1.31	50		

The results related to the hypothesis have been recorded. Mean of stress score of the Athletes sports counseling is 24.69 and that of the athletes non counseling group mean is 36.12 The difference between the two mean is highly significant ('t'=6.90,df=98, P<0.01) It is clear that Athletes sports counseling group have less stress compare to athletes non counseling group. It is an essentially need of sports psychologist in team sports performance personality profiling assessing strengths and weaknesses in current mental approaches of individuals in the goal of refinement for optimal performance, helping key stakeholders such as managers and coaches promote an optimal environment for maximum team enjoyment, stress management, weight and health management, assisting with life management strategies, teaching mental skills such as imagery and competition planning, offering individual consultations, as well as facilitating interactive workshops, and general counseling.

Conclusion -

It is an essentially need of sports psychologist in team sports performance personality profiling, assessing strengths and weakness. Not given the sports counseling players have significantly high stress then the given the sports counseling. Not given the sports counseling players have significantly high anxiety than the given sports counseling. Sports performance is determined by a combination of physiological factors technical skill, tactical insight and state of mind the performance.

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A Study of a Recent Trend of 'Green HRM' with Reference to The Functions of HR Department in Selected IT Companies in Pune

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Abstract -

One of the recent trends and the need of an our is the implementation of green practices in organizations. Green practices are the environmental friendly initiative undertaken by the organizations. Such organizations prove to be sustainable organizations 'This research focus on the various green practices undertaken by the HR departments of selected IT companies in Pune. Inculcating green practices in HR is known as 'Green HRM'. With the awareness of green HRM the organizations have started implementing various green practices and HR department also tries to implement as many green practices as it could. Through this research, the researcher tries to identify the various green HR practices in accordance with the above mentioned HR functions. It also focuses on the importance of sustainable development and the significant role HR department plays in it. On the basis of the study, the researcher has also given valuable suggestions to the organizations and specifically to the HR departments regarding formation and implementation of various green practices. These suggestions will prove helpful for attaining effective sustainable development.

Key words - Sustainability, Sustainable development, Green HRM, HRM, Functions of HRM

Introduction -

Sustainable development - Sustainable development can be defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs. This means that an organization is committed to fulfilling its current objectives but while doing so it is in no way compromising the needs of future generations. The environmental resources and ecosystem is shared by all human being and living beings and the same will be utilized by the coming generations. Therefore, it is the responsibility of the present generations to preserve it for the coming generations. It is in our hand what we present them in the future. In sustainable development the same is aimed. The organizations, as mentioned before focus on the current needs but at the same time consider the needs of future generations and do not compromise on them.

Sustainable organizations - Sustainable organizations are the organizations that are committed and implement the principles of sustainable development. Here, when we are refereeing to an organization, we are referring to the organization as a whole. The stakeholders whether internal stakeholders or external stakeholders, all should be committed to sustainability. Any organization becomes sustainable when all the departments contribute towards it. And then only the organization will achieve its goal of sustainable development in its true sense.

Green HRM - One of the important departments of an organization is the Human Resource Department. As the name suggests, this department focuses on the development and effective implantation of the human resources for achieving organizational objectives. Employees are one of the most important stakeholders of any organization. Therefore, with this research the researcher tries to understand the implementation of various sustainable development practices or green practices with respect to the main functions of HR department. This research paper considers the following major functions of HR department

- I. Recruitment and selection
- II. Training and development (including induction)
- III. Performance appraisal
- IV. Wage and salary administration
- V. Other green practices

Review of selected literature -

Though this topic is relatively new, researchers all over the world are being aware about the importance and need of green practices. The relevant and selected review of literature is presented below.

In a research paper titled," Enhancing the firm's green performance through green HRM: The moderating role of green innovation culture" by Muisyo P and Qin S, the authors focused on the importance of green HR practices on the overall green performance of the organization. HR department being the important department of the organization its green practices have significant impact on the green practices of organization.¹

Another research paper titled, 'A Study of Green HR Practices and Its Impact on Environmental Performance: A Review' states thatthat employees recruited on the basis of their environmental cognizance achieve higher grades of satisfaction when they are more involved in decisions and day to day operations. Moreover, this research proposes that organizations who want to increase their employee performance should put emphasis on training as it motivates them to achieve higher performance levels.²



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In a research paper titled,' Importance of green human resource management' the researchers focused on the green human resource management and its importance, green human resource practices implemented by the organizations within India. The research states that Green human resource management has important perspectives like personal, organizational and social with extended focus which can support and help for sustainability of the ecosystem.3

Objectives -

- To understand the importance of green practices in HR department
- 2. To understand the green practices undertaken by HR department
- To give suggestions accordingly.

Hypothesis -

H0 - HR departments consider implementing green practices very important.

H1 - HR departments consider implementing green practices very important

Research methodology -

Data sources: Primary and secondary both data are used for this research.

Primary data sources- A well-structured questionnaire was circulated.

Secondary data sources- Books, research papers and other online and printed data was referred.

Sample size: 25 respondents

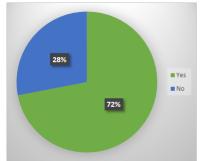
Sample description- The respondents include employees from HR departments of IT companies from Pune city Sampling method: Snowball sampling method is used to collect data.

Data analysis -

To understand the green initiatives by the HR departments, the HR executives were asked various questions. The analysis of their responses is as under:

The data analysis is presented in a sequence to reach the research objectives more effectively.

1. The respondents were asked if they feel their organization is a sustainable organization, the following responses were received:

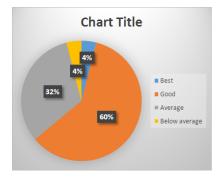


Options	Responses
Yes	18
No	7

Interpretation -

It can be interpreted that 72% of employees feel that their organization is a sustainable organization. And 28% employees feel that their organization is not a sustainable organization.

2. Referring to specifically the HR departments, it becomes important to understand if the HR department can be considered as green HR department. On the basis of the various practices and initiatives understand by the HR department the employees gave following response:



Options	Responses
Best	1
Good	15
Average	8
Below average	1

Interpretation -

When it comes to specifically HR department, 60% employees feel the department is good at green practices, 32% said average and remaining % said best and below average respectively

3. It also becomes necessary to understand the if the respondents feel that it is Importance for the HR department to adopt/implement green practices

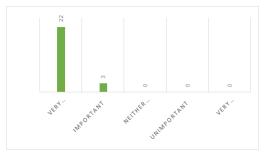


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Options	Responses
Very important	22
Important	3
Neither important	0
nor unimportant	
Unimportant	0
Very unimportant	0

Interpretation -

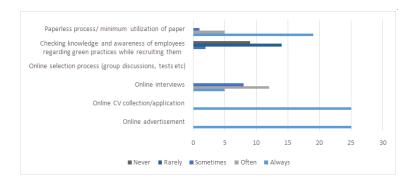
88% respondents stated that it is very important for the HR department to implement green practices and the remaining 12% said that it is important.

4. Implementation of green practice with reference to functions of HR department

The researcher studies the green practices adopted by the HR department with reference to the major functions performed by the HR department. The analysis of the responses of each HR function is as follows:

1. Recruitment & Selection -

Details	Always	Often	Sometimes	Rarely	Never
Online advertisement	25	0	0	0	0
Online CV collection/application	25	0	0	0	0
Online interviews	5	12	8	0	0
Online selection process (group discussions, tests etc)	20	5	0	0	0
Checking knowledge and awareness of employees regarding green practices while recruiting them	0	0	2	14	9
Paperless process/minimum utilization of paper	19	5	1	0	0



Interpretation -

When it comes to recruitment and selection process, 100% respondents said that advertisement & CV collection is always done using online mode. 48% said the that interviews are often conducted online and 20% and 32% said it is always and sometimes conducted online. Majority of the respondents that is 80% and 76% said that there is always online selection process and the recruitment process is paperless or it utilizes minimum paper. But when it comes to Checking knowledge and awareness of employees regarding green practices while recruiting them 56% respondents said it is rarely done and 36% said never and 8% said it is done sometimes.

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Training -

Details	Always	Often	Sometimes	Rarely	Never
Inducting new joiner about	0	0	0	2	23
sustainable/ecofriendly					
practices					
Virtual trainings	4	5	12	4	0
Paperless training/minimum	19	5	1	0	0
utilization of paper					
Online training evaluation	19	5	1	0	0
Conducting training on	0	0	0	4	21
sustainable development					

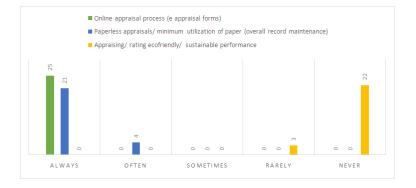


Interpretation -

76% respondents each stated that the training process always utilizes minimum papers and the evaluation of training is also done online. 48% said the training is organized online.92% said 'Inducting new joiner about sustainable/ecofriendly practices' never takes place and 84% said training on sustainable development is never conducted.

Performance Appraisal -

Details	Always	Often	Sometimes	Rarely	Never
Online appraisal process (e	25	0	0	0	0
appraisal forms)					
Paperless appraisals/minimum	21	4	0	0	0
utilization of paper (overall					
record maintenance)					
Appraising/rating ecofriendly/	0	0	0	3	22
sustainable performance					



Interpretation -

When it comes to appraising the employees, all the respondents said that it is done online and 84 % said that the process is always paperless. But when asked about Appraising/rating ecofriendly/sustainable performance 88% said that it is never done

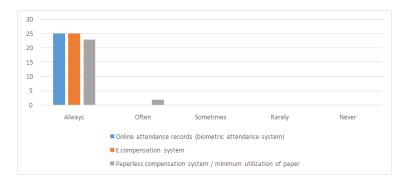
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Compensation Management -

Details	Always	Often	Sometimes	Rarely	Never
Online attendance records	25	0	0	0	0
(biometric attendance system)					
E compensation system	25	0	0	0	0
Paperless compensation system	23	2	0	0	0
/ minimum utilization of paper					

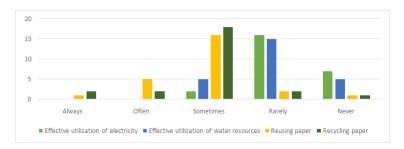


Interpretation -

In case of compensation management 100% respondents said that Online attendance records &E compensation system is always followed and majority that is 92% respondent said that there is always a Paperless compensation system.

Othergreen practices -

Details	Always	Often	Sometimes	Rarely	Never
Effective utilization of	0	0	2	16	7
electricity					
Effective utilization of water	0	0	5	15	5
resources					
Reusing paper	1	5	16	2	1
Recycling paper	2	2	18	2	1



Interpretation -

In case of effective utilization of electricity&water resources 64% and 60% respondents said that it is done rarely. Regarding Reusing paper& recycling the paper 64% and 72% respondents respectively gave the reply as sometimes.

Findings -

Following findings can be drawn from the data analysis -

- As 72% of employees feel that their organization is a sustainable organization, it can be said that majority of the 1. organizations are sustainable organizations.
- When it comes to specifically HR department, 60% employees feel the department is good at green practices. 2. Therefore, it can also be said that majority of the HR departments implement green practices.
- 3. Majority of the executives feel that it is very important for the HR department to implement green practices. Here 88% respondents stated that it is very important.
- 4. Recruitment and selection -
- As stated by 100% employees, advertisement & CV collection is completely done online
- Interviews are mostly conducted online



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- Majority i.e. 80% respondents stated that the selection process is conducted online.
- According to the majority of the employees the overall recruitment and selection process is paperless or
 it can be said that it uses minimum papers.
- It is important to check the awareness and knowledge of employees while selecting them but according to 56% of executives it is rarely done.
- 5. Training
- There is less utilization of paper as 76% respondents stated that the training process always utilizes minimum papers
- The evaluation of training is also done online in majority of organizations.
- Only 48% executives said that the training is organized online.
- 'Inducting new joiner about sustainable/ecofriendly practices' never takes place
- There is a lack of sustainable training as 84% said training on sustainable development is never conducted.
- 6. Compensation management-
- There is Online attendance records&E compensation system is implemented in majority of the organizations
- The compensation system is paperless as 92% respondent said that there is always a Paperless compensation system.
- 7. Other green practices
- In case of effective utilization of electricity & water resources it is rarely done in organizations. 64% and 60% respondents have said so.
- Reusing paper & recycling the paper is done only sometimes as 64% and 72% respondents have stated.

Hypothesis Testing -

It was found from the data analysis that the null hypothesis will be accepted. Therefore, the alternative hypothesis will be rejected.

It can be concluded that,HR departments consider implementing green practices very important.

Suggestions -

The researcher has presented the following suggestions to the organization and HR department:

- 1. A firm hiring green employees would find its employees to be better involved in green goals of the organization. Therefore, it is suggested by the researcher that while selecting the employees the organizations should look for employees having knowledge and awareness about green practices.
- 2. To make it more effective organizations can include 'awareness related to green practices' as an important attribute in job specifications.
- 3. Eco-friendlier trainings can be organized
- 4. To enhance the awareness of the existing employees, organizations must organize trainings related to sustainable development.
- 5. For the new joiners, awareness related to sustainable/ecofriendly practices can be included in the induction program.
- 6. To motivate employees to undertake green practices, it should also be included in the appraisal process. Employees implementing green practices should be noticed and appreciated. It will motivate them and it will also motivate others to follow more green practices.

Limitations -

- Sampling size is limited to 25, selected on random basis.
- The study is conducted only for Pune city

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Empowerment of Women through Physical Education and Health

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ABSTRACT -

Women's participation in sports or Physical Education can make animportant contribution to public life and community improvement. It is historically mark by division and discrimination but also one crammed with main accomplishments by female athletes and significant advances for gender equality and therefore the empowerment of girls and girls. The positive results of sport for gender equality and women's empowerment are forced by gender-based discrimination in all areas and at all levels of sport and physical activity, powered by continuing stereotypes of women's physical capabilities and social roles. Experts agree that sport and physical activity involvement can potentially offer a white range of life welfares for girls and women. Sport and physical activity have not yet been used on a huge scale as a strategy within women's activities. Women's access to positions of leadership and decision-making is forced from the local level to the international level. In media, women's sport is not only banished but also often presented in a different style that reveals and reinforces gender stereotypes. Violence against women, exploitation and harassment in sport are indices of the perceptions of men's domination, physical strength and power, which are traditionally depicted in male sport. Women were often supposed as existence too weak for sport, particularly strength sports, like marathons, weightlifting and cycling, and it was often claimed in the past that sport was damaging to women's health, particularly their reproductive health. The participation of sport and physical activity can forms life skills, confidence etc.

Key Words - Empowerment, Women, Gender, Sports, Athletes.

Introduction -

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The Constitution of our nation do notdistinguishamong men and women, but our society has deprived women of certain basic rights, which were bestowed upon them by our Constitution. The dissimilarities between men and women and discrimination against women are an age-old issue all over the world. Thus women go after equality with man may be a universal phenomenon. Women should equal with men in matters of education, employment, inheritance, marriage, and politics etc¹. The participation of sport and physical activity can build life skills, confidence and body awareness and may create social networks, which outcomes in dramatic positive life changes for contributors. Systematic and amusingsports or physical activity benefits everyone. It can expand physical, mental, social and spiritual comfort and for the students and young people everywhere. It should be a part of daily life. Schools, in particular, play a critical role in development young people's physical activity, in teaching the skills and attitudes required to participate, and in providing a safe site for the activity to take place. In current years sport and physical activity as a policy for the empowerment of girls and women has been achievement recognition worldwide.

Importance of Sports or Physical Education -

Spots or Physical Education are an important part of the culture of almost every nation. However its use to encourage gender equity and empower girls and ladies is usually overlooked because sport isn't universally supposed as an appropriate or necessary pursuit for women and ladies. Existing social constructs of masculinity and feminist or socially accepted ways of expressing what it means to be a man or women in a particular socio-cultural content play a main role in determining access, levels of contribution and benefits from sports. It is true, in all countries that girls and women are less likely than boys and men to contribute in sport and sport continue to be dominated by males. Poverty, heavy domestic demands, safety anxieties, lack of accessible transpiration, insufficient sport and recreation facilities, and few opportunities for physical education and skills development frequently abstains women's participations in physical activity and sport. Being physically active, leaving home accompanied, or being seen by men outside their family are also additional barriers preventing girls and women from becoming involved in sport and physical activity.

Women's participation in sportor Physical Education has a long history. Among the severalnotablesuccesses are those of Helene Madison of the United States of America, the first woman to swim the 100-yard freestyle in one minute at the 1932 Olympics; Maria-Teresa de Filippis of Italy, the firstly woman to play in a European Grand Prix auto race in 1958; Nawal El Moutawakel of Morocco, the firstly woman of Islamic nation to victoryin an Olympic medal for 400-metre hurdles at the 1984 Olympics and TeglaLoroupe of Kenya, who in 1994 became the first African woman to win marathon. Women have occupied top governancepoints in sport, such as Presidents and Secretaries-General of National Olympic Committees². More and more women have also taken up occupation opportunities in all areas of sport, containing as coaches, managers, officials and sport journalists. Today millions of women not only take part in Athletic competition but create sensational records. Florence Griffith Joyner printed the 100mts. in 10.49 sec. and 200mts in 21.34 sec. Martina coach created a record of 47.60sec. In the 400meters Natalya LisoveSleava pushed the shot to a distance of 22.63mts. Some of these records achieved

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by women accept even those reached by many men Athletes in India³.

The country's poor performance on women's empowerment and gender inequality is also reflected in the gender development index. That is India is ranked 132 out of 148 countries on Gender Development Index as per the 2013 Global Human Development Report. Women in India are not encouraged to participate sport and physical activity. The conditions for Indian women in to take-up sports are subpar especially at an International level⁴. The resources to make successful Indian women's teams are readily available, but just need to be utilized. In this content, the Sports Council of India still advocated several policies in favor of sports and environment friendly activities with gender equality. The Council also pays great attention to establish new policies for women empowerment⁵.

Women and Empowerment -

Empowerment permits individuals to reach their complete potential, to increase their political and social contribution, and to trust in their own abilities. Empowerment can be noticed as means of forming a social environment in which one can make results and make choices either independently or collectively for social transformation. The empowerment reinforces the innate skill by way of obtaining knowledge, power and experience (Hashemi Schuler and Riley, 1996). Empowerment is a process by which people gain power over their lives that is empowerment enables women to do things for themselves in their own interests rather than at the command of others for their benefit.

The International Day of Action for women's Health, which celebrates the work of women's health advocates around the world to improve their communities and the lives of women and girls. "For girls especially, the idea of safe and supportive environment is crucial, given the burden and imitations placed on them by parents and social institutions that intensify as girl approach adulthood⁷."

Women and girls continue to encounter inequalities and deprivations in their daily lives, which prevent them from contributing towards both the creation of more equitable societies and sustainable development within their communities and beyond.

Women and Health Education -

As there is huge difference between thinking about health and worrying about health, so there is a difference between simply knowing about health and following the principles that facilitatemaintenance of good health. Health is man's most valuable possession and it is sensible for himto look after his possessions. Good health comes naturally to those of us. It is not a thing that hasto be sought after by continually taking medicines and pills. It is only when man has somethingwith him that he needs things to put it right.

Stable diet and systematic physical activity can benefit to sustain the girls and women healthy. The International Day of Action for women's Health, which revels the work of women'shealth supportersround the world to develop their communities and the lives of women and girls. The International community is being called upon to ensure a holistic and inclusiveapproach to women and girls' health as the global health community moves beyond 2015, thetarget date set for achieving the United Nations Millennium Development Goals. This is verypersonal and important issue for me since being exposed to the problem. Girls and women can become more physically active, benefiting their physical and mental health including the reduced risk they will suffer from chronic diseases, depression and anxiety and engaging in health risk behaviors⁸. Sports can also be a powerful health information and education platform, connecting girls and women with the information skills and strategies they need to reduce health risks in their lives, particularly in their sexual reproductive health. Sports and physical activity can help to increase self-esteem by giving girls and women opportunities to learn new advance skills, engage in positive relationships, acquire achievements, engage in volunteer services and receive public recognition. Barriers to Women & Girls' participation in sport & physical Activity⁹.

A. Practical barriers -

- · Lack of time and childcare
- Lack of transport
- Access to facilities
- Personal safety
- Funding

B. Personal barriers -

- Clothing and equipment
- Body image
- · Parental and adult influence
- Lack of self-confidence

C. Social and cultural barriers -

- Sexual harassment
- · Attitudes about sexuality
- Male-dominated culture of sport
- Female invisibility
- Attitudes about ethnicity
- Attitudes about disability

Recommendation -

- For women to be involved in sport activities there should need for training, establishingseparate clubs and advance funding, a responsibility for government.
- Women communities should be encouraged about the economic and social values theygain from sport participation.



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- Ministry of Women, gender and empowerment should put a policy that compels agovernment structures to involve women out of school to do sport and physical activities in their communities.
- Sport related programmes should be organized so as to motivate them and expose their talents.
- Girls do enjoy engaging in physical activities. Strategies should be implemented which build up this enjoyment, and allow them to participate as fully as possible.
- Practices should be established which recognize the importance of fun, health and social interaction in sports participation.
- School education may be a foundation of life-long physical activity. Fundamental movement skills got to be developed from an early age, for all children, with the stress on the individual body, instead of sporting outcomes.
- Some girls regularly engage in sports and physical activities, as an integral a part of their lifestyle. Any strategies concerned with raising participation among children got to remember that neither girls nor boys are 'the problem'; rather, the problem lies with the ways during which physical activities are constructed and presented.
- Sports program should reflect local cultural needs if they're to interact and sustain girls' participation.
- The organization of sports or education should be include women in key roles, like coaching and mentors, and role models drawn from within local communities and schools. These should reflect differences in perspectives and interests, and develop close links with schools and communities, to make sure continuity of engagement in sports and physical activities throughout life.
- The more opportunities that are available for women to be physically active, the more they're active. Strategies got to be put in situ that ensures activities; settings and facilities are easily accessible and safe. In fact that country and that Nation which doesn't respect women will never become great now and nor will ever in future and in pursuit of making women empower let's work together giving them (women) their much deserved status¹⁰.

Conclusion -

The gender equity and equality to great extent depend upon the mental strength of the people. Inthis conclusion apart from derived physical and mental well-being enjoyed by physically activegirls and women, a well-designed sport and physical activity can provide a good platform toenable positive life changes. The involvement of the women in sport will reduce their tensionand develop more confidence that will regularly raise their confidence. This stateessentials agood experience from the state itself. The preventing cultural and social barriers stand as anobstacle in their development scenario. That situation should change. Then the women with theirspirit in sports can be regenerated. Sport has substantial to empower women both economically and socially. Women are not awareof the values of the sport to their health; hence they are not motivated to venture into sporting atindividual level, family level into community level, as result of lack of education. Hegemonic masculinity, lack of education, poverty, lack of media coverage has emerged as the outstandingbarriers to women participation in sport both in towns and rural areas. Poverty in womencommunities has made women inactive in sport¹¹.

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Atya-Patya is a Key for Improve Agility

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Introduction -

In the modern scientific age in every field of human endeavoured, systematic objectives and scientific procedure are followed in accordance with the principles based on experiences understanding and application of knowledge of science. Atya-Patya is one of the most popular traditional sports in India and it is played quite extensively in the country. The propose of this investigation was to collect information about the fitness component Agility.

Methodology -

Fifty Male students (n=50) of aged 12-14 years from Mahatma Gandhi School Varangaon in Jalgaon were randomly selected for this investigation. The selected fifty boys students were randomly assigned into two equal groups viz., the control group (Group A; n1=25) and the experimental group (Group B; n2=25) for the experiment. Daily one hour Atya-Patya practice was given in morning for eight weeks to the experimental group. Pre, Post and experimental design was used to conduct this experiment.

Statistical Procedure -

Standardstatistic technique 't' test were used to analyzed the data.

Result of 4X10 Shuttle Run Test -

In case of Experimental group, the mean scores of pre and post test of Agility test were 11.5435 (SD.87715) and 8.1304 (SD 5.02090) respectively, Whereas, the mean difference was 3.41304 and the 't' values of post test was 3.211 Its reflects that the mean score of pre and post test of agility of experimental group were differ significantly.

Discussion -

The above statistics is helping us to understand the result of this investigation. The time of post test of the experimental group decreased by 3.413 seconds, it means the subjected of the experimental group were faster than the pre test, in agility test.

Conclusion -

The conclusion of this experimental study suggests that, daily Atya-Patya practice helps to improve Agility of school going boys

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A Comparative Study on The Benefits and Impacts of Yoga and Aerobics on Different Sorts of Anxiety

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Abstract -

Yoga and Aerobic practice have a few medical advantages. These incorporate further developed mind-set and prosperity, and diminished side effects of depression and stress. Exploration further proposes that the two methods of activity have an anxiolytic impact, albeit these discoveries are not steady across the writing. The current examination estimated the intense impacts of yoga and aerobics practice on state anxiety, quality anxiety and trait anxiety. Thirty members finished a one-hour yoga meeting, and fourteen returned multi week after the fact to finish a one-hour high-impact practice meeting. Preceding and after the meetings, members finished the State-Trait Anxiety Inventory (STAI) and the Mindfulness Attention Awareness Scale (MAAS). No distinctions in scores on the STAI and MAAS were recognized after the high-impact work out, anyway there was a critical decrease found in state anxiety and attribute anxiety after the yoga, without any progressions in characteristic care. The outcomes demonstrate that yoga has an anxiolytic impact, albeit the lopsided number of members made correlation troublesome. Yoga ought to be considered as a potential treatment choice for anxiety.

Keywords - Anxiety state; Trait; Mindfulness; Yoga; Aerobic exercise

Introduction -Anxiety has been characterized as an enthusiastic condition of over the top and nonsensical concern [1], and is perhaps the most widely recognized mental issues, close by misery [2]. In India alone, around 11.2% of the populace experiences an anxiety-related condition and is the most often detailed emotional well-being concern cross country [3]. Consequently, psychological well-being issues, for example, anxiety make up an enormous extent of inability in India, and is an incredible weight for the general wellbeing framework and the individual [4]. Anxiety is a perplexing reaction to an inward or outer upgrade, where manifestations incorporate sensations of apprehensiveness, apprehension, and cynicism [5]. Two unique kinds of anxiety have been characterized in the model of state-characteristic anxiety [6]. State anxiety is characterized as a reaction to a particular circumstance or danger [1], and is a flashing, and sometimes expected passionate state [6]. Interestingly, attribute anxiety alludes to an ongoing and stable character characteristic, which builds the danger of fostering an anxiety issue [1]. The state-characteristic model recommends that anxiety is an outcome of an association between the examination of upgrades and the enactment of the sensory system [7]. Anxiety is habitually treated with upper prescription [5]. Medicine, for example, specific serotonin reuptake inhibitors and serotonin-norepinephrine reuptake inhibitors treat anxiety on a neurochemical level [2]. These stimulant drugs hinders the physiological reaction of anxiety, by focusing on chemicals and synapses (noradrenaline and serotonin) engaged with anxiety [8]. Despite the fact that drugs might stifle the physiological reaction, there are potential incidental effects like weariness, sickness, discombobulation, and changed sexual conduct [8]. Consequently, examine non-drug and remedial mediations that could offer correlative treatment close by medicine, or an elective choice without the symptoms of drug prescription [1]. A few examinations recommend that unwinding based exercise, like yoga, brings about more prominent decreases in anxiety, and more noteworthy enhancements in disposition and prosperity than different sorts of activity like strolling, swimming and moving [13-16]. In investigations that explicitly looked at yoga and oxygen consuming activity in a similar accomplice, yoga was additionally exhibited to be more viable than vigorous exercise [13] and strolling, in diminishing anxiety [10,16]. Nonetheless, studies have been blended, as one examination found that yoga and vigorous exercise were similarly successful in decreasing manifestations of anxiety [17]. Alternately, in another situation, yoga was viable in expanding prosperity [14], and diminishing sorrow [9,18] however not anxiety as such. Yoga has turned into a mainstream sort of activity in the Western world [19]. This unwinding based exercise began as an otherworldly practice in India, roughly 5000 years prior [1,20]. The investigation depicted thus expects to look at the intense impact of yoga and vigorous exercise on state anxiety, with characteristic anxiety and quality care as extra measures. Since yoga is a lethargic, thoughtful and loosening up type of activity [11], it was normal that degrees of state anxiety would be diminished, where no adjustment of quality anxiety or attribute care would happen. Because of the idea of yoga, we anticipated that pulse and saw effort would be moderately low, as per past research [26]. Interestingly, oxygen consuming activity is a more extreme method of activity, and it was in this manner expected that pulse and saw effort would be high. In light of past investigations, it was guessed that there would be no impact apparent on state anxiety [13] following vigorous exercise, without any progressions in characteristic anxiety or quality care.

Methods

Participants

A factual force investigation was directed utilizing G*Power, which yielded an expected example size of 36 members. Albeit, the designated test size was not met, 30 grown-ups, matured 18-49 years (M=24.1, SD=6.0), finished a one-hour yoga meeting. Fourteen of these members (M=24.1, SD=4.8) returned multi week after the fact to finish a one-hour vigorous



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exercise meeting. Segment information of members are summed up in Table 1. The members fulfilled the incorporation standards of being over the age of 18 years, The members didn't rehearse yoga or vigorous exercise more than one time each week. The vast majority of the members announced having more involvement in oxygen consuming activity. Be that as it may, a higher number of members detailed an inclination for yoga as a method of activity (Table 1). The members who detailed yoga as an inclination clarified that "it appears to be simple" and "it is useful for my psyche". Those members who favored oxygen consuming activity depicted that "I like the energy delivery" and "feels more dynamic".

Variables		Yoga (N = 30)	Aerobic Exercise (N = 14)
Gender	Female	21	9
	Male	9	5
Age M(SD)		24.1 (6.0)	24.1 (4.8)
Ethnicity (%)		White/Caucasian (70.0)	White/Caucasian (71.4)
		Asian/Pacific Islander (20.0)	Asian/Pacific Islander (21.40)
		Other (10.0)	Other (7.14)
Occupation (%)		Student (86.7)	Student (64.3)
Previousexperience	Yoga	10.8	15.5
(months)	Aerobics	25	24
Preference (%)	Yoga	73.3	64.3
	Aerobics	16.7	28.6

Table 1: Demographics of participants by exercise group.

Design

This study used a cross-over design, however, due to the small number of participants returning to the aerobic exercise session, comparisons were only made within conditions (i.e., from pre to post for yoga and aerobics, separately). The dependent variables were state anxiety, trait anxiety, trait mindfulness, perceived exertion and heart rate.

Materials

Demographics: The demographics questionnaire was used to provide information about the sample regarding age, gender, ethnicity, and occupation. Questions about previous experience, regular practice, and preference of exercise were also included.

State and trait anxiety: To quantify state and trait anxiety, the State-Trait Anxiety Inventory [27] was utilized. The STAI comprises of 40 things appraised on a 4-point Likert-type scale. The structure estimating state anxiety (Y-1: 20 things) incorporates things, for example, "I am stressed" and "I am loose" as pointers of what is felt in the present, where scores range from 1 (not in the slightest degree) to 4 (without a doubt so). The structure estimating trait anxiety (Y-2: 20 things) incorporates things, for example, "I have upsetting musings" and "I'm content" as markers of what is by and large felt and is scored from 1 (never) to 4 (quite often). Absolute scores were determined by summarizing the things in each particular type of anxiety (going from 20 to 80), where higher scores reflected more prominent degrees of anxiety. Cronbach's alpha (?) was determined for interior consistency, to evaluate the dependability of the scale. Inside consistency in this investigation regarded brilliant in the yoga meeting (state anxiety; pre ?=0.92, post ?=0.88, trait anxiety; pre ?=0.89, post ?=0.85) and in the vigorous exercise meeting (state anxiety; pre ?=0.86, post ?=0.89, trait anxiety; pre ?=0.86, post ?=0.84). The STAI has recently shown satisfactory inward consistency, test-retest unwavering quality, and legitimacy [28,].

Mindfulness: To quantify trait care, the Mindfulness Attention Awareness Scale was utilized. The MAAS involves 15 things appraised on a 6-point Likert-type scale ranging from 1 (quite often) to 6 (never), including things, for example, "I hurry through exercises without being truly mindful of them" and "I nibble without staying alert that I 'm eating" as markers of trait care. A complete score was determined by averaging a mean of the things, where higher scores addressed more prominent degrees of dispositional care. Inner consistency in this investigation was astounding in the yoga meeting (pre ?=0.90, post ?=0.91) and in the high-impact practice meeting (pre ?=0.92, post ?=0.87). The MAAS has recently shown high unwavering quality and is proposed to be the most exactly substantial care measure [30]. Effort. Borg's Rating of Perceived Exertion Scale [31] was utilized to quantify member 's saw levels of actual effort. The RPE is a 15-point scale that reaches from 6 (no effort by any stretch of the imagination) to 20 (maximal effort). The RPE is normally used to quantify emotional exertion during actual exercise and have recently exhibited sufficient unwavering quality and legitimacy [32-34]. Pulse. Polar pulse screens were worn constantly to quantify pulses in every one of the various methods of activity.

Procedure

Members finished the State-Trait Anxiety Inventory (STAI) and the Mindfulness Attention Awareness Scale (MAAS) prior and then afterward every meeting. These polls were assembled into an online overview (Qualtrics, Provo, Utah, and Seattle, Washington, United States) and shipped off members through instant message. A subset of the members likewise had pulse screens fitted before every meeting. The limitation was because of the predetermined number of pulse screens accessible. Proficient teachers were utilized to lead both exercise meetings. Before the yoga meeting, the teacher presented the idea of yoga and its sluggish and thoughtful nature. Contemplation music was played to supplement the yoga practice. Before the heart stimulating exercise practice meeting, the teacher momentarily clarified the class, and played peppy music

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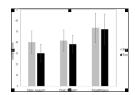
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during the meeting.

Statistical Analysis

A combined examples t-test with a ? of 0.05 was led to look at pre-and post-scores in state anxiety, trait anxiety, and trait care (N=30). There was a huge distinction (12.6%) found among pre-and post-scores in state anxiety, t(29)=5.64, t(29)=5.64,

Figure 1: Pre- and post- mean scores in the yoga(STAI and MAAS). Error bars represent standard deviations. Note* represents a significant difference between pre andpost.

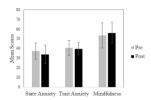


During the session, the average heart rate (M=76.3, SD=11.6) and maximum heart rate (M=115.7, SD=20.6) was recorded from the subset of 10 participants (n=10). The average score on perceived exertion (M=8.7, SD=3.0) from the sample size of 30 participants, was low (N=30).

Aerobic exercise -

There was no significant difference found in either state anxiety, t(13)=1.38, p=0.190, trait anxiety, t(13)=1.06, p=0.310, or trait mindfulness t(13)=-1.80, p=0.096 (Figure 2) following the aerobic exercise session. Cohen's effect size value for state anxiety (d=0.37), trait anxiety (d=0.12), and trait mindfulness (d=0.21), indicated trivial to small differences

Figure 2: Pre- and post- mean scores in the aerobic exercise (STAI and MAAS). Error bars represent standard deviations



The average heart rate (M=141.0, SD=26.8) and maximum heart rate (M=178.8, SD=12.4) was recorded during the session from a subset of 4 participants (n=4). The average score of perceived exertion after the session, was somewhat high (M=17.0, SD=1.8), from the sample size of 14 participants (N=14).

Results and Discussion -

The current examination inspected the intense impacts of yoga and aerobics practice on state anxiety, trait anxiety and trait care. Members finished a yoga meeting and returned the next week to finish a meeting of aerobics work out. In any case, because of the modest number of returning members, the plan of this investigation was modified. The outcomes were hence dissected and deciphered independently. The outcomes offered help for all theories, barring the announced decrease in trait anxiety, which was in opposition to the creator's assumptions.

As per the primary speculation, there was a huge change in state anxiety following yoga, while no huge distinction was distinguished after oxygen consuming activity. This finding is in concurrence with past research where yoga likewise diminished state anxiety, while no impact was clear from aerobics practice [13]. Albeit in the current investigation, the discoveries from the two methods of activity could not measure up straightforwardly. The impact of the yoga on state anxiety could be clarified by the sluggish, unwinding and thoughtful practice, which has recently been shown to lessen neurotic concern [11]. The discoveries are additionally upheld by a few different examinations [10,11,16], however negate other exploration that have discovered yoga to either have no impact, or equivalent impact on state anxiety when contrasted with vigorous exercise [9,17]. The members enlisted in this investigation notwithstanding, were solid members, while the previously mentioned studies included people utilizing a clinical analytic models of schizophrenia, discouragement and anxiety issues [9,17]. Auxiliary discoveries uncovered a critical contrast in trait anxiety after yoga, unsupportive of the subsequent speculation, albeit no huge distinction was found after vigorous exercise. Trait anxiety was utilized as an overall measure for unconstrained changes and was subsequently not relied upon to change in either methods of activity. The decrease in trait anxiety was not as extraordinary as in state anxiety, albeit still unanticipated as the STAI (Y-2) gauges an apparently, stable dispositional trait [1]. Past research that has utilized the STAI to gauge contrasts in trait anxiety after a yoga mediation,



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tracked down no huge changes [28]. A potential clarification is that yoga has not changed trait anxiety straightforwardly, yet the apparent experience of trait anxiety, which might have been limited by sensations of unwinding. Notwithstanding, the STAI is a grounded and dependable measure [28]. An elective clarification is that the adjustment of trait anxiety was because of unconstrained reactions, as large numbers of the members knew about the thing was being estimated in the examination,

The third finding was that yoga and aerobics practice had no huge impact on trait care, in accordance with the third theory. Like trait anxiety, the care scale was utilized as an extra measure, and hence no impact was normal. Care is a generally wanted and expected result of yoga [1]. Despite the fact that, research recommends that care takes significant practice, and would typically be relied upon to increment over the long run [11,35] Interestingly, the investigation by [35], tracked down that an oxygen consuming activity intercession improved dispositional care over a multi week time span, though a similar unwinding based exercise mediation yielded no change[35]. Usually however, care has been utilized as a similar measure with yoga, yet not as a result measure [11,36]. Subsequently, future examination could zero in on researching the intense impacts of voga and vigorous exercise on state care, and then again, after some time on trait care. The aftereffects of the current investigation further showed that pulses were low during the yoga condition, and thus evaluations of saw effort were accounted for to be low. In the oxygen consuming activity condition, pulses were high, which was likewise intelligent of the great evaluations of saw effort. No examination, nor indisputable causality can be made between the methods of activity as far as its anxiolytic impact, in spite of the fact that it gives a sign of the physiological reactions of the various methods of activity. Notwithstanding, in this investigation, discoveries recommend that yoga has an anxiolytic impact, especially in focusing on state anxiety. These discoveries have suggestions in remediating elective intercessions for anxiety, particularly as a type of restorative self improvement. These outcomes likewise support past investigations [13,16,17], albeit the limits require thought.

Conclusion -

Yoga and aerobic exercise are suggested to yield several different health benefits, although there are mixed findings on their anxiolytic effect. The present study foundy ogatosignificantly reduce levels of reported state anxiety, which has implications to how general anxiety is treated. A reduction was further detected in trait anxiety following yoga, although this could be due to spontaneous responses. In contrast, aerobic exercise had no significant effect on state anxiety, trait anxiety or trait mindfulness. Yoga should be considered further as a treatment for anxiety.

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Study on Insects Biodivesrity from Gautala Sanctuary, Chalisgaon, (Patana) Area

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ABSTRACT:

All arthropodian insects play an important role in the various habitats of the ecosystem on earth. Present survey was conducted to make a check list of insect's richness, abundance from Gautala Santury Chalisgaon region. There was no known published list of insect's fauna from selected area of study till now. Therefore, this is the first study which reports on abundance and distribution of insects fauna in Patana, Autram ghat of Chalisgaonregion; district Jalgaon, Maharashtra, India. In this study, a total of 743 individual insects from 18 orders were collected. Based on the collection of data, Hymenoptera (16.55%) with highest diversity index of H' = (2.297)were the most dominant insects fauna in the study area. Followed by Coleoptera (15.75%), Lepidoptera (15.21%), Diptera (9.96%) and Hemiptera (7.94%) compared to other insects order, a very least insects order was Dictyoptera, Mecoptera (0.94%) with relative abundance, pi = (0.042). In the present study overall biodiversity indices showsrelatively high insect's biodiversity.

Key word: Arthropodian insects, Biodiversity, diversity index, species richness.

INTRODUCTION:

Arthropodian insect's biodiversity functioning various habitats of the ecosystem because of their diversity, ecological role, influence on the agricultural, human health, and natural resources (Berenhaum1995; Adetundanet. al., 2005; Premalathaet al., 2011). Insects also play an important role in the Pollination, soil turning, aeration, dung burial, pest control, seed disperser's and wildlife nutrition (Gullan 2005). Insects are closely associated with lives and affects the welfare of humanity in diver's ways (Srivastava and Basera 2021). Some insects such as predatory beetles or parasitic wasps control pests by keeping their population in check. Insect's predators comprise approximately 10% of all insects and parasitic insects include approximately 15% of all insects, which play an important role in biological control. Insects are the oldest and most important pollinators of the angiosperm. Insects began pollinating flowering plants approximately 140 million years ago.

At least one third of the world's agricultural crop depends upon pollination provided by insects and others. Among the insects, hymenopterans are largest and diversified assemblages of beneficial insects constitute the most important group of pollinating insect (Pannure 2016). Some insects are producing productive materials like lac and silk. The lac insect ecosystem is a complex multi-tropic web of flora and fauna. It represent a rich biodiversity, which includes besides lac insects, lac host plant, and several predators of lac insects, beneficial parasite, harmful parasite, microbs and a variety of pests of hosts plants. Over three million tribals, inhabiting the Indian states are engaged in lac cultivation. India accounting for about 50 - 60 % of the total world lac production 20,000 metric tonnes/annum (Sharma et al, .2006).

Taxonomic identification of insects in diversity studies through para taxonomy and morphospecies is the need of the hour (Krell, 2004; Majka and Bondrup, 2006), as the biodiversity of an ecosystem is known through biological inventory, including entomofaunas. Keeping this view in mind we have selected this topic to study the insect's biodiversity, richness and abundance of the habitats, ecosystem and characteristic features of insects fauna found in and around selected area of Patana, Autram Ghat, Gautala Santury of Chalisgaon region because of since there was no published chick list of insect's fauna.

MATERIAL AND METHODS:

Study Area:

The present study is undertaken in and around the Patana Gautala autram ghat sanctuary Chalisgaon which is located in the Ajanta and Satmala hill ranges of western ghat in the proximity of Aurangabad and Chalisgaon, district Jalgaon state of Maharashtra. Latitude 20.456817 and Longitude 75.003059 at geo- coordinate of 200 27' 50.6844" N and 740 59' 48.6852 E. Situated near Gautala autramghat sanctuary. It is only 18 Km away from Chalisgaon. Patanadevi is a historic place which is situated inside the (Wildlife Sancturary). This is surrounded by high mountains of Sahyadri blessed with green vegetation, having medicinal plants, large trees, shrubs, herbs and grasses of different types it covers a total area of 26,061.19 hectares 64.399 acres with reserved forest area of 19706 ha. In Aurangabad and 6355.19 ha.,in district Jalgaon.

METHODOLOGY:

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The study was conducted at patana Chalisgaon regionfrom September 2021 to February 2022 insect's collection were done with the help of digital camera by taking the photographs of insects from early morning 8 am to 5 pm., at each field visit. But preservation of all insects was avoided the diversity index was calculated by using the Shannon-Wiener diversity index (1949).and Diversity index $H' = -\sum pi$ in pi where pi = n/N. n = number of individual of one logarithm to base e.

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Table: 1
Total number of insects and % of insects Orders in the study area.

No,	Orders	Total number	Percentage
		(Approximately)	(%)
1	Collembola	15	2.02%
2	Isoptera	09	1.21%
3	Coleoptera	117	15.75%
4	Dermaptera	12	1.62%
5	Dictyoptera	07	0.94%
6	Diptera	74	9.96%
7	Grylloblattodea	56	7.54%
8	Hemiptera	59	7.94%
9	Hymenoptera	123	16.55%
10	Neuroptera	20	2.69%
11	Lepidoptera	113	15.21%
12	Mecoptera	07	0.94%
13	Orthoptera	52	7.00%%
14	Phasmatodea	08	1.08%
15	Odonata	29	3.90%
16	Thysanoptera	16	2.15%
17	Thysanura	17	2.29%
18	Trichoptera	09	1.21%
Total n	umber of all	743	100
insects			

Table no. 2 Relative abundance and Shannon- wiener index diversity H' in the study area.

Sr.	Insects Order	n	Relative	In	Pi*In
no.			abundance	"pi"	(pi)
			(pi)		
1	Collembola	15	0.020	-3.912	-0.078
2	Isoptera	09	0.012	-4.422	-0.053
3	Coleoptera	117	0.157	-1.851	-0.290
4	Dermaptera	12	0.016	-4.135	-0.066
5	Dictyoptera	07	0.009	-4.710	-0.042
6	Diptera	74	0.099	-2.312	-0.228
7	Grylloblattodea	56	0.075	-2.590	-0.194
8	Hemiptera	59	0.079	-2.538	0.200
9	Hymenoptera	123	0.165	-1.801	-0.297
10	Neuroptera	20	0.026	-3.649	-0.094
11	Lepidoptera	113	0.152	-1.883	-0.286
12	Mecoptera	07	0.009	-4.710	-0.042
13	Orthoptera	52	0.069	-2.673	-0.184
14	Phasmatodea	08	0.010	-4.605	-0.046
15	Odonata	29	0.039	-3.244	-0.126
16	Thysanoptera	16	0.021	-3.863	-0.081
17	Thysanura	17	0.022	-3.816	-0.083
18	Trichoptera	09	0.012	-4.422	-0.053
	Number of individuals (N)	743			
	Species Richness(S)	18			
	Shannon Wiener Index of	2.450			
	Diversity (H')				

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RESULT:

This is first and preliminarystudy on insectdiversity from this area which reports on abundance and distribution of insects fauna in the Gautala sanctuary from Patana, Chalisgaon region Maharashtra. The diversity study of insect's fauna in present study area can be utilized as an indicator of changing seasonal environment conditions of the study area.

In this study we have collected a total 743 individual insects from 18 Orders were observed and photographed during the study period. The diversity index was calculated by using the Shannon-Wiener diversity index (1949). Diversity index $H'=-\sum pi$ Inpi where pi=n/N. n= number of individual of one logarithm to base e. Based on the obtained result Hymenoptera with highest diversity index of H'=0.297 were the most divers and abundant order among collected insects. Coleoptera 0.290 and Lepidoptera 0.286 were ranked as second and third after Hymenoptera respectively. The overall insect's diversity indices of Shannon – Weiner indexwere 2.450 the relative abundance.

CONCULUSION:

This study was an attempt to chick the biodiversity of insects from study area. Science a preliminary study, a lot of research is necessary and further collection is essential for getting a record of the various types'insects and faunal diversity of insect from this area for development of standard monitoring procedure for assessing environment condition and stability of this area

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Changing Role of Academic Libraries in 21st Century

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Abstract:

With the advancement of information and communication technologies (ICTs), educational libraries have undergone radical changes today and as a result, academic librarians have new roles to meet the ever-changing needs of library users and will remain relevant in the 21st century. The purpose of this paper is to discuss key motivations for change, key role models, new roles of academic librarians. This paper clearly reflects the paradigm shift that has resulted from the technological developments required for effective and efficient services by 21st century academic libraries.

Keywords: Academic Libraries, Librarian, OPAC, ICT, Social media.

Introduction:

The ICT revolution has brought about radical changes in the education system and educational institutions. Educational Academic libraries cannot be separated from this, they have to change accordingly. Academic libraries development is always linked with the development of the parent organization. The main function of academic libraries is to support the goals, mission, vision and objectives of the organization. Academic libraries therefore support the organizational activities of staff, students and researchers in their academic community for teaching, learning and research.

Changes in Academic Libraries:

Academic libraries are changing dramatically by adopting new technologies in all activities ranging from printed library card catalogs to printed e-environments such as computerized OPAC system with various web based graphical user interface (GUI) functions, numerous availability of databases, journals, information resources, services for its users. To cope with the explosion of new information, academic libraries will have to face more challenges and opportunities to serve students, professors, staff and researchers, all with many expectations and many demands created by the rise of emerging and cutting-edge technology in educational environment. Libraries are no longer regarded as a storehouse of knowledge but as a means of Knowledge Resource Center. Information and communication technology (ICT) has profoundly affected all types of libraries. But we would like to emphasize that the future of academic libraries depends on external and internal changes. ICT is providing opportunities and challenges to libraries and information professionals.

The main reasons for changing academic libraries are as follows-

Advancement of ICT:

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ICT has affected education, culture, pedagogy, teaching, research, scholarly dialogue, libraries and information centers, medical health, agriculture and so on. Everything now depends on ICT and becoming electronic is the way to go in every field. Today we have telemedicine, e-agriculture, e-business, e-government etc. Digital technology has revolutionized communication, learning, and work, and more recently, cloud computing. Academic libraries have adopted new technologies to achieve the impact of technological applications. They are striving to convert the entire collections into electronic resources and services to e-services.

- Change in Education System: Education system has undergone a radical change in the 21st century. Today we have new methods of teaching and learning, such as: Open and Distance Learning, LMS, M-Learning, Virtual and Flipped Classrooms. All these recent trends are having a huge impact on education system and also on academic libraries. Academic libraries provide library services to support their e-learning and e-teaching for its users and provide the right information in the right format at the right time.
- Changes in Users Needs: The rapidly changing ICT and education systems have a huge impact on users information needs. With the advent of technology, users are well acquainted with the latest trends in the information environment. It becomes one of the major motivation for change in modern academic libraries. Library users have higher expectations than ever before of getting the right information and knowledge from librarians and information professionals in the right format and at the right time
- Genesis of Social Media: This is another drive for change in 21st century educational libraries. Social media is designed to achieve collaboration, exchange of ideas and achieve goals. Examples of social media are blogs, forums, wikis, social networking sites, micro blogging sites, social bookmarking sites, MySpace, LinkedIn etc. Academic librarians are using them to collaborate with library users. For example, as a Pedagogical tools, blogs can be used as a means of communication among librarian, library communities such as faculty and students to provide discussion forums on subject-related topics and current awareness.
- Role of Academic Librarian: Librarians' work is changing in an educational environment of greater access
 to information, increased speed in retrieving information, greater complexity in finding, analyzing and adding

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information, constantly change in technology and lack of standardization. In today's ICT environment, academic librarians need to work as a team to deliver service-oriented and user-centric applications and services. Technology is a major cause of change, Librarians are expected to explore and exploit technology to its fullest potential to increase the provision of library services. Librarians must uphold their traditional values of the profession and library services reveal new ways to meet the ever-changing needs user communities at the same time. Librarians play major role such as knowledge worker, effective marketer, digital content manager, blended librarian, etc.

Conclusion:

The conversion of traditional libraries to technology base libraries is almost a trend of libraries in the world. When we discuss the advancement of technology in the library, there are many new things that are related to the growth of library services and management. The library began implementing new features to provide information and knowledge to its users. Librarians must face the challenges of the future by dealing with rapid changes, managing diversity of its users and think globally. The role of librarians has been expanded in the new technological environment and adopt new tools and techniques.

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'Post - Colonialism: Identity and Alienation in V.S.Naipaul's Half a Life'

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"Whenever colonization is a fact, the indigenous culture begins to rot. And among the ruins something begins to be born which is not a culture but a kind of subculture which is condemned to exist on the margin allowed by the European culture. This then becomes the province of a few men, the elite, who find themselves placed in the most artificial condition, deprived of any revivifying contact with the masses of the people."

[Aime Cesaire, 1956]

"On the margin of European culture and alienated from his own , the 'coloured' intellectual is an artefact of colonial history , marginal man par excellence . He is a creature of two worlds , and of none. Thrown up by a specific history , he remains stranded on its shores even as it recedes ; and what he comes into is not so much a twilight world , as a world of false shadows and false light."

[A. Sivananda, 1974]

V.S.Naipual in 'Half a Life' sketches the wayward functioning of the half – made post colonial societies , full of the displaced individuals like Willie Somerset Chandran.

'Half a Life' has three locales - Indian, England and Africa. It is a pilgrimage of Willie towards fulfillment. The protagonist Willie Chandran, born of a Brahmin father and a scheduled caste mother, after getting education in Mission School, goes to London from India on a scholarship for higher studies and feels alienated there. Willie in foreign atmosphere becomes aware of the harsh reality of life. Being uprooted from his own culture he fails to get fulfillment anywhere. It is difficult for him to adapt to the imperial culture. He floats aimlessly trying to secure himself. The racial riot in London makes him to hide himself from the world outside. He heard people saying, "Those blacks are going to be a menace." 1 He gets first cultural shock: "He felt people were looking at him. He felt the newspapers were about him. After this he stayed in the college and didn't go out." 2 As a part of the half developed societies Willie feels agony. For the immigrant, who is cut off from his roots and culture, struggle for existence leads towards half a life and it is quite impossible for him to have completeness. Willie's friend Percy Cato, a boy of Jamaican mixed parentage, is no exception to this crisis arising out of a change of environment. Naipaul highlights the cultural alienation as a world phenomenon in the Post – Colonial World. Like Ulysses he fights for order, placement in life. He decides to become a writer but fails to establish himself as a writer . The frustrated soul whispered: "let the book die. Let it fade away. Let me not be reminded of it . I will write no more." 3 All the individuals in the world, however low their social and economic conditions, they desire to set themselves. And this desire becomes more powerful for any individual like Willie who for some or other reason is displaced from his origin and becomes a scholar – gipsy in search of completeness.

Ana , the daughter of a plantation owner from an unnamed Portuguese colony in Africa , comes in the half – life of Willie , who is in search of completeness . She leads Willie , to her home , a Province of Portuguese Africa . Willie's dry root like life gets rain. Naipauls states: "And what was most intoxicating for Willie was that for the first time in his life he felt himself in the presence of someone who accepted him completely . At home his life had been ruled by his mixed inheritance . It spoilt everything." 4 His sensual life with Ana , African girls and Greca begins. For the first time satisfaction comes to Willie , but through sex only : "Willie's submission to sexual desire is wholly believable for the very reason that he has previously been stunted into half – life by the constrictions of caste in India and class in England. Africa releases him into sensuality." 5

Sexual fulfillment in the case of Willie proves a solution on meaningless and vacant. Life 'Half a Life' is full of Willie's sexual encounters in search of fulfillment . But these too end in disillusionment . Naipaul describes Willie's life with Ana in the third ad final part of the story during the Post – Independence Civil War period in Portuguese Africa . With the rise of the Civil War , the Colony is about to explode into a revolution with a thirst for blood. Ana tells Willie, "Africans may not be afraid of you and me , but they are afraid of one another . Everyman has access to the fetish – man , and this means that even the humblest man has power. In that way they are better off than rest of us." 6 With this Willie realizes his half life ,leaves Ana and Africa and goes to Germany to his sister Sarojini . Both Ana and Willie realize that exile is a half – life . Uprooted from his culture , Willie cannot get any permanent fulfillment anywhere . Sarojini's life with her German husband , whose occupation is to make films , is also a half – life . Greca and her husband too lead half – life . They move from one place to another and job to job. Naipaul describes the struggle of all displaced individuals for existence and their failure to find perfection or completeness. It is impossible for the man like Willie to have completeness in the Post – colonial society. Displaced from his own culture he feels identity crisis. 'Half a Life' analyses the pangs of exiles their sense of alienation ,



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their failure to adopt the foreign culture fully and their living a half – life. It portrays the lives of the people of mixed descent in the countries like India, England, Portuguese Africa and their fight for identities. 'Half a Life' like other fictional and non - fictional works of Naipaul is a discussion on the themes of exile, dislocation, alienation and the painful dilemmas in the half made societies of the post - colonial period. It is a story of Willie's alienation, disorientation and emptiness in the ruined colony of Africa, where he continues his search for wholeness but becomes only half - successful. It takes him eighteen years to realize it. He says, "now the best part of my life has gone, and I've done nothing I have been hiding for too long." 7

Though Naipual's 'Half a Life' ends with a note of disillusionment, it gives a massage that on can find fulfillment only in his own culture: "He (Naipaul) is to a very high degree a cosmopolitan writer, a fact that he himself considers to stem from his lack of roots; he is unhappy about the cultural and spiritual poverty of Trinidad, he feels alienated from India, and in England he is capable of relating to and identifying with the traditional values of what was once a colonial power." 8

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- Ibid P.109
- 2) Ibid P. 123
- 4) Ibid P. 125
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"Study on Environment, Health and Safety Conditions in Educational Institute"

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Abstract

The issue of environment, health and safety (EHS) Is receiving more attention as an increasing fraction of the world's population are now living in urban centres and are demanding a cleaner environment. Disaster like fire, air and water pollution, noiseintensity, heat trouble is considered as the most important contributing factor for humanhealth. The growth and development of any educational institute is depending on student, so the main responsibility of institute is to maintain safe working environmental conditions in their premises for students and staff. To keep this thing in mind, the present study wascarried out at one of the most reputed educational institute of Jalgaon city, Maharashtra. This study shows the risk and chances of the simple/electrical/chemical fire in educationalinstitute with awareness among the administrations, staff and key point i.e. student. This study was assessed ambient/workplace air and noise quality, drinking water quality, lightintensity within the college campus to show this parameter will within permissible limitor not. This study also gives information about the environment, health and safety of staff and students within the college campus.

Key words: EHS, disaster, education institute, safe working, risk, awareness, campus

Introduction

- The issue of environment, health and safety (EHS) is receiving more attention as an increasing fraction of the world's population are now living in urban centres and aredemanding a cleaner environment.
- Disaster like fire, air and water pollution, noise intensity, heat trouble is considered asthe most important contributing factor for human health.
- The growth and development of any educational institute is depends on student, so themain responsibility of institute is to maintain safe working environmental conditions intheir premises for students and staff.
- To keep this thing in mind, the present study was carried out at one of the most reputededucational institute of Jalgaon city, Maharashtra.

- To study the unsafe conditions in Educational Institutes. To evaluate the risk associated with unsafe conditions.
- To prepare the report regarding EHS conditions.

Hypothesis

FHS study will assess the risk factor (fire) and critical study on community healthmanagement (Environnment measure: Air/Drinking Water/Noise Quality) at variouslocations in selected Educational Institute due to unsafe working conditions and its effecton staff/'students and other residential peoples in the vicinity of these areas.

Material and Methodology

Parameter	Methods
Fire Risk	Survey
Ambient and Workplace Air Quality	By RDS Sampler
Monitoring and Ass Assessment	
Water Quality Assessment	By APHA-1998 Method
Monitoring and Assessment of Noise	By Noise Level Meter
Monitoring and Assessment of Light	By Lux Meter
Intensity	

Result & Discussions Fire Risk

Conclusions

- From the study of Fire & Fire Risk, it was concluded that some science faculties laboratories were not followed the practical manual procedures. In some laboratories there was some unsafe conditions and unsafe practices which cure by CAPA (Corrective and Preventive actions)
- Some laboratories follow good practices like separate collections of solid waste, display of MSDS sheet, display of Safety rules, display of Emergency contact numbers etc.
- From the study of ambient air monitoring data, it was concluding that the observed ambient air quality was high at Main gate, and Parking Area of the college campus beyond the National Ambient Air Quality Standards. The



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maximum concentration of SPM was found at parking area i. e. 244.8 ug/m'. With this reasons the vehicular traffics high at all times in this area including all types of vehicles which leads to increase the concentration of SPM. For this reason, College authority plants more trees around the boundary level of college premises. Theanalytical results of collected water samples were evaluated by using standardAPHA (1998) methods. The obtained results were compared with standards given byBureau of Indian Standards (BIS) for drinking water. The obtained result of drinkingwater quality was within permissible limits given by BIS.

- The ambient and workplace quality was monitored and it was conclude that the ambientNoise quality was exceeding the permissible limits given by MPCB for silent zones. Theobservations shows the Noise Level exceed the permissible limit at Main Entrance (GateNo. 1) and Second Entrance (Gate No. 2). The recorded noise level at Main Entrance (Gate No. 1) during day time and night time was 105.1 & 68.7 dB respectively, whileatSecond Entrance (Gate No. 2) it was 60.8 dB during day time and 44.1 dB duringnight time. According to MPCB standard of Noise Level, the observed values at respectiveareas exceed the permissible limit. This is because of the vehicles like buses, trucks, tractors, motorcycles; delivery vans etc. running on the roads and generators during powercut hours. The bad condition of the vehicles especially tractors metallic body and their vibration produce much noise. The bad condition of roads and the drivers' behaviour of using horn add more noise to respective locations.
- The illumination levels at all locations were found good according to standards

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An Analysis on Collision of Social Marketing on Customer Attitude

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Abstract

In this present scenario social media marketing is most important and successful tool for every kind of business. Implementation of social media marketing has raised the profit margin of sellers and a huge variety of products are available to customers in a single click. In these study 100 customers as respondents have been taken for survey out of it 85 respondents actively participated in this and rest didn't show interest to answer in it. The mode for collection of primary data is google form through likert five point scales, mean and percentage method is used as a statistical tool.

Keywords: - Marketing, Media, Social, Products.

Introduction

Now-a-days social media is one of the places where communal gathering is possible in all around the world. Users can easily retrieve the information regarding trendy lifestyle fashions and entertainment. All kind of people are frequently using social media sites for easy purchasing. Customers have a remarkable use of technology which increases the behavior attitudes, needs, wants and desires. Customers are engaged in buying the branded products which helps to expand the business and also to raise the revenue. It is important medium to connect with the customers along with updated knowledge.

Brief Review of Earlier Study

Smith Michelle Taylor, "Consumer Perception for the Brands Social Media Marketing", (2014), in these research author major outcomes, the study is based on brand marketing in which his efforts shifted to customer control communication. Brand provides promotions. It was found that consumers mostly preferred branded products as a loyal product.

ANLIN PA, "A Study on Consumer Perception towards Social Media Advertising", (2021), the author tries to connect that most of the customers were engaged in social media platforms. Customers found as an interesting and interactive source for buying products. In this scenario social media marketing is playing very crucial role for connecting consumers.

Gibson Nya, "An Analysis of the Impact of Social media Marketing on Individuals Attitudes and Perceptions at NOVA Community College", (2018), the footprints of this study shows that social media plays a very important role in revenue generation in business. But some of its propagandas many times didn't meet the consumer demands and not satisfy it which creates a challenge and opportunity for seller.

Objective of Present Work

- To study about customer buying behavior through social media marketing.
- To spot out the factors influenced.

Methodology for the Existing Work

The study was formulated through survey questionnaire. The motive of this research study was to determine impact of social media marketing on customer. The data for this research was data collection was done from male and female social media users.

Sampling Design:

The social media marketing have various medium. Among them most popular sites facebook, whatsapp, instagram, twitter, snap chat and many more. The sample population is collected in the study taken with the help of convenience sampling method.

Sample Size:

Sample size for this study is limited up to 100 customers of Raipur city as respondents out of which 85 respondents answered and rest didn't show there any interest for attending questionnaire.

Sources of Data:

Both primary and secondary data sources have been used for this research. Primary data has been collected with the help of well structured questionnaire and secondary data was taken from facebook, twitter, instagram, snap chat, you tube and many mother social media sites.

Statistical Tools:

For this research analysis mean and percentage method are used as a part of statistical technique.

Research Design

It is a blueprint created by researcher coming towards a valid conclusion under this study. With the help of it a researcher is being conducted and proper data collection and its structured analysis is been planned.

Limitation of the Study

1. The study has been done on only limited customers of Raipur city and the other parts of demographic profile were excluded from this study.

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In this only limited social media sites were used by investigator under its research.

The present study is based on limited popular sites of social media.

Statement of Problem

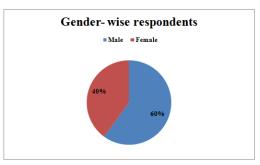
In this present era all types of marketing are based on technology with various online medium which are not easy approach for all kind of customers. So, in this research study the researcher tries to know the impact of social media marketing on customers of Raipur City.

Data Analysis and Interpretation

1. Gender Wise Respondents

Gender	Gender Number of respondents	
Male	51	60%
Female	34	40%
Total	85	100%

Source: Primary data

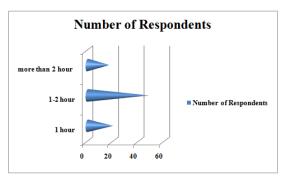


Interpretation: From the above table most of the respondents are males. Total 100 respondents were taken for analysis but only 85 customers responded 51 were male aggregates 60% where as 34 female aggregates 40%.

2. Time Spend by customers in social media

Time	Number of Respondents	Percentage
1 hour	20	23.53%
1-2 hour	48	56.47%
more than 2 hour	17	20%
Total	85	100%

Source: Primary data



Interpretation: It was identified that the majority of respondent spend 1-2 hours on social media sites. 23.35% respondents spend 1 hour, 56.47% respondents spend 1-2 hours in social media, and 20% respondents spend more than 2 hours in social media.

3. Engaged in social media marketing

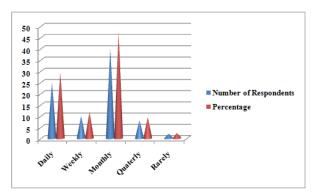
Particular	Number of Respondents	Percentage
Daily	25	29.41%
Weekly	10	11.76%
Monthly	40	47.06%
Quarterly	8	9.41%
Rarely	2	2.35%
Total	85	100%

Source: Primary data

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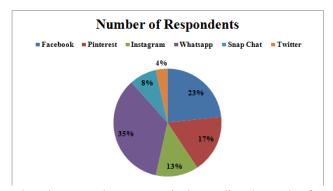


Interpretation: Survey results that a large number of respondents were engaged in social media marketing. Out of an aggregate of 85 respondents 25respondents addressing 29.41% revealed that they were engaged in daily basis, 10 addressing 11.76% revealed that they were engaged on weekly basis, 40 addressing 47.06% revealed that they were engaged on monthly basis, 08 addressing 9.41% revealed that they were engaged on quarterly basis, 2.35% were rare users of social media marketing. As a results shows that maximum number of respondents were monthly operating social media.

4. Popular social media sites

Particular	Number of Respondents	Percentage
Facebook	20	23.53%
Pinterest	15	17.64%
Instagram	11	12.94%
Whatsapp	30	35.3%
Snap Chat	7	8.23%
Twitter	3	3.53%
Total	85	100%

Source: Primary data



Interpretation: At the spot when the respondents were asked regarding the mode of social media marketing employed for purchasing item. Face book users were 20 addressed 23.53%, pinterest users were 15 addressed 17.64%, instagram users were 11 addressed 12.94%, whatsapp users were 30 addressed 35.30%, snap chat users were 07 addressed 35.30%, twitter users were 03 addressed 3.53%. Maximum number of members operates face book site as mode social media marketing.

5. Purpose for usage of social media marketing respondents

	Strongly				Strongly		
Particular	Agree	Agree	Neutral	Disagree	Disagree	Total	Mean
Saves searching time	40	17	18	10	0	85	4.02
Interesting & attractive							
advertisement	22	25	15	4	19	85	3.317
Helpful in efficient							
purchasing	11	25	7	12	30	85	2.7
Accurate product	31	19	6	20	9	85	3.5
Up to date information	30	12	10	8	25	85	3.18
Shopping problems are	20	9	1.5		20		2.21
solved	30	1 9	15	11 1	20	85	3.21

Source: Primary data



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Interpretation: As the results shows that social media is becoming a part of daily life for buying products or services offered by the business to customers. As the above table states most of the respondents are strongly agree regarding towards saving time for searching and respondents agreed that helpful in efficient purchasing of products.

Findings:

- From the above research showed that most of respondents were male among all the respondents. Out of 100 customers aggregate 85 respondents showed their interest.
- It was found that 60% customers are male as respondents and 40 % customers as female respondents. b.
- It is identified that the majority of respondents spend 1-2 hours on social media sites. c.
- d. Survey results that a large number of respondents are engaged in purchasing products and services on monthly
- It was found that maximum operator of social media marketing sites are facebook. e.

Recommendation:

- Try to commentate on timely posts related to products for customer knowledge.
- It is recommended marketers must try to avoid fake information regarding products.
- Try to resolve the problems of customers related to products or services sold through social media marketing.
- Marketers must follow the ethics related to selling of a product approachable to customers.
- Major steps should be taken by marketer's social media for providing proper awareness related to products.
- Must take feedback from time to time from customer for improving the services. vi.

Conclusion

The above analysis is done with the help of questionnaire circulated among the respondents through online mode, in which some of the participants didn't show any interest towards responding in this study. It was seen that social media marketing provides an opportunity to involve and encourage the customers for buying. It is also beneficial for businesses for increasing revenue of the business. Maximum respondents spend their time on social sites for online purchasing.

Future Study:

- In future researcher can expand the area of the study with various other dimensions.
- In future many more other related sites for survey with different class of customers can be used for exploring the awareness of social media marketing among customers.

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BLUE PRINT OF AZADI KA AMRIT KAAL- UNION BUDGET 2022-23

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ABSTRACT:-

This Research Paper focus on Union budget 2022-23 which is presented by Honorable Finance minister Smt. NirmalaSitharaman. This Union budget is "BLUE PRINT OF AZADI KA AMRIT KAAL," which is India's vision for next 25 years, hence the examination of this budget is crucial. During this AmritKaal government seeks to achieve a number of objectives which includes complementing macroeconomic growth with a microeconomic level all-inclusive welfare focus, Digital economy & fintech development, Technology-assisted development, Energy transition & climate action. This budget has set four priorities:

- 1) M GatiShakti,
- 2) Inclusive Development,
- 3) Productivity Enhancement & Investment, Sunrise Opportunities, Energy Transition & Climate action,
- 4) Investment Financing,

which can archive through "sabkaprayas".

This budget aims to lay the foundation as well as provide a roadmap for the economy over the next 25 years, from India at 75 to India at 100. Incentives linked to productivity The vision of AtamNirbhar Bharat has received excellent response in 14 sectors, with the potential to create 60,00,000 new jobs and an additional production of 30 lakh cores over next five years, indicating that this Budget continues to provide growth impetus. It lays a parallel track of

- (I) A futuristic and inclusive blueprint for the AmritKaal that will directly benefit our youth, women, farmers, Scheduled Castes, and Scheduled Tribes.
- (II) significant public investment in modern infrastructure, in preparation for India at 100, will be led by Prime Minister GatiShakti and will benefit from the synergy of a multi-modal approach. FM outlined the following four priorities:-
 - * PM GatiShakti (Master Plan of Nation)
 - * Inclusive Development
 - * Productivity Enhancement & Investment, Sunrise Opportunities, Energy Transition, and ClimateAction
 - * Financing of Investments

PM Gati Shakti is a transformative approach for economic growth and sustainable development. The approach is driven by seven engines namely, Roads, Railways, Airports, Ports, Mass Transport, Waterways, and Logistics Infrastructure. All seven engines will pull forward the economy in unison. These engines are supported by the complementaryroles of Energy Transmission, IT Communication and Social Infrastructure. Finally, the approach is powered by Clean Energy and SabkaPrayas – the efforts of the Central Government, the state governments, and the private sector together – leading to huge job and entrepreneurial opportunities for all, especially the youth.

The scope of PM Gati Shakti national master plan will encompass the seven engines for economic transformation seamless multi model connectivity & logistic efficiency. It will also include infrastructure development by state governments as per this master plan focus will be planning, financing including to innovative ways, use of technology & speedier implementation. The project pertaining to this seven engines in the national infrastructure pipeline will be aligned with pm Gati Shakti framework. The touch stone of master plan will be world class modern infrastructure & logistics synergy among different modes of movement of goods & location of project this will help raise the productivity and accelerate economic growth & development.

Master plan for express way will formulated in 22-23 to facilitates faster movement of people and goods. The national highway network will be expanded by 25000 kms in 2022-23. 20,000 cores of rupees will mobilized through innovative financing to compliment the public resources. The data exchange among all mode operators will brought into unified logistics interface platform design for application programming interface. This will provide for efficient movement of goods though different modes reducing logistics cost and time assisting just in time inventory management and eliminating tedious documentation most importantly this will provide real time information to all stakeholder and improve international competitiveness open source mobility track for organizing seamless travel of passengers will also be facilitator. Contracts for implementation of multi-model logistics parks at four location of though PPP MODEL will awarded in 2022-23.

In case of rail transport concept of 'One Station-One Product' will help local businesses & supply chains. Moreover, as a part of AtmaNirbhar Bharat, 2,000 km of network will be brought under Kavach, the indigenous world-class



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technology for safety andcapacity augmentation in 2022-23. 400 new-generation Vande Bharat Trains with better energy efficiency and passenger riding experience will be developed andmanufactured and one hundred

PM GatiShakti Cargo Terminals for multimodal logistics facilities during the next 3 years.

Innovative ways of development of metro structure for urban connectivity is on priority list.

Rope ways "Parvatmala"- as a preferred ecological sustainable alternative to conventional road in difficult hilly areas national rope way development program will be taken up on PPP model. The aim is to improve connectivity & convenient for commuters besides promoting tourism. Contracts for 8 such rope way projects for length of 60kms will awarded in 2022-23.

In case of Agriculture sector development 2.3lakhs crores will be direct payment of MSP value to their accounts. Chemical free natural farming promoted throughout the country with the focus on farmers land of in 5kms wide corridor along with river Ganga at the first stage. Use of 'Kisan Drones' will be promoted for crop assessment, digitization of land records, spraying of insecticides, and nutrients. She said, to reduce dependence on import of oilseeds, a rationalized and comprehensive scheme to increase domestic production of oilseeds will be implemented. As 2023 has been announced as the International Year of Millets, the government announced full support for post-harvest value addition, enhancing domestic consumption, and for branding millet products nationally and internationally. Implementation of the Ken-Betwa Link Project, at an estimated cost of Rs 44,605 crore will be taken up aimed at providing irrigation benefits

In case of MSME, Udyam, E-Shram, NCS and ASEEM portals will be interlinked and their scope will be widened. Now they will perform with live organic data base provide G2C,B2C,B2B services. This services relates to credit facilitation, skilling & recruitment to further formalized the economy and enhance the entrepreneurial opportunities for all. Emergency Credit Line Guarantee Scheme (ECLGS) has provided much-needed additional credit to more than 130 lakh MSMEs to help them mitigate the adverse impact of the pandemic. However the hospitality and related services, especially those by micro and small enterprises, are yet to regain their pre-pandemic level of business and after considering these aspects, the ECLGS will be extended up to March 2023. Similarly, Credit Guarantee Trust for Micro and Small Enterprises (CGTMSE) scheme will be revamped with required infusion of funds. Raising and Accelerating MSME Performance (RAMP) programme with outlay of Rs 6,000 crore over 5 years will be rolled out to make the MSME sector more resilient, competitive and efficient.

Digital eco-system with skilling & livelihood with Desh stack E-portal will be launching which aims to empower citizens to skill, up skill or re-skill the online training. Dwelling on the subject of Skill development and Quality Education, the Finance Minister said that Startups will be promoted to facilitate 'Drone Shakti' through varied applications and for Drone-As-A-Service (DrAAS). In vocational courses, to promote crucial critical thinking skills, to give space for creativity, 750 virtual labs in science and mathematics, and 75 skilling e-labs for simulated learning environment, will be set-up in 2022-23.

Due to the pandemic- closure of schools, children, particularly in the rural areas, and those from Scheduled Castes and Scheduled Tribes, and other weaker sections, have lost almost 2 years of formal education and mostly, these are children in government schools. Thus to impart supplementary teaching and to build a resilient mechanism for education delivery, the Finance Minister informed that 'one class-one TV channel' programme of PM eVIDYA will be expanded from 12 to 200 TV channels and this will enable all states to provide supplementary education in regional languages for classes 1-12.

A Digital University will be established to provide access to students across the country for world- class quality universal education with personalized learning experience at their doorsteps. This will be made available in different Indian languages and ICT formats.

In case of Health care, under Ayushman Bharat Digital Mission, an open platform for the National Digital Health Ecosystem will be rolled out and it will consist of digital registries of health providers and health facilities, unique health identity, consent framework, and universal access to health facilities. Because the pandemic has exacerbated mental health issues in individuals of all ages, a "National Tele Mental Health Program" will be developed to provide access to high-quality mental health counselling and therapy. A network of 23 tele-mental health centers of excellence would be established, with NIMHANS serving as the nodal center and the International Institute of Information Technical-Bangalore (IIITB) providing technology assistance.

Recognizing the importance of NARI-SHAKTI as a harbinger of our bright future and for the improvement of women's lives during AmritKal, the government overhauled the scheme: -

- 1) MISSION SHAKTI
- 2) VATSALYA MISSION
- 3) POSHAN 2.0 & SAKSHAM ANAGANWADI

HarGhar, Nal Se Jal will receive Rs 60,000 crore in 2022-23 to reach 3.8 crore homes. The current coverage is 8.7 crores, with 5.5 crore homes receiving tap water in the previous two years alone.

Similarly, with Rs 48,000 crore allocated for PM Awas Yojana's, 80 lakh homes would be built for PM Awas Yojana's identified eligible recipients, both rural and urban, in 2022-23.

A new scheme, Prime Minister's Development Initiative for NorthEast(PM-DevINE), will be implemented through the North-Eastern Council to fund infrastructure, in the spirit of PM GatiShakti, and social development projects based on felt needs of the North-East.

In case Banking, In 2022, 100 per cent of 1.5 lakh post offices will come on the core banking system enabling financial inclusion and access to accounts through 11 net banking, mobile banking, ATMs, and also provide online transfer of funds between post office accounts and bank accounts. This will be helpful, especially for farmers and senior citizens in rural areas,



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enabling interoperability and financial inclusion. To mark 75 years of independence, the government has proposed to set up 75 Digital Banking Units (DBUs) in 75 districts of the country by Scheduled Commercial Banks.

The issuance of e-Passports using embedded chip and futuristic technology will be rolled out in 2022-23 to enhance convenience for the citizens in their overseas travel.

The Finance Minister announced that for developing India specific knowledge in urban planning and design, and to deliver certified training in these areas, up to five existing academic institutions in different regions will be designated as centres of excellence. These centres will be provided endowment funds of Rs1,250 crore.

The animation, visual effects, gaming, and comic (AVGC) sector offers immense potential to employyouth and therefore an AVGC promotion task force with all stakeholders will be set-up to recommend ways to realize this and build domestic capacity for serving our markets and the globaldemand.

Telecommunication in general, and 5G technology in particular, can enable growth and offer job opportunities &informed that required spectrum auctions will be conducted in 2022 to facilitate rollout of 5G mobile services within 2022- 23 by private telecom providers.

Sunrise Opportunities, Artificial Intelligence, Geospatial Systems and Drones, Semiconductor and its ecosystem, Space Economy, Genomics and Pharmaceuticals, Green Energy, and Clean Mobility Systems have immense potential to assist sustainable development at scale and modernize the country. R&D in sunrise opportunities collaboration with academia, private institute government contribution will be provided which provide employment opportunities for youth, and make Indian industry more efficient and competitive.

To facilitate domestic manufacturing for the ambitious goal of 280 GW of installed solar capacity by 2030, an additional allocation of RS 19,500 crore for Production Linked Incentive for manufacture of high efficiency modules, with priority to fully integrated manufacturing units from polysilicon to solar PV modules, will be made.

As a part of the government's overall market borrowings in 2022-23, sovereign Green Bonds will be issued for mobilizing resources for green infrastructure. The proceeds will be deployed in public sector projects which help in reducing the carbon intensity of the economy.

The Government proposed to introduce Digital Rupee, using blockchain and other technologies, to be issued by the Reserve Bank of India starting 2022-23 for more efficient and cheaper currency management system.

Reflecting the true spirit of cooperative federalism, the Central Government enhanced the outlay for the 'Scheme for Financial Assistance to States for Capital Investment' estimates to Rs 15,000 crore.

The Union Budget 2022-23, while continuing with the declared policy of stable and predictable tax regime, intends to bring more reforms that will take ahead the vision to establish a trustworthy tax regime. SmtNirmalaSitharaman said that proposals relating to taxes and duties will further simplify the tax system, promote voluntary compliance by taxpayers, and reduce litigation.

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OVERVIEW ON EVALUATION ON SYNTHESIS OF 6- BROMO 2-AMINOBENZOTHIAZOLE

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Abstract:-

Reaction was carried out using bromoaniline to derivative of 2 aminobenzothaizole. Using potassium thiocyanid and the solution of bromine in pure weak acid. To give and heterocyclic compound . Whose derivative has many medical improtance. And also improtant intermidiate for azo compound

Keywords:- Acetic acid galcial, p Bromoaniline, 2 aminobezothaizole,NaOH Introduction:-

Currently research in many field are incresing a lot . And all have some bad and good effect on our life . Today many people are facing health issues as a result the demand for the drugs which have long term effect on and cure diseases within sort period of time is increasing and many researcher are working on it to. One of the compound that is 2 aminobenzothaizole is an interesting subject to work on due to its pharmaceutical effect .Its derivative to have an importance in the azo industry too(4).6- bromo 2aminobenzothiazole and other derivative's have antidotal effect .It to have anti chimerism. Used as Diauretic agentAnxiolytic agent(10) fighting capacity against nerological disorder(6) against Huntington's diseases(10), anti inflammatory property(1) anti diabetic property(2), and also show anti microbial activityand many more. One can find its importance in other health issues to which are been cose by viruse, protozol, fungal, paracitic and many more. In all derivative's is very much important on the point of view of drug industry. Applicable in PET probe which is use for screeningAD(7) the derivative of 2 amino benzothiazole is also use to cure HIV(7, 10)Fight against estrogen diseases, used against American type culture collection strain of Staphylococcus aureus, Enterococcus faecalis, and Escherichia coli(7) Derivative of 6bromo2 amino benzothiazole is used against SKRB-3 human breast cancer cell, SW620 colon cancer cell, HepG2hepatic carcinoma cell. (7).

Discussion and synthesis:-

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P. Venkatesh and assosiate used Substituted aromatic amine in presence of ammonium thiocyanate was converted into substituted 1 phenythiourea in HCL (acidic medium) which was the cyclizedto the derivative of 2aminobezothiazole in presence of bromine solution and has an good yeild ofabout 65-85%. Use of lamda- carrageenan induced mice paw edema method is been used for detection of anti inflammatory activity.(1) IR, melting point, uv, H1 nmr pradicated for different derivatives provided(1).

R=H,R=5C1,R=6C1,R=5No2,R=6No2,R=6Br

Jitender k malik and co worker produced review o for synthesis of pharmacological profile compound of 2 amino benzothaizole(6).synthesis substituted 2aminobenzothaizole(6.1). 2amino 5-Cl-6-fluoro bezothiazole(6.2). 2amino -7Cl-6fluoro benzothaizole(6.3). 2aminobenzothaizole(6.4)

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. 2amino 5-Cl-6-fluoro bezothiazole(6.2). 2amino -7Cl-6fluoro benzothaizole(6.3)

Enan, jassim et .al. reported production of the 4,6-dicholoro2 aminobezothaizolefrom 4,6 dichloroaniline with KSCN. Synthesis of chalcone (3.2)-4-1(4,6 dicholorobenzothaizole-2-Elamino)3phenylaryl)phenol (3.3) grampositive and negative biological activity are justified(3).

3.1

3.2 3.3

U.S.Thube and coworker, bromo and chloro substituent of 2 amino benzothiazole favarable for diabetes aniline with NH4KCN in ethanol in present of conc. HCL. Later with conc. H2SO4 refluxed led to substituent product (2.1) . substituted chloroacetaniline (2.2) sub. 2 amino benzothiazole and sub. Chloroacetaniline in dry 1,4 dioxane in present of triethylamine2 sub.

2.1

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Review by Larisa v. et al give synthesis mechanisum under the concept of green synthesis for some biologically active derivatives of 2 aminobenzothaizole(5)

Yasmeen Gull and co worker, Suzuki cross coupling reaction of 2 amino 6 bromobenzothiazole with various aryl bronic acids and ester under optimized heating contition. solvents like toluene, dioxane, DMF, with H2O in 4:1

$$\begin{array}{c} \begin{array}{c} NH_2 \\ \\ Acetonivile, 60°C \\ \\ Acetonivile, 60°C \\ \\ (ii) 4 \\ \\ (ii) 4 \\ \\ (ii) 4 \\ \\ (ii) 4 \\ \\ Aryt Boronic \\ \\ Aryt Boronic \\ \\ Aryt Boronic \\ \\ \\ (iii) 3a-3e \\ \end{array}$$

Material And Method:-

6 bromo aniline, glacial aetic acid, bromine solution in acetic acid, cold water, conc. NaOH, KSCN, with ir spectra detector, B.P apparatus, uv spectra detector, fusion test chemicals (feso4 solution, conc.hcl, AgNO3 solution etc.) General method for preparation:-

(0.050 mol) 6 bromo aniline, (0.10) mole of potasium thiocyanate dissolve in 140 ml acetic acid and the mixture was the maintain to temp below 10oC. bromine 2.4 ml was taken in 20 ml acetic acid to make the solution of it. It was also made to stand at temp. of below 10oC then this solution was added to the mixature of aniline drop wise with continuouse

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stirring during this addition to temp was maintain .after addition the solution was made to stand for few min then the 20 ml of cold water was added . then the conc NaOH was added till ppt was completely form. Then it was recrystalized either by water or ethanol .

$$Br \longrightarrow NH_2 + 2 SCN^- \xrightarrow{CH3COOH, Br_2} Br \longrightarrow NH_2$$
(1)

Application :-

2 amino 6bromobenzothiazole is used for:-

- 1) 2 amino- 6- arylbenzothiazole compound
- 2) 6-p-tolybenzo[d]thiazole-2-amine
- 3) 6-(4chlorophenyl)benzo[d]thiazole-2amine
- 4) 6-(4meythoxyphenyl)benzol[d]thaiozole -2amine
- 5) 6-(3,5- bis(triflouromethyl)phenyl)benzothiazole-2amine
- 6) 6-phenylbezothiazo[d]thiazole-2-amine
- 7) synthesis of schiff base

Result :-

6Bromo 2aminobenzothiazole have molecular formula C7H5N2SBR with molecular weight 229.09 with m.p201-203oc, yeild 87.1 ,Rf value for tlc 0.68(2). Spectroscopic predication UV(lamda max) in ethanol 276.5mm,IR(lamda max) {KBr/cm-1} NH(3325) ,Ar=C-H(3034),(C=N)1595 H1 –NMR (del-ppm3.65(s,2H,NH2)6.81(dd,1H,Ar ortho-H to Br J=4.6 hz)[1] .

Conclusion :

During production of this review we find out how improtant is the derivative of 2 aminobenzothiazole on point of view of drug producer and azo industry. Infact 6 bromo 2 aminobenzothiazole are used as intermideate for many other derivative of it which are nothing but drug for many diseases and some are used for devlopement of some azo product hence this heterocyclic compound is very much improtance.

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Saru: A Marginalised Lady in Shashi Deshpande's 'The Dark Holds No Terrors.'

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Abstract:

ShashiDeshpande being a feminist writer iswell aware of the woman's predicament in a male-dominated Indian society. Through her novels she raises her voice to the ill treatment given to the womanfolk. Sarita – the protagonist of the novel 'The Dark Holds No Terrors' is the subordinated, marginalised character in her own parental home by her mother. She is subordinated not even by her mother but also by her husband.

The present research paper is an attempt to find out how Saru feels marginalisation in her parental house as well as in her married life, the reasons behind her subjugation.

Key Words: woman's predicament, ill treatment, marginalised, reasons for the subjugation. etc.

Introduction

Shashi Deshpande is one of the leading woman novelists of the Indian English literature. Her novels are mainly concerned with a woman's quest for identity; an exploration into the female psyche and an understanding of the mysteries of life and protagonist's place in it. 'The Dark Holds No Terrors' is a very powerful novel depicting the life of Sarita. Shashi Deshpande focuses on the world of the Indian women in the context of modern Indian Society. The novel is divided into four parts.

Saru- the heroine- feels marginalised by her own mother. She is the victim of gender inequality. Kamalatai had two children-a son named Dhruva and a daughter named Sarita. A healthy mother-daughter relationship is missing in this novel. Saru is given less importance in comparison to her brother. Kamalatai considers Saru as inferior and she bestows her motherly love on her only son. Her mother is always in an authority figure and posed a threat to her individuality and self-will. The so-called powerful mother sees Saru only as a burden to be eased. For her, Saru is only a problem which should be solved. She is Kamalatai's responsibility and that should be dispensed with and a person who has no right to any choice in life. The hatred between a mother and a daughter is deeply rooted.

This novel deals with the Saru's convulsions and conflicts. The novel unfolds the life of Saru who is always neglected and ignored in favour of her younger brother- Dhruva. She is not given any importance; no parental love is showered upon her not even on her birthdays also. However, her brother's birthdays are celebrated with full enthusiasm including the performance of the religious rituals. There was always a puja on his birthday but none on her birthday. After his tragic death her birthday was not celebrated. Saru recalls: "After Dhruva's death, there were no more celebrations. My birthday was passed over in silence, both at home and at school. (TDHNT169). It was only on her fifteen birthday that she got a gold ear-ring from her mother as her birthday present. Saru is subjugated by her own mother only because she is a daughter and she is unwanted burden of the parents which one day has to transfer to others i.e. through marriage. Sarita remembers the naming ceremony of her brother. "They had named him Dhruva. I can remember, even now vaguely, faintly, a state of joyous excitement that had been his naming day. The smell of flowers, the black grinding stone...... (TDHNT168). In relation to her brother, Saru's status is belittled in her own house. Saru considers her mother as a rival in the game of power. In Indian familial setup psychologically a mother has very close attachment with a son. A kind of detachment can be seen in her relation with her own daughter even though they both belong to the same gender. Saru is subordinated by her own mother. A woman is subordinated by a woman. A mother has typical attitude because a son will propagate the family lineage. A son is given more importance than a daughter because he has the right to give the 'agnidag' to his dead parents. The soul of the dead person would otherwise wander in forment. When Saru hears the news of her mother's death, a sudden thought emerges in her mind "who lit the pyre? She had no son to do that for her. Dhruva had been seven when he died." (TDHNT21).

When Dhruva was alive, Kamlatai's discrimination between her own two kids had been very apparent to Sarita. He is the mother's cinesure and Saru is neglected. Because of her mother's favouritism Saru hates Dhruvaand the struggle for importance goes on.Kamalatai always kept two different measuring yards, one for the son and the other for the daughter.

- "Don't go out in the sun. You'll get even darker."
- "Who cares?"
- "We have to care if you don't. We have to get you married."
- "I don't want to get married."
- "Will you live with us all your life? Why not?"
- "You can't."
- "And Dhruva?"
- "He's different. He's a boy." (TDHNT45)

This incidence shows how her mother discriminates between two children. Traditional Hindu woman always considers



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her duty to remind her daughter that she is grown up and she should behave accordingly. In other incidence, Saru feels subjugated. The first experience of menstruation cycle is horrible for Saru. Her mother herself who was once upon a time in her adolescence age for the first time had experienced the same situation, frightens her with the fact that she would bleed for years and years. She does not allow Saru to enter in the kitchen and puja room. She is compels to sleep on the Straw mat. A separate plate is provided to her to make her exclusion complete. The same thing still is in daily practice in the rural, remote area of our nation even in the second decade of the 21st century. A girl is not considered holy during these four days of menstruation period. Poor Saru always bears the opposition of her mother, be it the question of choosing a husband or a profession. When Saru tells her decision to get married with Manohar, her traditional, orthodox mother remarks as "I know all these love marriages. It's love for a few days, then quarrels all the time. Don't come crying to us then." (TDHNT69). She even opposes Saru to get admission in the medical college. She tries to persuade her husband not to end Saru to the medical college. "You don't belong to that moneyed class. And don't forget, medicine or no medicine, doctor or no doctor, you still have to get her married, spend money on her wedding... Let her go for a B.Sc... you can get her married in two years and our responsibility will be over." (TDHNT144). There are number of incidence showing disparity towards a woman. Kamalatai shows inveterate hatred and enmity towards her daughter after the death of her son when she comments ".....Daughter? I don't have any daughter. I had a son and he died. Now I am childless,"(TDHNT196). This shows that how and what kind of bitterness was the in the mother-daughter relationship. It also shows that how Saru is marginalised by her own mother.

The first half of the novel deals with the vicious, prejudiced and cruel attitude of a mother, a strong product of patriarchal society who considers her daughter responsible for her son's tragic death. When Saru's brother is drowned in a pond while playing, she is blamed for it. Her mother particularly scolds herfor being responsible for her son's death. "You killed him. Why didn't you die? Why are you alive, when he's dead?" (TDHNT191). Due to her mother's accusation, Saru begins to wander if in reality, she had killed him. It is much later, after rethinking and pondering over the event, after her mother's death, that she realizes the accidental nature of her brother's death. In fact, male-oriented societies constitute females in such a way that they work against even those of their own gender. Through this and other examples in the novel, Shashi Deshpande conveys an important message that suppression, subjugation and exploitation are not confined to the male-female relationship only, but it exists between a female-female relationship also.

Apart from her subordination at her parental house, Saru is even subordinated by her husband whom she has chosen against her mother's wish. Saru is a 'two-in-one woman' who in the daytime is a successfuldoctor and at night 'a terrified trapped animal' in the hands of her husband-Manohar. Saru being a successful medical practitioner becomes popular day by day in the society and her growing popularity is the root cause of inferiority complex for Manu-her husband. To expose his superiority, only bed is the option left for him. He sexually harassed her. Saru is the victim of marital rape. Saru fails to get the solace which she has missed in her parental house, and the same is continued even after her marriage also. Manu fails to prove as a perfect husband, companion for her. Saru is tortured, subordinated by her husband only because of the feeling of the insecurity. He could not digest Saru's growing popularity. Saru faces subordination both at her own parental house as well as at her in-law's house also.

Conclusion:

The overall treatment given to Saru by her mother and her husband in both-the pre-married and post married life respectively show that how she is subordinated, marginalised and most importantly that is by her own mother particularly. The treatment given to Saru by her mother shows the tense relations of a daughter and a mother. The way Kamalatai behaves with Saru develops a kind of hatred towards her motherwho always comes in the way of her progress. It is a conflict between the old and the young; the traditional and the modern. A kind of hatred towards the mother is shown as it is the mother who puts all the restrictions on her daughter without considering the fact that the time has changed and the next generation is passing through a transitional period where a daughter is sandwiched between tradition and modernity. The problem faced by Saru is the problem of hundreds of such learned and professional woman who become the victim of the double stand of society.

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Paper on Licensing forfood processing Industries in Jalgaon: A contingent Approach

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Abstract:-

Purpose-Purpose of this paper is to study the nature of existing licensing applicable to food processing Industries in Jalgaon.

Findings- This paper revealed the complexity of the licensing system applicable for food processing Industries in Jalgaon. Limitations- This paper focuses on overview of various laws applicable to food processing businesses.

Practical Implications- Outcomes motivates into detailed academic study on applicable laws relating to food processing industries.

Value- This paper is beneficial for the intended and existing businesses. It is also useful for the Government to review existing complicated licensing systems and to make suitable changes for speedy economic growth.

Keywords: FSSA: - Food Safety and Standards Act, 2006

1. Introduction

In the Thesis of the subject titled "Legal complexities surrounding Food Safety and Standards Act 2006 – A special reference to Manufacturing Companies' ',G. R. Arikkanth gives focus on existing standards prescribed for food safety in India and how the practices and theory of the food processing industry causes food adulteration, measures taken by the food Industry to prevent it and how they respond in case of food adulteration. Stressed on the thesis was given on legal complexities governing quality of foods.

Author has studied the existing licensing system in Jalgaon district and found out the nature of licensing system applicable for food processing Industries in Jalgaon.

2. Background of Study

In India the licensing system was started from the year 1954 and changes were made in it according to International laws. Presently there are various laws which regulate food processing business depending on their processing facilities. Even based on turnover, Center or State agencies licensing rules and regulations apply.

Without a license no one can start food processing Industries in India. If anyone has done so, then the law will levy fine and penalty along with ban on his industries. It is necessary to study the same to know the simplicity or complexity of licensing systems in India.

3. Objectives

Study the prevailing licensing systems for food processing Industries in Jalgaon.

To analyze the structures of the existing food licensing systems.

4. Theoretical Review

Vinay Vaish and Urmi Chudgar on 13th June, 2013, source "LinkedIn Connections" have in their article on "India: Laws Governing The Food Industry in India-Revisited' emphasis about importance of food processing Industry in India, applicable various laws governing the food Industries and the failure of the new laws.

After India got Independence, the Government of India has started a five year plan system for development of the Indian economy. In India there were several laws including the Prevention of Food Adulteration Act, 1954 to regularize Licensing, Sanitation & other necessary permits for food businesses. This phase was known as "License Raj" in India.

The Indian food Industry was laying far behind in regulations of food business as there were differences in International laws & Indian foods laws. To mitigate the lapses and put Indian food businesses at par with International standards, India brings new laws, namely, Food Safety and Standards Act, 2006 (hereinafter referred to as "FSSA") by repealing old 8 laws.

The Government of India and Others published "Economic Survey 2019-20, Volume 1" Point no.6.17 on the same page stated that "A major challenge most companies face is the complex architecture of the Indian governance framework including the density of legislation and statutory compliance requirements. List of 51 applicable rules and statutory laws for manufacturing and for opening a restaurant number of licenses is 12-16 has been given.

Every Government department has prescribed its own procedures for application for permission. Some of the departments offer online facilities and remain offline. In case of offline applications, intended Industries have to approach their office situated in big cities, namely Pune, Mumbai, Nasik & Delhi etc.

As the whole world is suffering from Pandemic situations, it has been allowed to work online and even from home also. Even schools and colleges have done their education and exams online. Transportation facilities like Trains, buses and private vehicles were restricted in the lockdown period. In these situations it is very difficult for the food processing Industries to visit Government departments for license application or renewal and for compliance of any requirements.

Documentation part is very vague and cumbersome to comply with. Time taken to approve is also different in each case.



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If we want to get an upper hand in global competition, then this is the perfect time to focus on various laws which regularize food businesses for smooth functioning of registration for getting license for running food business and to streamline it.

Methodology

Data is collected from papers and Government survey reports published. By visiting food processing Industries, data has been collected.

5. Analysis and findings

Fifteen businesses have been selected for the survey. During the visit, find out the difficulty faced by them in the process of licensing permission from different Government departments.

All the businesses face hardships in renewal for permission also as they have to follow separate procedures for each Government department may be online or offline.

6. Conclusions and recommendations

With the use of advanced technology farmers can take more agricultural produce. Some of the big companies are using robotic technology for food production. But all these efforts have gone in vain if manufacturer time is wasted in getting licenses from various Government departments and in renewing them.

Government has made several amendments and tried to simplify the licensing system in India. Still number of various laws and different rules and regulations makes it a difficult task for a layman to understand and implement it.

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Recent trends in library and information science in new scenario

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Abstract

The development of computer in library activity, the co-ordination of index terms in the index description is decided before any particular respect index is known as pre-coordinate index. The index headings are relatively specific compared to one concept heading such as LIBRARIES or COMPUTER selective Dissemination of information (SBI) was developed with a specific purpose of providing a researcher at regular intervals, the use of computer in variety of activities. The library profession has also become aware of the potentiality of the computer as a powerful tool, which can utilize to improve both the operational efficiency of library. When computer and Communication Technology are combined, Information technology or InfoTech' information technology (IT) it is describes any technology to produce manipulate store communicate or disseminate information.

Keywords: Computer, Library, Information, Communication, Efficiency Google Cloud, Database cloud, Data store, Web service, Computer Application.

Introduction

In recent year libraries of all types from countries have found it necessary to complete did to necessary to complete both money. In International bringswhole new dimensions of competition that public. Academic is special libraries are facing daily library Web Services will continue to spread out offering full text electronic general and indexes. Bibliographylaces to full text periodicals either through cataloging database or vendors will be improved from. The application of information technology in library results in increased operational efficiency. It increases productivity of library staff. It relieves professional staff from modern jobs that involves a lot of duplication so that it's faithfully use for library service. Today's digital libraries are built around Internet and information technology with electronic generals as their building blocks. The libraries will not become digital libraries but with rather acquire on be up of their uses digital libraries provide pointer information and uses digital library and primary materials in the same interference in the electronic environment and lead to new information seeking strategy supported by the gcp with integrates storage into apps and a single unified appear cloud storage supported for storage class with object Lifestyle management

Objective:

To study new innovation of recent development in Computer Science and Information

Methodology

From the present study recent development in computer and information technology for the purpose of the computer does the transform data into information most of the computer have communication ability which often an extension capability in other words it extend the power of the computer in the early 1950' computer could execute only one program at time alrt turning was master of Manchester mark machine.

Future library Technology

The introduction of a new technology in library traditional technique tools have with replaced by a new once. Most of the libraries have started providing an online public access catalogue (OPAC), access to the CD ROM Internet and digital document. The advent of the information technology and its invention almost in all areas LIS has added new dimensions providing avenue to create Global network libraries. The information technology has help to heighten the status of LIS professional in the eyes of the authorities. It has taken LIS a long way from a soft discipline towards a hard discipline.

Role of the cloud computing library

Cloud Computing consist of number of cloud of any type but the clouds have the ability through their interference to allow a data Cloud Computing is a new technology and it is known as the third revolution after PC and internet cloud computing and enhancement of distributed computing parallel computing grid computing and distributed database.

Conclusion

The computer is there for being very much due to used the variety of capabilities and efficiency used. For the information technology has substantially improves the storing of information in the computer. There are so many input devices are used. The developing country may be ended only by the change of the interest towards the information

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Application of Regression analysis in Cotton Production

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Abstract:

In our country India Agriculture plays very important role. Today 56% population of our country is depends on agriculture. Agriculture production is always depends on the several factors like whether quality of soil, fertilizers and other factors, cotton is important cash crop fibre in India. In this paper I am trying to predict the cotton production. The data on production, production area, temperature and rainfall for Amravati district of Maharashtra in India during the year 2015 to 2021 is considered for predicting multipleregressions is used.

Keywords: cotton, forecast, Multiple Regression analysis.

Introduction:

Agriculture is the most powerful economic activities in India. Agricultural economics began in the 19th century as a way to apply economic principles and research methods to crop production and livestock management. The word agriculture comes from the Latin word ager, referring to the soil and cultural to its cultivation.

Agriculture, in its widest sense can be defined as the cultivation and production of crop plants or livestock products. Industrial agricultural based on large scale monoculture in the 20th century came to dominate agricultural output, though about depends on subsistence agriculture. The major agricultural products can be broadly grouped into foods, fibres, fuel and raw materials. Agriculturecontribute to GDP for India. In Maharashtra 2021-22 contribution of agriculture for GDP is 20%.

Cotton yield:

Cotton is the one of important fibre and cash crop of India and plays a dominant role in the industrial and agricultural economy of the country. It provide the basic raw material (cotton fibre) to cotton textile industry.

Maharashtra reported an all-time high 44 lakhs hectares of cotton acreage and production of 40% lakh quintal (80 lakh bates each of 170 kgs) of cotton. More procurement centres, gin and press units helped Maharashtra clock a five-year high in terms of government procurement of cotton. The Maharashtra State Co-operative Cotton Marketing Federation had waded into procurement of cotton to help farmers. The movement for HTBT cotton began in 2019. It has gained momentum over the years and now an increasing number of farmers are growing this cotton variety.

Literature Review:

Mayuri Barai, Ganesh Yadav, Abhay Khamborkar (2019) describe a methodology in their paper to forecast the cotton production in Nagpur district in Maharashtra using Linear Regression Multiple, Time series analysis. They have considered the time series data 2000 to 2015 data for forecasting to their study.

S. N. Panchabhai, T. K. Das & Mishra (2014) introduce in their study correlation and Regression Analysis of Rice Entrepreneurs in some selected area of Bhandara District in Maharashtra. They find the positive significant correlation between the variable. Some variable shows the negative significant.

SangitaPradipIngole, Aruna Uttamrao Kakade and JayshreeDhote (2010) They studied Regression analysis of soil samples in Amravati District Maharashtra. They analysed the 11 parameter and they found important Role of soil PH. The PH values as moves towards neutrality the Soyabean production become progressive.

SalihHadiFarood Al-salim, Maysoun Mohamed SalehRagheb, H.A. Albourky and Abbas LateefAbdurahman in (2017) conducted the experiment about different level of nitrogen and studied the grain yield as dependent variable. They found except grain weight were highly significantly correlated with grain yield.

VedPrakash Singh, ShirishKhedkar and I. J. Verma (2019) in improved yield estimation technique for rice and wheat in Uttar Pradesh, Madhya Pradesh and Maharashtra states in India. They found in their study Rice yield forecasting was being done independently by weather based model approach using weather parameter and Remove sensing models approach.

V. Sellam and E. Poovammal (2016) in research prediction of crop yield using Regression Analysis. They determine the relationship between response variable and explanatory variable. From this study there is growth or slight difference in Annual rainfall, Area under cultivation and Food Price Index which clearly has an effect on production of the crops.

Researcher D. Esther Rani, Dr. N. Sathyanarayana, Dr. B. Vishnu Vardhan and O. Subhash Chandra Goud (2020) used combinatorial Multivariate Linear Regression to analysed crop yield. They obtained Model for different district. And they predict the crop yield by using Statistical Method.

There are so many factors affecting the production of crop like type of soil, fertility of soil, fertilizers, pesticides, and/ or insecticides used, seed quality, rainfall, temperature etc. But here we consider only two factors which are temperature

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and rainfall, as it is somehow difficult to collect the other data. The data collected were analyzed using Microsoft Excel. The various descriptive and data analysis techniques like multiple linear regression, partial linear regression is used.

Here we use the secondary data of yearly cotton yield of Amravati district which is collected from the online portal www.krishi.maharashtra.gov.in. The data of temperature and rainfall is collected from different official sites.

The collected data set consist of yearly yield of cotton (Lint) for the period 2011 – 2017. The data contains Yield (kg/ ha), Area (ha), Temperature (degree Celsius), Rainfall (mm).

Data Analysis:

a) Descriptive Analysis:

It is one of the important steps of conducting data analysis. This type of analysis helps to describe, show, and summarize the collected data in a constructive way.

Table 1: Descriptive statistics for cotton (lint) yield, area, temperature, and rainfall.

	Yield (kg/ha)	Area (ha)	Temperature(0c)	Rainfall (mm)
Count	6	6	6	6
Mean	5797	193700	30.67	981.53
Median	6061	193900	30.65	980.60
SD	2730.40	6091.63	0.38	93.35
Variance	7455102.40	37108000.00	0.14	8714.13
Kurtosis	-1.98	-2.42	-1.86	-0.89
Skewness	-0.09	-0.06	-0.16	0.12
Minimum	2322	186700	30.16	856.8
Maximum	9213	200300	31.08	1114.2

Table 1 shows the descriptive statistics of the variable under study. We can see that average area used for cotton production in Amravati district is 193700 hectors. Average yield is 5797 kg/ha. Average temperature and rainfall are 30.670c and 981.53 mm resp. for the year 2011 - 2017.

b) Multiple Linear Regression Analysis:

It is a statistical technique which is used to analyze the relationship between a single response variable and several Regressors variables. It is used to predict the value of response (dependent) variable using other given independent variables.

The multiple linear regression model is

$$\overline{Y} = \beta 0 + \beta 1 X 1 + \overline{\beta} 2 X 2 + \beta 3 X 3 + \xi$$

Where,

Y =dependent variable

X1, X2, X3= explanatory variables, area, temperature, rainfall respectively.

 $\beta 0 - \beta 3 = \text{estimated parameters}$

 ξ = error term (also known as the residuals) ~ N(0, 1)

Hypothesis under consideration is

Null hypothesis, H0: $\beta 0 = \beta 1 = \beta 2 = \beta 3 = 0$

Against,

Alternative hypothesis, H1: $\beta i \neq 0$

; for at least one i

the fitted Multiple linear regression model is

$$Y(^{\wedge}) = \beta 0 + \beta 1X1 + \beta 2X2 + \beta 3X3$$

Table 2: Multiple linear regression analysis

		Adj. R	Standard
Multiple R	R Square	Square	Error
0.986	0.971	0.929	729.108

Here the value of coefficient of determination adjusted R2 = 0.929. It means there is 92.9% of the variation in the cotton yield is predicted from the independent variables i.e. area, temperature and rainfall.

Table 3: ANOVA for Multiple Regressions

	Df	S.S.	M.S.S.	F	Sig F
Regression	3	36212314.09	12070771.36	22.706537	0.042477491
Residual	2	1063197.91	531598.9548		
Total	5	37275512			

Since, Cal F = 22.706 > Tab F (3,2) = 19.16, we reject the null hypothesis and conclude that $\beta i \neq 0$ for at least one i, where i = 1, 2, 3.



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Table 4: Coefficient of Regressors

	Coefficients	Standard Error	t Stat	P-value
Intercept	276013.603	219615.547	1.257	0.336
Area(ha)	0.829	0.379	2.190	0.160
Temperature(0c)	-14156.365	8942.592	-1.583	0.254
Rainfall (mm)	3.453	18.073	0.191	0.866

From the table 4, we get the values of coefficients which are 276013.603, 0.829, - 14156.365 and 3.453 for $\beta 0$, $\beta 1$, $\beta 2$, $\beta 3$ respectively. The table shows that there is no significant difference between the variables as the p-value for all the variables are greater than 0.05.

c) Coefficient of Multiple Determination and Coefficient of Partial determination:

The coefficient of multiple determination measures the strength of relationship among three variables. It is the square of multiple correlation coefficients.

The partial coefficient of determination is the square of partial correlation coefficient. It represents the proportion of total variation in dependent variable is explained by one of the independent variables when another independent variable is kept constant.

Here, for the study of multiple and partial correlation the variable considered yield (in kg/ha) as variable 1, Temperature (in 0c) as variable 2, and Rainfall (in mm) as variable 3.

First, we calculate the simple correlation between these three variables and results are

$$r12 = -0.39$$
, $r13 = 0.84$, $r23 = -0.79$

Coefficient of multiple determination = 0.90

$$R^2 = \frac{r_{y1}^2 + r_{y2}^2 - 2r_{y1}r_{y2}r_{12}}{1 - r_{12}^2}$$

$$r_{12.3} = \frac{r_{12} - r_{13} \times r_{23}}{\sqrt{1 - r_{13}^2} \times \sqrt{1 - r_{23}^2}}$$
coefficient

Partial correlation coefficient

$$r12.3 = 0.82, r13.2 = 0.94$$

Coefficient of partial determination

$$r212.3 = 0.67,$$
 $r213.2 = 0.89$

Conclusion:

- a) The descriptive statistics of the variable under study indicates that average area used for cotton production in Amravati district is 193700 hectors. Average yield is 5797 kg/ha. Average temperature and rainfall are 30.670c and 981.53 mm resp. for the year 2011 2017.
- b) For forecasting or prediction of the cotton(lint) yield we got the multiple regression equation as $Y(^{\wedge}) = \beta 0 + \beta 1X1 + \beta 2X2 + \beta 3X3 = 276013.603 + 0.829 X1 14156.365 X2 + 3.453 X3$
- c) Temperature and rainfall contribute 90 % of the variation in yield of cotton.

 Partially 67% of the total variation is due to temperature and 89 % of the total variation is due to rainfall.

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Digitization and its various file formats used in preservation in Libraries

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Abstract:

Information, communication. And online technology advancements have had a significant impact on every aspect of society, including libraries. In the library and information service sector, web technologies have made the most significant impact. Digitization in libraries is today's response to the need for information to be delivered more quickly to user via the internet. The digitization of library materials has progressed quickly in recent years. To create a digital library the material of a collection must be accessible online. Digitization is a process in which materials are converted form the hard copies to electronic copies.

Keywords: Digitization, Digital library, Document Preservation.

Introduction to Digitization:

The digital image consists of a series of pixels arranged according to a predefined relationship between columns and rows. Image files can be assembled as regular computer files and retrieved, printed, and modified using the appropriate software. The digitization process transforms archived material from a human-readable format (analog) to a machine-readable format (digital). This is the process of taking a physical object (analog content), taking a picture or scanning it, and transferring the picture to digital media. It is also the process of archiving Born Digitals into an institutional collection.

The digitization process contains two major activities.

- Digital Conversion Process,
- Digitized Information Memory, Organization, Processing and Digitized Information Processing.

Digital information has shared characteristics and quality, regardless of whether the content is stored on a DVD, CDROM or other digital storage medium. You can link to other materials to create multimedia. It does not depend on spatial barriers, hierarchies. You can store and provide in a variety of ways. You can copy unlimitedly without affecting the original. Digital data can be compressed into storage. This means that a huge amount of analog content can be stored in a computer drive or CDROM. Digital content can be easily retrieved and can be searched, indexed or deteriorated immediately. Most importantly, it is associated with the entire network of other content locally or globally through the internet.

Advantages of digitization:

Some of the key benefits that digitization offers are:

a) Wider access:

Digitization will give you more access to all kinds of collections. The availability of digital information will improve delivery to a wider community compared to the analog version. Digital materials can be accessible to a wider audience than those who go to the library to see analog collections, and can extend access to non-traditional audiences such as lifelong learners. Whatever the audience, access to the material is enhanced by the advantages of the digital format.

b) Collection management:

The availability of digital materials can fill gaps in existing collections. Digitization is also a way to create resources that can be used for a variety of unexpected purposes in the future.

c) Promotion of research and education:

The potential of this technology to improve the various goals that can be achieved by education, research, lifelong learning, or digitization is enormous and plays a key role in the e-learning environment.

d) Material Preservation:

The development of a digital replacement for the original object, which is rare or fragile, gives users' access while preventing the original object from being damaged by handling or display.

e) Save space:

Saving digital information occupies less space.

- f) Digitization enhances the scientific value of source material.
- g) Access to digitized collections helps to promote the material to other departments and colleagues in other institutions around the world and to show the importance of the collection.
 - h) Digitization promotes international digital collaboration.

Need for Digitization:

Most of the ancient Indian manuscripts were written in Bhurj Patras. Ancient India was well developed in subjects such as astronomy, mathematics, space science, medicine (Ayurveda), rebellion, political systems, and economics. Unfortunately, many of these valuable manuscripts have been lost due to improper care. Some of them were destroyed by water, fungi and fire, and some were deliberately destroyed by foreign invaders. Books are one of the media for comprehensive knowledge



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and information. Preservation of books and other reading materials is a serious problem facing past and present librarians. Therefore, there is an urgent need to find a permanent solution for storing library materials.

Tools for Digitization:

The tools required for digitization can be listed as follows:

- Hardware
 - Computer Systems
 - Scanner
 - Digital Camera
- Software
 - Image editing software
 - File compression software
 - OCR Software

Introduction to File formats:

Digital data may be stored on any medium this is capable of constitute the binary digits ("bits") 0 and 1. The significant collection of bits and not using a intervening spaces, punctuation or formatting is known as bit stream. Brown (2006) defined file format as 'the internal structure and encoding of a digital object, which allows it to be processed, or to be rendered in human accessible form. A digital object may be a file, or a bit stream embedded within a file'.

Examples of File Formats used in digital preservation:

Following are some file formats:

1) Textual file formats:

• PDF/A family:

PDF / A is an ISO standard family of PDF restricted formats suitable for long-term archiving of page-oriented documents for which PDF has already been put to practical use. The PDF / A standard is developed and maintained by a working group of government, industry and academia representatives with the active support of Adobe Systems Incorporated.

PDF / A is generally recommended for page-oriented documents as an archive able format,

Filename extension: pdf

DOCX

The Office Open XML-based word processing format with a .docx file extension is the default format for new documents created by Word 2007 and later versions of Microsoft Word. This format was designed to incorporate the full semantics and functionality of the binary .doc format generated by previous versions of Microsoft Word. For simplicity, this format description uses DOCX to identify the appropriate format.

File name extension: docx

- 2) Sound file format:
- WAVE:

This file format is used for audio files developed by Microsoft and IBM for storing audio bitstreams on your PC. This is an application of Resource Interchange File Format (RIFF) Bitstream Format Technology. This has been extended to Broadcast Wave Format (.bwf) by the European Broadcasting Union to allow limited metadata and is recommended by the IASA.

File name extension: wav

MP3:

MP3 (or mp3) as a file format usually refers to a file that contains a basic stream of MPEG1 audio and video encoded data, without the other complexity of the MP3 standard. The library can store audio data using this type of file format.

File name extension: mp3

- 3) Image file format:
- TIFF: A tag-based file format for storing and exchanging raster images. TIFF acts as a wrapper for various bitstream encodings of bitmap (raster) images. Different encodings can represent different compression schemes and different schemes of color representation (measurement interpretation).

Filename extension: tiff

• GIF:

Graphics Interchange Format Commonly known as GIF, this is a bitmap image format widely used on the Web. Options include a "progressive view" where rendering utilizes interlaced lines to display recognizable frames before the entire file is downloaded. A short animation that uses multiple frames to control the data in a single file. GIF uses LZW compression and palette-based colors (256 or less).

- 4) Common file formats
- ASF:

The extended system format encapsulates various content bitstreams. Data types include audio, video, script commands, JPEG compressed still images, binaries, and other developer-defined streams. This discussion focuses on the use of audio and video formats.

- 5) Spreadsheet file format
- Excel (XLS):



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XLS is a spreadsheet file format file extension created by Microsoft for use with Microsoft Excel. XLS stands for Excel Spreadsheet. Microsoft Excel files use their own format for saving Microsoft Excel documents. This file format is called the Binary Interchange File Format (BIFF).

• Spreadsheet HTML:

HTML is a text file format with layout. It is an open format. It is also mainstream as it can be viewed primarily on almost any device with a display. As a general rule, HTML can also be used to save spreadsheets. All popular office applications support exporting spreadsheets to HTML. Some can be edited. Therefore, HTML seems to be the best format for spreadsheets.

6) XML

XML (eXtensible Markup Language) has been accepted as a universal format for data and document exchange. XML shows great potential for data life (or future assurance) in situations where hardware, software, and network protocols are constantly changing. XML and PDF are often presented as two competing formats, and the

7) Video File Format:

• MOV

Preservation of authentic media is facilitated due to the fact those are often tape, whose characteristics and getting old manner is nicely known. As for media, simplest tapes are appeared as appropriate for long-time period archiving. Optical disks can be used for writer reproduction and browsing, even as magnetic disks are encouraged to allow brief access.

8) EPUB For documents:

EPUB is an eBook format this is used for e-readers. The format is evolved through the World Wide Web consortium. It is as a result an open format. The format has been round on account that 2007. Several applications can show eBooks: The Android and the iPhone every have reader application, and so has the Mac. Chrome and Firefox every have a plugin that may show EPUB files. The format is as a result to a few diploma installed — despite the fact that nowhere as installed as HTML or PDF. Idea is that if you want to keep records for the long term, you should choose one of the two. PDF and XML complement each other in that, in terms of retention, it's actually better to use both than to choose between them. And in fact, choosing both standards is also a way to share risk. If one of the two formats becomes unreadable within 100 years, the other may be readable.

Conclusion:

The goals of the digitization initiative vary from organization to organization, but the main goal is to improve access. Documents can be converted to digital format depending on the purpose of digitization, end users, availability of funds, and so on. File formats are one of the major issues in any approach to long-term digital storage. Digital information is created in a variety of standard and proprietary formats, including ASCII, popular image formats, word processing, spreadsheets, database documents, formulas, charts, multimedia files, audio and video. There are two types of file formats: proprietary file format and open source file format. Open formats are always fully documented, unlicensed, and users are free to change the format structure.

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Gender Discrimination in Shashi Deshpande's That Long Silence

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Abstract

Gender discrimination is a type of unequal treatment based on gender. Discrimination against women and girls including gender based violence, economic, discrimination and harmful traditions. Gender discrimination is also an indispensible feature of feminism. According to Wikipedia, "Gender inequality refers to unequal treatment or perception of individuals wholly or partly due to their gender". Because of gender inequality and discrimination we will find that woman are far behind than men in various fields of life. On the other hand women are exploited degraded violated and discriminated in their homes and outside the world. This type of discrimination is easily seen in Indian society. In the modern days, the women writers play a pivotal role to create awareness and empower women through their novels. Shashi Deshpande is one such genuine writer who creates life-like female characters in her works. The purpose of this paper is to throw light upon the discrimination of woman in the male dominating society through the characters of Jaya and others in the novel That Long Silence.

Key words: Gender, inequality, discrimination, miserable condition, identity, domination.

Introduction:

Human being considered as the supreme creation of nature man and woman are two forms of divine energy. They are created to complete each other. Generally, man are considered physically stronger while woman are more dedicate and silent. Due to this and other differences both are given different roles to play and they are even treated distinctly in our society.

According to the ancient religious literature in India, man and woman are the child of Lord Brahma the creator. In the Mythological references the woman was referred as the Shakti or power house of the universe on different occasions when the god's were tortured by evils, the encarnation of the power that is female Goddess saved the Universe. The Goddess of ancient times now become an object of exploitation by male dominated society our religious convictions make women a goddess but unfortunately we fail to recognize her as a human being.

Shashi Deshpande born in 1938 in Dharvad in Karnataka. She is an award winning indian novelist. Shashi Deshpande's woman wish to be architect of their own fate. Her women protagonist are victims of the prevalent gross gender discrimination, first as daghter and later as wives. They are conscious of the great social inequality and injustice towards them and struggle against norms and rules that limit their capability and existence as a wife.

Objectives of the Research Work:

- 1. To Investigate the Impact or gender Inequality on the overall development of women.
- 2. To Expose The anxiety of common women towards her family and her journey between hope And dispairs.
- 3. To Compare the theme of gender gap or gender discrimination in the shashi Deshpande's That Long Silence.
- 4. To point out the issues Related to gender discrimination in Indian English Literature with special reference That Long silence.

Gender Inequality in That Long Silence:

The Novel That Long Silence (1988)'s the masterpiece of the feminist writing in highlights the image of middle class women clutched between tradition and modernity. It is about gender discrimination and inequality in the society.

"To achieve anything to become anything you have got to be hard and ruthless". So the very first line of the novel That Long Silence reveals a harsh reality of the world and should us how it is difficult for women to achieve something in patriarchal society. Jaya is central Character in this novel also suppressed under the male dominance. She marries a man who has no love for her. He does not allow her to writes stories saying that they revealed their private life to the public. In this novel Jaya experienced Lot of Incidents which shows an women's miserable condition in patriarchal society.

Jaya's search for individual human:

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Jaya's father names her 'Jaya' which means victory but enough victory never came to her in life because she was in each of her search of her identity then also Jaya is being renamed as Suhasini after her marriage is not a care of the loss of identity. Jaya in That Long Silence like any other educated middle class women conforms to the rules and constraints of the society. She is unable to find out whether the lives for herself or for her family. She is taken for granted by everyone in the family. That is why she feels like searching for her identity. She is a typical wife with love and affection for children, respect and sense of duty for husband and her in-law. Nobody in her family understands her feelings and emotions.

Being husband and wife she shares intimate relations with Mohan, Yet she is unable to relate herself with him in terms of feelings her silence is symbolic of most of the women of the world who are unable to express themselves as individual. Jaya tries her hands at writing, but she is not appreciated by her husband. Not only husband her children also disappointed her. Grown up also ignore her as they remain engaged in themselves they have no time for her moreover. She loses her identity when her name is changed from Suhasini to Jaya after marriage she feels kind of stagnation when she recalls that her life

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which seems so busy was nothing but a worthless persuit. She is taken for granted by everyone in the family that is why she feels like something for her identity. Jaya try to say here consider me as a individual human not a female.

Nayana a women dominated by men:

The novel is a sensitive portrayal of women head crossing the complicated paths of human consciousness which is presented by Shashi Deshpande. She accurately depicted the strong desire of the narrator. In the patriarchal society a male child is considered as the property in the family. The female child is considered as gloomy. It makes clear from the expression of Nayana when Jaya asks her why give you birth to a girl Nayana replies that "Behanji, who'll only suffer because of men all her life? Look at me! My mother loved me very much she wanted so much for me and here she was again, saying confidently this time will be son. "He... She gave a contemptuous shrug with the pronoun. "He says... He'll throw me out if I have another daughter...". It reflects the family pressure on women at the time of pregnancy

S. P. Swan predicts, "The tragic predicament of the Deshpande protagonist is outcomes of male domination in a patriarchal culture"

A man who disobeys the law of nature:

The question rises that what fault of a women is, if she gives the birth to a female baby by obeying the law of nature. This is the aspect of contemplation. She is so submissive that she cannot disregard the nature. It is a man who disobeys the law of nature by aborting the female child in the lust of getting a son next time. Women does all this because of their burden of her husband and other family member. It is a crime against nature to abort the female child she is the creator of the world in the liberal Indian society gender determination testes are practiced and Indians are responsible and accused for killing female fetus.

Women existence without man:

To be free from womanhood is the goal of Jaya her womanly self is suffocating she struggles for freedom as she feels the family just like a prison where she considers herself insecure. In the conservative society, women are regarded as an independent woman. She has always been considered a secondary position man can think of himself without women but because of society cultural conditioning of Indian tradition she cannot imagine her existence without man.

In the novel Jaya gives up everything to believing her role of being Mohan's wife. She was urban middle class women. She feels that she has lived in silence all her life. She has to lead on a traditional, inactive, dutiful wife's role. Right from her childhood day she has been told stories of Sita, Savitri and Droupadi describing the sharing of their husband travels silent suffering.

Women as Silent or Mute Sufferers:

Vanita Mami advices Jaya just before her marriage as she says, "If your husband has a mistress or two ignore it. Take up a hobby instead cats may be or your sisters children". Although Jaya does not take Vanita Mami's counsel seriously. But a married women can never think friend in another man. Vanita Mami is barren. She wants a child she fasts and performs pujas and every possible ritual to be blessed for the child but all is in vain.

Jaya's maid servant Jeeja has her own story of cruelty her husband is a drunkard and frequently beat to her there is not any types objection about husband is accept another women. She thinks that she is barren and so he had every right to remarry. She willingly brings up their son after her husband and his mistress is dead. He is no different from his father when the son grows up he too becomes a drunkard who begins to beat his wife Tara. But Jeeja always scolds his wife whenever she happens to abuse her, "stop that, don't forget, he keeps the kumkum on your forehead what is a women without that?"

Mohan's mother has to wait for her husband late into the night, cooking the rice again and keeping it hot as, he wanted it fresh, hot and from an untouched vessel when he finds chutney is not fresh, he throws away the plate and food and leaves the house patiently. She prepare fresh chutney the meal again and sits down to wait. What hurts the reader is not only the cruelty of husband but also insensitivity of the son which displayed the continued discrimination against women. Vimla sister-in-law of Jaya died because nobody would have listened her illness. Vimla's mother-in-law is responsible for Vimla's death. They does not hear a women.

Jaya feels herself totally lost as she taken for granted by Mohan. She religious that her own feelings and emotions doesn't mean anything to him. Her realization that she is a non-entity in his eyes hurts her. In an earlier incident when her paternal uncle Ramu Kaka shows the family tree where in even boys of the family find mentioned but her name is missing. She questions this patriarchal family tree. Jaya is also shocked to find no mention of her mother, her aunts and even grandmother, who kept the family together she is full of anger and nervousness over such gender discrimination.

Conclusion:

Thus the novel is not imagery story. It is a story that happens in every middle class and educated Indian women's life. The Indian women, In this era are born at time when there is much awareness about her right, liberty to express her ideas, freedom in enjoy finance and silence continues.

In India, the women struggle cannot be separated from other system of domination and exploitation such as class, casts, gender etc. Indian constitution has granted rights of equality to everyone still women are not able to enjoy the freedom about their existence, desires and expectations. Any type of law cannot compel a husband to handle his wife in a way or the other the four walls of house. Hense, it is very difficult to change the mind set of male dominated society. The root cause of gender inequality is patriarchal system deeply rooted in Indian society. Our religious beliefs have made this system a legal and valid one. As a Manu, the Hindu law giver says, "Women are supposed to be in the custody their father when they are

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children, they must be under the custody of their husband when married and under the custody of their children in old age or as widows. In any circumstances she should not be allowed to assets herself independently". This is the real status of women in India, no matter she is a Hindu, Muslim or belong to any other religion.

The Progress made by Indian Feminist movement, women living in modern India still face many issues of discriminations when it will be stop? It is only through process of self- examinations and self searching through courage and resilience that only change situations from despair hope.

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SCIENTIFICAL STRATEGIES FOR IDENTIFICATION OF OPTICAL-ELECTRICALCOMPOSITIONAL PROPERTIES OF SINGLE GROWN TARTRATE **CRYSTAL**

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Abstract:

Tartrate and related derivatives have been employed in various applications in the literature. Pure and mixed tartrate crystals with spherulitic shapes have been produced and collected. XRD was used to investigate the crystal structure and its physical properties. The transparency of the produced crystals was assessed using UV-Vis spectra. At temperatures ranging from 35°C to 400°C, the electrical conductivity of formed crystals along the growth axis was measured. The dielectric constant and dielectric losses are determined as a function of temperature. A study also demonstrated the importance of space charge polarisation. The gel encapsulation technique was used to grow single crystals. The structural, optical, and electrical properties of the composition are examined. The crystals are all orthorhombic in shape. The transparency of the crystals increases as the dopant content increases, and the bandgap values drop. Due to their strong optical transmission, the examination of electrical conductivity for these crystals reveals semiconducting behavior pattern semiconducting conduct. Doping reduces resistivity, activation energy, and doping range.

Keywords: Electrical conductivity, Optical transmission, XRD, Orthorombic shape, Physical Aspects.

1. Introduction

The search for suitable materials with excellent second-order nonlinear optical (NLO) capabilities has been the focus of current research due to their potential application in optoelectronics, telecommunications, and optical storage systems (Mir). The gel growth technique is one of the simplest ways to generate sparingly soluble crystals in water and decompose them at low temperatures in ambient circumstances (Jethva and Joshi). The current authors used EDAX, Powder XRD, FTIR, and T.G. to generate and combine tartrate crystals by altering the compositions and determining their material features. The optical characteristics of crystals are studied using the ultraviolet-visible spectrum. Optical constants such as bandgap, refractive index, extinction coefficient, and electrical susceptibility were determined to investigate the optical properties of the UV-Visible spectrum (Nithya N et al.). The crisp and well-defined Bragg," who spoke at a specified 2θangle, confirmed the crystals' high crystallinity and purity (Sathishkumar et al.). The material and crystallinity percentage availability required some particular and scientific methods to identify and characterize a single-grown crystal's structural, optical, and electrical properties.

2. Material And Methods

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All of the chemicals used were of the A.R. quality. Acetic acid (CH3COOH), sodium metasilicate (Na2SiO3), tartaric acid (C4H6O6), and some transition metal tartrate crystals were used to grow single-crystal. The optimum growth parameters were determined by experimenting with various molar masses. The gel was produced by combining different pH values of (CH3COOH), (Na2SiO3), and transition metal solutions. With pH values ranging from 4.0 to 4.4. Following the recording of pH values, the solution can fall along the side of a test tube without forming bubbles. To prevent evaporation and contamination of the exposed surface of the gel by dust particles from the atmosphere, test tubes were sealed with rubber corks or cotton.

The pH of the solution was discovered to be extremely important. The high pH value gel takes less time to set on the ambient temperature than the low pH value gel. The prepared gel was transferred into a glass tube with a diameter of 2.5 cm and a length of 15 cm. It was indeed left to age after the gel had been set. After two days, a pipette was used to pour the supernatant (C4H6O6) of a specific Molar concentration over the set gel, which was kept undisturbed by covering the cotton plug on the tubes' mouths. Different concentrations of the reactants were used in the experiments.

The test tubes served as crystallization vessels, and the growth media was silica gel. After confirming the gel set, an aqueous solution of specific molarity (C4H6O6) was carefully poured over the gel along the test tube walls to avoid any gel breakage. The gel age is between the gel setting and the upper reactant poring. The gel age is between the gel setting and the upper reactant poring. The gel growth method has been used to grow pure tartrate crystals in silica gel, and chemical reactions were involved in the crystal growth. (Savale et al.). Before determining the availability of material, crystallinity, functional groups, and which chemical is in the crystal, must first grow the crystal using the scientific methods described above.

3. Scientifical Strategies For Identification of Crystal Properties:

The crystal was ground into a fine powder, and a powdered sample was spread over a square centimeter area and placed in a beam of monochromatic X-rays. The mass of powder was rotated about all possible axesthe powder X-ray diffraction pattern of the crystals. From the θ value for each peak, the lattice spacing d was obtained. The lattice parameter values were calculated from the powder XRD using the tetragonal structural formula(Vijayabhaskaran and Raja). From the X-ray diffraction pattern, the prominent peaks identified theorystalline nature of the grown crystal. Structurally analyzed and showed the physical aspects(Manikandan et al.) Tartrate materials are essential because of their interesting physical properties, such as ferroelectric, dielectric, piezoelectric, and optical second harmonic generation(Dave et al.)

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Vibrational spectroscopy is a crucial technique that helps identify the functional groups present in the compound. The functional groups present in the samples were studied using infrared transmittance spectroscopy Knowledge of optical constants of a material is a crucial parameter for examining a material's potential optoelectronic applications. To carry out given linear optical studies, UV-Vis analysis(Verma et al.)By performing U.V. characterization, it is found that tartrate crystals have nonlinear optical properties(Nandre et al.) using the KBr techniqueto know about the dielectric behavior of the material (Ahmad et al.). The P.L. and UV-Vis spectra have shown maximum emission (Ariponnammal, S et al.)

Infrared spectroscopy is one of the most powerful analytical techniques which indicates the possibility of chemical identifications (Joseph et al.) The identification of metallic elements in the pure and doped crystals was detected using an energy dispersive spectrometer (Quasim et al.). The magnetic study was carried out using a vibrating sample magnetometer (Jethva et al.) In EPR investigations, it is convenient to classify the complex according to the nearest regular symmetry group and improve the description by introducing an appropriate distortion. As a result of this distortion, a degeneration of the d-orbital is further removed.

Moreover, the inner symmetry of two carbons in tartrate radicals are different and, therefore, may be influencing the hyperfine splitting in the Q-band at liquid nitrogen temperature for both copper dextro-tartrate and copper levo-tartrate(Vyas et al.) Energy Dispersive Analysis by X-ray (EDX) detects the samples' elemental arrangement. When a beam of electrons strikes a specimen, a part of the incident electrons excites the atom of the specimen, which then emits X-rays once they return to their state. The concentration by analyzing the energies of X-ray photons emitted due to bombardment by a beam(Sanjeevannanavar et al.) The AAS studies were carried out using a Perkin Elmer spectrophotometer. The atomic concentrations of Na, Si, and Fe were determined to check the degree of purity of the grown crystals.(Shajan and Mahadevan). The second harmonic generation (SHG) testis beneficial for the initial testing of materials for second harmonic generation (SHG). The nonlinear optical property of the grown crystal(Kurtz and Perry)

Vicker's microhardness test: Hardness is one of the essential mechanical properties of a solid material. Microhardness studies of any system directly correlate with the crystal structure. They are susceptible to the presence of any other phase or phase transition and temperature conditions prevalent in the system. (Freeda et al.) To understand the surface features of crystal scan, electron microscopy (SEM) is useful. SEM image shows that the crystal possesses uniform morphology and crystal particles have a smooth surface. And the particle size of gel-grown tartrate crystal is in the related range of μ m. (Dhikale et al.) Fracture toughness is the ability of a material to resist crack growth when the load is increased (Rajesh et al.) Various scientific methods for identifying optical, electrical, and structural features of harvested crystals have survived from the previous literature on harvested crystals. The previous work gives incoming researchers the motivational knowledge for finding new ones in theoretical aspects.

4. Conclusions

After the study of the work, the following conclusions are based on the preceding discussion:

- 1) In the silica gel medium, solitary tartrate crystals were effectively produced under diverse light conditions.
- 2) The ideal circumstances were discovered by altering various parameters.
- 3) According to most scientifically identified approaches, the crystal growth structure has optical, electrical, compositional, thermal, and magnetic properties.

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A Comparative Study of Vijay Tendulkar's The Vulture and John Webster's The Duchess of Malfi

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Abstract

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Vijay Tendulkar's 'The Vulture' and John webster's 'The Duchess of Malfi' consists of vice and violence. Vice means immoral wicked behavior and violence involves physical force intended to hurt. The main theme of both these plays is revenge, deception and cruelty. Vijay Tendulkar is leading playwright of Indian English drama. John Webster is known for his revenge tragedies.

Vijay Tendulkar's 'The Vulture' and John Webster's 'The Duchess of Malfi' are ruthless dissection of human nature, deal with brutality, avarice, selfishness and wickedness. Ramakant, Umakant and Manik are cheater like father. They don't trust on one another. In the same way the Cardinal, Ferdinand and Duchess cheat each other. Their conflict is only to get great share of the property. They have a boundless cruelty.

Both the plays present moral degradation of family values. No one thinks about the result of the action. These plays present vice, violence, selfishness, brutality, ferocity, savagery, cruelty, barbarity, inhumanity and sheer wickedness inherent in man. The world in both the plays is full of pessimists, decays and death. The ending is painful. No one gain at the end but lose many things. The moral vision or message of Webster and Tendulkar is that human being should stop vice and violence. Man should behave as a man and not as animals.

Key-words:- Greed ,vice ,violence ,bloodshed ,revenge ,degradation ,values.

Vijay Tendulkar's The Vulture and John webster's The Duchess of Malfi consists of vice and violence. Vice means immoral or wicked behavior and violence is behaviour involving physical force intended to hurt, damage or kill someone or something. The main theme of both these play have misuse of power, revenge, deception and cruelty.

The critic N.S.Dharan also stated about it---"The Vuture is indeed the most violent of Tendulkar's plays. It reminds one of webster's 'The Duchess of Malfi'. It replete with violent imagery, consisting of blood, eeriness and mad raving. Both Hari Pitale and Manik thirst for revenge. Both succeed in their mission. While Pappa succeeds in driving Ramakant to the streets, Manik succeeds in causing Rama's abortion. The dialogue is composed of words which seem appropriate in the mouths of the characters who utter them. On the whole, the play is, no doubt, naturalistic in its portrayal of domestic violence caused by greed." (Dharan 78)

Vijay Tendulkar is leading playwright of Indian English drama. He presents social realism in his plays. His plays deal with violence rather than love so he is called as an Anti-romantic dramatist. His plays are full of vice and violence. He exposes the vicious attitude of man. He presents negative side of society. Violence is integral part of Tendulkar's plays.

The Vulture is originally written in Marathi as Gidhade. This play is an explosion of human vice and violence. It signifies the unpleasant atmosphere of the play. The Vulture is a symbolic play. Vulture is a ruthless bird that eats the flesh of dead animals. The play is about Mr. Hari Pitale (Pappa), his two sons Ramakant and Umakant and daughter Manik. Pappa acquires 'The Hari Sakharam Company' by means of treachery from his brother Sakharam. Ramakant-Umakant get their share and they drive out Pappa. Manik also secretly collaborates in their plan Raja of Hondur Impregnates Manik. Ramakant and Umakant plan to blackmail Raja of Hondur but he dies of heart attack so their plan fails. In rage Ramakant kicks Manik's belly hard and aborts her child. Rama, Ramakant's wife is impregnated by Pappa's illegimate son Rajaninath. Manik takes her revenge by aborting Rama's child. Thus the play mirrors vice and violence which prevails in domestic sphere.

John Webster is one of those dramatists about whom we know very little. He is known for three major contributions to literature i.e. revenge tragedy, moral vision and highly charged poetry; but he is well remembered for his Revenge Tragedies. The Duchess of Malfi is a revenge, macabre and tragic play. The play makes use of various theatrical devices. Some of them derived from Senecan tragedy which includes violence and bloodshed on the stage. It is sensational and melodramatic play. It has horror piled one upon another. The play is considered as the greatest tragic drama in the Elizabethan period except of course the dramas of Shakespeare.

The play The Duchess of Malfi is set in the court of Malfi in Italy during 1504 to 1510. The Duchess is high minded widowed woman. She falls in love with Antonio, lowly steward but her brothers Duke Ferdinand and Cardinal are against to share their inheritance and hate Antonio's social status. They appoint a spy named Bosola, ex-galley slave to keep watch on her. Ferdinand threats and refuses her for second marriage. In an attempt to escape Duchess and Antonio makes a plan and tells Bosola to deliver her jewellery to Antonio at his hiding place in Ancona. She will join them later pretending going to pilgrimage. The Cardinal hears the plan and instructs Bosola to banish the two lovers and send soldiers to capture them. Antonio escapes with his eldest son but the Duchess, her maid and two younger children returned to Malfi. Under Ferdinand's instructions they died at the hands of Bosola's executioners.

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Bosola realizes injustice on Duchess so he decides to take revenge. He confesses Julia killing of Duchess and then kills her. Bosola knows Cardinal wants to kill him so he goes to kill him in chapel but wrongly kills Antonio. Bosola then kills Cardinal. Ferdinand and Bosola kill each other. Finally Antonio's elder son becomes the heir of Malfi.

Vijay Tendulkar's 'The Vulture' and John Webster's 'The Duchess of Malfi' are ruthless dissection of human nature, deal with brutality, avarice, selfishness and wickedness. Both plays are full of vice and violence. There is hunger of power and money. Both the plays contain inhuman violence abundantly. Dr. A.P. Dani comments- "Tendulkar's 'Gidhade' is based on the playwright's perceptive observation of some cruel, crafty, unscrupulous and greedy men around him and even the names of some of the characters like Ramakant and Umakant in the play have remained unchanged. He wrote this play with the conviction that the vulturine instinct in man is deeply rooted." (Dani 113-114)

Ramakant, Umakant and Manik are cheater like father. They don't trust on one another. In the same way the Cardinal, Ferdinand and Duchess Cheat eachother. Their conflict is only to get great share of the property. They have a boundless cruelty. So they can do any cruel act beyond our imagination. Manik's love affair with Raja of Hondur offers golden opportunity to her selfish and cunning brothers to gain money by blackmailing her lover. They inherit these traits as their father also cheats his brother Sakharam to gain money. To gain money by hook or crook becomes their aim in life. They are not bounded by any blood relation but by money. To acquire money they can degrade to any depth. The great scholar Ojha comments-

"Ramakant, Umakant and his daughter Manik also inherit his culture of extreme loveless individualism. Justifying the title of the play, they all form a family of vultures. These vultures inhabit 'the interior of a house. A house that reminds you of the hollow of tree." (55) it is the same interior of the house that remains the scene of incessant and grotesque confrontation between Pappa and his three adult vulture- like children. (Ojha 143)

The Duchess of Malfi is a widow who loves Antonio. She wants to marry him. But her brothers Duke Ferdinand and Cardinal are not willing to share their inheritance. They object her lover on the basis of his lower status and forbade her from remarrying. They want to get all the property of Duchess hence they are against the marriage. The intention of all the brothers from both the plays have same motive is to get wealth. There is same series of vice and violence in both the plays. Both the plays show avarice and selfish attitude or brothers towards their sisters.

The appointed spy Bosola keeps watch on Duchess and suspects her to be pregnant. He gives the Duchess apricots to see if she eats them eagerly as any pregnant woman might. He gets child's horoscope and informs Duke Ferdinand who calls her damned unchaste and notorious prostitute. He curses his sister and prays to God that the Duchess should be destroyed. He becomes mad with anger. He calls her prostitute who has so many secret agents to produce her men for satisfying her carnal desire. He calls her cunning and passionate woman. He wishes to destroy her completely.

Ferdinand wants to destroy her palace and crash upon her ears, root up her beautiful forests, blast her pastures and cause havoc to the whole of her Dukedom. Ferdinand wants to apply dangerous medicines. They want to apply cruel remedy and the glass cups to be placed on the Duchess's body as to draw out all the poisonous blood from her veins.

Like Ferdinand and Cardinanl in The Duchess of Malfi Ramakant and Umakant are vicious brothers. They attack Manik violently. Manik suspects of their treacherous plans and takes her precaution accordingly. She believes that "these bastard 'll burn me alive one day! Poison me, or they'll slit my throat." (215) Manik realizes that her brothers are very cruel and full of vice and violence and they will not let her live peacefully. Thus both the dramatists focus degrading moral values through disgusting sister-brother relationship.

Ramakant and Umakant have no objection regarding Manik's illegal relationship and pregnancy through it. On the contrary it proves to be an opportunity to gain money for them. They break Manik's leg in order to prevent her to meet Hondur and expose their plan. But sudden death of Raja of Hondur frustrates their plan. To take his revenge they brutally killed the foetus in Manik's womb. Ramakant kicks Manik's belly violently. She cries with her factured leg. She is full of blood. They destroy the foetus in her womb. She leaves the house as her life was in danger.

Ferdinand is eager to take revenge on Duchess. He wants to put the Duchess and her lover Antonio in a coal-pit to burn them and close the chimney smoke so she couldn't go them toward heaven. He also wants to wrap them in bed-sheets dipped in sulphur and fire them to burn like a match-stick. He wants to torture them in a horrid way. He also offers her a dagger to kill herself for the dishonor she brings for her family. Duchess suggests Antonio to flee to Ancona but she discloses the secret to Bosola. Bosola informs it to her brothers. Antonio, Duchess and children were banished from Ancona. Ferdinand sends a letter to Duchess for reconciliation. Duchess is aware of danger so she says Antonio to flee to Milan with their eldest son. Soon Bosola brings guard and arrests two Duchess and she is kept in imprisonment. Like Duchess Manik also imprisoned herself with she remains at home. She takes precaution to protect herself from the brutality of her cruel brothers by closing the doors of her room. Thus treachery of brothers restrict their sister's life in a small cage.

Ferdinand meets Duchess in the dark because he never wants to see her face again. He offers her a hand to kiss but she kisses it and then she knows that it is a dead man's hand. Cruelty is also seen in Ferdinand's wish to make the Duchess mad. He makes use of wax figures of Antonio and her children as if they were dead. This proves her to suicide which Ferdinand is willing and didn't want to be blamed for her death. He sends various madmen to the Duchess room. This is devastate the Duchess in the hope of making her mad. He also sends Bosola as a tomb-maker, some executioners with coffin, cards and a bell. But these things didn't work. Then Bosola makes preparation for her death. He gives a speech to prepare her mind for death. Being a brave lady, Duchess puts forth the philosophy of life and death to him.

Duchess gets ready for her death. She tells Bosola that death come to each in thousand ways. Nobody is immortal. She

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has understood death and tells to kill her in any way the executioners like. She believes that God is the father of every one and in his lap she would get peace. At last when the Duchess doesn't take her own life she is strangles to death. Ferdinand shows no sympathy even for her children. But the series of vice and violence doesn't end here. The Cardinal hires Bosola to kill Antonio. Cardinal kills Julia by poisoning. Bosola repents for Duchess' murder. He stabs Cardinal who was plotting to kill

The play The Vulture also presents the same theme of cruelty of brothers who killed foetus in Manik's womb. Duchess' children are hanged whereas Manik's foetus is aborted brutally by brothers. Manik's lover is killed due to heart-attack whereas Duchess lover Antonio is killed by Bosola. The play The Vulute deals with revenge and brings catastrophe for all characters. Vice and violence makes them no where men.

him. Ferdinand and Bosola stab each other to death. Antonio's elder son appears and takes his place as the heir to the Malfi.

Both the plays present moral degradation of family values. No one thinks about the result of the action. These plays present vice, violence, selfishness, brutality, ferocity, savagery, cruelty, barbarity, inhumanity and sheer wickedness inherent in man. Dr. A.P. Dani states- "Gidhade and The Duchess of Malfi absorb us for their gripping manifestation of human dominated by greed, sex, vice and violence counterpointed by endurant, love and dignity. (Dani 118)

Thus the world in both the plays is full of pessimists, decays and death. The ending is painful. No one gain at the end but lose many things. The moral vision or message of Webster and Tendulkar is that human being should stop vice and violence. Man should behave as a man not as an animal.

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Overview on Phytochemical and Biological Properties of Plant Extract

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Abstract:

The part of plant stem, leaves, flowers, bark, tumors and seed extracts is applicable in curing the various diseases by analysis the phytochemical and biological activities. The plant extracts in different solvents shows the anti-microbial, anti-bacterial, anti-inflammatory, anti-cancer, anti-fungal, and anti-oxidants activities. The plant extracts like Colocasia esculenta, Shrea Robusta, A.aspera, Morinda lucida, Vernonica amygdalina having the disease curing capability. The analysis of phytochemical having presence of flavonoids, tannins, saponins, alkaloids, and amino acids. Analysis of plant extract is also used in silver, gold, zinc nano partical synthesis and shows biological activities.

Keywords: plant extracts; phytochemical analysis; biological activity; Medicinal uses.

Introduction

The plant based medicines is used since ages for curing various ailments and phytochemical analysis to detect various important compounds [3]. The medicinal values lie in bioactive phytochemical constituents that produce definite physiological action on the human body [5]. The part of plant like leaves, roots, flowers, tumors and bark are used for the extraction [12, 13, 15]. Different plant extracts presence of flavonoids, tannins, saponins, alkaloids, amino acids [26]. The thousands of plant extracts can be used for bioactivity and phytochemical analysis [8] such as anti-inflammatory, anti-allergic anti-microbial, anti-viral, anti-cancer, anti-fungal, antioxidant, cardio protective and vasodilator activities [7, 8, 9, 11, 16, 19].

Plants have played important roles in sustaining, improving quality of human health and have served humans as beneficial components of medicines. Seasoning beverage, cosmetics and dyes due to this fact the focus on plant research has increased all over the world. Medicinal plants have less or no side effects affordable and radially available to the community [18]. The tuber of Colocasia esculenta having bioactive constituents for development of new chemotherapeutic agent [2]. Extract of Shrea Robusta resin have stronger and boarder spectrum of pathogenic microorganisms [3]. Leaves, roots, stem and bark of Morinda lucida are widely used in tropical Africa due to reputed therapeutic values in the treatment of anti-inflammatory and anti-parasitic disease [4,20]. The A.aspera extracts possess numerous secondary metabolites including ferulic acid, apigenin and salicylic acid with pharmacological application [5]. Vernonica amygdalina is commonly bitter leaf due to bitter taste it reported to be for diabetes and fever [4, 10]. The species of Vernonia all have effective on blood purification, uterus toner and the prevention of atherosclerosis [4,12,17]. The silver nano particle synthesis was successfully carried out by Phyllanthus emblica plant extract as reducing agent and aqueous silver nitrate. The green, rapid, facile, cost-effective, eco friendly synthesis and synthesized nanoparticles also investigate their antibacterial activity [20]. Biodiversity studies revolved that the plant kingdom has been exhausted based on the species of medicinal plants which are yet to be discovered. Use of the plants extract is not just a custom of the distant past world's population still relies completely on raw herbs and unrefined extracts as medicines.

Large numbers of works done on medicinal plants which have been extracted and compounds isolated successfully. Compound tested for biological and pharmacological activities found to be active. The plant extracts having the tremendous capacity to cure the number of diseases. Traditionally the extract used as medicine in various countries. Extract of plant is applicable in the pharmacological activities. The all part of the plant is used as the medicinal drugs. The history of the Indian Ayurveda is based on plant extract. The Tea is common morning drinks in various countries and acts as refresher of human body and is prepared by boiling the special plant leaves [40]. The tuber of Colocasia esculenta having bioactive constituents for development of new chemotherapeutic agent [2]. Extract of Shrea Robusta resin have stronger and boarder spectrum of pathogenic microorganisms [3]. Leaves, roots, stem and bark of Morinda lucida are widely used in tropical Africa due to reputed therapeutic values in the treatment of anti- inflammatory and anti-parasitic disease [4, 20]. A. aspera extracts possess numerous secondary metabolites including ferulic acid, apigenin and salicylic acid with pharmacological application [5]. Vernonica amygdalina is commonly bitter leaf due to bitter taste it reported to be for diabetes and fever [4, 10]. Species of Vernonia all have effective on blood purification, uterus toner and the prevention of atherosclerosis [5, 12, 17].

Research Background

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Antimicrobial activities of plant leaves, flowers, stems, roots, or fruits from various herbs and spices have been reported by many researchers successful prediction of botanical compounds from plant material is largely dependent on the various types of solvent used in the extraction. Different literature shows that, antifungal activity of Annona squamosa Linn. against Alternaria alternate, antifungal activity of A. squamosa against Candida albicans, antifungal activity of A. squamosa against Fusarium Solani, antifungal activity of A. squamosa against Microsporum Canis, antifungal activity of A. squamosa against Aspergillus Niger, antifungal assay carried out with aqueous and organic extracts of A. squamosa leaves showed their inhibitory properties. The chloroform, methanol, and aqueous extracts of the leaves of A. squamosa have in vitro antifungal

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and antioxidant activities [1].

Colocasia esculenta tubers contain moisture, ash, carbohydrate, protein, and starch, it contains high nutritive value. In this finding's tubers of Colocasia esculenta contain various chemical components such as alkaloids, glycosides, terpenoids, flavonoids, saponins and phenols in methanolic extract. Similar result was reported by [21] except in the case of saponins. The plant species could use alkaloids to protect themselves against herbivores, because the lifestyle of plants is unable to avoid their predators. They could also be used as a origin of insecticides and fungicides. Researchers also revealed that alkaloids help biologically in storage of waste nitrogen, cationic balancing and protection against parasites [22]. Alkaloids are used for reducing headache and fever in medicine. These are attributed for antibacterial and analgesic properties [23]. The terpenoids represent a diverse class of molecules that are related to therapeutic properties including anti-cancer, anti parasitic, anti-microbial, anti-allergic, anti-spasmodic, anti-hyperglycemic, anti-inflammatory and immune modulator properties [24, 25, 26]. Phenolic compound having antioxidant activity base in consumable material of Araceae family and are take in food manufactures as consumers moves to useful foods with certain health effects. The phenolic compounds are the most important antioxidants of plant materials and it constitutes one of the major groups of compounds acting as primary antioxidants or few radical terminators. The glycosides are naturally cardio active drugs used in the treatment of congestive heart failure and cardiac arrhythmia [27]. The presence of glycosides indicates that they may be potent in curing cardiac insufficiency, coughs and circulatory problems also; they may act as good sedatives and have antispasmodic properties [28]. The flavonoids are group of poly phenolic compounds which influence the radical scavenging, inhibition, of hydrolytic and oxidative enzymes and act as anti-inflammatory agent [29]. The biological functions of flavonoids apart from its antioxidant properties include protection against aggregation, microbes, ulcers, hepa toxins, viruses, and tumors [30]. The saponins were found in Colocasia esculenta tubers shows natural tendency for treating fungal and yeast infections.

The extracts could be responsible for the antibacterial activity and triterpenoids have astringent actions, which form the basis for their therapeutic applications [31]. It was found that the plants which contain triterpenoids had antimicrobial activity [32]. The results of antimicrobial activity are comparable with the results of the previous research using extracts of other species like Azadirachta indica [33], Chukrasia tabularis [34], Toona ciliata and Amooraro hituka [35], Aglaia spectabilis [36], Walsura trifoliate [37]. The effectiveness may be due to the cumulative action of different compounds present in the plant parts [38]. The evidence shows the promising therapeutic potential, especially in the case of herb products against viral infections

The synthesis of AgNPs was eco friendly, easy approach and use the phyllanthus emblica plant extracts which act as a reducing, stabilizing, and capping agent for nanoparticle synthesis. This is a simple, green efficient method for the synthesis of silver nano particles at room temperature without using any harmful reducing and capping agent. The green synthesized silver nanoparticles were pile up spherical shape which was reliable and crystalline. These AgNPs were mark by XRD, TEM, FTIR, PL, and UV-visible spectroscopy. The antibacterial activity of AgNPs analyzed against E. Coli bacteria and the outcome shows that a high concentration of AgNPs is enlarge as well as the zone of inhibition grow. This synthesizes process is inexpensive, a single step, and speedy as compared to chemical and biological methods as well as non-polluting, of affordable, and eassy therefore can assist the application of the green method for silver nanoparticles synthesis [20].

Materials and methods Preparation of extract

Collect the Leaves, Flowers, Fruit, Stem, Bark and Tumors. The material is air dried under shade at room temperature. After comminuting the plant material into powder and extraction using solvents. 10 g of dried powder material was soaked separately in beakers, each containing 40 mL of extraction solvents of ranging polarity from highly non-polar to highly polar solvents including n-hexane (n-Hex), Chloroform (CHCl3), Acetone (Ace), Ethyl acetate (EtOAc), Ethanol (EtOH), Methanol (MeOH). Along with individual solvents, combinations of solvents at 1:1 were also used as follow: EtOH+CHCl3, MeOH+CHCl3, Ace+EtOAc, EtOH+EtOAc, and MeOH+EtOAc. The plant material was soaked for 48 h, thereafter filtered through Whatman No.1 filter paper. The residue was again dipped in respective solvent/s and this process was repeated thrice. The respective extracts is combined and concentrated by evaporating the solvent under reduced pressure in a rotary evaporator at 45°C [9].

Quantitative determination of phytochemical analysis as following

Chemical test is carried out on the aqueous extract and on the powdered specimen using standard procedure to identify the constituents [10, 14].

Test for flavonoids

1 g of the powdered dried leaves of each specimen was boiled with 10 ml of distilled water for 5 minutes and filtered while hot. Few drops of 20 % sodium hydroxide solution were added to 1 ml of the cooled filtrate. A change to yellow colour which on addition of acid changed to colorless solution depicted the presence of flavonoids.

Test for tannins

1 g of each powdered sample was separately boiled with 20 ml distilled water for five minutes in a water bath and was filtered while hot 1 ml of cool filtrate was distilled to 5 ml with distilled water and a few drops (2-3) of 10 % ferric chloride were observed for any formation of precipitates and any color change. A bluish-black or brownish green precipitate indicated the presence of tannins.

Test for saponins

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1 g of each powdered dried stain was separately boiled with 10ml of distilled water for 10minutes. The mixture was filtered while hot and allowed to cool. The following tests were then carried out. Demonstration of frothing: 2.5 ml of filtrate was diluted to 10ml with distilled water and shaken vigorously for 2minutes (frothing indicated the presence of saponins in the filtrate).

Test for alkaloids

1 g of powdered sample of each specimen was separately boiled with distilled water and 10 ml hydrochloric acid on a water bath and filtered. The pH of the filtrate was adjusted with ammonia to about 6-7. A very small quantity of the following reagents was added separately to about 0.5 ml of the filtrate in a different test tube and observed. Picric acid solution. 10% tannic solution. Mayer's reagent (Potassium mercuric iodide solution). The test tubes were observed for coloured precipitates or turbidity.

Test for amino acids

To 2ml of sample added 2ml of ninhydrin reagent and kept in water bath for 20 minutes. Appearance of purple color indicated the presence of amino acids the sample.

Analytical characterization of plant extracts

UV-vis- Spectrophotometer (UV-vis Spectra).

The quantitative determination of various analysis UV vis spectrophotometer is use Is also used in analytical chemistry to find out transition metal ions, highly conjugated organic compounds and biological macromolecules. UV vis sepectrophotometry used for analysis the plant extracts and most preferred in pharmacopoeias [45].

Fourier Transform infrared Spectroscopy (FT-IR).

Fourier transform infrared spectroscopy used to measure infrared absorption and emission spectra to find out organic compounds found in the plant extract. To obtain infrared spectrum of absorption, emission, and photoconductivity of solid, liquid, and gas FTIR technique most suitable. For the detection of different function groups FTIR is preferred. [46].

Gas Chromatography (GC).

GC is the preliminary technique for the analysis, identifying, and quantifying the presence of constituents. It is use in investigations of several biochemical pathways in one analysis [47]

High-performance liquid Chromatography (HPLC).

HPLC can be used for detection of the amount of steroids in biological analysis. It requires the high sensitivity because of the low concentrations encountered and adequate sample clean up [4].

Biological Activities

Antimicrobial activity

For the detection of the antimicrobial activity of ethanolic extract the diffusion method is use. In analysis of Calendula tripterocarpa, Centarea sinaica, Centaurea pseudosinaica, Koelpinia linearis, Plectranthus arabicus, Plectranthus asirensis and Tripleurospermum auriculatum this method is prefer [10].

Anti-oxidant activity

In the analysis of the inflammation, autoimmune, cardiovascular, diabetes, neuro degenerative diseases, and even cancer the reactive oxygen and nitrogen species is related to many diseases. In several clinical studies the medicinal plants extracts play the important role in pathogenesis diseases as a antioxidant. The Malva species of plant shows the antioxidant effects. Moreover, distinct plant parts, including leaves, flower, petioles, stem, and seeds, have been investigated for antioxidant analysis [41].

Anti-bacterial activity

The screening the antibacterial activity of the dried extracts is carried out under the Gram-positive and Gram-negative bacteria. For the study of antibacterial analysis Salmonella typhi, Escherichia coli 12079, Escherichia coli 2799, Pseudomonas aeruginosa, Salmonella enteritidis, Aceto bacteria type of bacteria is used. [42].

Anti-fungal activity

The colocasia esculaenta confirmes the anti fungal activity and cystein protease inhibitor cystatin is isolated. The plant shows toxic effect on the mycelium growth of phytopathogenic fungi [43].

The anti inflammatory analysis of the C. spinosa leaf extract reduced edema on swiss albino mice. The C. Spinosa extract reduced the dermis thickness and immune cell infiltration in the inflammatory site. It also shows to exhibit anti inflammatory activity on human peripheral blood mononuclear cells [44].

The plant Malva species gives promising effect on chemo radiotherapy-induced mucositis. The olive polyphenols study finds in olive leaf are able to modulate and connect to pathway and to retard development and growth of cancer [41, 49].

Conclusions

The medicinal plant extracts is use in various cultures traditionally. The number of plant species having the disease curing capacity and shows the presence of phytochemical constituents. The researchers confirm the anti-bacterial, anti-inflammatory, anti-fungal, anti-microbial, anti-cancer and anti-oxidants activity in plant extracts. The plant extracts study gives zero side effects and low coast medicine to treatments on various diseases. Due to availability of plant in various regions in different climates conditions gives scope of analysis the phytochemical and biological activities of novel plants.

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Conflicts of interest

The authors declare no conflict of interest.

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REVIEW OF MONIEZIA (BLANCHARIEZIA) SP. FROM NASHIK REGION

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ABSTRACT

A survey of tapeworms from goat of various areas of Nashik region was carried out. The study deals with a detail report on the basis of the taxonomic evaluation of Captrahircus tapewormMoniezia (Blanchariezia) i.e. M.(B) murhari, M.(B) hircusea, M.(B) punensis, M.(B) caprae, and M. (B) naidui.

The present investigation deals with a new species of Moniezia i.e. M.(B.) lasalgaonensis n. sp. Data on the morphology of all species, their hosts and geographical distribution are provided.

Kay words: Moniezia, Tapeworm, Maharashtra, Nashik region.

INTRODUCTION:

The genus Moniezia was erected by Blanchard in 1981 as atype species Monieziaexpansa from Ovisaries.Later on Skrjabin&Schuz 1937 further divided this genus into three sub genera on the presence or absence of interproglottidal gland. The present worm agrees all the characters with subgenus Blanchariezia in which the following 30 species are added, till 2019, by different workers, in the world.

- M.(B.) benedeni (Moniez, 1879) Skrj. et. Schulz, 1937. 1.
- M.(B.) pallida Monnig, 1926. 2.
- 3. M.(B.) aurangabadensisShinde,Jadhav &Kadam, 1985.
- 4. M.(B.) bharalaeShinde, Jadhav & Kadam, 1985.
- 5. M.(B.) murhari Kalse & Shinde, 1999.
- 6. M.(B.) jadhavaeHiware, 1999.
- 7. M.(B.) kalawatiNanware, Jadhav & Babare, 1999
- 8. M.(B.) ialnaensisBorade&Shinde,1999.
- 9. M.(B.)warananagarensis Patil&Shinde,2000.
- 10. M.(B.) shindei Deshmukh & Shinde, 2001.
- 11. M.(B.)hircusae Tat & Jadhav, 2004.
- 12. M.(B.)aishvaryaeShelke&Shinde,2004.
- M.(B.)capraiPokale,Shinde&Wagh,2004. 13.
- M.(B.)rajalensis.Borade, Patil & Naphade, 2007. 14.
- M.(B.)punensis Suryawanshi, Kalse & Chaudhary, 2008. 15
- M.(B.)capraeNanware,2010. 16.
- M.(B.)madhukaraeKasar,Bhure,Nanware&Sonune,2010. 17.
- M.(B.) maharashtraeNanware,2010. 18.
- M.(B.) warudensisChaudhary, 2010. 19.
- 20. M.(B.)babaiHumbe, Jadhav & Borde, 2011.
- 21. M.(B.)govindaePadwal&Kadam,2011.
- 22. M.(B.)ovisaeHumbe, Jadhav&borde, 2011.
- 23. M.(B.)mansuraeShaikh, Chaudhary, Waghmare & Bhure, 2011.
- 24. M.(B.) orientalisShinde, Nanware, Bhure and Deshmukh, 2013.
- 25. M.(B.)parbhaniensisMakne,2013.
- 26. M.(B.)nagaonensis Suryawanshi & Kalse, 2015.
- 27. M.(B.)bhalchandraiKalse & Suryawanshi, 2016.
- 28. M.(B.) naiduiSuryawanshi & Kalse, 2017.
- 29. M.(B.) fagnaensisSuryawanshi & Kalse, 2017
- 30. M.(B.) khandeshensisSuryawanshi & Kalse, 2019

The present communication deals with the description of a new species i.e. Moniezia (Blanchariezia) lasalgaonensis n.sp. under the same genus and subgenus. Which was collected from Capra hircus at Lasalgaon, Tq.Niphad, Dist-Nashik (M.S.) India.

MATERIAL AND METHOD:

The survey of Capra hircus (L.) were made for cestode infection during July 2018 to Jan 2019. Cestodes were collected from the intestine of Capra hircus, flattened & preserved in 4 % formalin, stained with Harisheamatoxylene, passed through various alcoholic grades, cleared in xylene, mounted in DPX and whole mount slides were prepared for anatomical studies. Drawings are made with the help of camaralucida. After microscopic observations it has been revealed that worms belongs

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to genus Moniezia and sub-genusBlanchariezia.

RESULT AND DISCUSSION:

Six species of MonieziaBlanchariezia were found throughout the investigation. This were M.(B.) murhari, M.(B.) hircusae, M.(B.)punensis, M.(B.)caprae, M. (B.)naidui, and M.(B.) lasalgaonensis.n.sp.

1) Type species- M.(B) murhari(Plate I)

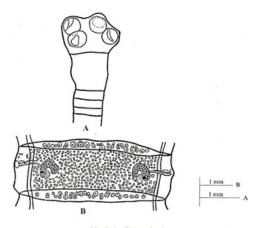
Host- Capra hircus

Geographical distribution-Zodge

Habitat-Intestine

Period of collection-July 2018 to Jan 2019

Scolex large, squarish with four suckers.it comes closure to all the species of Moniezia (B). But differ from M.(B) murhari having no of testes (52 vs 405-415) from M.(B) hircusae having no of testes (52 vs 168), from M.(B) punensis having number of testes (52 vs 110-120) from M.(B) caprae having number of testes (52 vs 240-246) and from M.(B) naidui having number of testes (52 vs 147).



Moniezia (B.) murhari n. sp. Figs A-B - A - Scolex; B - Mature segment.

II) Type of species- M.(B.) hircusae(Plate II)

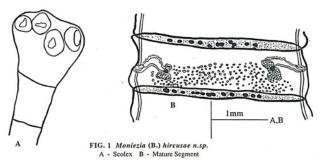
Host- Capra hircus

Geographical distribution-Amode

Habitat-Intestine

Period of collection- July 2018 to Jan 2019

Scolex largein size, globular in shape with four suckers. It comes closure to all the species of Moniezia (B). But differ from M.(B) murhari having no of interproglottidal gland (15-19 vs 63); from M.(B) hircusae having no of interproglottidal gland (15-19 vs 14-15); from M.(B) punensis having number of interproglottidal gland (15-19 vs 18-22;) from M.(B) caprae having number of interproglottidal gland (15-19 vs 40) and from M.(B) naidui having number of interproglottid gland (15-19 vs 30-35).



III) Type of species- M.(B.) punensis(Plate III)

Host- Capra hircus Geographical distribution-Pimpalgaon Habitat-Intestine

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Period of collection-July 2018 to Jan 2019

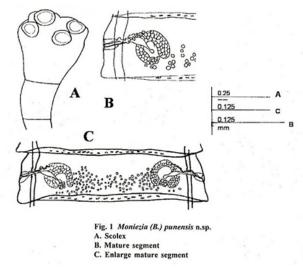
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Scolex is large in size, quadrangular in shape with four suckers. It comes closure to all the species of Moniezia (B.).But differ from M.(B.) murhari in shape of scolex (large vs medium); from M.(B.) hircusae in shape of scolex (squarishvs globular); from M.(B.)punensis in shape of scolex (large vs medium, quadrangular), from M.(B) caprae in shape of scolex (squarishvs oval) and from M.(B) naidui in shape of scolex (large, squarish vs. lobular).



IV) Type of species- M.(B.) caprae(Plate IV)

Host- Capra hircus

Geographical distribution-Nandgaon

Habitat-Intestine

Period of collection- July 2018 to Jan 2019

Scolex is large in size, oval in shape with four suckers. It comes closure to all the species of Moniezia (B.).But differ from M.(B.) murhari in shape and size of cirrus pouch (pyriformvs oval); from M.(B) hircusaein shape and size of cirrus pouch (large vs medium); from M.(B.) punensis in shape and size of cirrus pouch (large vs medium); from M.(B) capraein shape and size of cirrus pouch (large, oval vs. medium, pyriform) and from M.(B.) niaduiin shape and size of cirrus pouch (large vs oval).

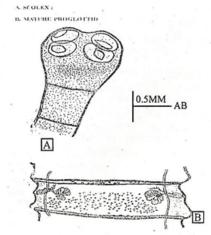


Fig. MONIEZIA (BLANCHARIZIA) CAPRAE SP. NOV.

V) Type of species- M.(B) naidui(Plate V)

Host- Capra hircus

Geographical distribution-Sakore

Habitat-Intestine

Period of collection- July 2018 to Jan 2019.

Scolex is medium in size, globular in shape with four suckers. It differ from M.(B.) murhari in the locality of the host (Dhule vs Raver); from M.(B.) hircusae in the locality of the host (DhulevsDharur); from M.(B.) punensisin the locality of

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the host (Dhule vs Pune); from M.(B.) caprae in the locality of the host (Dhule vs Aurangabad and from M.(B.) naidui in the locality of the host (DhulevsSindkheda).

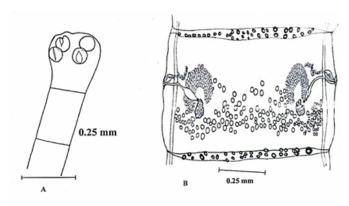


Fig: 1 - Moniezia (B.) naidui n. sp. A - Scolex: B - Mature segment

VI) Type of species- M.(B) lasalgaonensisn.sp. (Plate VI)

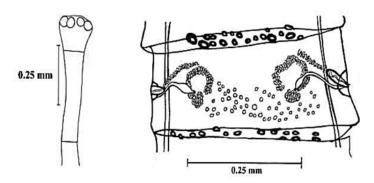
Host- Capra hircus

Geographical distribution-Lasalgaon

Habitat-Intestine

Period of collection- July 2018 to Jan 2019

Scolex large, Squarish with four suckers. Mature proglottids 2 times more than long, testis medium, oval 52 in number, ovary medium, inverted cup shaped, interproglottid gland oval 15-19 in number, cirrus pouch large, oval spindle shaped, Vitelline gland large, oval, vagina posterior to cirrus pouch.



Moniezia(B.) lasalgaonensisn.sp.

DISCUSSION:

In Nashik region a total five species of the genus Moniezia (B.)Blanchard found in Capra hircus wereM.(B.) murhari, M.(B.) hircusae, M.(B.) punensis, M.(B.) caprae, M. (B.) naiduiand M.(B.) lasalgaonensis n. sp. All these species differ from each other in morphological point of view. Most of the moniezia (B.) species has been reported from definitive host Capra hircus rather than other mammalian host. In India few workers are working on taxonomy on cestode parasites of Mammalian host. Hence much more attention has been made on investigation of taxonomy of tapeworm. The present investigation took place the diversity of tapeworm, host specificity and taxonomy of Moniezia from Capra hircus of Nashik region.

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Slum Development Strategy Using advance geoinformatics tool – Based Multi – Criteria System A Case Study of Jalgaon City, India

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ABSTRACT

Urban poverty encourages the formation and demand for slums. In past, rural areas were typically thought of as regions of poverty. With rapid shift from rural to urban life, poverty is migrating to urban areas. The urban poor arrives with hope, and very little of anything else. He or she typically has no access to shelter, basic urban services and social amenities. Slums are often the only option for the urban poor. The incidence rate of slums is strongly correlated to poverty, insufficient social and economic development. The word slum has been used to identify the poorest quality housing, and the most unsanitary conditions; a refuge for marginal activities including crime and drug abuse; a likely source for many epidemics that ravaged urban areas, a place apart from all that was decent. UN Habitat 2003 has stated its description to refer to the term slum based on the first urban forum paper "Cities without slums" as "a wide range of low income settlements and / or poor human living conditions", and with the traditional meaning. The traditional meaning of slums is "housing areas that were ones respectable even desirable, but which have deteriorated as the original dwellers have moved to new and better areas of cities" having come to include also "vast informal settlements that are quickly becoming the most visual expressions of urban poverty, having varied quality of settlements with limited access to water electricity and sanitation".

Keywords: Urban, Poverty, Slums, Jalgaon, Habitat etc.

INTRODUCTION

The UN Habitat defines slum as "A slum is a contiguous settlement where the inhabitants are characterized as having inadequate housing and basic services. A slum is often not recognized and addressed by the public authorities as an integral or equal part of the city". Slum households are a group of individuals living under the same roof that has one or more of the conditions listed below:

- i. Insecure residential status
- ii. Inadequate access to safe water
- iii. Inadequate access to sanitation and other infrastructure
- iv. Poor structural quality of housing
- v. Overcrowding

These conditions are also called as characteristics of slums In 2008, more than 50% of the world's population lived in urban areas. In China, for example, it is estimated that the population living in urban areas will increase by 10% within a decade according to its current rates of urbanization. The UN-Habitat reports that 43% of urban population in developing countries and 78% of those in the least developed countries is slum dwellers.

The number of towns and the absolute urban population in India has increased steadily over the last 60 years. Urban population in India has grown from 78.9 million in 1961 to 286 million in 2001 and the same is estimated to be doubled in next 25 years. Cities and towns are centres of agglomeration economies, investments, technology, innovation, economic growth and tertiary jobs. Their contribution to countries GDP is immense.

Graph No. 1.1: Urban Population in India (1951-2011) 31.8 60 50 40 30 20 27.8 25.7 23.3 10 19.9 1951 1961 1971 1981 1991 Share of Urban Population to Total Population (%) Decadal Growth of Urban Population (%)

(Source: Census of India from 1951-2011; 2011 data from the provisional tables)

Around a quarter of the world's urban population lives in slums. And this figure is rising fast. The number of slum dwellers in developing countries increased from 689 million in 1990 to 880 million in 2014, according to the United Nations World Cities Report 2016.

In some cities in the developing world slum residents make up more than half of the population and often do not have adequate shelter, clean water and sanitation, education, or healthcare.

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A lack of legal rights to land only makes the daily struggle worse, threatening people's homes and efforts to invest in

Many local and national governments have, for political interests, subverted efforts to remove, reduce or upgrade slums into better housing options for the poor. Throughout the second half of 19th century, for example, French political parties relied on votes from slum population and had vested interests in maintaining that voting bloc. Removal and replacement of slum created a conflict of interest, and politics prevented efforts to remove, relocate or upgrade the slums into housing projects that are better than the slums. Similar dynamics are cited in favelas of Brazil, slums of India, and shanty towns of Kenya. Rural-urban migration is one of the causes attributed to the formation and expansion of slums. Since 1950, world population has increased at a far greater rate than the total amount of rearable land, even as agriculture contributes a much smaller percentage of the total economy. Agriculture, meanwhile, has also become higher yielding, less disease prone, less physically harsh and more efficient with tractors and other equipment. The proportion of people working in agriculture has declined over the last 50 years, while global population has increased.

STUDY AREA

Jalgaon is a city in Maharashtra, India. The city is located in North Maharashtra, and serves as the administrative headquarter of its namesake district, the Jalgaon district. Jalgaon is colloquially known as the "Banana City of India" as the region's (Jalgaon district) farmers grow approximately two-thirds of Maharashtra's banana production. Jalgaon is also famous for its production of gold jewelry. Because of that Jalgaon is also colloquially dubbed as the "Gold city" of Maharashtra.

OBJECTIVES

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- To study physical and cultural setting of the region.
- To Study the Important of the Slum development.
- To understand Geoinformatics as a tool for inclusive urban development especially for the slum development.
- To explore the application of Geoinformatics to slum development in Jalgaon city.

RESEARCH METHODOLOGY

- The present study is based on a sample survey of households in the context of a slum area in Jalgaon City.
- Data Collection and Sample Survey.
- Preparation of socio Economic Survey datasheet.
- Field Survey of Bishop House.
- Field Survey of: Kanchan nagar, Old Jalgaon, Aasoda Road, Shree Krishna Nagar, Jainabad, Mehrun, Doodh Federation, Shivaji nagar.
- Digitization of Data in GIS Software and Thematic Map generation.
- Slum Development Strategy and Management.
- Digitization of Data in GIS Software and Thematic Map generation.
- Slum Development Strategy and Management.

PROJECTED POPULATION OF JALGAON CITY

Sr. No.	Year	Total Population	Absolute Growth	Growth In %	Annual Growth Rate in % by Gibbs Method
1	1901	16,259	-	-	-
2	1911	17,780	1,521	(+)9.335	0.89
3	1921	23,329	5,549	(+)31.21	2.70
4	1931	34,286	10,957	(+)46.74	3.80
5	1941	48,596	14,310	(+)41.74	3.45
6	1951	68,412	19,816	(+)40.70	3.39
7	1961	80,351	11,939	(+)17.45	1.60
8	1971	1,06,711	26,310	(+)32.81	2.82
9	1981	1,45,335	38,624	(+)36.19	3.06
10	1991	2,42,193	96,863	(+)66.64	5.00
11	2001	3,68,579	1,26,381	(+)52.18	4.14
12	2011	5,67,408	1,98,829	(+)53.94	4.25

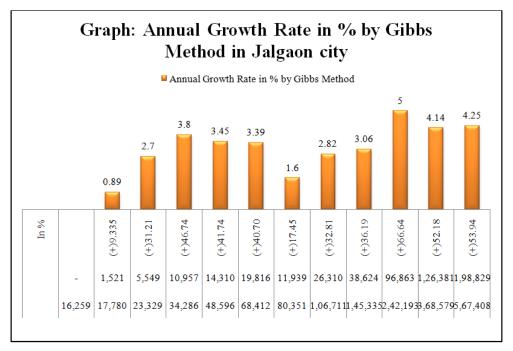
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Graph: Annual Growth Rate in % by Gibbs Method in Jalgaon city

POPULATION GROWTH 2001 & 2011

JALGAON CTTY	2011	2001
Population Growth	14,86%	15,53%
Area Sq.km	11,765	11,765
Density Km²	360	313
Proportion to Maharashtra Population	3.76%	3.80%

LIVING YEAR AT LOCALITY OF JALGAON CITY -

Sr. No.	Study Area	< 10 Years	11- 20 Years	21- 30 Years	31-40 Years	41-50 Years	
1	Old Jalgaon	5	5	2	4	3	
2	Khanchan Nagar	6	8	16	5	1	
3	Shree Krishna Nagar	0	1	3	10	2	
4	Aasoda Nagar	1	5	4	7	0	

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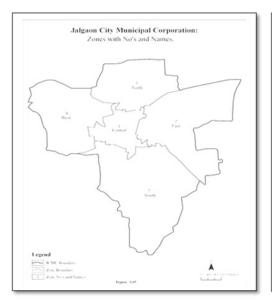
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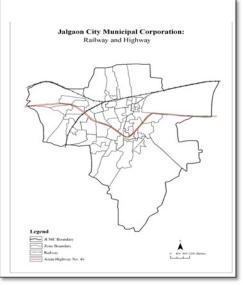
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LITERACY AMONG LOCALS

Sr.No	Study Area	Male					Female						
		above	SSLC	Matriculation	8th or less	school	Literate	above	SSLC	Matriculation	8th or less	School	Literate
1	Kanchan Nagar	6	4	12	7	2	5	2	1	7	10	3	12
2	Shree Krushna Nagar	1	0	7	6	0	2	2	0	4	6	0	4
3	Asoda Nagar	2	2	7	2	3	0	0	0	3	7	3	3
4	Old Jalgaon	1	2	8	3	1	4	0	2	4	4	2	7





(A) (B)

CONCLUSTION

- 1. Incidence of communicable diseases are recorded 90.00 percent in households whose location of drinking water is away, followed by 88.22 and 80.01 percent in near premises and within premises respectively.
- 2. The incidence of communicable diseases in kuccha house (89.10%) is more than pukka and semi-pucca type of house.
- 3. The incidence of communicable diseases (malaria, typhoid etc.) is recorded high i.e. 88.92 percent in those households having no drainage system.
- 4. The incidence of communicable diseases such as conjunctivitis etc. is slightly less (77.46%) in households having separate room for kitchen than households having no separate kitchen (88.05%) or cooking in open place (89.15%).
- 5. The incidence of communicable diseases houses in slum locality is slightly higher (86.43%) than houses in non slum locality (79.04%).
- 6. The number of graduates (82.76%) and higher educated (92.59%) household heads recorded higher in non slum



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than slum locality.

- The incidence of communicable diseases such as diarrhea/gastroenteritis etc. in ST (88.84%) and other (87.76%) category are slightly more than remaining category households, whereas the incidence of non-communicable diseases such as hyper tension, heart attack etc. in Open (20.50%) category is recorded highest.
- 8. Data reveals that only male household heads (38.60%) are habituated who either chew pan masala or tobacco, drink alcohol or smoke.
- 9. The incidence of communicable diseases such as diarrhea/gastroenteritis etc. are high (88.38%) in households they do not used any kind of purification for drinking water.
- Data shows that 420 (87.50%) deliveries are conducted in hospitals and about 60 (12.50) are home deliveries.
- Highest 55.17 percent of government/municipal hospitals deliveries are recorded from household heads have no income.
- People from slum locality go for treatment in government/municipal hospitals is recorded highest (62.04%).
- Number of death from slum locality recorded highest i.e. 63.83 percent.
- The incidence rate of communicable diseases such as common cold, diarrhea/gastroenteritis, malaria, conjunctivitis, scabies, tuberculosis etc. are concentrated in Very High and High category in slum localities.
- The incidence rate of non-communicable diseases such as anemia, obesity, diabetes mellitus, hyper tension, heart attack, teeth and gum diseases etc. are concentrated in Very High and High category in non slum localities.

SUGGESTIONS

It is well known that half of the world population lives in urban areas – and the proportion is growing. Cities suffer from disproportionately provided health services and these inequities can be traced back to differences in their social and living conditions. Unplanned rapid urbanization can have negative consequences on urban health. Some urban health threats are well known and other remaining threats will be new for some urban areas. Local bodies need to identity and better understand the main challenges as well as their root causes and to build knowledge based on good practice and the best scientific data available in order to address them.

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Effects of COVID-19 Pandemic on Environment and Human Society: An Analysis

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ABSTRACT

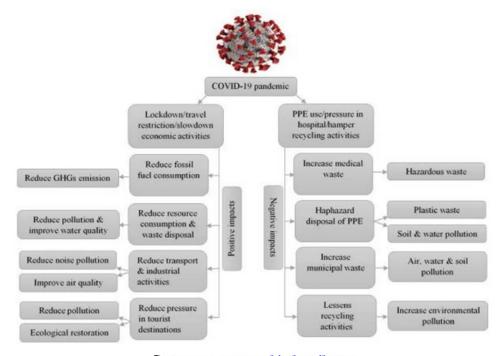
The global outbreak of coronavirus disease 2019 (COVID-19) is affecting every part of human lives, including the physical world. The measures taken to control the spread of the virus and the slowdown of economic activities have significant effects on the environment. Therefore, this study intends to explore the positive and negative environmental impacts of the COVID-19 pandemic, by reviewing the available scientific literatures. This study indicates that, the pandemic situation significantly improves air quality in different cities across the India, reduces GHGs emission, lessens water pollution and noise, and reduces the pressure on the tourist destinations, which may assist with the restoration of the ecological system. In addition, there are also some negative consequences of COVID-19, such as increase of medical waste, haphazard use and disposal of disinfectants, mask, and gloves; and burden of untreated wastes continuously endangering the environment. It seems that, economic activities will return soon after the pandemic, and the situation might change. Hence, this study also outlines possible ways to achieve long-term environmental benefits.

Introduction

The outbreak of coronavirus desease-2019 first emerged at the end of December 2019, from the Human seafood market in Wuhan city of China, and declared as an international public health emergency in couple of weeks by the world Health Organization. Overall, the pandemic has caused huge global socio-economic disruption, which directly or indirectly affected the environment like improvement of air and water quality reduction of noise and reduction of noise and restoration of ecology. Moreover, the increased use of personal protective equipment (PPE) (e.g. face mask, hand glove, gowns, goggles, face shield etc.) and their haphazard disposal creates environmental burden.

Environmental effects of COVID-19

The National disruption caused by the COVID-19 has brought about several effects on the environment and climate. Due to movement restriction and a significant slowdown of social and economic activities, air quality has improved in many cities with a reduction in water pollution in different parts of the world. Besides, increased use of PPE (e.g., face mask, hand gloves etc.), their haphazard disposal, and generation of a huge amount of hospital waste has negative impacts on the environment. Both positive and negative environmental impacts of COVID-19 are present in the environment.



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Positive Environmental Effects Reduction of air pollution and GHGs emission

As industries, transportation and companies have closed down; it has brought a sudden drop of greenhouse gases (GHGs) emissions. Compared with this time of last year, levels of air pollution in Delhi and Mumbai have reduced by nearly 50% because of measures taken to control the virus. It was estimated that nearly 50% reduction of N2O and CO occurred due to the shutdown of heavy industries in India. Also, emission of NO is one of the key indicators of global economic activities, which indicates a sign of reduction in many countries (e.g., US, Canada, China, India, Italy, Brazil etc.) due to the recent shut down. Usually, NO2 is emitted from the burning of fossil fuels, 80% of which comes from motor vehicle exhaust. It is reported that NO2 causes acid rain with the interaction of O2 and H2O, and several respiratory diseases suffered by humans.

Reduction of water pollution

Water pollution is a common phenomenon of a developing country like India, and Bangladesh, where domestic and industrial wastes are dumped into rivers without treatment. During the lockdown period, the major industrial sources of pollution have shrunk or completely stopped, which helped to reduce the pollution load. For instance, the river Ganga and Yamuna have reached a significant level of purity due to the absence of industrial pollution on the days of lockdown in India. It is found that, among the 36 real-time monitoring stations of river Ganga, water from 27 stations met the permissible limit. This improvement of water quality at Haridwar and Rishikesh was ascribed to the sudden drop of the number of visitors and 500% reduction of sewage and industrial effluents. According to the real-time water quality monitoring data of the Uttarakhand Pollution Control Board. of India, physicochemical parameters i.e., pH (7.4–7.8), dissolved oxygen (DO) (9.4–10.6 mg/L), biochemical oxygen demand (BOD) (0.6–1.2 mg/L) and total coli form (40–90 MPN/100 ml) of the river Ganga was found within the surface water quality standard of India. Water pollution is also reduced in the beach areas of Mumbai, Goa, Kerala, Tamil Nādu and many other states.

Reduction of noise pollution

Noise pollution is the elevated levels of sound, generated from different human activities (e.g., machines, vehicles, construction work), which may lead to adverse effects in human and other living organisms. Usually, noise negatively effects on physiological health, along with cardiovascular disorders, hypertension, and sleep shortness of human. It is reported that, globally around 360 million people are prone to hearing loss due to noise pollution. For instance, noise level of Delhi the capital of India, is reduced drastically around 40–50% in the recent lockdown period. Due to reduction of vehicle movement during the lockdown period, the noise levels of Govindpuri metro station (Delhi) is reduced 50–60 dB, from 100 dB. According to the Central Pollution Control Board of India, noise level of residential area of Delhi is reduced 55 dB (daytime) and 45 dB (night) to 40 dB (daytime) and 30 dB (night) respectively. As a result, city dwellers are now enjoying the chirping of birds, which usually ranges from 40-50 dB. Moreover, due to travel restrictions, the number of flights and vehicular movements has drastically reduced around the world, which has ultimately reduced the level of noise pollution.

Ecological restoration and assimilation of tourist spots

Over the past few years, tourism sector has witnessed a remarkable growth because of technological advancements and transport networks; which contribute significantly to global gross domestic product (GDP). It is estimated that the tourism industry is responsible for 8% of global GHGs emission. However, the places of natural beauty (e.g., beaches, islands, national park, mountains, desert and mangroves) are usually attracting the tourists, and make a huge harsh. To facilitate and accommodate them, lots of hotels, motel, restaurant, bar and market are built, which consume lots of energy and other natural resource. For instance, calculated the carbon footprint of coastland hotel services of Spain and reported electricity and fuels consumption take a key role, and 2-star hotels have the highest carbon emissions. Moreover, visitors dump various wastes which impair natural beauty and create ecological imbalance. Due to the outbreak of COVID-19 and local restrictions, the number of tourists has reduced in the tourist spots around the world.

Negative Environmental Effects

Increase of biomedical waste generation

Since the outbreak of COVID-19, medical waste generation is increased globally, which is a major threat to public health and environment. For sample collection of the suspected COVID-19 patients, diagnosis, treatment of huge number of patients, and disinfection purpose lots of infectious and biomedical wastes are generated from hospitals.in the city of Ahmadabad of India, the amount of medical waste generation is increased from 550-600 kg/day to around 1000 kg/day at the time of the first phase of lockdown. Around 206 m tonnes of medical waste are generated per day in Dhaka, the capital of Bangladesh because of COVID-19Such a sudden rise of hazardous waste, and their proper management has become a significant challenge to the local waste management authorities. According to the recent published literature, it is reported that the SARS-CoV-2 virus can exist a day on cardboard, and up to 3 days on plastics and stainless steel. So, waste generated from the hospitals (e.g., needles, syringes, bandage, mask, gloves, used tissue, and discarded medicines etc.) should be managed properly, to reduce further infection and environmental pollution, which is now a matter of concern globally.

Safety equipment use and haphazard disposal

To protect from the viral infection, presently peoples are using face mask, hand gloves and other safety equipment, which increase the amount of healthcare waste. It is reported that, in USA, trash amount has been increasing due to increased PPE use at the domestic level. Since the outbreak of COVID-19, the production and use of plastic based PPE is increased worldwide. For instance, China increased the daily production of medical masks to 14.8 million since from February 2020,

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which is much higher than before. Though, experts and responsible authorities suggest for the proper disposal and segregation of household organic waste and plastic based protective equipment (hazardous medical waste), but mixing up these wastes increases the risk of disease transmission, and exposure to the virus of waste workers.

Municipal solid waste generation and reduction of recycling

Increase of municipal waste (both organic and inorganic) generation has direct and indirect effects on environment like air, water and soil pollution. Due to the pandemic, quarantine policies established in many countries have led to an increase in the demand of online shopping for home delivery, which ultimately increase the amount of household wastes from shipped package materials. However, waste recycling is an effective way to prevent pollution, save energy, and conserve natural resources. But, due to the pandemic many countries postponed the waste recycling activities to reduce the transmission of viral infection. Overall, due to disruption of routine municipal waste management, waste recovery and recycling activities, increasing the land filling and environmental pollutants worldwide.

Other effects on the environment

Recently, huge amount of disinfectants is applied into roads, commercial, and residential areas to exterminate SARS-CoV-2 virus. Such extensive use of disinfectants may kill non-targeted beneficial species, which may create ecological imbalance. Moreover, SARS-CoV-2 virus was detected in the COVID-19 patient's faeces and also from municipal wastewater in many countries including Australia, India, Sweden, Netherlands and USA So, additional measures in wastewater treatment are essential, which is challenging for developing countries like Bangladesh, where municipal wastewater is drained into nearby aquatic bodies and rivers without treatment.

Conclusion

This paper aimed to provide an overview of the indirect effects of COVID-19 on the environment at the National level. In spite of the uncertainty caused by the pandemic due to the unprecedented circumstances, there have been some glimmers of hope and positive signs that the environment can be temporarily benefitted from the unexpected outcomes and short-term improvements such as the reduced GHG emissions, the falling consumption of fossil fuels, the better air quality and clearer atmosphere, the improved quality of waters and cleaner beaches, and liberated wildlife. On the other hand, the mounting problem of waste and environmental pollution reveals the challenges many national governments are confronted with. From the above analysis, it is clearly manifested the interaction between the economy and environment as well as the resilience, adaptability, and quick recovery of the natural world when granted space. Furthermore, a taste of the scale of challenges and actions required in a post-pandemic setting for a greener future is given.

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The role of the Police personnel in COVID-19 and impact on their mental health

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ABSTRACT:

The epidemic of COVID-19 caused social upheaval and had serious repercussions on the respondents at the forefront. Among with health care workers, the police also became popular as 'Corona Warriors'. For the police personnel, the COVID-19 epidemic is known to be one of the most important stressors associated with their professional roles. While protecting people from the risk of COVID-19 infection, the police had to face a various of problems, reviewing the effects on them.

Keywords: - COVID-19, Mental Health, Stress, Police Personnel.

COVID-19 is an acute respiratory infection that has adversely affected all countries and continents. The first corona positive was recorded in Indian in January 2020 from that time, the government has introduced various preventive measures such as wearing mask, maintaining social distance, using sanitizer, washing hands frequently, keeping people infected with corona in isolation rooms and advising to stay away from them. The government also imposed various restrictions. The government announced a complete lockdown. The epidemic caused a social upheaval with the government challenging people to stay at home to spread of the disease. Despite millions of people working from home during the COVID-19 era, health care workers and police personnel continued to provide uninterrupted services to the citizens and this had serious consequences for those at the forefront.

Along with health care workers the police also became popular as 'Corona Worriers' for police personnel the COVID-19 is epidemic is known to be one of the major stressors associated with their professional roles. Police have been working to keep the people safe since the COVID-19 and the police have been carrying out orders given by the government to prevent the spread of the disease, regardless of their own lives. Police personnel were assigned various responsibilities including check post duty, assisting migrants, maintaining social distance, patrolling etc. They also had to treat the citizens harshly while closely monitoring the public.

While protecting citizens from the epidemic of COVID-19, police personnel began to worry about being infected in the community and in the workplace. Also many police personnel became infected with the disease and some died. All these conditions affected the mental health of the police personnel. After returning from duty, he had to stay away from his family, children could not be seen freely, they was worried about keeping his family safe. They had to keep himself away from them, which caused his emotional and mental distress. Mental problems, anxiety started developing in them. The infection and death of his co-worker at work was demoralizing him and deteriorating his mental health.

The descriptive research has been conducted in COVID-19 on the concept of disease, the factors affecting stress, their role in the severity of the disease and their potential for coping with the disease.

Significance of the study :-

The purpose of this study is to find out the role of police personnel in the corona period their perception of the disease the factors that affect stress and their ability to cope with the disease.

A cross-sectional study was conducted using in depth interviews by randomly selecting police personnel working in COVID-19 situations in Jalgaon District.

Objectives

- To study the impacts of Pandamic on police personnels physical health 1)
- 2) To study the impacts of Pandamic on police personnels mental health

Hypothesis

- 1) There is effect of pandemic on police peoples physical health
- There is effect of pandemic on police peoples mental health. 2)

Method:-

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A cross-sectional study was conducted using in depth interviews by randomly selecting police personnel working in COVID-19 situations in Jalgaon District.

Out of the total 35 police stations in Jalgaon district in depth- interviews of police personnel were conducted randomly from all areas including at least 1 police personnel. The data was collected while police personnel were on duty. The participants were encouraged to use open question to express their state of stress, different problem and challenges they came across in working during the crisis period of COVID-19 and how they are coping up for it. The interview did not last longer than 15 to 20 minutes.

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Finding:-

In the present study found that most police employees experienced stress both personnel and at work. Workload, Environmental stress having to stay away from home, role conflicts interpersonal stress and personal stress have caused police personnel to face mental stress in the work place. There was a lack of essential facilities while police personnel were

on duty in the lockdown, lack of snacks, unlimited work hours, insufficient sleep hours and irregular meals, made their life style extremely tiring and unpredictable, loyal to their work these police personnel were seen coping with stress, resource allocation inadequate equipment as well as inadequate facilities and high risk of COVID-19 infection are associated with depression, anxiety and mental stress among police personnel.

There is a impact of psychological conditions on physical health of the police people, they both are interrelated factors, because of this possibility of psychosomatic disorders.

The study found that the highest percentage was 45% had moderate depression 48% had moderate anxiety and 32.8% had moderate stress among police personnel.

Conclusion:-

Leading activists, especially the police, need to be taken care of. It is important to provide them with appropriate mental health care to be able to do so they need to understand the mental risk factors and their needs during the outbreak.

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Study synthesis and spectral identification of derivatives of Pyrone, Pyridones, and aliphatic diketo acids derivatives

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Abstract-

A synthetic approach to study various Pyrones, Pyridones and diketo acids has been proposed to study. Various substitution would be tried and spectral data will be studied to establish the structures. This study covers general introduction to Pyrone, Pyridone, and aliphatic diketo acids, their synthetic methods, derivatives using Mannich reaction scheme and products are interpreted using IR, NMR, Mass spectral analysis. These studies demonstrate that substituted derivatives of pyrones, pyridones have excellent biological activity as a new class of antifungal, antibacterial, anticancer agents..

Key words: Pyrone, Pyridone, Aliphatic diketo acids, antifungal, antibacterial, anticancer 1.Introduction -

More than sixty percent molecules of modern science drugs are heterocycles, natural amino acids, cellulose and related natural derivatives in nature. Heterocycles have very good applications in human life. The pyrone moiety is a structural feature found in a huge variety of biologically active metabolities. In recent times new insights into additional biosynthetic chemistry yielding in such six-membered unsaturated ester ring residues have been obtained. The purpose of this research is to explore chemistry of pyrones and their derivatives formed through Mannich reaction. We propose to study few commercially important pyrones and pyrimidones derivatives chemistry.

Pyrone and pyridon derivatives are able to exert remakeble range of biological ativity suchcompounds are validated as being capable of binding to specific protein domains and able to exert a remarkable range of biological effects. The biological activities exhibited by pyrone and pyridone are immense, including antimicrobial [2], antitumor [3,4], and antifungal activities [5]. Aflatoxins, produced by several Aspergillus species, are known to cause food poisoning due to their cytotoxic activity. Any drug efficacyreduces after some years. Then needs to develop next version of building block molecules derivatives. Many substituted pyrone and pyridone derivatives are key building blocks in pharmaceutical products. We propose to synthesis different substitutions in pyrone and pyridone to achive next version of drugs.

They can regularly be found in improperly stored food, hence, entering the food supply chain [6]. Further coumarin derivatives, e.g., umbelliferone (4), esculetin (5), and scopoletin (6), are subject of investigation due to their pharmacological properties, i.e., anticancer effects [7]. α -Pyrones have also been shown to be HIV protease [8-10] and selective COX-2 inhibitors [11,12]. The different biosynthetic routes towards an α -pyrone ring have commercial importance like the statin drug lovastatin, which has application in lowering cholesterol.

The product 4 – Hydroxy -6 –methyl-2-pyrone is also refered as Triacetic acid Lactone (TAL) , is a precursor in many chemical synthesis(Hansen) . TAL is reported to be made from Glucos by

using enzyme 2-pyrone synthase from Gerbera Hybrida, E Coli and Saccharomyces cerevisiae. (10,13,14)

1.1 Pyridone Derivatives:-

Owing to the versatile applications in different areas including biology, natural compounds, dyes, and fluorescent materials, the synthesis of 2-pyridone compounds is an important research field and has attracted a great deal of attention. The clinical success of paclitaxel (PTX) and docetaxel in the treatment of cancer has prompted a worldwide search for compounds with a similar mechanism of action but improved characteristics. The low aqueous solubility of PTX and the development of clinical drug resistance, mediated by both the overexpression of P-glycoprotein (P-pg) and the presence of L-tubulin mutations [15] are factors that hamper its applicability. The discovery [16] and recognition of the epothilones as potent tubulin polymerizing agents [17] propelled them into the forefront of chemical and biological research (for review see [18] and references therein 2-Pyridone derivatives are especially interesting because the 2-pyridone structure is present in many compounds of natural origin [1], many of which possess biological activity. Most of these compounds possess antibacterial [2,3], antifungal [4], anti-inflammatory [5], antiviral [6,7], antitumor [8] and antiplatelet [9,10] properties. 2-Pyridone derivatives are used in the manufacturing of paints [11], pigments, additives for fuels and lubricants, acid-base indicators, stabilizers for polymers and coatings [12]. Due to a variety of pharmacological properties, the 2-pyridone structure is important in the pharmaceutical industry [13]. Many medications contain 2-pyridone structure: cardiotonics (milrinone (Figure 1a) and amrinone (Figure 1b) used for the treatment of heart failure [14,15]

1.2 Di-Keto Acids derivatives:-

1.1a Alpha Keto Leucine: Alpha keto Leucine is an important pharmaceutical-chemical intermediate, Alpha-keto-leucine is an essential in the biosynthetic precursor of leucine. This is an important source material in functional drinks, alpha-keto-leucine and salt thereof also are its important component. Alpha-keto-leucine-calcium is the important source material in the compound alpha-ketoacid preparation. Alpha-ketoacid is as one of eubolism species of human body, can also be directly used in some uremic treatment, at present, the treatment of compound alpha-ketoacid preparation associating low

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protein diet is alleviating the symptom of uremic patient, and good effect has been brought into play in the renal function deterioration aspect that can improve patient's renal function, blood fat disorder and nutritional status, and provides clinical theoretical foundation for the early diagnosis chronic renal insufficiency.

1.1b 3,3 Di methyl Oxo butyric acid:-3,3 Di methyl Oxo butyric acid is a ketoacid, a low melting solid, usually a semisolid, this is colourless and this is a precursor of Pantothenic acid. Pantothenic acid, also called vitamin B5 is a water soluble vitamin B and essential nutrient, it synthesizes Coenzyme A, which is essential for fatty acid metabolism and general metabolism. water-soluble B vitamin and therefore an essential nutrient.[7] All animals require pantothenic acid in order to synthesize coenzyme A (CoA) – essential for fatty acid metabolism – as well as to in general synthesize and metabolize proteins, carbohydrates, and fats. Vitamin B5 is a dietary supplement or animal feed ingredient the form commonly used is calcium pantothenate because of chemical stability, and hence long product shelf life, compared to sodium pantothenate or free pantothenic acid.[1]

Mannich Reaction mechanism

Mannich reaction is organic chemical coupling reaction which named by German chemist Carl Mannich. It is an organic Reaction in which an acidic H+ ion position next to carbonyl

group undergo an amino alkylation with the help of formaldehyde and ammonia(primary, secondary). You can use amine instead of ammonia. Final product of this reaction is a beta amino carbonyl compound. Mannich reaction mechanism begins with formation of iminium ions from the reaction between formaldehyde and amine. Carbonyl compound functional group undergo toutomerisation to give enol form. This enol form attacks to iminium ion. Mannich reaction having two steps.

Step-1: Reaction between formaldehyde and amine leads to formation of iminium ion. It is example of nucleophilic addition of an amine to a carbonyl group. R1, R2,R3,R4 = alkane, alkene, alkyne, phenyl groups.

Step-2: The compound containing carbonyl group (ketone) undergoes toutomerisation to give enol form. This enol form of carbonyl functional group attacks on iminium ion and yield beta amino carbonyl compound. Also called Manich base.

$$R^4$$
 H^+ R^4 H^+ R^4 H^+ R^4

$$\mathbb{R}^{3} \xrightarrow{\mathbb{R}^{4}} + \mathbb{H} \xrightarrow{\mathbb{R}^{2}} \mathbb{R}^{2} \longrightarrow \mathbb{R}^{3} \xrightarrow{\mathbb{R}^{4}} \mathbb{R}^{1} \xrightarrow{\mathbb{R}^{4}} \mathbb{R}^{2} \xrightarrow{\mathbb{R}^{4}} \mathbb{R}^{2}$$

This reaction is useful for preparation of alkyl amine , antibiotics (tetracycline) , catalyst , polymer , pharmaceutical drug (fluoxetic) , soap and detergents.

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2. Synthesis of derivatives:-

- 2.1 Synthesis of Pyrone Derivatives:- Pyrone rings are found in natural products as well a lot many drugs are designed based on pyrone chemistry. Pyrone chemistry1 is used in Antimicrobials, Anticancers3, Insecticides, Herbicides. There are two pyrone derivatives -1) 2- pyrone and 2) 4- pyrone These are very valuable products from pharmaceutical application point of view. These are useful as anticfungal, antibacterial, antanticancer, anti HIV as, [1] anti convulsant, Insecticide etc. A synthetic2 and Spectral interpretation as well application approach of these products have been attempted here. [2,3]A scheme of synthesis has been proposed to synthesise various substituted Pyrones
- 2.1a. Starting from simple alkyl carboxylic acids like Butanoic acid, isobutanoic, pentanoic, isopentanoic, heptanoic, ocatnoic, phenyl acetic, nicotynyl, adamantly, phenyl alkyl acids will be explored to convert to ketone and further condensed with dicarboxylic acid to get keto acid to get desired product. [23]
- 2.1b. Alkyl carboxylic acid esters are reacted with dimethyl sulphoxide or it's derivative, which further reacted with chloro propionic ester, which is further cyclised to get 6 substituted pyrone. Different substitutions like Butanoic acid, isobutanoic, pentanoic, isopentanoic, heptanoic, ocatnoic, phenyl acetic, nicotynyl, adamantly, phenyl alkyl acids will be explored to get different 6 substituted pyrone. [24]
- 2.1c. Fused Benzopyrone will be explored by treating various substituted homopthalic acid, various substituted and 3 substituted fused pyrones or isocoumarines will be explored.
- 2.1d. Short chain fatty acids will be explored to get 6 substituted pyrone by treating with carboxylic acid chlorides, various acid chlorides will be explored such as aliphatic, aromatic, heterocyclic.

2.2. Pyrone derivatives using Mannich reaction to make β-amino-carbonyl compound

Multicomponent reactions are important from the point of expanding molecules, while doing molecule, or drug design, which requires complexity. Mannich reaction offers such opportunity to explore chemistry of keto group of Pyrone and that yields multiple products of biological importance, while reacted with an aldehyde and an amine. Such exploration provides an opportunity to shorten the reaction time, path, less waste, lower cost and one pot, irreversible reaction. Various aldehydes, amines, reaction conditions will be explored.

Mannich reaction provides this opportunity and this generates Mannich base, substituted amino carbonyl compound. Solvent system used for this reaction varies from water to alcohol, acetonitrile, toluene, ionic liquids. Various solvents, reaction conditions, and amines and aldehydes will be explored to get different Mannich base. Cyclic amines, aliphatic, aromatic amines, substituted aldehydes will be explored. [Reference - 33 to 39] In recent years various such components are explored as antiviral, insecticidal, antimalerial properties.(reference 31,32)

- **2.3.** Synthesis of Pyridone Drivative:- A scheme of synthesis has been proposed to synthesise various substituted Pyridones as stated above and further these pyrone are converted to respective Pyridone by doing exchange of Oxygen by Nitrogen.
- 2.3a. Starting from simple Alkyl carboxylic acids like Butanoic acid, isobutanoic, pentanoic, isopentanoic, heptanoic, ocatnoic, phenyl acetic, nicotynyl, adamantly, phenyl alkyl acids will be explored to convert to ketone and further condensed with dicarboxylic acid to get keto acid to get pyrones, which are further converted to pyridine, desired product
- 2.3b. Alkyl Carboxylic acid esters are reacted with dimethyl sulphoxide or it's derivative, which further reacted with chloro propionic ester, which is further cyclised to get 6 substituted Pyrone. Different substitutions like Butanoic acid, isobutanoic, pentanoic, isopentanoic, heptanoic, ocatnoic, phenyl acetic, nicotynyl, adamantly, phenyl alkyl acids will be explored to get different 6 substituted pyrone., which are further converted to pyridine. Fused Benzopyrone will be explored by treating various substituted homopthalic acid, various substituted and 3 substituted fused pyrones or isocoumarines will be explored. Further these will be converted to fused pyridines.
- 2.3c. Short chain fatty acids will be explored to get 6 substituted pyrone to further convert to pyridine, by treating with carboxylic acid chlorides, various acid chlorides will be explored such as aliphatic, aromatic, heterocyclic.
- **2.4a. Diketo acid Derivatives:-** This is an approach to study Synthesis and application of diketo acids. These are found in Human body as , incomplete break dawn of amino acids. Here we have tried to study synthesis and application of these products. Different aliphatic substitutions would be studied in this approach.
- **2.4b. Alpha Keto Leucine:**-Acetone cyanohydrine will be converted to hydantoin, which will be further converted to imidazolidine dion to convert further to Alpha keto Leucine, various aldehyde will be explored to get different acids.
- **2.4c. 3,3 Di methyl Oxo butyric acid:-**3,3 Methyl Oxo butyric acid These are also found as , incomplete break dawn of amino acids. This is one more example to study synthesis and application of similar products. Different aliphatic substitutions would be studied in this approach.

2.4 d. Synthesis of various alpha keto acids, interpretation:-

Isopropyle chloride will be treated with coppercyanide and that will be further hydrolysed to get a dimethyl oxo butyric acid . Such different diketo acids will be explored and their chemistry will be studied with IR , NMR and Mass spectral interpretation

3. Objective of Research

3a.To explore the chemistry of the different substitution of pyrone,pyridone,and diketo acid.molecules.3b. To study reaction behaviour of pyrone,pyridone,and diketo acids in solvent and aqueous activity.3c.To study the effect of concentration of synthesis compound on spectral characteristics.3d.To evaluate the microbial activity of pyron,pyridone,and diketo acid

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derivative moity with other compound.

4. Experimental design

Appropriate substitution derivative will be prepared using latest literature review. The synthesized substituted derivative of pyron, pyridone, and diketo acids will be used to study spectral identification using UV-viseible, IR, NMR, mass, spectrometric methods. Further use for biological activity test such as antimicrobial, antifungal, anticancer, insectisidle, Herbicidle, etc.

5. Expected result

5a. Substitution of pyron,pyridone and diketo acids in aqueous and non aqueous solution will be studied.5b.Develop substituted product purifay as per standard lab procedur and use for spectral analysis.5c.The effect of concentration on spectral characteristics will be studid.5d.Te data of spectral identification will be analysed.in every substitution seperatly.5e. The effects due to concentration on biological activity will be studied.5f.To evaluate antimircobial activity of the newly synthesized compounds by broth dilution method and to study the structure activity relationship to optimize the structure

6. Conclusion

Any drug efficacy reducesafter some years. Then needs to develop next veivirsion of building block molecules derivatives. Many substituted pyrone and pyridone derivatives are key building blocks in pharmaceticle products. We propose to synthesize different dfferent substitutions in pyrone and pyridone to achive next version drugs. Appropriate substitution derivative will be prepared using latest literature review. The synthesized substituted derivative of pyron, pyridone, and diketo acids will be used to study spectral identification using UV-viseible ,IR,NMR ,mass , spectrometric methods. Further use for biological activity test such as antimicrobial, antiungal, anticancer, insectisidle, Herbicidle, etc. We propose to synthesis different substitutions in pyrone and pyridone to achive next version drugs. Biological activity evaluate by Agar and broth dilution method.

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A Study of Consumer Behavior Towards Use of Modern Payment System

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Abstract

India was the 4th largest user of cash in the world before demonetization. The Government of India has taken an initiative to promote a digital payment system to create a cashless economy as well as society, for this purpose Government of India demonetized big currency note in the month of November, 2016. After the biggest cash crunch the Government of India introduced digital payment system or cashless transactions to promote digital payment in the Indian Economy and the result of this many consumers trying to use cashless transactions. Before the cash crunch 97% of users believed to use hard cash to perform financial transactions, 92% of ATM Cum Debit Card holders using cards only for balance enquiry and cash withdrawals. But after demonetization and the introduction of digital payment systems many consumers are trying to use different modes of digital payment system, especially in metro cities as well other urban areas with a maximum number of users performing cashless transactions. Apart from these, the economy is observing tremendous change in the use of modern payment systems. During the period of COVID-19, the number of modern payment users has increased with big numbers. Currently 118 crores of people use mobile phones out of which 50% of them use smartphones and 70% of people use the internet even though only 27% of people of India are financially illiterate. In this situation it has become necessary to evaluate consumer behavior towards use of modern payment systems after COVID and this paper will focus on the consumer behavior towards use of cashless transactions.

Keywords: Consumer Behavior, Modern Payment System, Digital Payment, Cashless Transaction, etc. Introduction

India is one of the biggest countries in the world, which uses hard cash to perform financial transactions in the economy and most of the people rely on hard cash instead of digital transactions. To overcome this situation, the Government of India and RBI took initiative to introduce cashless transactions to make a cashless society. Therefore, modern payment systems are used as a substitute to the traditional payment system. Modern payment systems include ATM Cum Debit Card, Credit Card, RTGS, EFT, E-Banking, Internet Banking, Mobile Banking, etc. Nowadays many consumers use different modes of modern payment systems to perform digital transactions, during the period of COVID most of the consumers using digital payment systems instead of using hard cash with the fear of COVID infection in urban as well as rural areas.

Importance of the Study

During the period of COVID-19 and Post COVID situations the use of modern payment systems has grown compared to pre-COVID situations. People of Urban as well as Rural areas are trying to use modern payment systems to perform digital transactions while buying and selling goods and services at local markets as well as e-commerce markets instead of paying cash on delivery. Therefore, this topic gain importance to analyze consumer/customers behavior towards use of modern payment systems and it will be helps us to lead cashless society as well as cashless economy.

Objectives of the Study

- 1. To study the use of modes of modern payment system
- 2. To analyze and study the consumer behavior towards use of modern payment system
- 3. To study the use of the modern payment system pre and post covid.

Modern Payment System

The use of the modern payment system was initiated in the 90's in India by introducing e-banking in the field of banking. Afterwards many ICICI Bank, HDFC Bank and State Bank of India, initially introduced ATM cum Debit Card to perform cashless transactions, these banks also introduced credit card as a plastic money. Later on, CBS (Core Banking Solution) was also introduced to facilitate banking to banking or branch to branch transactions. Afterwards the banking industry introduced different consumer utility operations which led to modern payment systems like RTGS, NEFT, Tele Banking, E-banking, Online Banking, internet Banking Mobile Banking, SMS Banking, digital banking, EFTPOS, ECS, IMPS, etc. apart from these many banking applications for smart and android phones also introduced to facilitate banking consumers. After demonetization, Government of India and Reserve Bank of India introduced different modes of digital payments system to promote cashless society and cashless economy.

Initially PayTm, ICICI Pocket, MobiKwik, PhonePe, GooglePe, AmazonPe, Airtel Money, AEPS, E-wallets, E-RUPI, etc. to easily perform cashless transactions.

Modes of Modern Payment System

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Banking Cards: ATM Cards, Debit Cards, Credit Cards, Cash Cards, Travel Cards, etc.

USSD: Unstructured Supplementary Service Data

AEPS: Aadhar Enabled Payment System

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UPI: Unified Payment Interface

Mobile Wallets: PhonePe, Google Pay, Paytm, Amazon Pay, Mobikwik, Pockets, BHIM App, etc.

Bank Wallets or Mobile Wallets, etc.

PoS: Point of Sale (EFTPOS)

Internet Banking, Online Banking, etc.

Mobile Banking, SMS Banking, etc.

Micro ATM's: It is device used by millions of BC's (Business Correspondents) to deliver basic banking services to customer.

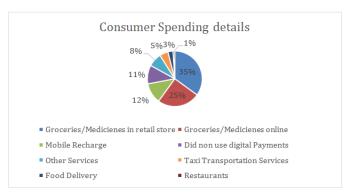
Apart from these during the period of COVID-19, the number of modern payment users has increased with big numbers. Currently 118 crores of people use mobile phones out of which 50% of them use smartphones and 70% of people use the internet even though only 27% of people of India are financially illiterate. Even though the people of India including rural India are trying to use modern payment systems with the help of PhonePe, GooglePe, Amazon Pay, etc. the result of these, 589 billion users used debit cards, 201.4 users used credit cards during the period of COVID on e-commerce sites.

Data Analysis

As per the data Available from different sources, 118 crores of mobile users in India out of which 60 crores are smartphone users and 70% of users are using the internet for different purposes. In India only 27% of peoples are financially literate. But during and post COVID most of the peoples are trying to use modern payment system with the different applications and gadgets.

The consumer buying behaviour by using different modern payment system and details are as follows:

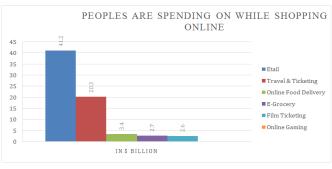
Graph 1: Consumer Spending details



Source: Statista 2022

From the above graph it is found that the 60% of consumers buying groceries and medicines from retail stores as well online, out of which 25% of consumers buying online by using different modes of modern payment system. It is also found that 60% of consumers preferred to buy essential goods and services during COVID from local market as well as online. Apart from this 12% of users buying mobile recharge, while 11% of peoples not using any online services to buy any product. 17% of users spending online for buying other goods and services. On the basis of analysis, it conclude that 54% of users spending online by using different modes on digital payment system and it is clear indication is the people of India trying to digital for performing financial transaction to lead cashless society.

Graph 2. People are spending on while shopping online



Source: Tol CLSA

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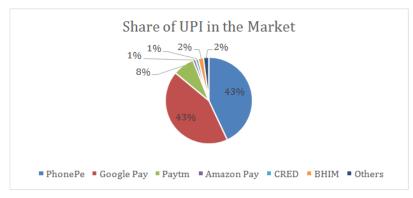
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From the above mention graphs, it is found that the people are spending 70.2 billion \$ spending online during the period of COVID, out of which 41.2 billion \$ spending on e-retailing and 20.30 billion \$ spending on travel and ticketing. It means most of the people are spending online by using different modes of modern payment system.

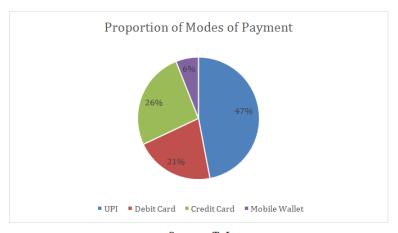
Graph 3 Share of UPI in the Indian Market



Sources: ToI

From the above graph, it is found that 86% of UPI users using PhonePe and Google Pay, users of the both contribute in Indian Market equally, afterwards Paytm contribute 8% and others are 6%. On the basis of this data, it is concluded that more than 90% of UPI users using online payment through QR codes, mobiles phone number, etc. by using Phone Pe, Google Pay and Paytm. It is clearly indicated that the user of UPI is increasing day by day.

Graph 4 Proportion of Modern Modes of Payment



Sources: ToI

From the above table, it is found that the UPI users and Debit and Credit Card users are contribute equally in the modern payment system. 47% of people using UPI and 26% are Credit card users as well as 21% of Debit users. Mainly most of the peoples are preferred to pay by using UPI instead of using debit or credit card in the current scenario.

On the basis of above-mentioned discussion, it is found that the people of India trying to adopt different modes of modern payment system by using different modern applications and gadgets. Most of the consumers from urban as well as rural are going online for buying different goods and services to fulfillment of their requirements. After demonetization and COVID people of urban as well as rural area accept to adopt modern payment system and trying to go online for performing digital financial transaction.

Finally it is concluded that the people of India including rural India trying to go online and accepting modes of modern payment system. Apart from these, the economy is observing tremendous change in the use of modern payment systems. During the period of COVID-19, the number of modern payment users has increased with big numbers. Currently 118 crores of people use mobile phones out of which 50% of them use smartphones and 70% of people use the internet even though only

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27% of people of India are financially illiterate.But promoting modern payment system in India it is the long-term process and it requires time to settle this system in India.

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An Analysis of Health Care Facilities in Satpura Foothill Region of Jalgaon Dist. (MS) With Help of Geoinformatics Techniques

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ABSTRACT

Health is the most important factor in the well-being of humanity. It is a very essential pre-requisite for a good and happy society. It is an important determinant of economic and social development, because disease creates vicious circle by depletion human energy, lending to low productivity and earning capacity, deterioration quality and quantity of consumption and standard of living. Therefore, a nation ought to give adequate attention to the health-care of it people. The tribal people have quite an advanced form of folk heading. They also to adapt to advances in modern medicine in order to improve their quality of life. North Jalgaon Region administrative tehsil of Jalgaon. Raver, Yawal and Chopda. The region lies between north latitude 21° 16'81" to 21° 24'72" N and 75° 30'31" to 76° 03'31" E longitude. An attempt is made in this chapter to review the relevant literature which could serve as a necessary empirical, theoretical and intellectual backdrop for the present study. It pertinent to note here that for an empirical study such as present one it is rather imperative to place it in the context of existing empirical and theoretical knowledge to contextualize the findings of the present study. The study area of Raver, Yawal, Chopda tehsil is hilly, mountain and plane the population is the poor, illiterate tribal living their standard as below the poverty line, no one of the villages in the study are has a private medial store. Few private medial stores are found only at the Tahsil place of tehsil palace.

Keywords: Health, Satpura, Facilities, Jalgaon

INTORODUCTION

The Health Geography is an important branch of Human Geography which is also a branch of geography. Health Geography sometimes spelled as Medical Geography because its importance in the field of medical science. Remote Sensing and GIS are emerging tools in Geography, they are very useful to collect and analyse the spatial and temporal data in the geographical scenario. The Geographical Information System and Remote Sensing together sometimes called as Geoinformatics. The medical facilities of any geographical are very cruutial to indicate the health conditions of the people who live in the region, it is only the facilities which are very important in the purpose of quality and quantity of life.

Health Geography or Medical Geography defined as According to ncbi "Geography is the study of the Earth as the home of human kind. Health geography is the study of the distribution, diffusion, determinants, and delivery associated with health and health systems in human populations. The unique aspect of examining health and health systems from a geographic perspective is the use of a spatial lens that allows for investigation across of a range of scales, from the local (e.g., neighborhood) to the global"

The tribal population of Jalgaon district is the mixture of Bhils, Tadvis, Nirdhis, TokareKolis, Kotils, Pawras, BhistiKolis, Gonds, and Pardhis.For the systematic and scientific analysis of the problem of health-care facilities in micro region. The tribal area of North Jalgaon foothills region has been selected for present research article.

The study of health care delivery includes spatial patterns of health care provision and patient behavior and includes issues like inequalities in health (health status and accessibility), and de-institutionalization of the mentally ill. Environment and health is a relatively new focus for health geographers that draws geography's long tradition in environmental hazards research together with health geography. Topics within this new tradition include environmental risk assessment, as well as the physical and psychosocial health impacts of environmental contamination.

Distribution of Tribal Population in Jalgaon District

According to the 2001s census, the population of schedule tribe of Jalgaon district is 35.74 lakhs. The population of schedule tribe of Chopda tehsil is the highest among all tehsils of the Jalgaon district i.e.,0.69 lakhs. The population of schedule tribe in Yawal tehsil is the second highest among all tehsils of the Jalgaon district and it is 0.51 lakhs in 2001. The population of schedule tribe in Bodvad tehsil is the lowest among all tehsils of the Jalgaon district and which is4519. Tehsil Bodvad has the lowest geographical area, population, population density and decadal growth in population. Schedule tribe populations among the remaining tehsil vary between 0.17 lakhs and 0.50 lakhs. The male and female population of schedule tribe in Chopda tehsil is the highest among all tehsils of the Jalgaon district i.e.0.35 lakhs and 0.33 lakhs respectively. The male and female population of schedule tribe in Yawal tehsil is the second highest among all tehsils of the Jalgaon district and it is 0.26 lakhs and 0.24 lakhs respectively. The male and female population of schedule tribe in Bodvad tehsil is the lowest among all tehsils of the Jalgaon district which is 2356 and 2163 respectively.

The urban population of schedule tribe of Jalgaon district is 0.20 lakhs. The urban population of schedule tribe of Jalgaon district is 0.44 lakhs. The urban of population of schedule tribe of Jalgaon district has increased in two decades by 0.24 lakhs. Urban population of schedule tribe of Jalgaon tehsil is the highest among all tehsils of the Jalgaon district 4938. The urban population of 82 schedule tribe in Bhusawal tehsil is the second highest among all tehsils of the Jalgaon district

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and it is 8742. The urban population of schedule tribe in Parola tehsil is the lowest among all Tehsil of the Jalgaon district and the same is 762. The urban schedule tribe populations among the remaining tehsil vary between 670 Pachora Tehsiland 2811 Amalner Tehsil. Urban population of schedule tribe of Jalgaon tehsil is the highest among all tehsils of the Jalgaon district which is 16448. The urban population of schedule tribe in Bhusawal tehsil is the second highest among all tehsils of the Jalgaon district and it is 3614. The urban population of schedule tribe in Parola tehsil is the lowest among all tehsils of the Jalgaon district and it is 635. The urban schedule tribe population among the remaining tehsils vary between 1159 Pachora Tehsil and 4815 Amalner Tehsil.

Significance of The Study

The problems of tribal population analysis in the region like Foot hills region in Jalgaon district, are varied and numerous. The existence of socio-economic condition of the tribe stems from poor and backward society. The significance of this study has two dimensions. It is helpful both for academic as well as economic development and demographic rational planning of the government for the development of the tribal society. In this study, an attempt has been made to analyze the root causes of different problems of different groups of tribal population in the different areas of Foot hills region in Jalgaon district. Thus, this study is very significant as it will give a detailed analysis of distribution, density, occupational structure, literacy, age composition, religious composition, politico-socio-economic behavior, etc. of the tribal population in Foot hills region in Jalgaon district. It has already been recognized by the Government of India that Tribal population of India is not at the same socio-economic level of other advanced groups of population. Such a study is helpful for the demographic rational planning of tribal population.

Hypothesis

"Physical and Health care facilities are unevenly distributed in the Study Region"

Aims and Objective

In relation with the problem of the research the objectives of the present study may be outlined as follows:

To study health facilities in foothills region

To study Geographical setting of study area.

To study affected factors of health services

To study various National polices, State policies regarding health Planning

Research Methodology:

Database and Methodology Data Sources;

Primary data sources: Questionnaire, visiting PHCs and sample survey of Study area.

Secondary data sources: Various surveys, National and state policy, Books, Reports and Census reports etc.

Fieldwork:

Survey will be conduction in the study region, visiting various PHCs of the field Worked

Laboratory work:

Cartographical work such as preparation of base map with the help of SOI Toposheets are done in the laboratory. The Analyses of the health data such as health facilities Data processing and representation with the help of maps and diagram

The Study Area:

North Jalgaon Region administrative tehsil of Jalgaon. Raver, Yawal and Chopada. The region lies between north latitude 21° 16' 81" to 21° 24' 72" N and 75° 30' 31" to 76° 03' 31" E longitude. The physical setting of the study area is in between southern part of Satpura range and northern part Ajanta range. Politically the region bordered with Madhya Pradesh. Geographically the north of the region bounded with Satpura range, on the eastern side Buldhana district, on the southern by Jalgoan district other tehsil, on the south western by Dhule district. The tehsil headquarters located at Chopda, Yawal and Raver For administrative convenience there are 117 villages in Chopda, 91 villages in Yawal tehsil, 116 villages in Raver tehsil, total 324 villages in study area.

Literature review:

An attempt is made in this chapter to review the relevant literature which could serve as a necessary empirical, theoretical and intellectual backdrop for the present study. It pertinent to note here that for an empirical study such as present one it is rather imperative to place it in the context of existing empirical and theoretical knowledge to contextualize the findings of the present study. A review of literature as the present one could also enable one to identify the gaps in the empirical literature in the context of which the findings of the present study could be taken as warranted in filling up of those gaps. Such a review would also enable the researchers to apprise themselves of the theoretical approaches and orientations that are in vogue in the study of the phenomenon under investigation as well as acquaint themselves with the methodological tools, techniques and approaches that have been employed in the study. Narayana (2003) published an article entitled "Changing Health Care System" in 'Economic & Political Weekly'. To improve the financial viability and quality of health care in public hospitals, the Andhra Pradesh Government initiated a series of reforms. However, because of lack of resources, there has been stagnation in the size and decline in the quality of public health care. Mukherjee and Karmakar (2008) published a paper on "Untreated Morbidity and Demand for Healthcare in India: An Analysis of National Sample Survey Data" in 'Economic & Political Weekly'. This paper studies the problem of poor health outcomes in India from the demand side, and using the unit level data from the 60th round of the National Sample Survey analyses the determinants of not accessing medical care. Monika Jain and Priyadarshi Patni (2011) writes on "Public Health Management in India: An Overview of

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ICDS" in 'Indian Journal of Management and Technology'. Health of people is not only a desirable goal but it is also an essential investment in human resources.

Data Collection Strategies Health Centres:

The HCs is the first interaction point between the primary health care and local community. Currently, there are 1, 52,326 Sub-centers are running in the country (as on 31st march 2015). Sub-centersprovides the basic healthcare facilities to the people and services in relation to the mother and child care (MCH), safe delivery, universal immunization programmer, family welfare services, primary medical care, control of communicable and non-communicable diseases programmers. Each sub-center is required to be manned by at least one ANM (Auxiliary Nurse Midwife), female health worker and one male health worker. The main function of health sub-center is to deliver preventive and primitive care together with the basic curative care. As the population density in the country is varying and not uniform, the application of population norms is not possible all over the country. According to the population norms, there is one sub-center established for every 5000 population in plain areas and it goes down to 3000 in hilly or tribal areas.

Primary Health Centers

The concept of Primary Health Centre (PHC) is not new to India. The Bhore Committee in 1946 gave the concept of a PHC as a basic health unit to provide as close to the people as possible, an integrated curative and preventive health care to the rural population with emphasis on preventive and promotive aspects of health care. The health planners in India have visualized the PHC and its Sub-Centres (SCs) as the proper infrastructure to provide health services to the rural population. The Central Council of earth at its first meeting held in January 1953 had recommended the establishment of PHCs in community development blocks to provide comprehensive health care to the rural population. These centres were functioning as peripheral health service institutions with little or no community involvement. Increasingly, these centres came under criticism, as they were not able to provide adequate health coverage, partly, because they were poorly staffed and equipped and lacked basic amenities.

Sub- primary Health Centers

In the public sector, a Sub-health Centre (Sub-centre) is the most peripheral and first contact point between the primary health care system and the community. As per the population norms, one Sub-centre is established for every 5000 population in plain areas and for every 3000 population in hilly/tribal/desert areas. It is the lowest rung of a three-tier set upconsisting of the Sub-centre established for every 3000-5000 population with referral linkage to the Primary Health Centre (PHC) for 20,000 - 30,000 population, and the Community Health Centre (CHC) for 80,000 to 1,20,000 population.

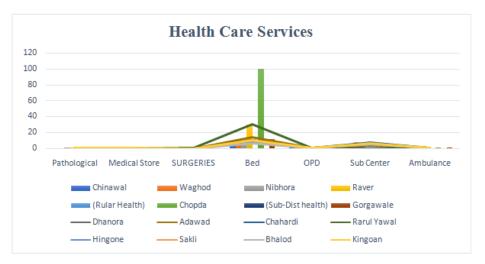
Sr. No	PHCs Name	Populati on	Pathol ogical Availa bility	Medical Store	SURGE	Bed	OPD	Sub Center	Ambula
1	Chinawal	32,874	No	Yes	NO	10	Yes	5	YES
2	Waghod	47,149	NO	Yes	NO	12	Yes	8	YES
3	Nibhora	36,720	Yes	Yes	NO	10	Yes	6	YES
4	Raver (Rular Health)	72,783	Yes	Yes	YES	30	Yes	0	YES
5	Chopda (Sub-Dist health)	3,00,000	Yes	Yes	YES	100	Yes	0	YES
6	Gorgawale	38,886	Yes	Yes	NO	12	Yes	5	YES
7	Dhanora	29,337	Yes	Yes	NO	10	Yes	4	YES
8	Adawad	42,388	Yes	Yes	NO	14	Yes	5	YES
9	Chahardi	38,800	Yes	Yes	NO	10	Yes	7	YES
10	Rarul Yawal	36,600	Yes	Yes	YES	30	Yes	0	YES
11	Hingone	38,886	Yes	Yes	NO	8	Yes	5	YES
12	Sakli	30,000	Yes (no worker)	Yes	NO	10	Yes	5	YES
13	Bhalod	24,472	Yes	Yes	NO	6	Yes	5	YES
14	Kingoan	38,553	Yes	Yes	NO	10	Yes	6	YES

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Available Health Care Facilities in the Region Pathological Lab:

Pathological lab is most important to tests of blood, urine and other deceases. The tests are important to identify various types of deceases. Primary Health Venter's had the facilities of pathological laboratory. In most of PHCs have their own pathological lab, but which PHCs not available and two PHCs present pathological lab but not man power and one PHCs handle the NGO means private sector. Pathological labs are also very much important for the diagnosis of bacterial diseases. The private Pathological labs are available only at Tahsil place

Medical Store:

The study area of Raver, Yawal, Chopda tehsil is hilly, mountain and plane the population is the poor, illiterate tribal living their standard as below the poverty line, no one of the villages in the study are has a private medial store. Few private medial stores are found only at the Tahsil place of tehsil palace. Therefore, it's very difficult to tribal get medicines at the villages. All the primary health centers in the study area have their own medical stores (Govt.) where all the patients' ae getting medicines. The medicines given at such primary health centers stores provide much more help and facilities to the tribal patients.

Surgeries:

The major accidental or pregnant women's don't have any surgeries or operation theatre. A well-equipped operation theater is a burning need of the tribal area. There is only available operation threated in the rural and sub-district hospital of study area. The operation theatre at the Rural Hospital and Sub-district in study area provide important relief for emergency surgeries. It is very useful for the tribal cannot afford to go to district head quarter for the treatment. But very serious and complicated surgeries cannot be performed even at the Rural and Sub-District Hospital operation theatre for the want of any blood bank study area.

Beds:

Primary Health Centre is usually determined by the the availability of number of beds in that primary healthcenter. Government rule PHCs center 9 beads, Sub-district hospital 100 and rural hospital 30. The study area Sub-District Hospital 100 beads and rural hospital 30 bead available but 11 out of 2 PHCs less of the 9 beds Hingone and Bhalod. Many times wrong diagnosis and prescriptions to there of either prolongs or agoavatars the ailments. Such wrongs done to the patient cannot be detected because the patients by and large are ignorant of this fact. So the number of available beds it's very important to health.

OPD:

The OPD is the primary importance of any primary Health Centers or Hospital. The Study area in the hilly and plane region tribal area then some PHCs 50 to 70 patients per day, Rural hospital 200 and Sub-District Hospital 500 patients per day OPD record.

Sub-Centre:

A Sub-centre Provides interface with the community at the grass-root level, providing all the primary health care services. One Sub-centre for a population 5000 people in the plains and for 3000 in tribal and hilly area, the study area 56 sub-centre the map was showing the distribution of health care in study area.

Transport facilities

It is desirable that the PHC has ambulance facilities for transport of patient for timely and assured referral to functional FRUs in case of complications during pregnancy, child birth and Emergency Transport system should be in place. The Study area all PHCs centers available the ambulance but Driver not available all PHCs same condition only Rural and Sub-district Hospital available driver.



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CONCLUSION AND SUGGESTION

Conclusion:

- 1. The geographical factors are affected on human health because, The uneven terrain, remote location hilly area effects on the distribution of health care facilities in study area.
- 2. The socio-cultural setup of the region represents a unique settlement of tribal people, their rituals, their superstitions and the geography affect the distribution of health care facility
- 3. The Satpuda region of Jalgaon district lies in Naden part of district has suppurated politically from Madhya Pradesh and this political borderless affects the availability of health care facility in the region
- 4. As per the UNESCO the availability of health care facilities is not sufficient in study are.
- 5. The problem of malnutrition is very common in this region, because of the problem the children's, infants are having problems of underweight and dietary disease.
- 6. Some villages of the study region have 100% tribal population and because of this the villagers had communication problem of medical officers and medical staff.
- 7. The remoteness of the region faced problems regarding transportation and communication and because of this the medical officers did not want to go there and serve peoples.
- 8. The facilities of health in the region wants to be increasing because there is lack of all facilities in every PHC.
- 9. In selected study region all three tehsils has same problems regarding health facilities, but as compare to other tehsils the Chopda tahsil has good health care facilities but still the facilities must be increased.
- 10. The knowledge about various national and state polices regarding health is very poor among all villagers as well as medical staff, because of lack of knowledge they don't access any scheme provided by state or central government.

Suggestions:

- 1. Health is important factor of living human. The health care facilities are most affecting to human. The health care facilities in North Jalgaon District has no up to the mark government should increase health care facilities in the region.
- 2. The area must increase good network of roads and other communication facilities because the transportation network is essential for all progress.
- 3. Health care centers like Primary health Centers (PHC) must be increase, the population covered by each PHC is too high as per the national average, the burden must share for other PHCs also.
- 4. The Sub Centers must increase because the region is very remote and patient could die if he didn't get health facilities on time.
- 5. The Rural hospitals must increase their capacity as per the increase of population.
 - The family planning centers must increase because lack of literacy leads population growth of the region.
- 6. The private hospital provides good health care facilities but they have high rate cards in there hospitals and they located in urban centers, govt. should decrees the rates or regulate the fees of private hospitals and motivate them to setup there hospitals in rural areas also.
- 7. The doctors and medical staff must be appointing on the basic of their dialects and their language skill because lack of communication between villagers and medical staff leads to superstition among villagers.
- 8. The health care facilities are not well available in this Tehsil. The growth is important to feature.

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Rainwater Harvesting for Artificial Recharge to Ground Water: Need of Present Era

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Abstract:

Water is essential need for all life on the earth planet and it used in many ways to survive, water is also main part of the larger ecosystem in which the reproduction of the biodiversity depends. Lack of fresh water is not limited only in the arid climate regions, but also in areas with good supply access of fresh water is becoming critical problem. Overexploitation of groundwater resource is increasingly being recognized as a major problem of the world. Despite being one of the wettest countries of the world, India's growing water deficiency problem has reached alarming level. Water harvesting means catching the rain water where it falls, or capturing the run-off water in one's own village or town. So, the need of roof top rain water harvesting has become acrucial demand of the present era. The quantity of water harvested depends on the intensity or rate of rainfall, catchments properties, water demands and how much runoff occurs & how quickly or how easy it is for the water to penetrate through the subsoil and percolate down to recharge the ground. In urban areas, sufficientland for surface water storage is not existing and water levels are deep enough to accommodate additional rain water to recharge the ground, so the roof top rain water harvesting is perfectkey to unlock the problem of recharge ground water level.

Key Words: harvesting, Overexploitation, biodiversity, ecosystem, precipitation etc. **Introduction:**

Due to rapid industrialization and urbanization, increase in population, demand of water is increasing day by day. Rainfall is not regular. There is spatial imbalance inavailability of water resource and demand of water. Therefore, it become necessary to carry water from distant places increasing the cost of carriage. The recharge of groundwater level is not suitable, there is a very rapid decrease in groundwater level in different regions of the world. Demand of water increases for different spheres like domestic, industrial, agricultural etc. so rainwater harvesting become an urgent need of this moment. Progress in pumping technology is widely used in extracting ground water from the deepest portions of the earth. Thus, the knowledge of the different traditionalwater harvesting methods, practices, storage facilities and their significance has become necessary to the present day situations. This efforts require use of alltype of water resources intelligently and sustainably. For this, there is significant needto collect, conserve and re-use water resourcescarefully and sustainable way. Over the last many centuries, a range of techniques to harvest every possible form of water has been developed. Technically speaking, water harvesting means seizing the rain where it falls, or capturing the run-off in one's own village or city.

What is rainwater harvesting?

The activity of direct collection of rain water which can be recharged the ground water to prevent fall of ground water level or storing in surface or underground water tank known Rainwater harvesting.

Significance of Rainwater Harvesting?

- It is the scientific and cost effective artificialmethodfor recharging the ground water level and refreshing the water table.
- ii) It provides benefit in water quality for domestic use and irrigation.
- iii) It offers naturally soft water and covers no dissolved minerals or salts, arsenic and other heavy metals.
- iv) It can be done at individual as well as in a community level.

Rainwater is one of the pure or clear sources of water which is available and it contains very low impurities. Rain water harvesting systems can be adopted where conventional water supply systems have failed to meet people's needs.

Benefits of Rain Water Harvesting

- Prevent decline in water levels
- Increased availability of water from wells
- Reduction in flood hazard, soil erosion and water quality
- Assuring sustainability of the ground waterabstraction sources and consequently the village andtown water supply system
- Physical and chemical quality of ground water was improve.
- Prevent salinity ingress in coastal areas.
- Recycle urban and industrial wastewater etc.
- Rehabilitate the existing traditional water harvesting structure like village ponds, percolation tanks, tanks, etc.
- Refreshing the dying traditional water harvesting structures and their rehabilitation as recharge structures.

Components of Rainwater Harvesting Structure:

Rainwater harvesting structurehas been categories on three basic components:

i) Catchment area i.e. for collecting rainwater the surface area used.



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ii) Collection device, includes tanks or percolation pits used for collection of water.

iii) Conveyance system i.e. the system of pipeline or percolation pits by which water is transported from the catchment area to the collection device.

How Much Rain Water Can Be Harvested From Roof Top?

The total estimate of water available from top of flat terrace (roof) is worked out by multiplying the roof area with normal rainfall data for monsoon period. Total capacity of rain water collecting from roof top to be for harvesting is about 70% to 90%, due to losses like, absorption, leakages, evaporation etc. from the roof top. Considering hypothetical case following calculations shows as how much rain water can be harvested by considering 80% efficiency and according to roof top surface areas.

- Consider area of flat terrace of Building = 125 Sq.mt.
- Average annual gainful rain water in the area is say 1000 mm (40 inch)
- Suppose if there is no loss of water from the terrace floor, then in one year, there will be rainwater on the terrace floor to a height of 1000mm.
- Assuming that only 80% water harvested. Volume of water harvested = 1,00,000 litres.
- Height of rainfall = 1000 mm, Volume of rainfall = $125 \times 1000 = 1,25,000 \text{ litres}$
- A family of four needs 87,600 litres of water per year. (@, 60 litres / person)

Methods of Groundwater Recharge:

Following structures are required for Rainwater Harvesting System.

- a) Storage Tanks: The storage tanks may be used for harvesting the roof top rain water. These tanks construct on the surfaceas well as underground by utilizing local constructing material. The tank size depend on availability of runoff of roof& water demand. After proper chlorination of runoff, the collected water maybe utilize for drinking purpose.
- **Recharge Pits:**Recharge pits are constructed for rechargingthe shallow aquifers. It is 1 to 2 m. wide and 2 to 3m. deep which are back filled with boulders, gravels& coarse sand. Boulders at the bottom, gravels in midand coarse sand at the top so that the silt content that will come with runoff will be deposited on the top of the coarse sand layer and can easily be removed. If clay encountered at shallow depth, it should be create hole with auger hole and that auger hole should be refill by fine gravel of 3 to 6 mm size.
- **c) Trenches:** These are made when the permeablelayer is available at shallow depths. Trenches is 0.5 to 1 m. wide, 1 to 1.5 m.deep and 10 to 20 m. long depends onwater availability. These are back fill with filter materials. The number of auger holes may be madeand back fillby fine gravels. In case of clay fill met at shallow depth.
- **Abandoned Dug wells and Hand pumps:** Dug wells may be used as recharge structure after cleaning and filter the same. The runoff waterpass either through a filter chamberfor removing the silt contents. The existing hand pumps utilize for recharge the shallow or deep aquifers, if the available water is limited. Water should pass through the filter material earlier diverting it into hand pumps.
- e) Recharge wells: Recharge wells constructs for recharging the deeper aquifers and roof top rain water is diverted to recharge well for recharge to ground water with diameter 100 to 300 mm. Therunoff water pass through filter material to avoid blocking of recharge wells.
- **Vertical Recharge shafts :** These are back filled with boulders, gravels & coarse sand, it is constructed for recharging the shallow aquifers that islocate at the below clayey surface about 10to 15 meter depth, recharge shafts diameter is 0.5 to 3 meter. depending uponavailability of runoff. For lesser diametershafts, the reverse rotary rigs are used and larger diameter shafts may be dug manually. In upperportion of 1 or 2 m depth, the brick stonework isdone for the stability of the structure.
- **Shaft with Recharge well :** If the aquifer is available at greater depth of about 20 or 30 meter, in case of shallow shaft diameter 2 to 5 meterand 5 to 6 meter deep constructdepending upon availability of runoff. At the end of shaft a filtermaterial is provide to avoid blocking of the rechargewell.
- h) Lateral trench with bore wells: For recharging the upper as well as deeperaquifers, the lateral trench is 1.5 to 3 meter wide and 10 to 30 meter long depends on available water without or more bore wells. The lateral trench is back filled with boulders, gravels &coarse sand.

Design Criteria of Recharge Structures:

Recharge structures design on the bases of available space, runoff availability, water table depth and lithology of the area.

a) Assessment of Runoff:

With the help of following formula, the runoff should be assessed accurately fordesigning the recharge structure.

Runoff = Catchment areaX RunoffCoefficientX Rainfall



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b) Runoff Coefficients

Sr. No.	Type of catchment	Runoff coefficient
1	Roof top	0.75 - 0.95
2	Paved area	0.50 - 0.85
3	Bare ground	0.10 - 0.20
4	Green area	0.05 - 0.10

Runoff coefficient an important inassessing the runoff availability and it depends oncatchment properties. General values are tabulated below which used for assess the runoff availability.

c) Design Considerations:

For designing the rainwater harvesting structure three most important componentsneed to be evaluated, i.e.

- a) Hydrogeology of the area including nature and extent of aquifer, depth to water levels, topography, chemical quality of ground water and soil cover.
- b) Area contributing for runoff i.e. how much area and land use pattern, whether industrial, residentialor green belts and general built up pattern of thearea.
- c) Hydro-meteorological characters viz. duration of rainfall, general pattern and rainfall intensity.

Conclusions:

Water is precious. Its importance has mentioned in almost all the religions. Even tribal from traditionally using water sustainably since age. Evidence of this tradition can be seen in ancient textbooks, eulogies, original traditions and archaeological remains. The Puranas, Mahabharata, Ramayana, numerous Vedic, Buddhist, Jain and Quran contains several references and methods of conservation of water at canals, tanks, ditches, waterfall, wells etc.

Overexploitation of groundwater resources has become the major problem. For example India despite being one of the wettest countries of the world, India's growing water deficit has reached intimidating proportions. There is now ground water left in Chennai and in Durban, South Africa. It's world emergency situation to save, conserve and sustainable use of ground water. Even on individual level and on social level we have to conserve the water.

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Synthesis and characterization of Azonapthaldehyde, relevant Schiff bases and their Beta lactam derivatives

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Abstract:

Azonapthaldehyde, (3) was prepared by reaction of 2-Hydrxy Napthaldehyde with diazonium salt of Aniline by diazotization method. Thus, synthesized Azonapthaldehyde, (3) was treated with variable 2-Amino-benzothiazoles (4a to 4f) to synthesize the Schiff bases (5a to 5f). The Beta lactam derivatives (6a to 6f) were also synthesized. All the newly synthesized compounds were characterized by color, physical constant, TLC, UV-Vis and FT-IR Spectral methods. The Beta lactam derivatives were also analyzed by 1H NMR and HR-MS spectral measurement. Future scope of this study is discussed.

Key words: Azonapthaldehyde, Schiff base, 2-Amino-benzothiozole and Beta lactam.

INTRODUCTION:

Schiff bases and their Beta lactam derivatives have variety of application in clinical, biological, analytical and pharmacological area. The organic compounds were studied by spectral [1-5] method. The schiff bases (-CH=N-) playes an important function as an organic synthone for newer molecules. In addition to spectral method literature shows reports on the antimicrobial activity of aldimines [6]. Study on the ionization constant of the ketimines [7] with reference to the influence of temperature for some acids and basic imines in 10 % ethanol, as reported in the literature. These imines are in a forms of syn or anti-oxime and phenolic or amino Schiff bases as reported in the literature. The azo compounds have different applications [8]. The synthesis of different types of compounds containing the chlro or an azo moiety [9] presence is known to lead them to exhibit herbicidal activity. The azo group in addition to the other groups in the same compounds have important biological activities antibacterial [10] and antioxidant [11].

Schiff base can be modified with the azo function. Azo linked schiff bases exhibited diverse applications in chemical as well as pharmacological activities. Literature shows some reports on the Azo Schiff bases. They have different properties and applications. Both these groups are having excellent coordinating properties [12-13]. The beta lactams are also very important moiety and are synthesized from varied Schiff bases [14].

Herein, an attempt is made in continuation of our previous reported study [15], to study synthesis of azo aldehydes and their relevant Schiff bases. This study is a. In view of these facts, this study is aimed at evaluating the structural characteristics of azo Schiff bases of Azonapthaldehyde and the varied Beta lactams synthesised from them. Recently we have published synthesis of variable Schiff bases, and their relevant Beta lactams of azo salicylaldehyde and characterised by UV-Vis, FT-IR, UV-Vis, FT-IR, 1H NMR and HR-MS spectroscopy. (13)

Main reaction:

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Scheme-I: Synthesis of Azonapthaldehyde (3)

SCHEME-I

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Scheme-II: Synthesis of Schiff bases (5a to 5f) in this change R2 to R only

Scheme-III: Synthesis of Beta lactam derivatives (6a to 6f) in this change R2 to R only



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General method for synthesis of Azonapthaldehyde. : (3) (Scheme-I)

In 100 ml beaker charged 3.462 g. (0.0372 mole) Aniline. Then added to it 25 ml conc. HCl and 20 ml distilled water. Cooled the solution upto 0 0C by keeping it in ice bath (Solution-A).

In another 100 ml capacity beaker charged 3.105 g (0.045 mole) Sodium nitrite and dissolved it in about 15 ml water and cooled the solution up to 0 0C by keeping it in ice bath (Solution-B).

When both the solutions attain 0 0C temperature solution -B added dropwise in solution-A with constant stirring. During addition temperature was maintained up to 10 0C. The diazotized solution tested by starch iodied paper which gives blue colour. Pinch of solid Urea was added to decompose the excess of Nitrous acid. Filtered the solution and used in next step.

Then in 100 ml capacity beaker dissolved 6.39 g. (0.0372 mole) 2-Hydroxy napthaldehyde in 35 ml 10 % NaOH solution and stirred to get clear solution and cooled the solution up to 0 0C by keeping it in ice bath. Then above filtrate added to this content with constant stirring. During addition temperature maintained up to 10 0C. After complete addition allowed the charge to stand for 10 minutes in ice bath. Then filtered the brown coloured dye, washed with cold water, dried, recrystallized the crude product, weighed and stored in suitable container. This was recorded as (3) with Yield 66.55 % and m.p. 139-141 0C.

General method for synthesis of Scheme-II Azo Schiff bases (5a to 5f)

Equimolar proportion of relevant Benzothiazole and Azo aldehyde charged in 250 ml RBF. To this charge few drops of glacial Acetic acid and 70 ml Toluene was added. Attach and set Dean and Stark apparatus and refluxed upto 4 hrs. The product was checked by TLC. After clear TLC the solvent was removed under reduced pressure.

Recrystalized the crude product by Ethanol. Dried and preserved the pure product in tight container.

General method for synthesis of Scheme-III Beta lactam derivatives (6a to 6f).

In 100 ml capacity RBF flask with reflux condenser and thermometer pocket 0.00125 mole of Schiff base (5a to 5f) and 0.15 ml TEA was dissolved in 20 ml 1, 4-Dioxane and kept it in ice bath and stirried for half an hour. To this cold solution 0.15 ml (0.00186 moles) Chloroacetyl chloride (CAC) was added slowely at 0 0 C to 5 0 C.

Then refluxed the content for 12-15 hrs. TLC checked after 9/11/13 hours. After clear TLC 1, 4-Dioxane was distilled off. The resultant content after removal of 1, 4-Dioxane was viscous liquid. It was washed with 10% NaHCO3 to remove any unreacted Chloroacetyl chloride. Resulting product was washed with cold water and recrystallized by Methanol. Finally recorded the colour, physical constant and weight of product and labelled as (6a to 6f) and packed in tight container. The physical and analytical data is depicted in Table 8.

The characterization of Schiff bases and Beta-lactam derivatives was done by usual methods viz.UV-Vis, FT-IR, 1H NMR and HR-MS spectroscopy.

Result and discussion

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C, H, and N data of synthesized Azonapthaldehyde (3) is depicted in Table 1. The values are in close agreement with the calculated one from the expected molecular formula of compound (3) and are in 5 % in statistics. Purity of compound (3) was checked by melting point determination by open capillary method and by TLC on aluminium plates coated with silica gel make Merck. Physical and analytical data of (3) is depicted in Table 2.The UV spectra ware recorded by UV-1800 of Shimadzu make from the stock solution (0.01) by serial dilution of solutions (0.001M) in Ethanol as solvent. While the FT-IR spectra were recorded by using SHIMADZU-FTIR-8400 or by Bruker alpha, in the frequency range of 4000-400 cm-1.

The UV-Vis and FT-IR spectral data for (3) is depicted in Table 3 respectively

Table 1: C, H and N data for Azonapthaldehyde (3) (Scheme-I).

Calc. =	Code	M.F.	% C		% H		% N	
			Calc.	Obs.	Calc.	Obs.	Calc.	Obs.
	3	$C_{17}H_{12}N_2O_2$	73.91	72.15	4.35	3.95	10.14	9.89

Calculated and Obs. = Observed

Table 2: Physical and analytical data for Azonapthaldehyde (3)(Scheme-I).

Code	M.F.	Mol. wt. (g/m ol e)	Colour	m.p.ran ge	RF valu e	% yield
3	C ₁₇ H ₁₂ N ₂ O ₂	276	Orange	139-141	0.57	66.55

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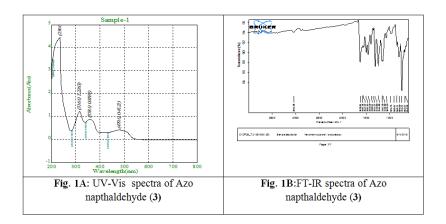


Table 3: The UV-Vis and FT-IR spectral data for Azonapthaldehyde (3) (Scheme-I).

Code	UV-Vis,		FT-IR data (cm ⁻¹)								
Code	λ _{max} , (nm)	r 1-11x data (cm)									
	236	ν _{-OH} 3480	ν _{>C=O} 1630	ν _{-C-H ar} 3044							
3	361	ν _{-CH=O ald} . 2830	$v_{>c=c<}$ ar. 1501-1551	$\nu_{N=N}$ 1587							
	479										

The UV spectrum in ethanol of (3) is shown in Fig. 1A indicates three bands at 479 nm, 361 nm and 236 nm. The excitation at 479 nm and 361 nm shows $n\rightarrow\pi^*$ transition while the excitation at 236 nm arise due to $\pi\rightarrow\pi^*$ transition.

Characteristic stretching frequencies of variable bonds in (3) are obtained from the FT-IR spectrum as shown in Fig. 1B. IR band at 3480 cm-1 indicates the stretching vibration of OH group. A band at 3044 cm-1 is due to aromatic C-H bond stretching vibration.IR band at 1630 cm-1 is due to >C=O Stretching, 1501 cm-1 to 1557 cm- is due to >C=C< in aromatic ring and 1587 cm-1 band is due to -N=N- moiety. While the UV-Vis and FT-IR spectral data for (3) is given in Table 3 respectively.

The C, H and N data for (5a to 5f) is depicted in Table 4. The values are in close agreement with the calculated one from the expected molecular formula of synthesized compound (5a to 5f) and are in 5 % in statistics. Purity of compound (5a to 5f) was checked by melting point determination by open capillary method and by TLC on aluminium plates coated with silica gel make Merck. Physical and analytical data of (5a to 5f) is depicted in Table 5. The UV spectra ware recorded by UV-1800 of Shimadzu make from the stock solution (0.01) by serial dilution of solutions (0.001M) in Ethanol as solvent. While the FT-IR spectra were recorded by using SHIMADZU-FTIR-8400 or by Bruker alpha, in the frequency range of 4000-400 cm-1. The UV-Vis and FT-IR spectral data for (5a to 5f) is depicted in Table 6.

Table 4: C, H and N data for Azo Schiff bases (5a to 5f) (Scheme-II).

Calc.	Code		M.F.	9,	6 C	%	Н	9/	οN
	Coue	-R	WI.F.	Calc.	Obs.	Calc.	Obs	Calc.	Obs.
	5a	-H	$C_{24}H_{16}N_4OS$	70.59	69.75	3.92	3.34	13.72	13.12
	5b	6-Cl,4-NO ₂	C ₂₄ H ₁₄ ClN ₅ O ₃ S	59.08	58.64	2.87	2.34	14.36	13.95
	5c	6-F	C ₂₄ H ₁₅ FN ₄ OS	67.61	66.13	3.52	3.12	13.14	12.95
	5d	4,6-F ₂	$C_{24}H_{14}F_2N_4OS$	64.86	64.01	3.15	3.02	12.61	12.13
	5e	4-CH ₃ ,6-NO ₂	$C_{25}H_{17}N_5O_3S$	64.24	63.35	3.64	3.15	14.99	14.26
	5f	6-NO ₂	$C_{24}H_{15}N_5O_3S$	63.58	63.12	3.31	3.10	15.45	15.12

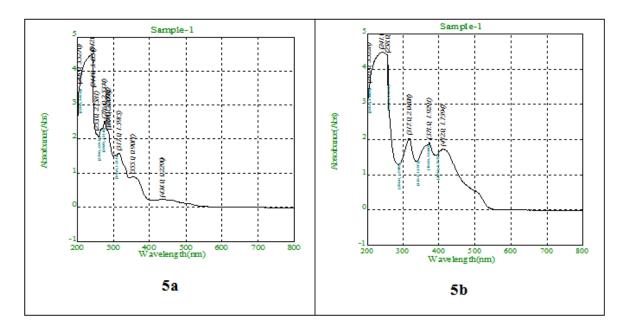
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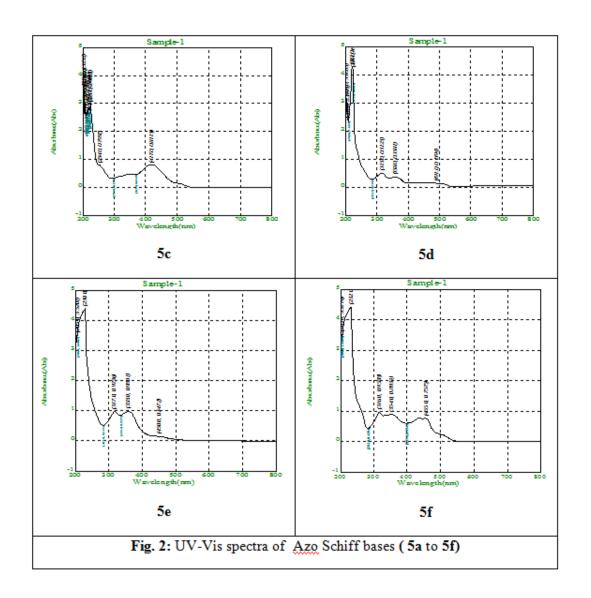
Table 5: Physical and analytical data for Azo Schiff bases (5a to 5f) (Scheme-II).

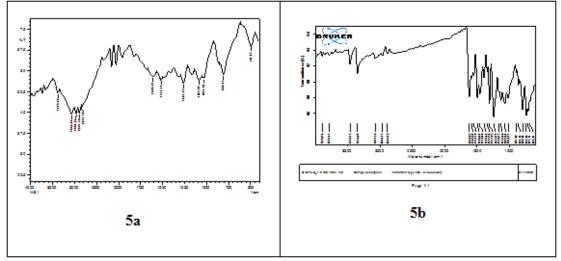
Code	-R	M.F.	Mol. wt. (g/mol e)	Colour	m.p.ran ge °C	RF Valu e	% Yi eld
5a	-H	C ₂₄ H ₁₆ N ₄ OS	408	Dark Brown	167-169	0.40	79.3
5b	6-Cl,4-NO ₂	C ₂₄ H ₁₄ ClN ₅ O ₃ S	487.5	Raddish Brown	109-111	0.44	90.8
5c	6-F	C ₂₄ H ₁₅ FN ₄ OS	426	Raddish Brown	199-201	0.44	87.8 0
5d	4,6-F ₂	C ₂₄ H ₁₄ F ₂ N ₄ OS	444	Orange	197-199	0.49	81.4
5e	4-CH ₃ ,6- NO ₂	C ₂₅ H ₁₇ N ₅ O ₃ S	467	Dark Brown	175-177	0.50	74.7 3
5f	6-NO ₂	C ₂₄ H ₁₅ N ₅ O ₃ S	453	Raddish Brown	241-243	0.48	82.6



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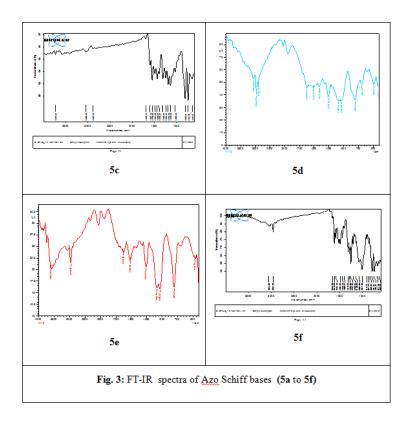


Table 6: The UV-Vis and FT-IR spectral data of Azo Schiff bases (5a to 5f) (Scheme-II).

Code	UV-Vis,				
Couc	λ _{max,} (nm)		FT-IR	data (cm ⁻¹)	
5a					
	244 355	ν _{-OH} 3379	v_{-C-Har} 3066	ν _{N=N} 1514	$\nu_{>C-Oalc}1085$
	253 434	V>C=C< ar.1500	ν _{-C=N} 1608	v_c-s 806	
5b		ν _{-OH} 3462	ν _{-C-H ar.} 3071	ν _{N=N} 1622	ν _{>C-O alc} 1134
	241 371	ν _{-NO2} 1311	ν _{-C=N} 1583	v _{-c-s} 684	ν _{C-C1} 800
	317 412	ν _{-NO2} 1459			- ***
		V =NO2 1 133			
5c	254	ν _{-OH} 3470	ν _{-C-H ar} 3048	ν _{N=N} 1601	ν >C-O alc. 1139
	417	ν _{-C=N} 1438	ν _{-C-S} 647	ν _{>C=C<} ar.1550	ν _{-C-F} 1355
5d	315	ν _{-OH} 3066	ν _{N=N} 1512	$\nu_{-c=N}$ 1625	ν _{-C-F} 1411
	358 491	ν _{>C-0} 1087	v _{-c-s} 806		
5e	230 358				
	317 450	ν _{-C-Halk} 2960	ν _{-NO2} 1517	ν _{N=N} 1512	ν _{-C=N} 1627
		ν _{>C-0} 1083	ν _{-C-S} 806	ν _{-NO2} 1320	
5f	232 354	ν _{-OH} 3200	ν _{-C-S} 643	V _{-C-H ar.} 3054	ν _{N=N} 1618
	316 455	ν >C-O alc1011	ν_{-NO2} 1319	V >C=C< ar. 1409	$\nu_{-C=N}$ 1591



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The UV spectrum in Ethanol of (5a) is shown in Fig. 2 indicates four bands at 434 nm, 355 nm, 253 nm and 244 nm. The excitation at 434 nm and 355 nm shows $n\rightarrow\pi^*$ transition while the excitation at 253 nm and 244 nm arise due to $\pi\rightarrow\pi^*$ transition.

The FTIR characteristic stretching frequencies of various bonds present in (5a) are obtained from the FT-IR spectrum as shown in Fig. 3. IR band at 3379 cm-1 indicates the stretching vibration of OH group. A band at 3066 cm-1 is due to aromatic C-H bond stretching vibration. IR band at 1608 cm-1 is due to >C=N Stretching, 1500 cm-1 is due to >C=C< in aromatic ring and 1514 cm-1 band is due to -N=N- moiety. The IR band at 806 cm-1 is due to stretching vibration of C-S group. While the UV-Vis and FT-IR spectral data for (5a to 5f) is given in Table 6 respectively.

The C, H and N data for (6a to 6f) is given in Table 7. The C, H and N data for (6a to 6f) is depicted in Table 7. The values are in close agreement with the calculated one from the expected molecular formula of synthesized compound (6a to 6f) and are in 5 % in statistics. Purity of compound (6a to 6f) was checked by melting point determination by open capillary method and by TLC on aluminium plates coated with silica gel make Merck. Physical and analytical data of (6a to 6f) is depicted in Table 8. The UV spectra ware recorded by UV-1800 of Shimadzu make from the stock solution (0.01) by serial dilution of solutions (0.001M) in Ethanol as solvent. While the FT-IR spectra were recorded by using SHIMADZU-FTIR-8400 or by Bruker alpha, in the frequency range of 4000-400 cm-1. The UV-Vis and FT-IR spectral data for (6a to 6f) is depicted in Table 9.

The representative compounds were screened by 1H NMR and HR-MS spectroscopy. 1H NMR spectra were recorded on Bruker Advance III, 400 MHz spectrometer in Chloroform solvents and the chemical shifts are shown in δ ppm scales. Multiplicities of NMR signals are designated as s (singlet), d (doublet), etc.

The UV-Vis and FT-IR spectral data for (6a to 6f) is given in Table 9 respectively.

Table 7: C, H and N data for Beta-lactams (6a to 6f) (Scheme-III).

Code		M.F.	%	C	%	Н	% N	
	-R		Calc.	Obs.	Calc.	Obs.	Calc.	Obs.
6a	-H	C ₂₆ H ₁₇ ClN ₄ O ₂ S	64.39	63.85	3.53	3.40	11.55	11.42
6b	6-C1,4-NO ₂	C ₂₆ H ₁₅ Cl ₂ N ₅ O ₄ S	55.53	54.95	2.68	2.53	12.41	12.34
6с	6-F	C ₂₆ H ₁₆ ClFN ₄ O ₂ S	62.09	61.85	3.21	3.11	11.14	11.10
6d	4,6-F ₂	C ₂₆ H ₁₅ ClF ₂ N ₄ O ₂ S	59.95	58.69	2.90	2.82	10.75	09.95
6e	4-CH ₃ ,6-NO ₂	C ₂₇ H ₁₈ ClN ₅ O ₄ S	59.61	58.95	3.34	2.93	12.87	12.24
6f	6-NO ₂	C ₂₆ H ₁₆ ClN ₅ O ₄ S	58.93	58.35	3.04	2.82	13.22	13.04

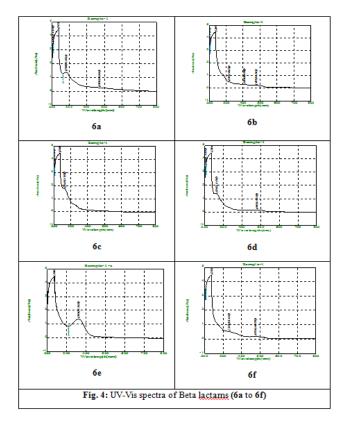
Calc. = Calculated and Obs. = Observed

Table 8: Physical and analytical data for Beta lactams (6a1 to 6a6) (Scheme-III).

Code	-R	M.F.	Mol. wt. (g/mole)	Colour	m.p.rang e °C	RF Valu e	% Yiel d
6a	-H	C ₂₆ H ₁₇ C1N ₄ O ₂ S	484.5	Dark Brown	108-110	0.54	86.73
6b	6-C1,4-NO ₂	C ₂₆ H ₁₅ Cl ₂ N ₅ O ₄ S	564	Dark Brown	94-96	0.53	78.99
6с	6-F	C ₂₆ H ₁₆ ClFN ₄ O ₂ S	502.5	Light Brown	124-126	0.57	80.21
6d	4,6-F ₂	C ₂₆ H ₁₅ ClF ₂ N ₄ O ₂ S	520.5	Dark Brown	135-137	0.55	82.93
бе	4-CH ₃ ,6- NO ₂	C ₂₇ H ₁₈ ClN ₅ O ₄ S	543.5	Dark Brown	128-130	0.53	81.57
6f	6-NO ₂	C ₂₆ H ₁₆ C1N ₅ O ₄ S	529.5	Light Brown	164-166	0.49	74.65

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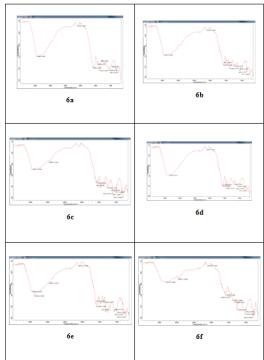


Fig. 5: FT-IR spectra of Beta lactams (6a to 6f)

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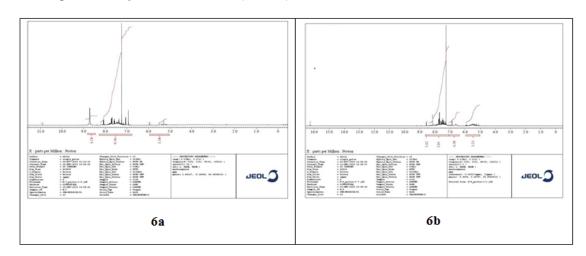
Table 9: The UV-Vis and FT-IR spectral data for Beta lactams (6a to 6f) (Scheme-III).

	UV-Vis,			
Code	λ _{max} ,			15
	(nm)		FT-IR data (cn	n-1)
	, ,			
6a	205			
l va	237	V c ou 3445	v_c.o1058	v- _{N-C=0} 2104
		ν _{-N=N} . 1584		v c.c. 762
	278	V_C-S 846	- 50-1(. 044.11
	470			
6b	410			
	239	V ~ or 3457	v_c-o1069	v vo.1254
	479		v _{-N=N-} 1578	ν _{>C=N} . 1461
	319	v_c-cl 751		v _{-NO2} 1388
6с	205			
"		ν _{-с-он} 3457	v _{-c-0} 1103	ν _{-C-F} 1025
	238		ν _{-N=N} . 1578	
	264	ν _{-C-C1} 751	ν _{-C-8} 846	v _{-C-F} 1410
6d	205			
	236	ν _{-с-он} 3367	v_c-o1192	ν _{-C-F} 1064
	264		ν _{-N=N-} 1578	
	480	ν _{-C-C1} 751	ν _{-C-S} 846	v _{-C-F} 1435
6e	234			
		V _{-C-OH} 3445	$v_{-C-0}1080$	ν -C-H alk 2965
	308		ν _{-N=N} . 1589	ν _{>C=N} . 1477
	360	ν _{-c-Cl} 745	ν _{-C-S} 801	v _{-NO2} 1321
6f	237	ν _{-C-OH} 3317	ν _{-C-0} 1019	v _{-C-H alk} 2965
	330	ν- _{N-C=0} 2109	ν _{-N=N-} 1589	ν _{>C=N-} 1449
	475	V-c-C1 745	ν _{-C-S} 795	ν _{-NO2} 1320
		v _{-NO2} 1377		

The UV spectrum in Ethanol of (6a) is shown in Fig. 4 indicates four bands at 470 nm, 278 nm 237 nm and 205 nm. The excitation at 470nm and 278 nm shows $n\rightarrow\pi^*$ transition while the excitation at 237 nm and 205 nm arise due to $\pi\rightarrow\pi^*$ transition.

The FT-IR characteristic stretching frequencies of various bonds present in (6a) are obtained from the FT-IR spectrum as shown in Fig. 5. IR band at 3445 cm-1 indicates the stretching vibration of OH group. A band at 2104 cm-1 is due to aromatic O=C-N bond stretching vibration.IR band at 1584 cm-1 is due to -N=N- Stretching, 1444 cm-1 is due to >C=N group and 1377 cm-1 band is due to OH bending vibration. The IR band at 762 cm-1 is due to stretching vibration of C-Cl group. The IR band at 846 cm-1 is due to stretching vibration of C-S group. While the UV-Vis and FT-IR spectral data for (6a to 6f) is given in Table 9 respectively.

1H NMR spectral study for Beta Lactams (6a to 6f):



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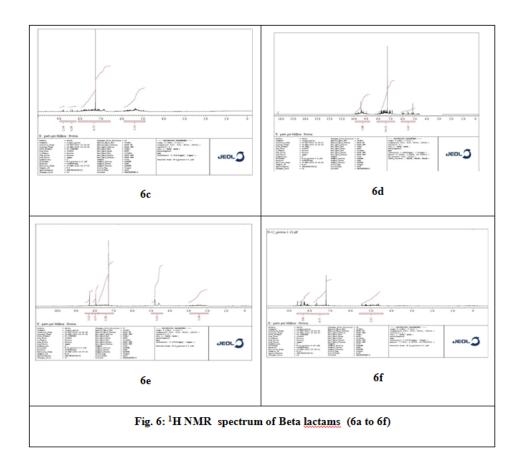


Table 10: 1H-NMR spectral data for Beta lactams. (6a to 6f) (Chemical shifts) (& Values in ppm)

ID	-CH	-CH	-CH	-OH
	Aromatic	Benzothiazole	Propiolactam	Aromatic
6a	6.90-8.20 (s, 10H)	8.85 (s, 2H),	5.45 (d, 1H),	5.00 (s, 1H)
	0.90-6.20 (s, 1011)	8.70 (s, 2H)	5.0 (d, 1H)	
6b	7.00-8.30 (s, 5H),	8.70 (s, 2H),	5.50 (d, 1H),	
	6.70-7.20 (s, 4H),	8.60 (s, 1H)	5.25 (d, 1H).	5.25 (s, 1H)
	8.50 (s,1H)	8.00 (s, 1H)		
6с	8.39 (s, 1H), 6.70-	8.85 (s, 1H),	5.30 (d, 1H),	
	8.00 (s, 7H), 8.70-	8.25 (s, 1H),	5.45 (d, 1H).	5.30 (s, 1H)
	8.90 (s,2H)	8.00 (s, 1H)		
6d			5.30 (d, 1H),	
	6.90-8.10 (s, 10H)	9.10 (s, 2H)	5.50 (d, 1H).	5.30 (s, 1H)
бе	. 0.15 (- 1II) 7.00	0.60 (- 111)		
oe	: 8.15 (s, 1H), 7.80-	8.60 (s, 1H),	5.50 (d, 1H),	5.25 (s, 1H).
	8.10 (s, 5H), 7.00-	8.45 (s, 1H),	5.25 (d, 1H)	3.23 (8, 111).
	7.80 (s,4H)	2.45 (s, 3H),		
6f	7.10-7.90 (s, 7H),	8.70 (s, 1H),	5.05 (1.117)	5.00 (477)
	8.30 (s, 1H), 8.15 (s,	8.65 (s, 1H),	5.35 (d, 1H),	5.00 (s, 1H).
	1H), 8.10 (s, 1H)	8.60 (s, 1H)	5.00 (d, 1H)	

S = singlet, d = doublet



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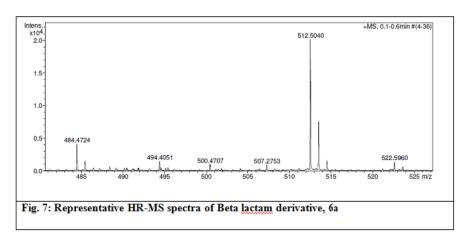
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The 1H-NMR spectra of Beta lactams (6a to 6f) are as depicted in Fig. 6 and the spectrum was measured in CDCl3 solvent with TMS as an internal reference. In general the 1H NMR showed the two peak at \sim 5 ppm is attributed to Propiolactam and one peak at \sim 4.5 is attributed to OH of aromatic ring, peaks in the range 6.9 - 9.2 for the aromatic protons. The detailed 1H NMR data of Beta Lactam derivatives, (6a to 6f) are depicted as in Table 10.

HR-MS spectral study Representative of Beta lactam derivative:



HR-MS of 6a: C26H17ClN4O2S (M+H) 484.5 (calculated), 484.4724 (observed). The HR-MS (intensity vs m/z) for 6a, C26H17ClN4O2S (M+H) 484.5 (calculated), 484.4724 (observed) indicates the correct value for its mass number. Thus it strongly reveals the predicted molecular formula of 6a.

CONCLUSION:

A modified Azonapthaldehyde by azo group is synthesized and its relevant schiff bases and Beta lactam derivatives were synthesized and were characterized by analytical and spectral methods. These synthesized Azonapthaldehyde and the Azo Schiff base will be useful as building block for future target molecules by young budding researchers. Looking to the skeleton of the product it look like these products may have good potential in medicine and chemistry. In future we may synthesis the further derivatives of these schiff bases and find out the possibilities for the applications of these products in various fields in pharmacological industry such as anti-convulsion, anti-inflammatory, analgesic, anti-microbial and antioxidant activity, electrochemical properties, sensor applications, dying properties and corrosion etc.

Scope: Further, relevant Schiff bases and Beta lactams will be tested for pharmacological activities.

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"Entrepreneurship Development in India"

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Abstract

An effort has been made to in-depth analyze the process of Entrepreneurship Development in India and its impact on Economic growth. The main tools of Industrialization which is creating high employment nowadays is known as Entrepreneurial Development programmes. Idea of Entrepreneurial Development associates equipping people with necessary knowledge and information apply for enterprise business /venture building and polishing their entrepreneurial skills. Secondary data is used by the Researcher for the purpose of study.

Keywords - Entrepreneurship, Entrepreneurship development, Entrepreneurship development programmes, Economic growth.

Introduction

By generating revenues, employment, offering products & services, and providing taxes for the government, entrepreneurs play a critical role in structuring economies. Entrepreneurs help transform innovative ideas into economic opportunities which are measured to be more prosperous.

In order to achieve higher levels of entrepreneurial development, the government focuses on accelerating the number of capable and competitive entrepreneurs in the country. Entrepreneurship is a well-organized and a well-administered process for developing people into entrepreneurs.

Therefore, Government strives to accelerate supply of capable and competitive entrepreneurs in the country. Entrepreneurial development is a well ordered and an organized development of people to entrepreneurs. Through its programs, it promotes entrepreneurial skills into common people through the provision of relevant knowledge, the enhancement of technical, financial, and management skills, and the development of entrepreneurial attitudes. Innovation and entrepreneurship are regarded as important factors for high economic growth in an economy.

Objective of the Research

To analyze the process of Entrepreneurship Development in India

Methodology of the study

Researchers have used secondary sources, such as books, articles, and authentic websites.

Entrepreneurial development process in India

Prof. David C. McClelland (Mcclelland) was the first person who carried out Kakinada experiment on Entrepreneurship development training in mid 1960s.

He suggested that -

- The requirement for high aspirations was an important factor for the emergence of entrepreneurs
- And that could be developed

In his research work, he has proven his hypothesis and found that it is feasible to develop non-business communities as entrepreneurs who can start and manage their own businesses with proper training and counseling.

Entrepreneurship development programme includes three months training which laid emphasis on –

- Setting up a small venture
- b) Managing it, and
- Making profits

As an experiment by Gujarat State Industrial Corporation during 1969-70, this program was developed in Gujarat, but gained momentum at a nationwide level. In 1979, the Centre for Entrepreneurship Development (CED) in Ahmedabad was established in response to a requirement to spread the programme across the state of Gujarat. (Government of Gujrat)

This was the first institute in India dedicated exclusively to the development of entrepreneurship.

Encouraged by CED's accomplishments, All India Financial Institutions such as the Industrial Development Bank of India, the Industrial Financial Corporation of India, the Industrial Credit and Investment Corporation of India, and the State Bank of India backed Gujarat Government decision to establish the Entrepreneurship Development Institute of India in 1983. The Organization's major goal was to disseminate and enshrine ED in India.

In India, three national-level Entrepreneurship Development Institutes have been established:

- The National Institute for Micro, Small and Medium Enterprises, Hyderabad
- b) The National Institute of Entrepreneurship and Small Business Development in Noida
- The Indian Institute of Entrepreneurship, Guwahati

Subsequently, State governments, also established state-level Institutes of Entrepreneurship Development such as IED Lucknow, IED Bhubaneswar, IED Patna or state centers such as Maharashtra Centre for Entrepreneurship Development,



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Centre for Entrepreneurship Development of Karnataka in order to take the ED activities down to grass-roots level.

Further, The Ministry launched a new scheme named, Rajiv Gandhi Udyami Mitra Yojana to improve the success rate of the EDP trainees in the establishment of new enterprises.

The Goal of scheme was to support the first generation entrepreneurs, through selected agencies namely 'Udyami Mitras'. Under the scheme, 'Udyami Mitras' provide guidance and assistance to the potential entrepreneurs registered with them, in making project report, helping in arranging finance, choosing of technology and acquiring various approvals etc. (Kumari) Some of the National-level Entrepreneurship Development Institutes in India are as below –

1. National Institute for Micro, Small and Medium Enterprises, Hyderabad

It is formerly known as National Institute of Small Industry Extension Training which was established in 1960 in New Delhi, under the Ministry of Commerce and Industry. Institute was initially known as Central Industrial Extension training Institute. Subsequently, it was converted into an autonomous society in 1962 and shifted to Hyderabad. The institute was renamed as National Institute of small Industry Extension training in 1984. The institute has been renamed as National Institute for Micro, Small and Medium Enterprises after enactment of the MSMED Act, 2006. The Institute is progressing with the times & more focusing on emerging requirements of MSMEs and resolving problems by providing consultancy, training, and research. (Government of Telangana)

NI-MSME's programmes focus on successful training of entrepreneurs to face challenges and survive in cut-throat competition of Global economy. NI-MSME has always been coming up with specialized programmes, workshops and seminars in accordance with the current policy and global economy. The main objective of these activities has been to sanction the enterprises and assisting systems to manage effectively.

2. Indian Institute of Entrepreneurship, Guwahati

The Indian Institute of Entrepreneurship was established at Guwahati in 1993. This Institute has covered all facets of MSME activities during the period up-to great extent. The institute provides training programmes and manages research and consultancy services to promote MSMEs and entrepreneurship. The Institute organizes and focuses on training activities for promotion of new entrepreneurs.

The institute provides rural, general and women EDPs and sector specific EDPs for promotion of new entrepreneurs. Institute continues its Rural Industries Programme in Meghalaya, Manipur and Assam and also started its RIP at Nonngpoh in Meghalaya with the help of SIDBI. The Institute has focused on creating awareness amongst faculty and students of colleges about entrepreneurship. The Institute has set-up Information and Career Guidance Cell in colleges through its Teachers Training Programmes. Central Government has launched Scheme of Fund for Regeneration of Traditional Industries which is a mega project. The project was started with cluster development approach and the aim of project is to adopt 10 clusters in North East Region under traditional industry sector. IIE has been recognized as a Technical Agency under this scheme. (Government of Assam)

3. National Institute for Entrepreneurship and Small Business Development (NIESBUD), Noida

The foundation of this organization was laid in 1983, when it was a pioneer in the field of entrepreneurship. The organization's main purpose was to promote, support and help entrepreneurs and small businesses succeed on the market. Institute provided various kinds of training, education, research and consultancy services in this field.

Other main activities of institution were to design and develop syllabus for training various target groups; strategize the development path; provide right study material, manuals and tools. Also it was responsible for helping central and state agencies in executing programs of entrepreneurship and small business development. Further to add to this, it became a key factor in maximizing benefits and accelerating the process of entrepreneurial development. (Government of Uttar Pradesh)

Developing entrepreneurial skills is an important component of the growth journey of individuals, societies, and nations. The aim is to make a nation self-sustaining and resilient by promoting social change and promoting innovation. The nation of India had realized its importance during the 1960s and 1970s. Several steps were taken to accomplish this goal by the government, such as establishing policies and establishing institutions for this purpose. These small steps have now converted into a giant leap, which is helping India compete with world superpowers. The path is long and it will go far, but a correct approach and direction are critical to its sustainability. We, as a society, must recognize the importance of entrepreneurial spirit and aim to become the world leader in trade and self-sustainability once again.

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