# IMPORTANCE OF COMPUTER NETWORKS IN COMPANIES

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## ABSTRACT

*Computer networks plays an important role in today's life. Networking has become an essential part of today's enterprises. In this paper reserch is done about uses of computer networks in companies. Data is collectecd from managers of companies through survey. After analysis, It is observed that computer networks plays an important role in companies. Without networking working of any company is not possible.*

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## Introduction

In these days a computer is a basic need of any company. Computer is a machine that is used to fullfill the basic requirements of any company. Interconnection of more than one computer is also required to communicate if users want to access information from their place only without going anywhere then It is possible only if computers are connected with each other. The technology that connects the computers with each other through communication line. It is called networking. Computer networks have great importance in companies. Resources (information, data, and euipments) can be delivered computer through networks. Computer network provides high reliability. In computer networks more than one computer are connected to each other.

Computer network saves the money of companies. In networking we can use cheaper computer than a super computer. Computer network provides scalability. In networking it is easy to add new computer instead of replacement of supercomputer. Computer networking is a very powerful communication media. Computer networking is helpful in electronic business.Sharing of resources is the main important advantage of computer networking.For example it will be very difficult to store database on each computer.If we store database on each computer then there will be problem of storage.Anothe problem is problem of updation if there are some changes in data we have to change on every computer.But through networking database can be shared from one system and if we want to update it there is need to update only on one system.

Because of computer networking, every worker in the company can share printer. If there is no computer network each worker should have printer, or they have to use CD/DVD for printing from another computer. So we can say that the computer network is essential in big or small company.

## Analysis abd Results

The survey method was used in the research.A survey questionnaire was perpared. A survey was conducted among the respondents during in state of India in Punjab.. It includes the questions that give the data about the uses of computer networks in companies.

The sample of the survey was the managers of the companies.

The place research was companies of different size . 26 respondents was selected.

First question of the survey was:

Does your company has a LAN (Local Area Network)?

The answer of this question was:

70% respondents answered that they had computer network (LAN).

30% respondents stated that they had not computer network (LAN).

Based on the answers of the respondents, a big part of the companies have their own computer networks as shown in table 1 and chart 1.

Table 1: Shows the response of question Does your company have a LAN (Local Area Network)?

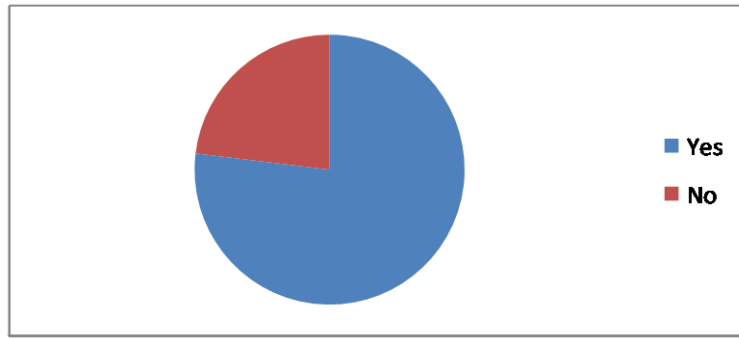| Does your company have a LAN ( Local Area Network) ? | Number | Percentege |
|---|---|---|
| Yes | 20 | 77 |
| NO | 6 | 23 |

Chart 1: Shows the response of question - Does your company have a LAN (Local Area Network)?

- Next question of the survey was: Does a computer network helps your company to grow?
- 50% respondents answered that computer networks helped in company's growth.

- 33% respondents answered that computer networks helps in company,s growth , but not too much.
- 17% respondents told that it does not help in company's growth.

Response of this question is shown in table 2 and chart 2.

Table 2: Shows the rwsponse of question - Does a computer network helps your company to grow?

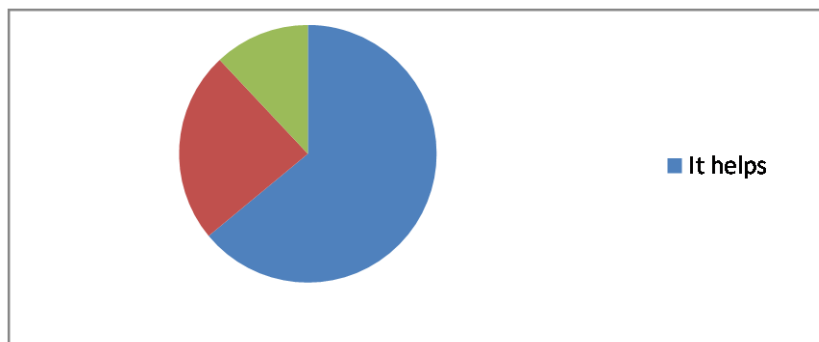| Does a computer network helps your company to grow? | Nunber | Percentege |
|---|---|---|
| It helps | 16 | 64 |
| not too much | 6 | 24 |
| does not help | 3 | 12 |



Chart 2: Shows the response of question - Does a computer network helps your company to grow?

The another question of the survey questionnaire was: *Does* your company do any kind of E-business? 50% of respondents stated that they are doing E-Business always.

38% of respondents stated thay are using doing sometime.

12% of the respondents staed they never used it.

Result of this question is showed in table 3 and cahrt 3.

| Does your company do any kind of E-Business? | Number | Percentage |
|---|---|---|
| Always | 13 | 50 |
| Sometime | 10 | 38 |
| Never | 3 | 12 |

Table 3: Shows the response of question - *Does* your company do any kind of E-business?
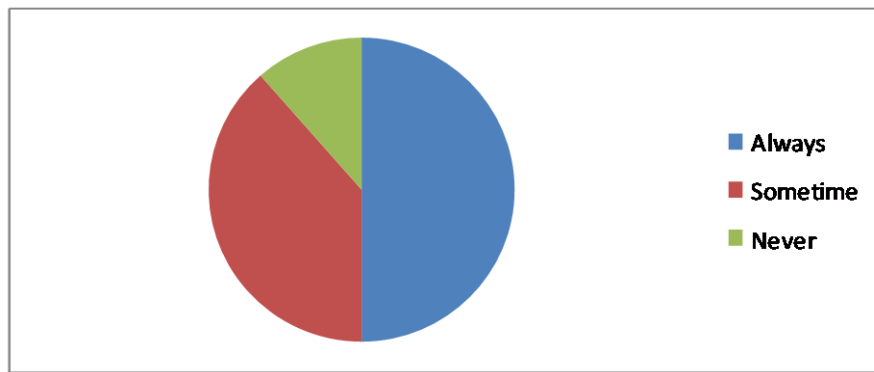
Chart 3 Shows the response of question - *Does* your company do any kind of E-business?

### Conclusions

Based on the answesrs, we can say that a large number of companies use computer networks Computer networks increases the growth of the commpany. By analyzing the answers, we can say that to the conclusion that the computer network is essential for companies in these days. The working of companies is not possible without the use of computer networks. Computer networks in companies enable companies to grow. Computer networks saves money, gives more satisfaction to the cliens

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# INDIAN EDUCATION IN THE POST COVID WORLD: NEED FOR INNOVATION-ORIENTED LEARNING

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## ABSTRACT

*India currently has a pressing need for providing innovative solutions for new market scenarios, jobs for the large number of youth graduating each year, and lowering the cost of doing business in an effective & sustainable manner. Moreover, the socio-cultural and economic disruptions caused by the Covid-19 pandemic have caused many redundancies and created new opportunities through changed consumer habits and rapid technological adoption and penetration at all social levels. Many educational institutions have also concluded that to stay relevant for students looking for effective learning and to create employable graduates, there is the need for expeditious transformation in pedagogy, methodology, course outcome, content and learning environment. Looking at this world view and knowing that innovation & economic growth are both complementary & inter-connected, this paper presents the need to introduce the essence of innovation and customizable class environment to reform Indian education at the student faculty level with an aim to align it better with the needs of India in the post-covid 19 world as well as educational policy reforms of 2019 and 2020. The paper suggests that disruptive and innovative changes are required at classroom level to ensure that India is able to create a higher percentage of employable graduates, increase its Global Innovation index ranking and create more entrepreneurs to achieve a high economic growth rate.*

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*Keywords: Indian Education, Innovation, Covid-19, Economic growth*

## Innovation for Economic growth

Schumpeter (1934) published his theory of innovation, entrepreneurship, and economic development, associating economic growth with creation of innovative products and services. His radical perspective stressed that the increased productivity from invention to innovation contributes to increased profits. Since then policy makers and economists have used this theory as a foundation to define and develop policies and theories about the term 'Innovation'. We can see innovation as the market's way of 'creative destruction' by replacing old with new, better aligned with the changing needs and market dynamics (Huggins, R., & Thompson, P., 2015). Furthermore, innovation is generally accepted as a principal means by which countries stimulate economic growth (Capello, R., & Nijkamp, P. (Eds.)., 2019). This historically can be observed when we compare the United states' superior economic performance with that of Europe in the latter half of the 20th century. By the end of the 20th century it was clear that the U.S. growth was due to innovations in large scale production and distribution systems, among other things (Fagerberg, J., 1999). More recently, this can also be observed when we compare the economic growth of China and India. Both the countries have grown rapidly since 1980. But China has grown faster than India mainly due to developing itself as the world's major manufacturing hub fed by industrial innovations (Srinivasan, T., 2006).

Illustrating this the chart below presents a comparison of Global Innovation ranking of Brazil, India and China, although India, ranked 38 is above the world median, it is much below China, which was ranked No.1 for the year 2020. (Innovation Efficiency Index - TCdata360 (worldbank.org), 2021)
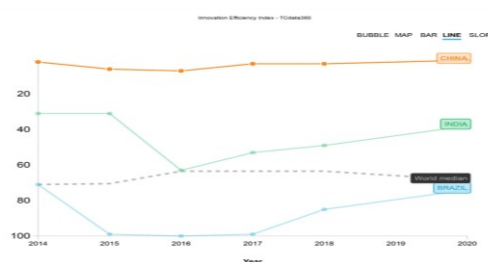


Figure 1: Innovation Efficiency Ratio, Rank

India has a well-discussed and a challenging target of becoming a $5 million economy by 2024. The challenges that India faces towards achieving this target are many which have been aggravated by Covid-19 pandemic, the nature of which has been discussed in the next section of the paper. Some of the major challenges are under-employment, slowdown in agriculture, slow infrastructural development, funding issues and slow growth rate of exports in most sectors (InsightsIAS, 2021). The government of India has identified promotion of entrepreneurship and innovation in education as one of the many ways to fill the gap in its Global Innovation Index ranking and achieve the targeted economic growth.

**Pandemic disruptions**

Covid-19 pandemic has changed the way we live through every area of life, from the way we interact to the way we consume, which eventually is going to impact the way goods are produced and services are delivered. In a recent survey by Mc Kinsey of over 200 organizations, they expect a drastic change in the way we do business over the next five years, with almost as many asserting that the crisis will have a lasting impact on their customers' needs.(Am, Laura, Jorge, & Roth, 2020)

**90%**
believe that the COVID-19 crisis will fundamentally change the way they do business over the next 5 years

**85%**
are concerned that the COVID-19 crisis will have a lasting impact on their customers' needs and wants over the next 5 years

**21%**
have the expertise, resources, and commitment to pursue new growth successfully

**2/3**
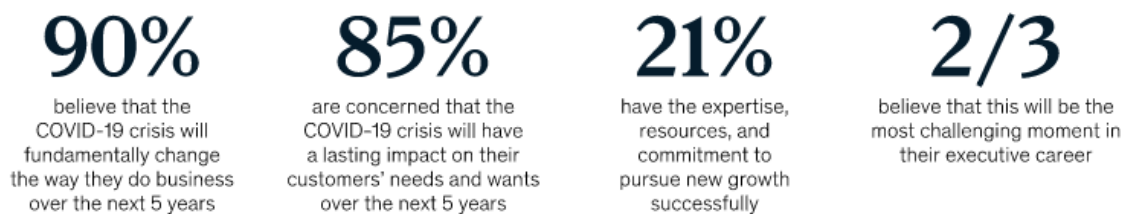believe that this will be the most challenging moment in their executive career

Figure 2: Impact of Pandemic

Gone are the times when we used to have a business meeting over coffee on a fancy leather couch, these are all replaced by the Video Conferencing now with creative backgrounds. With this changing world, there arises a greater need of identifying the new opportunities being created in the changing landscape to be able to stay relevant and useful in the recovery period with the new constraints.

There have been remarkable disruptions all over the globe due to pandemic and the only ones who follow the path of resilience and reform will be able to survive. Resilience for relevance can be the promenade, for which Innovation holds the key importance. It will be a resilience oriented Innovation, based on problem solving and opportunities for growth, following the path of Industry 4.0, which is truly based on Internet of Things, Automation and Artificial Intelligence. The Crisis has always driven 'Innovation'. With this the organisations world over are focusing on increasing Investments in Innovation talents, approaching Investments from the Outside In, Encouraging Prudent Risk Taking (Day &

Shea, 2020). But there is a flip side to meeting this need, which spurs from the Education level of an individual, which is that there is no doubt that since the mid-20thcentury education systems have expanded exponentially and the human population has never been this educated. Though the ingredient of education in our lives remains an impressive component, many policy makers think that there is in future going to be a problem of productivity and efficiency. The role of education and skills in promoting innovation is critical. Innovation doesn't happen in a vacuum, but requires openness and interactions between systems and their environments.(OECD, 2016). Hence the fact that innovation oriented learning is the need of the hour.

**Conclusion**

Indian Education system is going through a period of transition, from traditional methods of teaching-learning to the new methods of self learning and innovation, with National education Policy 2020 stressing on developing skill based and vocational education models, which are flexible and customisable to the needs of the recipient. It creates an opportunity

for the students to explore, break and make areas and periods of their academic pursuits, encouraging creative thinking for useful outcomes. The model below is presented in a report 'A Global Framework for Shifting Learning Content and Experiences Towards the Needs of the Future' by The World Economic Forum Education 4.0, where it clearly defines

the required evolution of the Education System.The report is the outcome of a global consultative process initiated by the World Economic Forum's Platform for Shaping the Future of the New Economy and Society to identify promising models of high-quality education for the age of the Fourth Industrial Revolution.



Figure 3: The World Economic Forum Education 4.0 Framework

Hence, the Indian education system is evolving from change in focus from **'Information to Knowledge', 'Dependent-learning to Self-learning', 'Examination to Experimental', 'Degree to Skill', 'Books to Research', and 'Choice to Competency'.**

In line with the same, the Government of India's Ministry of Education is taking many initiatives to strategize the development of the Innovation Ecosystem from Policy to Implementation to Impact Level, so that no gap is left in between. Implementation of the 'National Innovation and Start Up Policy 2019' is one of the major initiatives towards the same in Higher education Institutions connecting student innovators, with faculty innovators and mentors, with industry for funding and quicker commercial applications. The policy visions to create self employment and promote innovation at the grassroot levels.

The above initiatives by the Ministry of Education through its bodies like AICTE, UGC, MIC etc, while working in a cohesive manner can create a talent pool of innovators and risk-takers, who will be supported through mentoring, funding for successful Start Ups and pool of Intellectual Properties.

Now it is upto the Indian education system, to weed through the teaching methodologies and

institutions that do not support this networked innovation oriented ecosystem. The awareness of the fact of mere achievement of degree over the importance of the skill amongst the students is also being created and released. A degree alone does not ensure employability, and what they need is Research oriented Innovative outcome based education for employability (Education Desk, 2021). They will be looking for institutions, where they learn through teaching methodologies that are not archaic and rigid but are flexible and customisable to the learners needs and self vision.

Hence, to conclude we strongly believe that innovation, meaning 'creative destruction' that replaces old with new, must be used as the guiding term in education in all areas, such as pedagogies, methodologies, curriculum, creative thinking to build an innovative and engaging learning environment. In today's world of free internet knowledge available for any seeker, changes the traditional role of an educational institution from that of a knowledge provider to knowledge facilitator. Explorative Ideas need to be identified and nurtured at the very beginning within competitive and networked culture. Teacher's role should change to that of mentors,

facilitators and co-creators, who are able to convert the classroom innovation into intellectual property. The policy framework for such an environment is ready, which now swiftly needs to be implemented by higher education institutions of India at the classroom level through the means of spreading awareness, incentivisation, funding support and connecting innovators with industries.

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# NATIONAL INNOVATION & STARTUP POLICY 2019 TO ACCELERATE INNOVATION & ENTREPRENEURSHIP: ROLE OF  ACADEMIC INSTITUTIONS & TEACHERS

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## ABSTRACT

*Education 4.0 is an approach to learning, purposefully aligned to the needs of the Industrial Revolution with the use of advanced technology. 'The Changing game of Education' is the new debatable topic amongst all at Global level. The teaching and learning needs to evolve in a big way to enable new possibilities and Education becomes more relevant for the future. The focus is on General as well as Vocational Learning for the students so that they can become Skilled individuals and lead a successful life.With this arises the need of alignment of Research, Innovation & Entrepreneurship at the earlier stage of Education. This paper will discuss National Education & Startup policy - the guiding framework for students, and the role of teachers and Institutions.*

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## 1. The need for Innovation- Industry 4.0 & Education 4.0

Education is not only about informing and imparting knowledge, it is about improving the life skills of the students with an intellect to build them as independent thinkers to be able to earn their survival and co-exist in the society. The world around us is changing each day and we are heading towards the era of Automation, Digitalisation, Artificial Intelligence and many more technological transformations.The influence of Fourth Industrial Revolution for automation of production and creation of Intangible Values, there are jobs expected to be created which currently do not exist, adoption of new processes and the way we work, this is a matter of concern for the massive shift in the skills required by the future human generations if not worked upon in a timely planned manner, may lead us in situation of huge unemployment. Acquiring skills required for a sustainable economic growth needs to be inculcated at the Education level, wherein the needs of the future industry are appropriately met.Yet many education systems in developed and developing economies alike still rely heavily on passive forms of learning focused on direct instruction and memorization, rather than interactive methods that promote the critical and individual thinking needed in today's innovation-driven economy (Elhussein, Leopold, & Zahidi, 2020). Education 4.0 is in

response to Industry 4.0,  an initiative aiming progression from the traditional methods of teaching and learning,  to finally meet the needs for future job requirements  and global economic growth. It discusses new pedagogical approaches to achieve the goals like Self Paced Learning, technological skills, personalised learning, accessible and inclusive learning, Interpersonal skills, innovation and creativity skills (Elhussein, Leopold, & Zahidi, 2020). Inculcating these at school and higher education level is essential by aligning the courses taught and integration of Research and Innovation.

## 2. Research, Innovation & Entrepreneurship

On Global innovation Index (GII) 2019, India ranks 52 whereas China ranks 15 which is far ahead leading the way, as India is a developing country, the index needs to improve in order to provide substantial opportunities for livelihood . Nonetheless, none of our institutions is not even positioned in the top 100 of the Ranking of Research & Innovation , only 3 institutions have been able to make it to the range of 200 (Jere, 2019). This indicates a matter of concern, as to the education provided to Indian students, is neither of a benefit to the students nor the economy , especially visualising the scenario of some more years down the line when the Fourth Industrial Revolution would have deeply intruded the mass organisation,  the usefulness of human skills and knowledge will

be sceptical. If India aims to become a 5 trillion dollar economy, then it needs to evolve systems and mechanisms to convert the present demographic dividend into High Quality Innovation oriented Technical Human Resource. Innovation is identified on varied levels of research and analysis (be it individual, economy, demography or any other) leading to the commercial outcome or transfer of technology for some whereas for others it is just about Research & Development and a few think it is absolutely about Creative Thinking. Though Innovation can be holistically defined as 'A process through which value is extracted from skills and knowledge by generating, developing, and implementing ideas(Solving Canada's Innovation Conundrum: How Public Education Can Help, 2003).Reaching the full potential of innovation means leveraging ideas and knowledge to enhance quality of life and economic development'(Hancock & Times, 2005).Further to the understanding of the above written definition of innovation, it clearly explains the importance of useful skill based knowledge,to be able to read, write and sensibility to identify a problem with knowledge transfer, study the fundamentals of societal conditions, multi-disciplinary exchange of ideas for a long term solution.
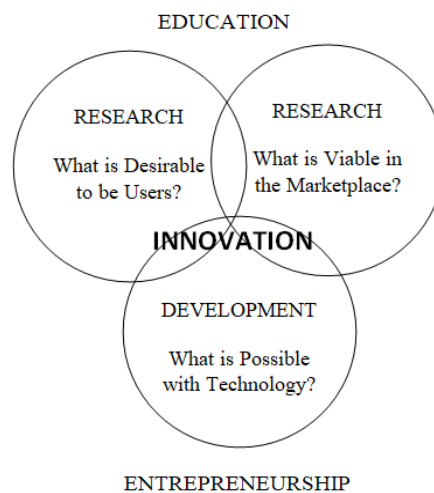


*Figure 1: Integration of Research , Development and Innovation*

### 3. National Innovation & Startup Policy 2019

The Government of India is organising many programmes to support the innovation culture in the country like Hackathons, KAPILA, Yukti 2.0, National Innovation Contest, ARIIA etc. Interventions are being made at four major levels - National Platforms, Policy Intervention, Innovative Courses and Handholding for Faculties and Students. 'Policies' provide a guiding framework for consistency, accountability, efficiency, and clarity on how an organization operates, and is one of the key components to adjudge the performance and effectiveness.

### 3.1 National Startup Policy

The policy aims at Establishing Innovation & Entrepreneurship ecosystem, Streamlining of existing ecosystem and Strengthening of Innovation ecosystem. This framework will also facilitate the Ministry of Human Resource Development in bringing uniformity across HEIs in terms of Intellectual Property ownership management, technology licensing and institutional Startup policy, thus enabling creation of a robust innovation and Start up ecosystem across all HEIs (Ministry's Innovation Cell, 2019).

### 3.2 Key Thrust Areas of NISP 2019

NISP has laid down a guiding framework for the Higher education Institutions and is now establishing the same at Preliminary educational institutions as well. It has identified a few key areas to focus upon to make Innovation friendly environment:

(a) **Strategies for Governance** : With the focus to create an easy and accessible atmosphere to foster innovation , the Entrepreneurial agenda should be led by the

responsibility of experienced Senior member who can think beyond Academics and focus on Industrial needs and above. The hierarchies to spur innovation culture should be reduced. The focus should be to adopt Entrepreneurial vision of the institution to be achieved through mission statements rather than the stringent control system. Further it emphasises on the Resource Mobilization development of Infrastructure for supporting Incubation, Pre-Incubation infrastructure and Facilities, Sustainable finances in order to reduce the organizational constraints for Entrepreneurial growth. It also suggests the investment of 1% of the total budget to be allocated towards supporting Innovation and Startups, moreover strategizing fundraising through Government bodies and Corporate Sectors under Corporate Social Responsibility.In short this emphasises on less stringent, easily accessible and quick outcome based strategies to be implemented by Institutions at minor level to achieve the major goal.

**(b) Norms for Faculties & Students** : For impactful coordination of the entrepreneurial culture, the norms for faculty to do startups should be developed by the institutions. The technologies originating from within the institute should be considered for Startups. The Role of faculty may vary from being an owner/ direct promoter, mentor, consultant or as on-board member of the startup.A policy on 'conflict of interests' should be developed to ensure that the usual responsibilities of a faculty focusing on Startups is not affected.The startups can be a collaborative effort of any be it of faculty members alone or with students or with faculty of other institutes or with alumni or with other entrepreneurs. In case the faculty/ staff holds the executive or managerial position for more than three months in a startup, they will go on sabbatical/ leave without pay/ utilize existing leave. There should be a clear distinction in the work done by faculty at a Startup or Institute, nowhere the two should be the same or dependent respecting the rights of the Institute as well as the Startup. It also promotes interdisciplinary collaborations for Business Exchange and Relationships. Human subject related research in startup should get clearance from ethics committee of the institution

**(c) Startups Enabling Infrastructure-Incubation & Pre-incubation Support :** It focuses on Incubation & Pre-incubation Support as per the guidelines of MHRD. The facilities to be operational 24*7. They also recommend the registration of 'Incubation cum Technology Commercialization Unit' as a separate entity. This will encourage hassle free working of the innovators and rather a greater accountability towards the investors.

**(d) Ownership Rights for Intellectual Property:** On development of IP at the institution's facilities, using substantial funds or a part of the project, academic activity or curriculum the IPR are jointly owned by the Institute and the investor. In case it is an independent creation without the resources of the Institution, the product/IPR will be jointly owned by the Investors and they have the sole right to decide to license the technology. In case of dispute in ownership, a committee consisting of minimum five members having substantial experience in IPR and commercialization,may be faculty, two alumni / Industry experts along with a ;legal advisor within the domain of IPR may examine the issue after hearing all the parties to provide a fair solution and settlement. The IPR Cell coordinator has no rights to interfere in the development of the IP. On filing of the IPR the institution can take independent decisions with formulation of a two member committee for examining the viability to file the same.Inter-disciplinary innovation should be promoted and experienced regulation bodies should be formed.

**(e) Pedagogy & Learning Interventions**: Greater focus on Outcome based education has been emphasised, which should include diversified and cross disciplinary approach learning through the labs, case studies, mentors, gaming etc.It clearly describes about the replacement of the traditional lecture based methods with the new methods of self learning, with the pedagogical changes to the maximum number of students projects and innovations based around real life opportunities, challenges and problem -solving, to inculcate the Entrepreneurial culture.

Diversified approach should be adopted to produce desirable learning outcomes, which should include cross-disciplinary learning

using mentors, labs, case studies, games, etc. in place of traditional lecture-based delivery. Entrepreneurship should be formally injected as a course be it for long term or short and reviewing the performance and learning outcomes is a must.

(f)**Entrepreneurial Performance & Impact Assessment:** All the strategies implemented and programmes initiated will reflect an Impact

assessment of the institute's entrepreneurial initiatives. The review should be key to adjudge the impact from all aspects be it social, financial, societal or sustainability. Commercial success is the only key to be able to achieve the Entrepreneurial agenda. Institutional Ranking programmes like ARIIA are to rank the institutions on their overall performance on Innovation.(Ministry's Innovation Cell, 2019)
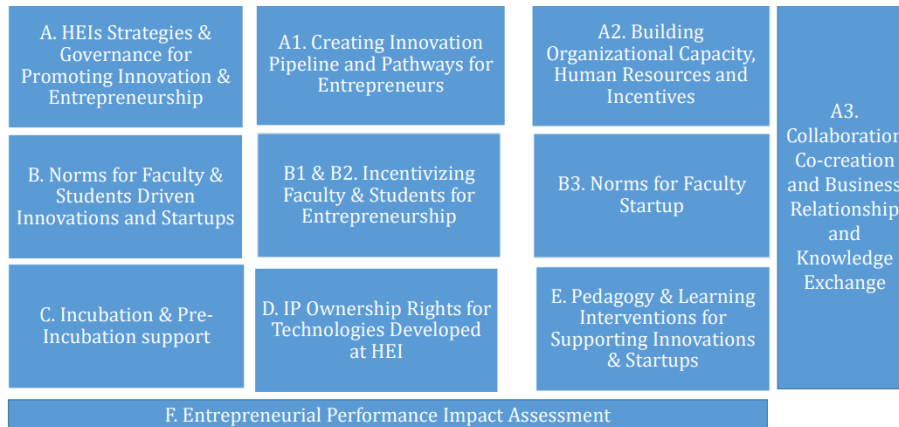


*Figure 2: Key thrust Areas of NISP (Ministry's Innovation Cell, 2019)*

### 4. Academic Institutes, Teachers, Startups and Economic Growth

#### 4.1 Impact of Startups

Impact of Startups on the Economic Growth of the country is very crucial to the country as it impacts the GDP in a positive way, well stated in the research by (Gor, 2020)

| VARIABLES OF INDIAN ECONOMY | CO-RELATION | RESULT | IMPACT |
|---|---|---|---|
| GDP AT CURRENT PRICE | 0.986089 | Positive co-relation | Positive |
| GNI AT CURRENT PRICE | 0.986173 | Positive co-relation | Positive |
| PER CAPITA GDP | 0.985636 | Positive co-relation | Positive |
| EXPORT | 0.995208 | Positive co-relation | Positive |
| IMPORT | 0.976658 | Positive co-relation | Negative |
| FOREIGN RESERVE | -0.14246 | Negative co-relation | Negative |
| BALANCE OF PAYMENT | -0.46784388 | Negative co-relation | Negative |

*Figure 3: Impact of Startups on Economic Growth (Gor, 2020)*

All the mentioned thresholds of NISP 2019 , focuses on creation of an environment which can be a convenient  hassle free pathway for the students to become Entrepreneurs, wherein there is a co-creation, collaboration, knowledge exchange between academics, businesses and the society at large. Greater emphasis needs to be there on Building the ecosystem by establishing a startup policy  for Economic growth at Government level to promote

Entrepreneurial activities and Innovation to be followed by the Institution pan country, in line with the Real time implementations of policies utilisation of opportunities and incentives announced by the government and corporates in the country and abroad.The role of Institutions in developing the Innovation Ecosystem is very crucial.

#### 4.2 Role of Institutions & Teachers

Viewing the rapid changes happening all over the globe in terms of technology, the education system needs serious reforms as well to aptly fit in the world of tomorrow.The education personal fulfillment and growth (Alvarado & Voy, 2006).

The role of academic institutions and teachers is crucial in peaceful acceptance of this change, which required Innovation at teachers as well as learners end.According to Anderson and Neri (2012), innovative teaching can involve virtual labs: learning activities based on real-life problems; learning environments with equipment, furnishings, materials, and audiovisual resources; and learning guides for students and the teacher. Innovative learning will involve self paced learning, easily accessible, beyond the classroom, holistic and sector and civil society recognize the need for quality education that can provide students with relevant knowledge, both to prepare them for entering the workforce as adults and for their problem-solving, outcome oriented.Innovation in education can spur, if the pedagogy adapted and curriculum developed is based on Design & Critical Thinking, making students develop an ability and attitude to learn to add value. The GOI's Ministry of Education has taken many initiatives to nurture the culture of Innovation in which NISP is the guiding framework, MIC-Ministry's Innovation Cell implements the same and Impact Assessment is done through Innovation Ranking, further the startups are pushed towards other schemes aligned by the GOI.

| Thrust Area | Role of Academic Institutions | Role of Teachers |
|---|---|---|
| **Strategies & Governance** | - Formulation of Policies & Entrepreneurial Agenda<br>- Defining Vision & Mission towards Innovation<br>- Assigning responsibility of the Entrepreneurial Agenda to senior designated employee like Dean, Director etc | - Implementation of Entrepreneurial Agenda<br>- Achieving Vision through Mission<br>- Promoting Entrepreneurial agenda through Conferences, Workshops etc at National & International level through Collaborations |
| **Resource Mobilization** | - Allocation of minimum 1% of the Annual Budget for the Infrastructure Development<br>- Development of 24*7 available Incubation & Pre Incubation Facilities<br>- Raise funds for development of Infrastructure through Govt. Bodies, Corporate, Sponsorships | - Supporting innovation and startups related activities to Utilize the resources<br>- Encouraging self and students for Incubation<br>- Product to market strategy for startups should be developed |
| **Nurturing Innovations and Startups** | - Establishing Processes and mechanisms for Startups from within & Outside<br>- Allow Licensing of IPR<br>- Allow semester/year break to students & Faculties involved in Startups<br>- Provide Accommodation in the campus to Student Entrepreneur for a period of time<br>- Take Equity between 2-9.5% depending upon the resources used<br>- Launch course on Entrepreneurship | - Encourage students for Startups<br>- Development of IPR<br>- Attendance Relaxation for students involved in Startups<br>- Design Courses aligned with Entrepreneurship |

| Product Ownership Rights | - Inventors and institute could together license the product / IPR | - Development of IPR |
|---|---|---|
| Organizational Capacity, Human Resources and Incentives | - Recruit staff that have a strong innovation and entrepreneurial/ industrial experience | - Work in coherence and cross-departmental linkages<br>- Faculty and staff should be encouraged to do courses on innovation, entrepreneurship management and venture development<br>- Encourage Alumni participation |
| Creating Innovation Pipeline and Pathways for Entrepreneurs at Institute Level | - Link their startups and companies with wider entrepreneurial ecosystem<br>- Establish Institution's Innovation Councils (IICs) as per the guidelines of MHRD's Innovation Cell<br>- Access to financing must be opened for the potential entrepreneurs. | - encourage to develop entrepreneurial mindset through experiential learning<br>- Participate in IIC Activities |
| Pedagogy and Learning Interventions | - Forming Innovation Clubs for Students<br>- Entrepreneurship education should be imparted to students at curricular/ co-curricular/ extracurricular level | - Customized teaching and training materials should be developed for startups |
| Norms for Faculty Startups | - Defining the norms for faculty startup | - separate and distinguish on-going research at the institute from the work conducted at the startup/ company<br>- Faculty must not accept gifts from the startup<br>- Faculty must not involve research staff or other staff of institute |

*Figure 4 : Role of Academic Institutes & Teachers*

## Conclusion

The National Innovation system can be built on the accumulation of the system of Political, Social, Financial and Environmental capabilities. The framework created on the Government Level should be implemented at the Institutional level to bridge the gap Academia and Industry, benefitting the Students and the Faculties.The National Innovation and Startup Policy has well suggested the strategies,policies, ownership and roles to be played by the Institutions and Teachers in creating an environment and culture for Innovation.

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# URBANISATION IN INDIA: CHALLENGES AND REFUSAL

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## ABSTRACT

*Indian economy, the fastest growing economy, is sharpening its focus on industrial development. It is the wave of industrialisation that intensifies the process of urbanisation. Currently, the majority of the world population is living in urban areas. However, India is among the least urbanised nation, and its definition of urban areas is very complex; it includes demographical and occupational composition and is mainly related to the development of the area. The attitude of policymakers about urbanisation is somehow changing. Now, urbanisation is considered a positive factor in the GDP growth of a nation. The present article aims to describe the problems and challenges of urban areas and share a perspective regarding 'why Indian villages are refusing urbanisation'. Urbanisation in India is linked with various serious problems such as overcrowding, unemployment, housing, traffic congestion, high crime rates etc. we have incorporated two examples, one from Gujarat and one from Andhra Pradesh, that shows how the Indian mob is showing discontent against urbanisation. Appropriate government must have proper planning for urban areas so that all urban development problems are appropriately managed.*

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***Keywords:*** *Urbanisation; rural-urban divide; Urban Problems; Industrialisation; occupational composition.*

## Introduction

Globalisation is playing a central role in the rapid development of economies of different nations and the movement of citizens, money, capital, product etc. The concept of globalisation is accompanied by another concept viz. Urbanisation. Urbanisation is an integral part of the overall process of development. Industrialisation and urbanisation go hand in hand. Industries help in the development of towns, same as agriculture foster villages. From the examples of many developing and developed countries, the relationship between urbanisation and economic growth is crucial; urbanisation in the nation determines the country's level of economic prosperity. "Many populations live in urban areas because cities, towns and other urban areas have facilitated the evolution of knowledge and have been the incubators of civilisation and the engines of growth (Singhsodhi, 2003)". The urban population in almost all nations are proliferating in the recent past. For the first time, most of the world's population lives in the urban parts of the world.

The fact that 'many problems accompany urbanisation due to poor planning can never be underestimated. The problems in the urban areas are vital and degrade the quality of human life. India, as one of the fastest-growing economies, is observing an excellent level of the urbanisation process. The focus of our nation is on economic development through the process of liberalisation, decentralisation, reforms in financial sectors etc. It brings a sharper focus on the economic role of the towns. The development of cities in India is filled with numerous problems, which will be dealt with later.

## What is Urbanisation?

The industrial revolution is the epicentre of the origin of urbanisation. It is the wave of the industrial revolution that intensified urbanisation in different parts of the world. The process of industrialisation includes expansion of infrastructure (both in terms of transportation and communication), rural to urban migration, increase in the non-agricultural works etc. in the words of Bhagat (2005), "The agglomeration of population, predominance of non-agricultural activities and better provision of social amenities including health and educational infrastructure emerged as distinguishing features of settlements following the industrialisation of agrarian economies". In the modern time, the settlements are becoming more and more complex. in terms of demography, the level of "urbanisation is measured in terms of percentage of the population living in urban areas (Davis, 1962)". The division of different areas into urban and rural is not easy. It is based on different criteria that include

population density, population size, occupational style etc. There are no clear cut rules regarding the division of different areas as urban or rural different criteria are used in different parts of the world for dividing rural and urban areas.

As per the recent census of 2011, the definition of urban areas comprises the following:

- "All places with a municipality, corporation, cantonment board or notified town area committee, etc.".
- "All other places which satisfied the following criteria: i) A minimum population of 5,000; ii) At least 75 per cent of the male main working population engaged in non-agricultural pursuits; and iii) A density of population of at least 400 persons per sq. km." (Census of India, 2011).

In addition to this definition, the state governments are entrusted with granting municipal status-municipal council, corporation, *Nagarpanchayat*, notified town area committee etc-to a settlement. These settlements are popularly known as municipal towns or statutory towns in the definition of urban areas. It may be noted that India's definition of urban areas is comprehensive. It is somewhere related to the level of development in the areas. After each census, some framework for the rural and urban divide is created with the above definitions. Many new towns are transferred from rural to urban list, and if some towns are failed to satisfy the definition, they are reverted to rural from urban. Thus, "the rural-urban classification used in India is a dynamic process, although there are some limitations to the definition (Bhagat 2005)".

## Challenges of Urbanisation

There are mainly two reasons for urbanisation in developing countries, i.e. the natural increase of population and rural to urban migration.In recent times, a change in the attitude of policymakers about urbanisation is observed. The 11th 5-year plan states that urbanisation should be seen as a positive factor in the nation's development. Urbanisation is essential in the sense that the urban sector contributes 62% of the GDP. According to Planning Commission (2008), a double-digit GDP rate can be achieved only through the vibrant urban sector.

As our nation is moving on the path of an increase in urban population through both methods (natural and immigration), we are finding new problems and challenges in the process of urbanisation. No doubt that the process of urbanisation is linked with the economic growth of our society, but it is also true that many problems come along with the process of urbanisation. For example, the process of urbanisation is accompanied by global warming worldwide, and it is leading toward climate change in different parts of the world, including India. The impact is visible on monsoon patterns, visibility, pollution level etc. Let us now discuss the attitude of Indians toward urbanisation through real examples.

## Leave us alone- Indian mob against urbanisation

We have encountered for the first time now that the urban population has more increase in the population than its rural counterparts. However, the current belief of enjoying urbanisation is misleading. There are many individuals and places that are not finding the process of urbanisation worthy. Cities in India are developing rapidly; these cities are expanding exponentially in population size, non-agricultural works, occupational composition, etc. This development is associated with the phenomenon of quiet villages. People living in the rural part of the nation are migrating toward urban in search of new opportunities, due to which we started to believe that villages want more urbanisation. However, the situation is not that simple. Villagers in different parts of the nation are against the idea of urbanisation, and they are finally saying that they do not want it. Villagers in the nation are fighting for saving their apartments from becoming condominiums.

There is evidence that state that India's villages are against urbanisation. They rebel against the concept of urbanisation. Policymakers think that agriculture can not generate enough employment and are focusing on the industries and other alternatives. In other words, the story of modern India is obvious: industrialisation.

To understand this point of 'against urbanisation', let us take the example of Gujarat. In the development of a city, many village areas have engulfed the process that transforms the entire green area into concrete roads, tall buildings, broad streets etc. It happened in the development of Ahmedabad. Today, those farmers who live in the city's fringes fear that this could happen to them at any time. Lalit, a villager from 15km far from Ahmedabad, says, "We are happy with our agriculture and do not want a large city in place of our homes, leave us alone". The state governmentis thinking of developing and expanding more and more cities by swallowing up village areas nearby. It has attracted several protests in village areas against urbanisation. Villagers protested against their inclusion into "urban development authorities".

The following example is from Andhra Pradesh; ever since the united state of Andhra Pradesh was divided into two parts, i.e. Telangana and Andhra Pradesh, there is much tension regarding the ownership of capital-Hyderabad. A resolution regarding making Amravati the new capital of Andhra has passed, and this plan receives support from the entire state and from the area earmarked for developing cities. The development of a new city requires enormous tracts of land to be acquired from landlords and farmers of the state. In the initial days, this land-pooling was easy; farmers were giving their lands willingly to develop the city. However, the situation changed, and many farmers are now reluctant to give away their lands to develop the city. A large gathering of farmers is on the streets to protest against the city's development (urban) in their land. According to the newspaper reports, "a large number of farmers took to the streets in the area earmarked to be the centre of the city, and discarded vegetables and other farm produce in bulk in front of the office of the Capital Region Development Authority, the agency in charge of constructing the capital". It is showing discontentamong locals in the villages. Making Amravati the capital of the state might attract economic investments in the state, but it is visible that local people living in the area are using their right to refuse urbanisation.

These two cases, one from Gujarat and another from Andhra Pradesh, are perfect examples that show rural discontent over urbanisation. There are other instances as well that show and intensify the trend of opposing urbanisation in India.

**Refusing Urbanisation**

India, one of the least urbanised countries globally, has around 27% of urban areas. Urbanisation is the instrument of economic, political and social progress, but our country faces a crisis of urban growth. It has led to many socio-economic problems. The sudden and rapid growth in urban areas through natural and artificial (migration) processes has put an extra burden on public facilities such as sanitation, transportation, education, health, water, housing etc. Thus, the desperate lack of infrastructure and unplanned urban growth are the leading causes of such a situation.

Underemployment, unemployment, poverty among immigrants from rural areas lead to thefts, dacoities, beggars, burglaries and other types of crimes. It is expected that more than half of the population of India will be living in urban areas by 2030; it becomes essential to understand the issues related to urbanisation. Let us discuss some of the main problems related to urbanisation in India. Urban cities are overcrowded-a situation in which many people live in small compartments. It is the result of over-population due to migration. It is certain that every city, as it urbanises, attract individuals. It is pretty natural to think about a large number of people that have to live in small spaces and have to suffer from the situation of overcrowding. For example, "Delhi has a population density of 9,340 persons per sq km which is the highest in India (Census 2001)". It is just the average; there must be various places where this is very high and putting extra pressure on the infrastructural facilities. The problem of overcrowding gives birth to another problem related to housing. People in the urban areas are living in tiny houses. "In larger cities, the proportion of families occupying one room or less was as high as 67 per cent (Roy Turner, 1962)". The cities are accommodating more and more people with no housing facilities available for them. According to the census of 2001, "For

about a third of urban Indian families, a house does not include a kitchen, a bathroom, a toilet and in many cases there is no power and water supply. Only 79 percent (42.6 million) urban households live in permanent (pucca) houses. The households own 67 per cent (36 million) of the urban houses while 29 per cent (15 million) are rented".

Urban cities act as a magnet and attract more and more people toward it in search of jobs and a prosperous lifestyle. Expansion of the city, in terms of population and geographical size, take place. The rapid growth in the cities becomes the root of every urban problem. The economic base of the city fails to provide infrastructural support and jobs to all the immigrants in the city. Delhi, Mumbai, Kolkata, Bangalore, Chandigarh, Chennai etc., are examples of such urban sprawl (expansion). The problem of unemployment is serious. Urban unemployment is very high, and the proportion is even higher for educated people. Urban incomes look more attractive than rural income, but the cost of living in cities makes this income comparatively lower. The root cause of this alarming unemployment rate in urban areas is large scale migration from rural areas to urban areas. The development of economic activities in the city is unable to keep pace with the quantum of immigration. Currently, cities are unable to create enough job opportunities for all. Other problems in urban areas are related to traffic congestion due to excessive growth of people on the small size of roads and highways and water scarcity- because the supply of waterfalls down due to an increase in the demand as the city size expands.

Furthermore, urban areas in India are plagued with inadequate sewage facilities. There is two major cause of this problem first is unauthorised growth in the cities and second is resource crunch faced by municipalities. It is estimated that only 35% of the urban population has access to the sewage system. Most old sewerage lines are not appropriately maintained; generally, their lines are broken down, and sewerages are overflowing. Another problem in urban cities is trash disposal. Most cities in India do not have appropriate garbage disposal arrangements, and existing landfill sites are already full. Waste management in the cities is the biggest problem in the urban areas, and the appropriate government has to make specific guidelines and take action for tackling this serious problem.

The most serious problem related to urban cities is urban crimes. Due to this, the people of India are refusing urbanisation. In the cities, there is a high level of cultural interaction- both positive and negative. There can be clashes and unity among different groups living in tiny houses, narrow streets with no employment or source of earning. The rate of urban crimes has increased drastically, especially for women and children, disturbing the peace and tranquillity of the cities.

## Conclusion

For the first time, most of the world population is living in urban areas compared to rural areas. On the world level, the definition of rural and urban areas is poorly defined, and it causes much confusion about the difference between these two. India's definition of the urban area comprises many clauses (demographical and working population composition); it is related to development in the areas. Urbanisation is linked with economic prosperity and is also a root cause of many problems. Urban areas are facing a crisis in their overall growth. Urbanisation is related to many socio-economic problems. Urban cities are overcrowded and thus putting an extra burden on infrastructural facilities. The problem of overcrowding gives birth to other problems such as housing, unemployment, traffic congestion and poor lifestyles. Crime rates against women and children are also high in urban areas.

India mob is against urbanisation due to the above-stated problems. Villagers in the nation are fighting for saving their villages from becoming poor urban apartments. Due to the increase in the demand for urbanisation in various parts of the world, Indian policymakers are planning for expanding more and more urban cities by accommodating nearby green areas. However, it is causing various protests in the village. They are protesting against their inclusion into "urban development authorities". People of rural India feel discontent with urbanisation. They refuse to accept it. The government needs to make rural people aware

and focus on developing urban areas with a sustainable development attitude. All problems of urban areas can be managed through proper planning of urban development.

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# MULTIDIMENSIONAL VIEW ON THE CONCEPT OF SILENCE IN REFERENCE TO SHASHI DESHPANDE'S "THAT LONG SILENCE"

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## ABSTRACT

*The main objective of the study is to deal with the concept of silence adopted by the women characters in Shashi Deshpande's widely popular novel "That Long Silence". The detail analysis of the concept of silence is presented in this paper which signifies the critical condition of women who despite their honest disposal of all responsibilities and duties got an unhearing response from their male counterparts. This manuscript clearly describes the deafness of the patriarchal social order towards women. All the female characters developed a kind of inner silence for making their family life smooth and peaceful. It also describes how the protagonist Jaya in regret to loss her independent identity tries to find out a way to get out of her long silence that she had to go through throughout her marital life. At last she realized her own flaws and decided to erase her long silence which in turn changed her as a confident and independent being. Jaya is ready with her answer after a lot of introspection that she will dedicate her entire life for her family but not ready to surrender her inner self.*

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## Introduction

'Silence' is a widespread theme and a notable concept in Literature that attracts many readers. It can also be a means of communication. "Not all silences sound same. The expression of silence reveals different meanings to different persons on different situations. Silence arising in the midst of a conversation can sometimes be comfortable and meaningful, whereas in other situations they remain as an obstacle between the communicators." (Subashini, B. and Krishnamoorthy, R., 2015).

Especially silence of women may express agreement without any objection, fear, pain, suffering, endurance or a means of protest but the mode of breaking the silence is important on the part of women. If the partner is unable to read the silence it is very unfortunate and the other one has to reconcile. But according to Shakespeare "Silence is the perfect herald of joy" in Much Ado about Nothing. (Shakespeare, W.) Many women writers put their best effort in giving vent to the long silence and aloofness of women which at last turned them into an insignificant being. Deep psychological study of their characters isexposed. They tried to highlight the unreal over-romantic instances or finally surrender to the excitement of giving voice to the feminist ideology. Mary Astell said: "Her great contribution to feminism was the way she urged women to take themselves seriously, to

trust in their own judgement, to make their own choices in life by developing and educating themselves." (Wang, Y. (2015))

In the novels of Shashi Despande, Silence is the theme which can easily be felt by the readers while exploring her writings. The effort of getting out of the deep silence by her protagonists in different ways was finally paved way to get a special attention by others. So far as women's work, speech, acts and aspirations are concerned the male society show a deaf attitude. It refused to understand the language of women she is trying to express through several means. The title of the novel "That Long Silence" signifies the critical condition of women who despite their honest disposal of all responsibilities and duties, got an unhearing response from their male counterparts. The novel in other words criticizes the deafness of the patriarchal social order towards women and ignores every aspect to give them any kind of importance in the society. The silence and silencing of the women is the main focus of the whole narrative. The novelist finally placed the burden of breaking of silence upon its female protagonist and gives a clear message that women can only compete with men only if they learn men's language. Shashi Deshpande is excellent in depicting the condition of women with their chaossituation and the weapon of silence that is tied up in their minds. This

whole novel is just a representation of that expression which will ultimately break their long silence.

Shashi Deshpande has assertively exhibited the plight of the girl-child who has to endure the trauma of gender-discrimination and social conditioning and is made to feel inferior to the progeny since her childhood. (Barnes, A., 2011)

## Objectives

- To study thesilence and silencing of the women in the society.
- To study the frustrations and disappointments faced by women because of male oppression.

## Methodology

The main strength of this study lies in its ability to examine the concept of silence adopted by many women in the society due to male dominance. The details are collected through various journals, books and publications.

## Silence as a Weapon

Shashi Deshpande has presented a deserted life where silence is the only option,no freedom of expression and the lack of communication is the major issue. The harmony within a family is only possible because of the silence of women maintained throughout their life in that family.

Though her protagonists are intelligent and career orientated Shashi Despande openly expressed the frustrations and disappointments faced by them because of male oppression. So at last they have to take the shelter of silence.

That Long Silence is the story of manywomen characters who takes the shelter of silence because they are unable to prove themselves as individuals. She tried to present an exceptional character of a woman who is desperately wishing to get out of a long silence since her childhood and engrossing her throughout her life. It is the life of Jaya who in search of her true self ready to face the traditional norms of male domination.

Jaya being educated was leading a life without any purpose, only contributing positively to her each and every role. She is an object of deep sympathy. A woman with graduation in English, a creative writer and a columnist doesn't get the right place for her such attributes. Her husband brought up in a typical traditional environment perceived his wife as Sita and Savitri. All her family members are leading their lives as per their wish but she neither express herself nor achieve anything. So she takes the shelter of silence. Others are silent towards her, no one take care of her expectations and happiness. This novel reflects how silence strengthens men and weakens women.It is true that in Jaya's silence any Indian woman may find her own silence.

With great zeal her father christened her "Jaya" means Victory and taught by him that she can win over anyone. But the sudden death of her father changed her perception towards life. She says: "It's not just that he died . . . it's what he . . . he gave me a wrong idea of myself, of . . . my whole life changed . . . he was." (TLS 154)

Her mother's discriminating attitude towards her and her brother's behavior marks Jaya's defeat to express herself that ultimate leads to inculcate the feeling of silence within her so she is not bold enough to face the challenges of life. In some way her mother is responsible for her initial adoption of silence in her life.

Her marriage was fixed as per the choice of Mohan, her husband, she was not asked of her agreement in the negotiation. Being silent her opinion is not taken into consideration. On the day of wedding her name was changed from Jaya to "Suhasini". Two contrary characteristics is expressed here Jaya that symbolizeswinning and Suhasini that signifies very delicate. Again Jaya is at the verge of remaining in silence without raising her voice. She adopted the strategy that silence and surrender should be the main trait of an Indian woman. The tips given by Vanitamami for an obedient life partner became the base of Jaya's silence in her married life. Like an obedient one she accepted Mohan as a sheltering tree and satisfied with her role as Sita and even she compare herself with Gandhari to accept everything blindly. Silence becomes a symbol of patience and endurance. Her Ajji taught her to wait, the waiting game.

"Wait until you get married, wait until your husband comes, wait untilyou go to your in law's home, wait until you have kids. Yes, ever

since I got married, I had done nothing but wait" (TLS 30).

Waiting is synonym for silence that means to shut your mouth and wait for the happenings of your life. Subsequently after her marriage a severe quarrel occurred when she said Mohan to cook through this she got a lesson that woman should not get angry and it's futile to show angriness on the part of a woman.  To Mohan "anger makes a woman unwomanly". In a fear to endangered her married life she decided to tolerate everything and to remain in silence without showing any sign of anger throughout her life.  She understands that, "I knew his mood was best met with silence." (TLS 78).

Jaya's life with a feeling of isolation and underestimated emotions are thoroughly analyzed in the novel as Adele King says: ´´ Jaya finds her normal routine so disrupted that for the first time she can look at her life and attempt to decide who she really is".(Uniyal, B. C. 2016)

Jaya is very particular in maintaining a balance between husband and wife. The novel That Long silence is Deshpande's one of the finest novelsas it analyses every situation and presents a more delicate picture of an extended family.

The women must make adjustments in their lives. They must grapple with problems involving the challenges of accommodating the needs of their selves to the needs of their families and communities. The women must learn to discover the nature of their personal freedom.**(**Alam, F. and Singh N., 2019)

Jaya thought: First there's love, then there's sex - that was how I had always imagined it to be. But after living with Mohan I had realized that it could so easily be the other way round."(TLS 95) But when she finds nothing what she thinks, then she too developed the attitude that "she too could sleep with him, without desire."(TLS 97).

These situations exhibither disappointments. Jaya is not even in a condition to speak it to Mohan that she likes watching advertisements which are flashed on the screen of theaters. In view of Mohan no one is interested to watch those advertisements so they need not to be hurried. He imposed his own choice on Jaya without giving importance to her likes. With

this Jaya has to compromise and remain silent. As a failure to express her day to day likes and dislikes, frustration engulfs her and her life progressed with same mind set. The very first line of the novel gives a furriest picture of Jaya when she remarked about relationship and attachment.

"To achieve anything, to become anything, you've got to be hard and ruthless. Yes, even if you want to be saint, if you want to love- the whole world, you've got to stop loving individual human beings first. And if they love-you- and they bleed them, not specially, well, so muchthe worse for them! There's just no other way of being a saint or a painter or a writer" (TLS1).

This presents a clear picture on her views on life. Not only Jaya almost all the women characters were the sufferersbecause of lack of freedom of expression and they had chosen to go for silence. Even Mohan's mother, his sister Vimala, Jeeja, Mukta, Vanitamami all suffer in silence without any courage to speak from their heart. The sense and pride of being a woman is not experienced by these characters because they are surrounded by man's world around them. The whole thought process of women is regulated by men only. Jaya completely changed herself by setting herself within the boundaries of a woman. She went on fulfilling the desires of her family members. But she felt desperate, being a convent educated girl having her own dreams, wanted nothing but love and care but in return she got only shattered existence. She hardly utters any word before others.

She thinks: I've done everything you wanted me to" (TLS-120)

Deshpande uses a very suitablerepresentation of "a crawling worm into the hole", to show the critical situation of Jaya. This defines the compulsion of women to resist everything and to silently compromise with their existing situation. Generally women are expected to be silent always. If they try to raise voice against this they are blamed as un-natural and unfeminine. Woman is often considered as a non entity and is subjected to the life of powerlessness leading to the re-critiquing of self. (Prasanthi, S.S. 2012) So she is imprisoned in the invisible fences of familial and social codes. Even if she tries to break this

bondage she fails to do so because they have to reside in within the society. Mohan always want Jaya to be silence and obey everything like his mother. But the irony is when Jaya accepted hersilence; he is not ready to accept such behaviour of Jaya.

The concept of silence adopted in the novel is an indication that such is not only meant for Jaya but also for others. Silence is a weapon used by others as a mark of protest and anapproach for their existence. For example –

"As we were silent' (TLS 19); So many subjects were barred that the silence seemed heavy with uneasiness (TLS 27); we went back to our silence (TLS 28); But the words remained unsaid. I knew his mood was best met with silence (TLS 78); But I said nothing. It was so much simpler to say nothing. So much less complicated" (TLS 99); But as if I had been struck dumb, I could say nothing" (TLS 121).

Mohan's mother silently accepted the torture of her husband and regarded it as her duty. Getting severe scolding and harsh words is in her fate. But remarkably Mohan called her a virtuous woman. She is a role model for him on the basis of which he is sure about the definition of women. Vimala his sister, a victim of ovarian tumor too dies of silence and can't share it to her mother-in-law also. Even if Vimala would have tried to protest, it would be of no use, which could be easily seen by her mother-in-law's reaction towards her ill health. Her family fails to give due attention to her problem rather criticizes her. At last unable to get sympathy from them she dies in silence. Jaya's condition is same like Mohan's mother and sister, as they alsoface serious mental torture without saying any word and reconciled with the situation without any protest.

Jaya remarks "Yet I can see something in common in between them, something that links the destinies of the two - the silence in which they died". (TLS 39)

"Females have accepted it as a norm of the society to obey man. The element of power can be encountered in the language of both genders. Males allow female to talk only when the language, time and location is suitable and according to the wish of males they regard it illogical. Females are left with no other option

than to alter their speech or remain silent to be on safe side."(Mahrukh. S., 2017)

The life in the small old Dadar flat exhibits the monotonousdaily routine as a result she is unable to express herself, feels separated and goes on deep consideration of her old days and her childhood.The role of Kamat- Jaya's neighbor in Dadar flat in this regard is very precious because of him Jaya gets an opportunity to vent out her feelings and thoughts. The long silence under Mohan shatters with the presence of Kamat. Breaking of silence by Jaya and introspection on her life is only possible because of Kamat. The unfavorable atmosphere of her married life gets a suitable ambience with Kamat. But the sudden death of Kamat again put her into deep silence. Her frustration is clearly visible in the following:

It is "only treachery, only deceit, only betrayal"(TLS-55)

The repeated use of the word "silence" gives a negative idea but isreally sarcastic, for the story is about silence being broken and not kept. Bynarrating the horrible experiences of the past, Jaya have broken a silence continued from the previous seventeen years of marriage. The silence is not Jaya's alone but of all Indian women of the past, present and possibly the probable future. The word 'silence' has been used again and again in a variety of contexts and with different persons, but always with reference to suffering.

After giving justice to her multifaceted roles for seventeen years, she is feeling deserted. Jaya's loneliness is highlighted which displays the miserable human condition. Moreover, in her every attempt Jaya fails to prove her talent. The writing career of Jaya is also smashed by Mohan as he objected to the theme of story. So silently she has to step back from her talent as a writer. There is deep dilemma in her mind the writer in her demands her to share her views and experiences before the society but the housewife demands silence on her part. To Mohan, Jaya as a writer is only a status symbol. But she started writing again trying to vent out her feelings under the pen name "Seeta." The pen name chosen by Jaya itself speaks that she accepted to mould herself to the traditional role of a good wife. Her stories based on women

and to satisfy Mohan's male ego she restricted her self-expression and self representation.

She thinks: Looking at his stricken face, I had been convinced I had done him wrong. And I had stopped writing after that."(TLS 144)

Jaya decided to stop writing but a feeling of failure haunted herand she felt that she was left with nothing. There was no option left for her rather than remaining in solitude and silence. During an inquiry against Mohan, he expected Jaya to support him. But, Jaya says: "I had said nothing. Perhaps mistaking my silence"(TLS 10)

To regain her position in the family in particular and the society in general, Jaya need to break her silence and go for writing. When something new can be made many things break. Same is the case of Jaya. A new Jaya emerges only when she started introspecting herself in search of her real self. This novel is a journey of Jaya towards defining her own self which appears to be lost somewhere in her marital life. She can't dissociate herself from her past and by this her present is also get affected. Only by remaining silent one can't surpass the problems of her life. Her outburst is loudly expressed while alone in Dadar Flat.

"The excuses of Mohan regarding the allegation of corruption of money in office that he had done it for Jaya and children, Jaya bursts into laughter by shouting Cheating, cheating" (TLS 121) .

The ruthless statement of Jaya startled Mohan and was shocked at her behavior. He left her alone without any words followed again by deep silence.

"There was utter silence after which she realizes, He's gone" (TLS 123)

Mohan accused her not to be in support of him at the difficult situation, Jaya's satirical laugh only exhibits her frustrations and inner hurting. She only realized the situation when Mohan walked out without showing any response. But she not bothered to stop him though feeling guilty for her action.

When she realized she is all alone. The feeling of remaining alone quivered her senses. Mohan's corrupt practices turn as a blessing for Jaya when she gets an opportunity to break her long silence which had dominated her for long seventeen years of married life. When she is alone as her children were on a tour with their

friends, it offers her a space for self-introspection. Her stay at Dadar flat made her realize her own flaws and the disappearance of Mohan matters a lot to her. She decided to erase her long silence which in turn changed her as a confident and independent being.

I'm Mohan's wife. I had thought, and cut off the bits of me that had refused to be Mohan's wife. Now I know that kind of a fragmentation is not possible," (TLS191)

After a lot of introspection Jaya decided to clear all misunderstandings with Mohan, and very practically decided to accept the situation as it is. One can't deny her responsibilities for her own sake. She finds a new dimension for liberation of her own self.

Jaya has given a reference of using Prakrit language in Sanskrit drama. She has been badly affected by the silence imposed on her. During her introspection she deeply realized that it is not silence but a different language imposed on her. To retain her life into normal state she has to erase her silence and to accept everything. She feels a new being in her. When she realized that her life is at mess and left with no option she decides:

"But it is no longer possible for me. If I have to plug that 'hole in the heart' I will have to speak, to listen, I will have to erase the silence between us" (TLS 192) "Yethichassitathakuru" (TLS 192)

Once she had seen this phrase in her Appa's diary. She was curious to know its meaning. She asked Ramukkaka and he made her understood that means "Do as you desire" by Lord Krishna in Bhagwad Gita. At that time she failed to get the real sense of the phrase and questioned on guru who give freedom to his disciple. But at this phase of her life she gets the true meaning that is: "Godhas provided us knowledge it's up to us how we can make the right choice so that our life can be stable without any disturbance." At this she holds herself responsible for creating such a mess in her life which allows her to maintain a reciprocal relationship with Mohan. Mohan's telegram with the message 'All is well' gives her relaxation of mind. She prefers to remain silent again but wanted to lead a free life.

Various studies has been done about the predicament of women in a traditional Indian set up, opening up an influential argument in

favour of women's moral voice against certain codes of conduct assigned to them by the society which tended to maintain patriarchal dominance against them.(Baruah, D. J. 2017)

Kamat's observation on Jaya is correct which is also realized by Jaya. She at last decided to deal with every situation boldly and not try to avoid it. She understood clearly that accepting things can change her situation. The novelist clearly expressed:

In an interview, in reply to Geetha Gangadharan's question "Among your books, which do you think is the best? Shashi Deshpande replied, "That Long Silence is more meaningful and deals with a much larger issue, the long silence of women". (TLS 251)

In her view they don't speak much but we have an ample opportunity to read their inner beings. Despande has a rare vitality of language to make her portraits striking as well as convincing.(Gangadharan,G. 1998).

At last Jaya decided to leave everythingand to maintain a peaceful lifewith Mohan. Instead of using her feminine power she understood that living in a family not always demand a constrained life. She is ready to dedicate herself for her family. The expression that "two bullocks yoked together" is now better understood by her, that they both are indispensibleand need to move with each other. That Long Silence, provides a better message that women should fight for their rights,try to express their feelings freely and not to get satisfied with material comforts and to tolerate everything for family and husband. The theme of That Long Silence revolves around the genderdiscrimination with the only option of remaining silent and tolerate to which a woman is forced to adopt in our society.

"In this day and age when a lot of women lose their lives in the hands of their husbands women and indeed society at large should arise against this great injustice because at creation God made the woman a help suitable for the man and not a slave." (Ifechelobi, 2014)

Apart from this Deshpande is trying to give a clear message through Jaya that women are themselves responsible for their suppression. They deserve liberation in any sphere of life. The norms of society are not only meant for woman folk but also the male counterparts. At the cost of dominating someone's identity

society cannot flourish. Both male and female should have equal share in the up gradation of life and society. We can't blame Mohan totally responsible for the long silence of Jaya. It is his upbringing that sets his mentality. Remaining silent is not the solution to every problem. It is only a medium of protest for Jaya to express her dissatisfaction of life. The suicide of Kusum's is not an expression of liberation, but a violent message that a woman can throw at our patriarchal society. Though being curious to question on every oddity before marriage Jaya finds herself contented with the art of remaining silent which vividly signifies the strength of women in every circumstances. In an anticipation of a secured future she decided to remain silent. The last sentence of the novel very clearly shows that the base of human happiness lies in taking both the contrary situations and maintains the delicate balance between them. Shashi Deshpande is successful in transforming Jaya's mute suffering into revolting thinking to get her individual identity. When Jaya is in a position to find a way out of emotional imbalance, she noted everything she had done all through her marital life.

In the novel under study, Shashi Deshpande defines a new meaning of silence. As she puts it: "You learn a lot of tricks to get by in a relationship. Silence is one of them. . . . You never find a woman criticizing her husband, even playfully, in case it might damage the relationship." In charting the course of such unconventional women, Deshpande seems to make an obvious plea that traditional society must re- mould itself in order to accept these emerging new women. (Kazhungil, 2012)

All these stories lay emphasis on the gender-inequality and injustice as the central theme of That Long Silence. SarlaPalkarremarks that these are the "Victims of patriarchy and also of their own silence". (Deshpande, S.) undeniably; Deshpande presents therestraint on women and need of self realization. She portrays the inner turmoil of the women very intensely. The wife can't always restrict and confines women's growth and development, more importantly the role of a mother holds special reference; it is the revolt against those predetermined and preset of role of a woman that Jaya expressed in the novel.

## Conclusion

When it is out of control for any human being and the power of toleration reaches its optimum level, the only way to exist in this world is to act to get a desired free life. Such is the case of Jaya. Everyone has to deal with his or her own problems. She also decides to "plug that hole" by finding a mid-way to settle her life with Mohan. She firmly decided to take writing and start a new life with Mohan.Her future path is only possible because of her deep introspection on life.

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# IMPACT OF PHYSICAL EDUCATION CURRICULUM ON CARDIOVASCULAR ENDURANCE OF HIGHER SECONDARY SCHOOL STUDENTS

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## ABSTRACT

*Aim of the present investigation was to find out the impact of Physical Education curriculum on cardiovascular endurance of the students. For that purpose total N=180 boy's, between 17-19 years, were randomly chosen from the West Bengal Council of Higher Secondary Education (WBCHSE) and Central Board of Secondary Education (CBSE) with 60 students each having Physical Education as an elective subject and assigned as Experimental Group-I (EG-I) from WBCHSE and Experimental Group-II (EG-II) from CBSE. Again, 60 students without physical education subject combination were selected equally (30+30) from the two boards (WBCHSE & CBSE) and assigned as control group (CG). The experimental groups underwent through one year physical education curriculum but the control group didn't involve in any physical education curriculum. Cardiovascular endurance as only dependent variable was measured by 600m run/walk (min) test at baseline and post treatment condition. ANCOVA followed by Tukey's LSD test was performed as necessary inferential statistics. Level of significance was p<0.05. Cardiovascular endurance of the students of two Experimental Groups viz. WBCHSE Physical Education curriculum and CBSE Physical Education curriculum were improved significantly with comparison to control group. Physical Education classes are beneficial for developing cardiovascular endurance.*

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*Keywords: Physical Education curriculum, cardiovascular endurance*

## Introduction

Physical Education is the medium through which one can literate in physical, mental, spiritual, social and emotional aspect of a human being. Through this medium one can achieve the entire goal of life at a time. Inactivity may cause of ill health which leads to irregularity in school attendance and active participation works vice versa. The scientific bases of Physical Education give the scientific knowledge about of physical activity and reduce the chances of injury. School Physical Education plays an important role in overall development of children.

The curriculum represents a set of designed goals or values that are activated through a development process and cumulate in successful learning experiences for students (wiles & Bondi, 2007). Educational curriculum is important, and one of the different dimension of curriculum, which satisfy our educational criteria, and perhaps more importantly, those which do not (Wiles, 2008). Physical fitness is the organic capacity of the individual to perform the normal task of daily living without undue tiredness or fatigue, having reserve of strength and energy available to meet satisfactorily and emergencies and demands suddenly placed upon him (Nixon). Physical fitness is very much related with physiological efficiency of human body. Physical fitness is required for every individual. Physical fitness can be further divided into two types i.e. health related physical fitness and performance related physical fitness. Player, students and office goers for all, health related physical fitness is important. Health related physical is the fitness which is related to our daily life style activity. The components of health related physical fitness are i) cardiovascular endurance, ii) flexibility, iii) muscular strength, iv) muscular endurance and v) body composition. Here for the purpose of the only cardiovascular endurance was selected as variable.

Cardiovascular fitness is the ability of the heart and the lung to supply oxygen rich blood to the working muscle tissues; and the ability of the muscle to use that oxygen to produce energy for movement (Dey, 2020). Physical fitness is way through which we can get a health life and Physical Education take care of the development of the physical fitness components. Physical Education and sports are useful to all people, not just those whose professions involve the use of great physical strength or significant mental efforts. In modern conditions, the person's physical activity decreases, which decreases body's

fitness level and reduces mental and physical working capacity and body's resistance to diseases (Polyakov, 2020). Thus, researcher set the purpose of the study as the impact of physical education curriculum on cardiovascular endurance of higher secondary school students.

## Methods and Materials

For satisfying the purpose total N=180 boy's, between 17-19 years, were randomly chosen from the *West Bengal Council of Higher Secondary Education* (WBCHSE) and *Central Board of Secondary Education* (CBSE) with 60 students each having Physical Education as an elective subject and assigned as Experimental Group-I (EG-I) from WBCHSE and Experimental Group-II (EG-II) from CBSE. Again, 60 students without physical education subject combination were selected equally (30+30) from the two boards (WBCHSE & CBSE) and assigned as control group (CG). For the purpose of the study subject were selected from Ghoshpara Saraaswati Trust Estate vidyapith, Ramnagar Milanbagan Sikshaniketan, BhatatiaVidyaBhavan and Chakdah Model School of West Bengal. The experimental groups underwent through one year physical education curriculum but the control group didn't involve in any physical education curriculum. Cardiovascular endurance as only dependent variable was measured by 600m run/walk (min) test at baseline and post treatment conditions. Mean & SD of each groups were calculated as descriptive statistics. ANCOVA followed by Tukey's LSD test was performed as necessary inferential statistics. Level of significance was p<0.05. For statistical calculations Excel Spread Sheet of windows version 10 was used. Experiment protocol is given below in **Table-1**.

### Table-1
### Time Table of Experimentation

| Sl. No | Physical Education curriculum | | | | |
|---|---|---|---|---|---|
| Name of the Board | **WBCHSE** | | **CBSE** | | |
| Type of class | Theory | Practical | Theory | Practical | Duration of the experimentation **11 MONTHS** |
| Marks | 40 | 60 | 70 | 30 | |
| Weekly classes | 3 | 2 | 3 | 2 | |
| Time | 40m/class | 40m/class | 40m/class | 40m/class | |

## EXPERIMENTAL GROUP DESIGN:

### Table no. 2: Group design

| Group Name | Type | Number |
|---|---|---|
| Experimental group –I (EG-I) | WBCHSE Board Physical Education student | 60 |
| Experimental group –II (EG-II) | CBSE Board Physical Education students | 60 |
| Control Group (CG) | WBCHSE+CBSE non Physical Education students | 30+30 |
| | Total = | 180 |

## Result

The statistical analysis by Analysis of covariance technique (ANCOVA) to compare the pre (baseline) and post test (post treatment) means for cardiovascular endurance assessed through 600m run/walk test due to varied Physical Education curriculum i.e. WBCHSE and CBSE on EG-I and EG-II with respect to the CG of Physical Education and non-Physical Education students presented in **Table-3.**

### Table-3
### Analysis of Covariance (ANCOVA) on Cardiovascular Endurance (min)

| Name of the Variables | Test | | Exp Group-I | Exp Group-II | Control Group | Source of variance | Sum of squares | df | Mean squares | 'F' Ratio |
|---|---|---|---|---|---|---|---|---|---|---|
| **Cardio Vascular Endurance (min)** | **Baseline** | **Mean ± SD** | 3.06 ± 0.91 | 3.28 ± 0.80 | 3.33 ± 0.73 | Between | 2.46 | 2 | 1.23 | 1.835 |
| | | | | | | Within | 118 | 177 | 0.67 | |
| | **Post Treatment** | **Mean ± SD** | 2.82 ± 0.83 | 3.12 ± 0.66 | 3.60 ± 0.87 | Between | 18.75 | 2 | 9.38 | **14.868\*** |
| | | | | | | Within | 111.62 | 177 | 0.63 | |

| | | | | | Between | 12.28 | 2 | 6.14 | **15.103*** |
|---|---|---|---|---|---|---|---|---|---|
| **Adjusted post test** | **Mean** | 2.91 | 3.09 | 3.54 | Within | 71.55 | 176 | 0.41 | |

*\* Significant 0.05 level of confidence. (The table values required for significance at 0.05 level of confidence with df (2, 177) = 3.05 and df (2,176) = 3.05 respectively).*

**Table-3** shows that the baseline Mean ± SD, post-test mean ± SD and adjusted post-test mean of Cardiovascular Endurance performance of EG-I, EG-II and CG and computation of ANCOVA of Cardiovascular Endurance performance of those three groups. The Baseline Mean value of Cardiovascular Endurance for EG-I, EG-II and CG were 3.06, 3.28 and 3.33 respectively. The Post Test Mean value of Cardiovascular Endurance for EG-I, EG-II and CG were 2.82, 3.12 and 3.60 respectively. The Adjusted Post Test Mean value of Cardiovascular Endurance for EG-I, EG-II and CG were 2.91, 3.09 and 3.54 respectively which have been presented graphically in **Fig-1.**



Fig- 1 Mean Values of Cardiovascular Endurance Baseline, Post Test & Adjusted Post Test of Difference Groups
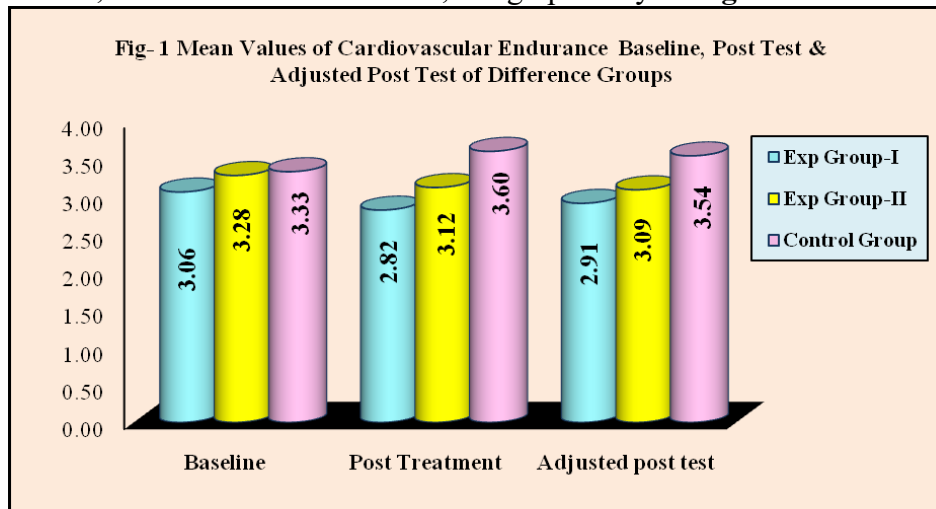
From **Table-3** it was also found that the baselines F-value of Cardiovascular Endurance among the three groups were 1.835 which was lower than the required table value 3.05 for significance with df (2,177) at 0.05 level. It indicated that EG-I, EG-II and CG were exactly equated at baseline.

From **Table-3** it was also found that the post-treatment F-value of Cardiovascular Endurance among the three groups were 14.868 which was higher than the required table value 3.05 for significance with df (2,177) at 0.05 level. It indicated that there was a significant difference among EG-I, EG-II and CG in post-treatment condition.

From **Table-3** it was also found that the adjusted post-test F-value of Cardiovascular Endurance among the three groups were 15.103 which was higher than the required table value 3.05 for significance with df (2,177) at 0.05 level. It indicated that there was a significant difference among EG-I, EG-II and CG in adjusted post-test condition.

**Table-4**
**Tukey's LSD Post-hoc Test on Cardiovascular Endurance for Adjusted Post Test Mean Score**

| Adjusted Post Test Mean Scores | | | | Required confidence interval |
|---|---|---|---|---|
| Exp Group- I (WBCHSE) | **Exp Group-II (CBSE)** | **Control Group** | **Mean Difference** | |
| 2.91 | 3.09 | | 0.183 | 0.229 |
| 2.91 | | 3.54 | **0.627*** | 0.229 |
| | 3.09 | 3.54 | **0.444*** | 0.229 |

**Table-4** represents Tukey's LSD test on Cardiovascular Endurance for Adjusted Post Test Mean Score. It was found that the EG-I and EG-II while compared with the CG the mean differences were 0.627 and 0.444 respectively which were found greater than the required confidence interval (CI) value 0.229 and hence it was significant at 0.05 level with df (177). It clearly indicated that the Cardiovascular Endurance of all the two

experimental groups was improved significantly in comparison with the CG. Now the researcher was interested to test the value of mean differences within the two experimental groups to find out which group significantly differed with whom to identify the most effective curriculum means for improving Cardiovascular Endurance among EG-I and EG-II implemented for eleven months on the experimental groups. To do so, in the following paragraph it was presented and tested.

It was found from Tukey's LSD test on Cardiovascular Endurance for Adjusted Post Test Mean Score between EG-I and EG-II, the mean differences was 0.183 which was found less than the required confidence interval (CI) value 0.229 at 0.05 level of significance at df

(177). It indicated that there was no significant difference between these two groups. It confirmed that both EG-I and EG-II has identical effect for developing Cardiovascular Endurance.

**In Cardiovascular Endurance following results were obtained:**

- Cardiovascular Endurance of the students of two Experimental Groups (EGs) was improved significantly in comparison with the Control Group.
- Both physical education curriculum in WBCHSE & CBSE had identical effect for developing Cardiovascular Endurance of the students.

## Discussion on Findings

The result of the study on cardiovascular endurance as summarized above indicated that two experimental groups namely EG-I & EG-II brought about significant improvement in comparison with the control group after attending eleven months Physical Education program. From Tukey's LSD test it was also observed that there was no significant mean difference between two experimental groups. Both the experimental curriculums were equally effective for the improvement of cardiovascular endurance. It may found due to physical engagement throughout the session, which brought about increment on circulatory and respiratory system's function and led to increase in supply oxygen towards working muscle. Several studies suggested that Physical Education class had a positive effect towards cardiovascular endurance (Mears, 2008). Physical engagement throughout the session, which brought about increment on circulatory and respiratory system's function and led to increase in supply oxygen towards working muscle (Rengasamy, 2012). Further study suggested that PE classes can contribute to the improvement of students' cardiovascular fitness (Peralta et al. 2020). As cardiovascular fitness is a health related physical fitness so it is essential for our healthy life style and Physical Education is the subject through which we can develop our physical aspect and improve physiological organs. A health related Physical Education curriculum can provide

students with substantially more physical activity during Physical Education classes and increased physical activity is expected to lead to improvements in health-related physical fitness (Sallis et al., 1997).

From the findings of the present study it was also observed that no significant difference was there between the mean values of two EGs which indicated that WBCHSE Physical Education curriculum and CBSE Physical Education curriculum had identical effect for increasing cardiovascular endurance after attending eleven months Physical Education program. A study indicated that a ten week of the physical fitness program implemented within of the PE class was effective in improving cardiovascular endurance among the Malaysian secondary school boys and girls (Rengasamy et al. 2012).

## Conclusion

Cardiovascular endurance of the subjects of two Experimental Groups (EGs) having Physical Education as an elective subjects for both the boards i.e. WBCHSE & CBSE were improved significantly in the comparison with the control group. The subjects of the control group selected from both the boards had no physical education curriculum. Thus it may be concluded that the cardiovascular endurance of the subjects were improved due to the physical education curriculum as underwent by the two experimental groups through one year. Both

EG-I and EG-II had identical effect for developing Cardiovascular Endurance. That means both the curriculums on physical education (WBCHSE & CBSE) had positive impact for developing Cardiovascular Endurance and it can also be explained that both the curriculum were equally effective also. Thus it confirms that Physical Education classes are beneficial for developing cardiovascular endurance and helpful to maintain physical fitness level.

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# NAYANTARA SAHGAL AND HER FEMINIST APPROACH: A STUDY WITH REFERENCE TO HER NOVEL, THIS TIME OF MORNING

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## ABSTRACT

With the advent of the twentieth century, there was found a new change in English literature. It started to present the Feministic aspects also. Many female writers came to light in this period. Likewise in Indo-Anglian literature, female writers started to express their feelings and thoughts to the world. In this period many female writers tried their hands in writing. Kamala Das, Sarojini Naidu, Kamala Markandeya, Anita Desai and Nayantara Sahgal are the prominent writers in Indo Anglian literature. In Nayantara Sahgal we find the different attitudes merged in one saga. She deals with the social and political issues of the Indian society in her novels. Her dealing with the female characters is also a striking one. In her Novel This Time of Morning, She highlights her female characters more. In this research paper, the scholar has tried to give critical studies to the novel.
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*Keywords: Nayantara Sahgal, Feministic Attitude, Gandhian philosophy, socio-political issues.*

## Introduction

Sahgal's novel, This Time of Morning, was published in 1965. Like her most of the novels, the novel deals with upper-class intellectuals, sophisticated officials, cunning politicians, ambitious civil servants, their pretty but dissatisfied wives, and foreign advisor, with an eye on Indian beauty. The novels depict dissatisfaction on both political and social levels. The novel, on one hand, depicts the corrupt sociopolitical state of affairs after independence, and on the other hand, it depicts. Rashmi, the heroine's sense of dissatisfaction from her marriage and desire to get free from such a useless, stifling relationship- Both the themes run parallel and form an interesting reading.

Nayantara Sahgal's second novel, This Time of Morning, is another political novel, and "it can certainly claim to be one of the best political novels written by an Indian in English". The universe of discourse in the novel is peopled with politicians of every description, highly placed and influential bureaucrats, artists and journalists, prominent parliamentarians and gossiping liberated and lustful society ladies, and traditionally educated housewives. The canvas is so large as to include the whole of the civilized urban cultural environment in the fast-flowing life of Delhi. The novel depicts the corrupt socio-political state of affairs after Independence. In this novel, she talks about the breed of politicians, bureaucrats, artists, journalists, new parliamentarians, liberated

ladies, and housewives. The scenes are set in Delhi which happens to be the main center of political activities. Kalyan Sinha, the minister without a portfolio, has a lot of faith in the group effort. Kailas, a Gandhian freedom fighter, however, thinks otherwise and believes in individual efforts. His identity is unknown and is depicted as a magnetic personality. During the course of the novel, Kalyan's family gains personal salvation, although they lose their political power. It is through the love of Nita that he reconstructs himself and finds home in her love. Kailas and Kalyan are opposites. Kailas believes that the corrupt framework of democracy can be redeemed by the Gandhian ideas, whereas Kalyan has a sort of contempt for an individual human being. But the central consciousness of the story of the novel is, Rakesh. When the novel opens Rakesh is going through a state of uncertainty and anxiety. Rakesh is un-communicated and he believes that communication is possible only in an atmosphere of freedom. Later, Rakesh finds solutions to his personal as well as political problems only through discussion. He says "Discussions always serve a purpose".

The principal characters in the novel are Kalyan Sinha, the Minister without a portfolio; Kailas, P.M.'s reliable assistant flourished in the Gandhian congress movement; Rakesh, a young and unmarried I.F.S. Officer and a furnished product of the Western educational system; Sir Arjun Mitra, the pragmatic and experienced Secretary-General of the Ministry

of External Affairs; Hari Mohan, a businessman and for a short while the Minister of Industries in the Government of U.R; Neil Berenson, a divorced Danish architect with a seemingly misanthropic outlook; Mira, the devoted wife of Kailas; Rashmi, the lovely woman and the only daughter of Kailas and Mira; Nita, the darling issue of the Narangs and a newspaper columnist; and finally, Uma, Mitra's lawfully-wedded wife, beautiful, barren and lascivious. Mrs. Sahgal's artistic vision authentically depicts a good deal of disgusting details of socio-political corruption in contemporary India wherein all canons of decency and decorum are overthrown in the unscrupulous hunt for power. "Disorder was just around the corner, always, and no motley crew of Parliamentarians would succeed in coping with it any more than picket fences would stem a deluge" (p. 106).

To gain power by hook or by crook becomes a political reality. Consequently, men of vision, such as Kailas Vrind, Abdul Rahman, and Prakash Shukla seem to be pushed to a corner while those ends-oriented people with a cruel and selfish approach to problems move to the center of the stage. The novel describes the tension between tradition and modernity. This is done by contrasting the older generation represented by the couple Kailas-Mira of pre-independence times with younger women like Rashmi, Nita Narang, the products of post-independent India. Kailas and Mira belong to a "singularly fortunate generation" that had "succumbed to the magic of Gandhi" (p. 15). Kailas's entry into the National Movement makes him proletarian for he believes that a government could exist only when the underprivileged "arouse some concern and are given a chance to live like human beings" (p. 43). Mira sees Kailas for the first time at her father's house and is attracted by "something about the eyes and the inexpressible sweetness of the smile that enveloped her in its warm radiance (p.47).

After her marriage with Kailas, she proposes "to share him with his country, with his toil, and not share him so much as take what was left of him afterward" (p. 48). She considers herself to be blessed in looking after Kailas: "It was the joy of the home built and tended for your beloved, your sheltering arms around him

as no one else's could be, your healing woman's presence" (p. 49). She identifies herself with her husband Kailas. She is much upset by the verdict of the judge against Kailas whose crime was "that he loved hrs country" and carried out- his duty as a citizen and she is inclined to meditate: "with one life to live, did it have to ebb away previous years of it, in long separation" (p.44).

Unlike her mother Mira, Rashmi returns home when her marriage to Dalip, an IFS officer, becomes a "deadening trauma out of which.....no feeling could ever again emerge" (p. 13). From her childhood, she had relished every minute of life's bliss and sorrow. For her contentment was a state as natural as "warmth to the sun", marriage has changed her state and made her a "moth trapped in cement" (p. 36). In marriage, she "suffered the wilderness that only two mismatched people could create" (p.123). She was caught in a whirlwind of despair. Remembering her agonies, she now thinks: "How as prolonged starvation wrong marriage could be, robbing lusters, defeating courage and will" (p. 13). Rashmi's decision to separate from her husband "was worse than bad news" to her mother Mira and was a "mortal blow to all she held sacred" (p. 146). Mira firmly believes that "endurance was a test of character" (p. 147) which her daughter Rashmi could not qualify. She valued highly the traditional ideals of the sacred bond of marriage and endurance. She asserts: "What reason under heaven could sever the marriage bond? Women stayed married, had since time immemorial stayed married, under every conceivable circumstance, to brutal insensitive husbands, to lunatics and lepers,....... Fulfillment had lain in service and sacrifice. If there was suffering too, it was part of life" (p. 149). She considers her daughter's decision as a "tasteless parody of a transplanted modernity" (p. 149).

Rashmi's father Kailas comprehends her decision as "the birth pangs of a new civilization........... It was a torrential release from ancient grooves and bonds, ancient pain and suppression. The attainment of independence had been its starting point, but the human being's struggle for freedom and recognition

in every facet of his life and environment went on. Rashmi would not face her struggle alone for she would be one of many" (p. 217). It is, as Rakesh observes, a decision that required continuous "courage, individual courage, just as it took individual sacrifice and pain to create a nation. A group was individuals. What was needed was not the burial                                        of the self but its rebirth and celebration, for surely the only hope for people anywhere was that they should recognize and foster each other's humanity as individuals" (p. 139).

When Rashmi finds herself in a state of dilemma…….whether to discuss her problems with her parents or to seek a divorce, she realizes that "there was no such thing as a clean break. A break had jagged edges and did violence to some part of one's being" (p. 14). Her cultural conditioning—"to endure, reconcile and preserve, no matter at what cost" (p. 14)—always haunts her. Irrespective of marital discord in her life, she knows that the routine continues, for life must go on. Mockingly Rashmi ruminates: "Toothpaste and detergent and marmalade had to be stocked on pantry shelves despite the hammers in one's head, despite the fact that love and gaiety ended" (p. 13). Her father Kailas understands her "reticence well, the barrier of sealed emotion that was in part personal temperament and in part the inheritance of a thousand years, prizing control above all else" (p. 23). Parents, being traditional and conventional by temperament, fail to give her any comfort and solace in problems related to marital disharmony.

At the critical juncture, comfort comes to Rashmi from Neil Berenson, a European architect of the Peace Institute. It is he who infuses the courage to shake off the pretence of conventionality that all is well with her, by announcing her separation from her husband. After having opened the secret to Neil, she feels much relieved, for the hands "clasped in her lap uncurled and a painful knot somewhere inside her untied" (p 143). She feels tension-free, free from her bondage to Dalip. She now feels emotionally involved with Neil. This involvement makes her feel alive after a long period of utter numbness and acts as a purgation of emotion for she feels not only

"cleansed calm" but also strengthened with the desired courage to inform her parents about her disastrous marriage with Dalip. Howsoever drawn towards Neil Rashmi is, she does not succumb to the emotional and social attitudes of the West represented by Neil who has no interest in having full knowledge about the lady loved and maintaining a permanent relationship or standards of value. On the contrary, Rashmi wants to know all about Neil, about his desires to be understood in her totality. That is what she means when she tells Neil: "Me without any past or future, just me lying on this grass. That's not me, Neil— we have to invade each other's privacy a little, force things a little, or we shall stay just where we are" (p. 159). She desires to explore Neil's life—the past, the present— but Neil fails to understand her motive. For Rashmi, love means giving every particle of her in order to build up between them something that will reflect them, while for Neil it is "a few moments of the body, a slice of the mind, compartments of feelings, but never a total surrender" (p. 161). He is a product of the super-industrialized and affluent society where the operative principles are those of "use and throw away economy" and "the fractured family". His European consciousness is too impenetrable to allow even such a deeply sensitive and sensible woman as Rashmi to make any lasting impression of love. Rashmi, at least, has given a sense of direction to his otherwise aimless life as Neil was led to intend to fly back home and meet his children who, indeed, are the real connections that lend meaning to the impermanence of life. With the development of time, there came a change in the attitude of Mira. At the reception for the delegates to the Afro-Asian Education Conference, Mira happens to realize that with India's independence every new contact revealed "a glimmer of far vistas, of cultures and values distinct from her own, and she marveled at how little she knew of the world" (p. 164). Now she comes to realize that she had inflicted the strict morality of her generation on her daughter Rashmi, for "the new vistas presented a range of new conflicts and tensions that society had never known in her youth. They held out choices which clamoured for recognition". (p.164). She withdraws her earlier accusation leading to moral degeneration. Now

she realizes that every age has its own specific moral order i.e. "yugdharma", and that the moral order did not degenerate nor was it cherished forever in firm patterns of behaviour. It had to be refashioned and protected in every age. Every generation found its own way to do this.    Steeped in the ethos of the older generation as Mira is, she is still unwilling to accept that radical change in social and cultural values, as Mrs. Sahgal remarks: "Mira was not reconciled to Rashmi's attitude but she could concede it" (p.164). She, however, is able to see that the spirit of the ancient culture could accommodate modernity in tradition. She is somewhat liberal in her attitude and her understanding of the emergence of the "New Woman" in her daughter Rashmi is remarkable. Rashmi grows into awareness of what she desired to receive from Neil but unfortunately, she could not. Now she recalls the warm childhood contact with Rakesh who had once nurtured and sustained her. She now consciously.

desires to renew it because without it there would be only emptiness and desolation. Rakesh, too, from his childhood has had the feeling of "warmth" for the company of Rashmi. He sincerely longs for the warmth of a normal family like that of Kailas, Mira, and Rashmi. "Rakesh sitting down to dinner with Rashmi and her mother warmed to the familiar glow of their company. This was a family. Even with Kailas these were people involved with one another. He and his father were just two people, not a family". (p. 45)

This company of love and genuine affection has been with him since Rashmi's announcement six years ago that "she was going to marry Dalip" to which Rakesh simply tells her in return: "No one can ever love you as I do". Now Rakesh's return to New Delhi and Rashmi's separation from her husband re-kindle his personal interest in Rashmi to which she reciprocates. Rakesh is troubled at heart to see Rashmi after a long interval, changed profoundly, and "looked displaced" . He is sure that marriage had altered this once happy and lively girl. This reciprocation may well mean the beginning of a new and mature relationship on the emotional ground. Intellectually, "Rakesh had grown up at a time when young

men were ardent nationalists. He had a troubled sense of responsibility towards his country, too young actively to share its travail, too old to be indifferent to it". (p. 37). Of all the men characters Rakesh is perhaps the mouthpiece of the author. The novel commences with the arrival of Rakesh in New Delhi after an absence of six years. It ends with his volitional preparation to collect his thoughts and talk to Kalyan. Meanwhile, the action of the novel comes full circle, integrating the variegated characters with the kaleidoscopic surroundings of New Delhi. In the delineation of character, Rakesh achieves to a remarkable degree the dimension of depth in the resolution of his tension concerning identity and communication. He identifies himself with the new national political landscape in Delhi. There is also the assurance of the revival of friendship between him and Rashmi although, as Rashmi admits, such an effort would require hard labour: "Time given and taken and patient effort could lead to the discovery of a human being, to an allegiance that might fill and nourish her being. It might lead to love, for love, if it came, would come last, as any flawless achievement comes at the end of long hard labour. She knew with certainty she had not felt before that she would give herself to this labored be richer for it. If only she could tell him so, convince him at least of a beginning, she thought in sudden longing (p. 219).

Rashmi, therefore, takes initiative and tries to convince Rakesh of the need for at least making a beginning of that "effort". It so appears that she has started moving in the direction of becoming an integrated woman. At least, she does tell Rakesh before her departure to Lucknow where her father Kailas would be installed as the new Chief Minister: "Rakesh... Will you write to me? There's so much I'd like to share with you!".

We, thus, find both Rashmi and Rakesh progressing from a state of uncertainty into that of inner certitude and definable selfhood through an experience of freedom. Rakesh seems instrumental in giving a new direction to Rashmi showing her the way to live life meaningfully and she strives successfully towards the realization of freedom

as a basic human value to be termed a "New Woman".

In the novel, Rakesh faces the same uncertainty of the Hindu religion. Rakesh feels that Islam and Christianity clearly spell out what they believe Hinduism because its duality is a "baffling uncertainty". Kailas Vrind, in the same novel, explains the duality of Hinduism. It was a dormancy that accepted maimed limbs, blind eyes, and abject poverty as destiny, letting generations live and die in hopelessness. At the same time, it was the majesty of the mind engaged in lifelong combat with the senses. You could not accept Hinduism in its whole without harboring ignorance and superstition. You could not entirely reject it without destroying a part of your being, for it was the story of India. Like Rakesh and Kailas, for many others in religious India, the choice is between interpreting the religion positively or exploits it for their personal selfish pursuits. Sahgal's novels embody both types of characters. Kailas Vrind and Swami Satyanand interpret it positively and follow the path of enlightened religion, whereas men like Hari Mohan in This Time of Morning exploit religion for their selfish interests. He is not hesitant to inflame communal discontent and resentment for his own political interest. Harimohan uses religion as a means to satisfy and fulfill his political gains and personal salvation, whereas Kailas wants to use it for the moral enrichment of the individual as well as the society.

In the character of Nita Narang, Sahgal explores the place of a woman in Indian society before marriage. She is the young and beautiful daughter of Dr. Narang, who is a queer blend of Eastern and Western culture. His lifestyle is Western, invested with eating, drinking, and merry-making. But his outlook is purely Eastern and traditional in bringing up his daughter Nita. Severe restrictions are imposed on her movement outside. Mrs. Narang affirms: "We don't allow Nita to go out alone. Her father would not hear of it". (p. 30). Her parents don't allow her to smoke, drink and attend club dances till she is married. When Rakesh as an escort takes her to a ball one evening, she asks him: "realty would like a cigarette", said Nita. "You can't have one". Well, I keep cigarettes in my room. Daddy doesn't know, isn't it silly not being allowed to do anything until one is married?"(p. 32) Nita does not like this "Victorian morality" and earnestly desires "a little latitude, some breathing space" (p. 148).

Her parents, however, allow her to take up a job offered by Kalyan Sinha, a Minister. But Nita looks for something more than merely a job. She strives for freedom and her individual identity. She observes: "a job was never enough.....A job led to money and freedom, and freedom demanded a flat of one's own, away from the prying eyes and inquisitive voices" (p. 148) of men and women who do not permit women to gratify their basic needs of self-fulfilment. In Indian society, most of the parents try to find a suitable match of their choice for their daughters and they don't give any importance to their daughters' wishes. Nita's suitor Vijay is deemed a suitable match and "she (Nita) had nothing against him. Only she did not want to marry him" (p. 148) because she cannot reconcile herself to the fact that Vijay is a stranger "with whom she would spend her life, whose name and children she would bear" (p. 150). However, she fails to assert herself in refusing to marry a man of her parents' choice. Her mother proves to be a brutal force when she compels her daughter Nita to marry "one of those men they introduced her to at parties" (p. 148). Nita Narang, like Maya of 'A Time to be Happy', defies conventions while seemingly adhering to them. She resents the idea of being a "parcel bride" to one of the "putty faces and moist hands of the men", (p. 151-152), although she finally agrees to her parents' choice of Vijay as a groom. Appalled by conventionalities, she is sad to know that Vijay treats her as an "object", not as an "individual". She dreads the time when she would be alone with Vijay and he would not stop at merely holding her hand. This thought fills her with panic: "She could bear all the rest forever afterward as long as there was no first time" (p.153). In any marriage deal, Nita is sorry to note, the emotional content, the human element, the body and its desires are overlooked and overshadowed by material concerns, by the "stocks and shares, money and clothes" etc. She wonders "what about her body and its desires.... the body that pulsated for something

with urgency she had never known?" (p. 152). She, therefore, is not at all inclined to accept the values of the older generation thrust upon her. She proposes to live her own life as per her desires and likings. She defies convention and considers the concept of chastity to be age-old and outdated. She offers herself to the irresistible Kalyan Sinha to satisfy her desires. Kalyan does possess a magnetic personality that exercises a hypnotic spell especially on the women who come into his contact. Barbara, Celia, and Nita all come under his satyr-maniac spell. When Kalyan sarcastically asks Nita the reason for her frequent visits, she simply says to him: "I've thought about that so often....Every time I came I wondered why. I used to think about it getting into the taxi and every minute the taxi took to come here, and all the while I was here. I didn't know why I came. I only knew I would die if I didn't....Because I wanted to and it's the only thing I've ever really wanted to do" (p. 223).

Nita finds strange comfort in the company of Kalyan Sinha and visits him frequently with the excuse of decorating his drawing- room. Once she refuses to go home and frankly expresses her love for Kalyan: "But don't make me go". He rose from his chair, "Nita........... ". She got up, too, and came like a sleepwalker into his arms, clinging to him. "Don't make me go, please don't make me go". He took her by the hand and then to his room", (p. 156) Nita strives towards the realization of freedom and it is Kalyan who has given her "the freedom to be myself. I had never had that before. I'd never have known it but for you" (p. 223). Although Kalyan thinks of the traditional marriage as an "act of barbarism", Nita submits to it and at the same time enjoys freedom by going to Kalyan Sinha quietly like a thief. She is not what she really is. Here is not the seeking after genuine freedom and she fails in her search for identity. Sree Rashmi Talwar rightly remarks: "Nita is not one of the progenitors of the New Woman. What she indulges in is license and not a seeking of a freedom which is deliverance". Through the character of Nita, Mrs. Sahgal exposes conventional narrow-minded Indian society where life-partners are chosen by the parents without paying heed to the wishes of their daughters. Sahgal strongly attacks this social contract and names this kind of marriage "just an organized rape". Though here she sounds like avant-garde feminists who reject the establishment of marriage and motherhood, yet, in reality, she does not reject either of the two. She advocates harmonious relationships and individual freedom in her novels. She also criticizes the hypocrisies of the prosperous upper classes where women are encouraged to take drinks or to smoke cigarettes in the name of modernity and freedom but are not allowed to take unconstrained decisions in choosing their life partners.

Another woman in the novel is Uma who is known for her reckless search for freedom. In her case, Sahgal deals with an "anomie" inhuman situation. It is a "social condition characterized by the breakdown of norms governing social interaction". Here in this case the husband is held responsible for the anomic behaviour of his wife. The denial of love makes her deviate from the norms. Arjun Mitra, a top bureaucrat with a western background, at the age of thirty-three marries Uma, a young and beautiful girl of nineteen years. He remains absorbed all the time in his official responsibility and denies love altogether to his newly married young wife. He forgets that in Uma "marriage had released a torrent of hungry sensuousness that brought to startling focus her exotic feline beauty" (p. 26). She contentedly desires his love and company but he remains forgetful of her physical and sensual needs and expects her to take interest in the library or "share his life" of books and ideas. Instead of caring for her needs, he "condemned himself to an isolation where she could never reach or touch him again" (p. 28). Although he continues to provide her with food, shelter, and the protection of his name, Uma was dead for him. His indifferent behaviour makes her totally desperate emotionally and sexually. She finds no means of self-expression in her marriage. Consequently, she takes to drinking and gives free rein to her sensuousness. On several occasions, during parties, she disappears with any man who flirts with her a little to satisfy her bodily thirst, unmindful of "public humiliation" (p. 166). In a party given by Rani of Mirpur, a South American finds her "very" exquisite and sensual and drinks to her eyes. When they are alone in a room, "she neither

encouraged nor discouraged him. She let his hand take hers, slide up her arm, go round her waist. Her headache receded slightly and she felt relief in his skill and deftness....It was complete in itself and needed no explanation". On another occasion, Arjun finds her in a room in a hotel with another foreigner, Neil Berenson, the architect of Peace Institute. Entering Neil's room No. 420, Arjun finds "Neil's tie on a chair, his shirt sleeves, and the faint smear of lipstick on his mouth... For here he was forced to be witness to her unspeakable behaviour". Marriage has made frustrated Uma a wild "tigress in a meadow". She was a woman with appetites that her husband couldn't satisfy, so she indulged them elsewhere. This creates a "labyrinth of tortured vanity", a sort of "abysmal gulf" in their marital relationship. What Uma lacks in her marriage to Arjun Mitra is self-expression and this she discovers in her relationship with Neil Berenson. Arjun Mitra is the victim of marital infidelity and the consequent conjugal unhappiness. Uma, his voluptuous wife, feels extremely bored with her fruitless marriage and continually seeks to escape into the fakery of sexual freedom. Just as Rashmi is able to communicate without inhibition in Neil's company, Uma for the first time "talked" about the feeling of freedom and the sense of release and joy in the activity of painting. It is Neil's wise counsel which makes her an integrated person. He advises her: "Go back to it....... So often one can't go back to a particular person or a situation but one can to art and music and the writing of a poem. The years don't matter, except in the sense that they have enriched and added something, so one goes back with an advantage" (p. 168). Despite the undependable character of his wife and "the abysmal gulf" that has separated them, Arjun Mitra is now ripe enough to recognize the need for a meaningful understanding with his wife. He realizes his role in the failure of their marriage and regrets: "though we give our enemies another chance........we never forgive those we love....... There was no recovering what was lost, but tomorrow, if she would bear with him, they could talk and a way might still be found, late though it was" (p. 170).

## Conclusion

Thus, we see that Mrs. Sahgal's women characters in This Time of Morning are more able to put their thoughts and feelings into free and fearless clear speech, they have conquered a greater distance towards becoming "Free Women", and they are more varied in their search for freedom and equality. Uma in her reckless search for freedom uses men as tools but succeeds only in harming herself. Celia, Barbara and Nita Narang in their ultimate dependence on Kalyan Sinha betray the failure of their search for identity. In Rashmi alone is traceable the effort begun in Kusum in A Time to be Happy. Her search for communication and self-identity takes her first to Neil and then to Rakesh with whom, as she tells us, she would like much to "share" (p. 219).

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# A BLOCKCHAIN BASED FRAMEWORK FOR ENSURING SECURITY OF EDUCATIONAL DATA OF STUDENTS

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## ABSTRACT

*A decentralized shareholding ledger that collects data from multiple parties involved in the Bitcoin network transactions, Blockchain, the technology behind the binary currency. In particular, the Bitcoin network uses the Blockchain to record the transaction history and other transaction-related information, such as the completion of the transaction, the sender(s) address and the recipient's address. It helps the donors to prevent duplication. All information is encrypted to ensure the privacy of the Blockchain. This article explores the possibilities and problems of blockchain technology in education. Finally, a blockchain-based architecture for safe and trustworthy record keeping of students is proposed.*

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**Keywords:** *Blockchain, Smart Contracts, Hash Function, Student Record, Verification, Security.*

## Introduction

Generally, the tireless tasks of educational institutions such as colleges and schools in fields such as: (1) documenting student accomplishments, (2) approving public papers, and (3) student performance assessment are targeted towards students. Certificates are especially considered as a human capital indication. Here, human capital is the knowledge, the competences which an individual possesses via schooling. [1]

Academic qualifications represent not only the information, skills and know-how of each person, but also the commitment, skills and reliability of the individual. Often people are lied to their achievements because of the value of these certifications. The present system manually checks such files and provides information and confirms them from a centralized server. It needs many efforts to maintain a centralized server and the server may be unreachable at the time of verification. Thus, accessibility and uprightness cannot be ensured solely on a centralized site for papers like certifications, flagships, etc. [2]

The current combination of storage solutions based on pen and paper and internet makes data sensitive for hacking, failure of equipment and natural catastrophes, redundancies etc. In addition, the situation at hand is compounded by human carelessness. Blockchain corrects the problem of document authenticity. Where and by whom records are added is fully accessible information. Blockchain certificates enable students to retrieve their records quickly and conveniently by sharing such information with companies hiring them. Blockchain technologies prohibit patent materials from being dispersed over the Internet. It also enables students to access and share their work and ideas.[3]

Application of many methods researched may be utilized to create a powerful all-inclusive portal that makes it easier for all entities in educational institutions to operate. Blockchain may be used to turn actions and protocols involved in the everyday functioning of institutions into trustworthy software in order to minimize the burden on paperwork in the education sector. In other fields such as cryptocurrency, banking, insurance, protection of copyright, Interesting investigation has been seen in the Blockchain area. Blockchain offers an immutable, handle-resistant technology to manage student records effectively. This guarantees that records and their different versions are recorded to prevent data discrepancies. In addition, together with business logic, Blockchain puts intelligent contracts at the forefront. [4]

The Blockchain may also be characterized as a common directory as all the Bitcoin transaction information is contained [5]. The field of education is becoming a modern era. In fact, technology and education have become a perfect combination in recent years. This has made education technology a global phenomena. But without tackling the protection issue, we cannot talk about the usage of

technology. Increased usage of financial and human resources will occur if proper protective procedures are not observed. Researchers and practitioners have offered different recommendations, techniques and tactics that will help to decide the security actions that will be taken following the early use of education technology. Blockchain technology, which has excellent encryption capabilities, is a newer option. The present position of blockchain technology in education has been examined in a bibliographical search. This research seeks to formally classify current techniques and summarize them. [6]

## Blockchain for Providing Security to Student Educational Data
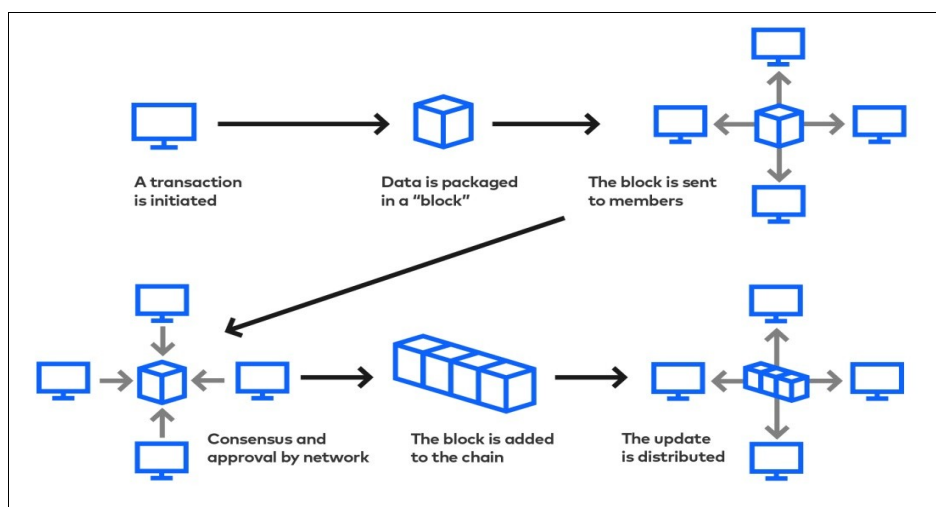


**Figure 1: Working of Blockchain**

Blockchain is a distributed transaction leader as seen in Figure 1. It allows community members to share data with other services and follow up on the transaction without the intervention of a third party. It is spilled over to multiple servers, which makes it exceedingly difficult to change or remove the records, rather than storing the record on a single servant. The trademark and the procedure which guarantees that every information published in the blockchain is legal and builds confidence among the community. [7]

Many medical entries are needed to preserve records of patient treatment, requiring the usage of a ledger. All types of real-world issues can be stabilized with blockchain support. If the document is stamped on time, the file was created at some point and not modified afterwards, and was launched in 2013. One

## Blockchain

Blockchain was coined from the phrase block and chain and the list of transactions known as a block connected to encryption. Before each block the block header is attached to it. Blockchain is a peer-to-peer blockchain which is operated by a network of peers. It is used for storing and collecting information. Both the headers and transactions for each block are included. Hash, time tag, nonce and root value of the preceding block header are all contained in a block header. There can be no change in the health information in the block. Contradictions are eliminated by the primary usage of blockchain[6].

block cannot be hacked; all other blocks have to be hacked simultaneously. [8]

Blockchain and IPFS interoperability is perfect. A large volume of data is kept in the IPFS and the substance of the data's address is unchangeable and offers a permanent link. The time stamp is attached to the findings on the blockchain. The data is saved in IPFS and the link to the blockchain is added. A huge amount of data in the blockchain is difficult to save; in contrast, data is kept inside the IPFS network and the hash value in the blockchain is stored to ensure correctness of the information.

The blockchain's basic components are a distributed network, a public headline and digital transactions. A dispersed network It's an architecture of peer-to-peer network that all peers may access in an all-digital way. The shared directory listings monitor the guidelines followed by each node. Each pair must check

and confirm digital transfers. Every record has a separate, permanent and suitable cryptographing signature and time stamp.

By making transaction processing visible, Blockchain strengthens confidence and makes it immutable through the process of hashing verification (Merkle tree). Blockchain reduces the danger of a single failure point since it is distributed in nature and a copy of transactional information is kept in all network nodes. A blockchain facilitates fast transactions between parties without an intermediary to ensure that transactions are integral. Blockchain technology has mostly two categories, i.e., less permit and permitted. All users have a permission less frequently referred to as a public blockchain.

 Although it has enormous potential, such as Bitcoin, it is not suited for company owners that desire control over the transaction processing system. Business processes might have particular needs and complicated operations requiring tailor-made solutions that limit external participation. Allowable blockchain likewise suffers from some problems such as scalability, regulatory bodies and evolution control. This has encouraged companies to investigate various solutions such as permitted blockchain that may be privately managed and that only trustworthy members can limit their participation in a blockchain network. The blockchain authorized is also known as the private blockchain. The method transactions are done will be revolutionized, guaranteeing that the system can be successful in the management of corporate processes [4].

Blockchain is basically a shift from centralized systems based on trust to decentralized systems based on trust. It provides a mechanism between any number of participating parties without a transaction middleman. Recent study has shown that the quantity of transactions is a major determinant in the success of blockchain systems.

Less permission Blockchain is a blockchain with no restrictions and anyone can join blockchain that allows only selected participants to join transparent, truly decentralized, and immutable governance structure and allow private transactions through authentication process brings trust among all users and offers high security fast, scalable, and

more energy efficient blockchain Possible use cases include digital money, fundraising, and supply chain management, as well as banking and payments. As a result, systems with a larger transaction volume will be the best business case [5]. Blockchain technology can help in automating various decision functions that are executed manually to increase net benefits [6].

The Consensus algorithm is vital to determine how the blockchain can work as well as to ensure the information on the blockchain is secret and performed. Each block is associated with the first block of the blockchain. Initially, records are put in the transaction pool, then the miner produces the package, and all network members are trying to solve the mathematical problem.

Every record is stored in the block digitally. Chronologically, the blocks are organized. Each record is encrypted and digitally signed to assure validity and consistency. Each block is linked to the previous block [9]

### Features of Blockchain

Blockchain has the following features which makes it a better alternative for business processes.

The properties of blockchain are decentralization, transparent, immutable, autonomy, open-source, anonymity, and consensus.

a) Blockchain as a Data Structure: The blockchain lists the deal and combines it as a block. The structure starts with one block termed the block of genesis. With the transaction measurement increasing, additional blocks are added. The last block was connected to the present block. This sort of data structure is provided by the block chain. Usually, the blockchain is tamper-resistant and irreversible.

b) Decentralized: The decentralized peer-to-peer network; system groups make it decentralized and one of the major features of superbly functioning blockchain innovation. The hash value of the Blockchain health records. Anyone can save the item without the assistance of a third party, and in future access the asset on the web. Store transactions such as cryptocurrencies, papers, contracts, digital

asset.etc and use the private key to access the transaction in future.

c) Consensus: This consent is the method used to approve and trust the transactions by the blockchain system before they are added to the chain. One of the agreed rules is interrupted when the transaction is considered invalid. In the agreement-based agreement, blockchains are implemented which is either a reduced license or a permit. Public consensus indicates that everyone can try to involve and participate in transactions. The nodes must be approved and differentiated to participate in the agreement in the permission-based agreements or to contribute transactions in the chain.

d) Immutability: After deployed on the ledger, none can change the transaction. If an error occurs, the blunder must be reversed by additional transactions. Now it is important to identify both transactions once they are logged. The transactions log produced by consensus among chain participants is maintained by Blockchain.

e) Enhanced Security: Each transaction is encrypted, resulting in a different level of system security. Cryptography is a more advanced mathematical technique acting as an assault firewall. Each transaction is encrypted by the SHA256 method and gives the transaction a unique hash value and has fixed length.

f) Relative User anonymity: The digital address on the blockchain is usually accessible, which hides the identity of users. All transactions are kept in the blockchain indefinitely. Everybody can see the transaction's hash value but cannot identify the user identification.

**Blockchain Framework for Securing Educational Data**

The architecture suggested includes the General Public Ledge, a bespoke micro-leader, smart contracts and a checklist. By performing the Hash function you can track and connect authentication to the blockchain results. The hash value is finally retrieved in the blockchain. [10] Figure 2 illustrates this below.

The Blockchain can enable educational organizations to enhance their capacity to support instructors, offer knowledge for guardians and community members, empower and grow innovative learning methods. Online education, also known as remote learning or electronic learning, is used for knowledge and learning using data technology and internet technology. It is known as a strategy of online learning. An effective answer to online learning problems, such as validity and protection, is given with the blockchain technology. The Blockchain will, without the need for third party supervision, also provide innovative learning records to ensure that course credits are appropriately recognized. [11] [12]
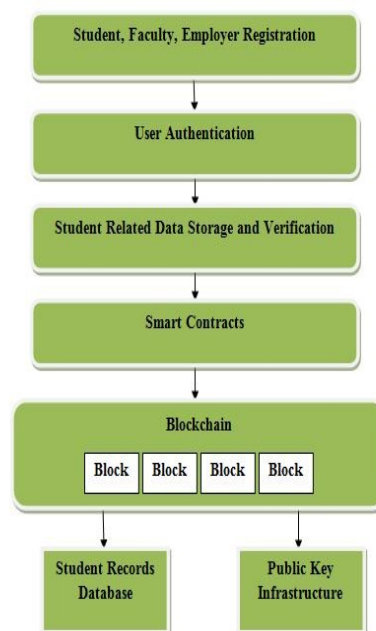


**Figure 2: Block chain based framework to secure student educational data**

In public-key cryptography, a public key and a private key are utilized. Everybody can have the public key, but the owner can only access the private key. In this asymmetric cryptographic procedure, the corresponding key may be used to decode one of the keys for encryption. Blockchain uses public key cryptography, in which the public key is used to communicate, receive and sign transactions using its private key. [13]

The sender signs the message via digital signature by encrypting the message with his private key, which the sender then decodes with the public key. The notion of digital signature ensures the legitimacy of the sender while signing a statement. Blockchain uses digital signatures to authenticate the validity of a digital transaction. [13]

The hash value of the transaction, resulting in a defined output, is determined by a hash algorithm in Blockchain. The SHA-256 haze algorithm[13] is used by Bitcoin, the most well-known Blockchain application. The distinguishing characteristics of Hashing are, Collision-resistant if no different inputs can generate the same hash value, Compression where the output hash is always of constant size although the input value is above the output value, and resistance to pre-image in which it is impossible to determine the input from the output.

Merkle Tree is one of the binary tree images that employ a combination of leaf nodes, intermediate nodes and root nodes produced by the hash functions of a cryptograph. The leaf node contains the transaction data in the bottom chunks of the tree, and follows an intermediary set of nodes that compute the hash value of both child nodes and finally the root node in Merkle is determined by the hazh of its two children's nodes that produce the top of the tree[13]. The transaction is determined in the tree. Merkle trees clearly indicate the validity of the data and may be seen as the signature of all block transactions. It also needs less storage and is simple and straightforward to calculate.

Blockchain is a digital database which collects all medical information. The blockchain leadger has a replica each node. There is no need to manage the blockchain by a third party. The Ethereum blockchain is utilized to fulfill the intelligent contract. A Smart Contract is an executable code which works on the blockchain without a third party's aid. The measures are done automatically if the condition is fulfilled. The intelligent is the program that determines the relationship between users [14] [15].

The advantage of implementing the Smart Contract is that the contract cannot be changed and the costs for delivery, authentication and detection of fraud minimized. A further value is the smooth and unbreakable execution of dispersed books. It is possible to trace each transaction and it is permanent. In the blockchain, the bytecode for the Smart Contract was applied and the activity took place under certain conditions. The Smart Contract gives better stability, as contrasted to a regular contract. The processing costs are also lowered. [16] [17]

## Conclusion

The advantage of implementing the Smart Contract is that the contract cannot be changed and the costs for delivery, authentication and detection of fraud minimized. A further value is the smooth and unbreakable execution of dispersed books. It is possible to trace each transaction and it is permanent. In the blockchain, the bytecode for the Smart Contract was applied and the activity took place under certain conditions. The Smart Contract gives better stability, as contrasted to a regular contract. The processing costs are also lowered. It helps to prevent duplication by contributors. All data is encrypted in order to guarantee the Blockchain's privacy. This paper looks at the opportunities and challenges of blockchain education technology. Finally, a secure and trustworthy student record keeping blockchain-based architecture is presented.

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# MONEY, ELECTIONS AND ELECTORAL BONDS - THE POLITICAL DRAMA AND THE LEGALIZED FORM OF CORRUPTION

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## ABSTRACT

*Money is at the heart of India's political corruption problem, with political parties suspected of being the main and most direct beneficiaries. Accountability, inaccurate representation, and asymmetry in governance and policymaking are all harmed by electoral misconduct. That one the major problem takes through the electoral bonds in India. The bonds conspire to perpetuate the fundamental fraud in Indian political funding: the expenses that areshown and accounted for in some ways are only a fraction of the actual money spent, and themajority of this actual spending comes from funding drawn entirely off the books of companies as the proceeds of corruption.The democracy demands free and fair elections and woven around the concept of transparency and accountability and the Indian Election Commission (ECI) has been recognized for performing out its constitutional role. There are several examples of elections being fuelled by unneeded funds in order to win elections. The overall value of the previous general election is projected to be 14.6 billion rupees (€189 million, $212 million). With an anticipated cost of nearly $5 billion, the 2014 Lok Sabha elections are said to be one of the costliest in democratic history.The researcher will look at the issue of electoral bonds and how they have contributed to corruption in India.*

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*Keywords: Electoral bond, Politics, Corruption, Accountability, Constitution.*

## Introdcution

With the passage of the Finance Bill, electoral bonds were introduced (2017). In January, an electoral bond has been issued as a promissory note, which any Indian individual or company created in India from the designated State Bank of India may acquire. After complying with know your customer (KYC) requirements, a person or a group will be able to acquire these bonds digitally or by check.**[1]**The bonds must be lent to every qualified political party in 1,000, 10,000,1 lakh, 10 lakh and 1 crore increases in the person or business. The bonds are similar to banknotes in that they are non-interest bearing and receivable to the bearer on demand. It must be redeemed by political parties in their designated account within 15 days. The conditions attached to the electoral bonds are available to any registered political party that received at least one percent of the vote in the most recent General or Assembly elections. The donor's name will not appear on the electoral bonds. As a result, the political party may be unaware of the donor's identity and the reason behind introducing this system in the elections to keep an eye on how black money is used to support elections. Donors would have no choice but to provide cash if electoral bonds were not available. Election bonds have been created to ensure that all donations to a political party are included in the balances without the personal identity of the donor being disclosed to the public.**[2]**

Despite this, an amendment to the Finance Act of 2017 was passed, combining the introduction of election bonds with changes to the Company Act of 2013, lifting the ceiling on political parties' corporate contributions and removing the obligation to record those payments on the company's profit and loss reports. In 2013, a recognisable opacity layer was requested by the Central Government; however, businesses were still required to declare political donations.**[3]**The electoral trusts may make donations and spread them to several parties, which company has channelled funds to which party, making it opaque for the general public and avoiding quid pro quo transactions. The method has been reversed to enhance transparency in time.**[4]**

These were mostly backward steps from India's major electoral changes, and they emphasize the special obstacles of legislative reforms, such as those faced by legislators who are members of political parties and who benefit from the existing legal framework and its gaps in-laws.

## An extremely early judicial advisory

In a 1957 decision, a court led by Justice Chief M. Chagla of the Bombay High Court cautioned Parliament of the grave dangers of

permitting corporations to contribute to political party coffers, which may "*overwhelm and even stir up democracy*". Tata Iron and Steel Co. Ltd. first sought the Mumbai High Court for a change to their memorandum of association, intending to include a donation to political parties. According to the Court of Appeal,

"*Any proposal or suggestion likely to overshadow that democracy almost in its cage has to be considered not only with considerable hesitation but with considerable consideration, and democracy in this country is emerging and that democracy must be maintained, cultivated, and nurtured to ensure that it is fully and correctly established, and any proposal or suggestion likely to overshadow that democracy almost in its cage has to be considered not only with considerable hesitation but with considerable consideration.*"[5]

The following was also mentioned by the Court:

"*Any attempt to fund a political party is likely to taint the basic foundations of democracy. If outcomes were not attained solely based on merit, democracy would be tainted since the money had a factor in these decisions. Democracy may continue to exist in various forms but the very idea of democracy will disappear. The history of democracy has shown that big business and money bags play a significant role in the functioning of democratic institutions and that it is not only the responsibility of politicians and citizens but also the responsibility of a Court of Justice to prevent any undue influence on voters.*" [6]

Even when the Central Government announced the electoral bonds plan on January 2, 2018. The Communist Party of India (Marxist) and two non-governmental organisations (NGOs) — Common Cause and Association for Democratic Reforms (ADR)— filed before the Supreme Court to overturn the programme According to the petition, the current electoral bonds scheme was implemented through the Finance Acts of 2016 and 2017, which amended four statutes: the Foreign Contribution Regulation Act of 2010 (FCRA), the Representation of the People Act of 1951 (ROPA), the Income Tax Act of 1961, and the Companies Act of 2013. The petitioners claim

that the plan should not have been implemented through the Finance Acts since it avoids Rajya Sabha oversight. They believe that the Rajya Sabha should have looked at the four modifications. ADR, the petitioner, has also filed a stay motion on the plan, citing two reasons:

1. The political party in charge of the Union Government has received almost all electoral bond donations.
2. The most common bond denominations are one million and one crores. This shows that companies (who benefit from anonymity under the arrangement) rather than people are the primary users of the plan.[7]

The Election Commission (EC) filed an affidavit in the Supreme Court stating that the plan is discordant with the objectives of political financing transparency. It says that "*changing the Companies Act will result in the flow of dark money through shell companies and expose political parties to foreign corporate control. It further said that the revisions to the Foreign Corrupt Practices Act of 2010 allow foreign firms with majority shares in Indian corporations to give to political parties.*"[8]

The RBI was sceptical of the plan, according to a report published by HuffPost India on November 18, 2019. The government had been warned by the central bank that "*the bonds would undermine confidence in Indian currency and facilitate money laundering.*"[9]

## Historical perspective since independence

Political parties in India have always relied heavily on private contributions and membership dues to support their operations. The Indian National Congress became the largest political party in the country without any strong competitors in the absence of the Muslim League. In this environment, the Constituent Assembly approved the Representation of Peoples Acts of 1950 ("RPA 1950") and 1951 ("RPA 1951"), which focused on individual candidate regulation while leaving no provision for political party regulation. The Election Expense rules in Chapter VIII of the RPA 1951 were the sole laws dealing with political fundraising. By requiring shareholder approval at the general

meeting for donations over Rs 25,000 or 5 percent of the average net profit in preceding 3 years, the Corporates Act of 1956 aimed to implement some control concerning the policy funding of corporations.

The Santhanam Committee on Corruption Prevention (1964) had raised the issue of black money being channelled back to political parties and candidates to influence policy choices in their favour. By amending the Companies Act, 1956, the Indira Gandhi administration chose to fully prohibit corporate funding to political parties. While the ostensible reason for this was to prevent large corporations from wielding undue political power, there is ample evidence that this, along with bank nationalisation, was done by the government to target the funding of the free-market-oriented Swatantra Party led by C. Rajagopalachari and the Congress (O).[10]In 1974, the Supreme Court took a risk and sought to close a gap in the RPA 1951 that was becoming widely exploited, declaring that a party's expenditure on behalf of a candidate should be included in the computation of a candidate's election expenditures.

"*The goal of restricting expenditure is to reduce, as far as possible, the influence of huge money in the election process*," the Court stated, "*If there was no restriction on spending, political parties would go all out to raise funds, and the wealthy and affluent, who make up a small percentage of the voters, would undoubtedly contribute the most. The harmful effect of large money would thus play a crucial role in stifling the country's democratic process. This would certainly result in the worst kind of political corruption, which would ultimately spread to other vices at all levels.*" Explanations 1 and 2 to RPA 1951 Section 77(1) have been added, in particular the expense of the candidate for elections in illegal expenses from the political party or supporters should not be included in this statement. This would effectively grant the applicant a. Overview of the Past Since then, Independence has had ultimate say on what may and cannot be included in his election costs, negating the purpose of this clause in large part. The Supreme Court, on the other hand, upheld the challenge to this amendment.Political parties were exempt in 1979 from income and wealth

taxes when annual forms with financial audits were filed, Rs. 10,000 and more donations declared and the identity of contributors identified.[11]

By revising Section 293A of the Companies Act, 1956 in 1985, the Rajiv Gandhi administration lifted the bar on corporate gifts, subject to specified conditions. The change from the pre-1969 rule was that donations were only required to be made during a board of directors meeting, rather than a general meeting. Part IVA of the RPA 1951 was added by Parliament in 1989, allowing political parties to be registered. The courts nevertheless found that this power does not include registration of the parties or an ECI inquiry into a political party's activities.[12]

The Supreme Court ruled in 1996,"that political parties must file returns to benefit from the exemptions provided under the Income Tax Act of 1961 and Section 77 of the RPA 1951. It's worth noting that, although submitting returns is required by law, no political party had presented audited accounts at the time. Partially financing elections was advocated by both the Goswami Committee on Electoral Reforms (1990) and the Indrajit Gupta Committee on State Funding of Elections (1998)." It's worth noting that both investigations were commissioned by coalition administrations at the time when minor national and regional parties were in power.[13]

The NDA administration approved the Election and Other Related Laws (amendment) Act, 2003 and made all corporate and individual gifts tax-deductible in accordance with Sections 80 GGB and 80 GGC in the 1961 Revenue Tax Act. It also mandated that a declaration and report to the ECI be included to any donation exceeding Rs. 20,000. In its 170th Electoral Law Reform Report (1999), the Law Committee had stated that this method was inappropriate.[14]

By amending the Income Tax Rules of 1962 in 2013, the government created electoral trusts. The purported objective of these trusts was to guarantee that contributors, particularly corporate contributors, remained anonymous while yet being able to claim income tax benefits for donations to political parties. The inadequacy of the scheme is demonstrated by

the fact that in 2015-2016 90 percent of contributions via electoral trusts came from the central ruling party. The ECI set guidelines for submitting donation reports to electoral trusts that avoided much of the damage that they may have done. This was done in accordance with Article 324 of their plenary powers.**[15]**

The administration established electoral bonds in 2017 and reduced the ceiling on anonymous donations from Rs. 20,000 to Rs. 2,000. The former is a step backwards designed to protect the donor's identity, while the latter is meaningless without the second part of the Law Commission of India's (LCI) recommendation in its 255th report to cap total donations from anonymous sources at Rs. 20 crores, or 20% of a political party's total funding. Political parties will be able to avoid the Rs. 2000 anonymous donation limit established by the Finance Act, 2017 to the Income Tax Act, 1961, with the help of electoral bonds.

The majority of legislative or government-initiated electoral reforms have been designed to protect the anonymity of donors, protect the interests of political parties, and overturn specific judicial decisions, indicating that the dangers predicted by Chief Justice Chagla in 1957 have largely manifested themselves. The ECI, with the assistance of the courts, has functioned as a counter-majoritarian check on backward measures, ensuring that the election process is still recognised as mostly free and fair.

Therefore, through the various phases, the concept of electoral bonds came into the picture that after due deliberation and through the opinion of luminaries over time moulded the concept of electoral bonds and its existence in India.

### Tool for politics & political parties: Money in Elections

*"The flood of money that gushes into politics today is a pollution of democracy."*

Money has flowed from daily activities of the Party to the candidate, to day-to-day government operations, manipulation of policies for the private profit, control of the party infrastructure and the impact of defeats. The number of businesspeople and affluent individuals in political parties and legislatures has risen at such a rapid rate in recent years that

political life has become heavily influenced by money. Entrance hurdles are formidable for well-intentioned political parties and individuals who are otherwise public-spirited and desire to enter politics.**[16]**

Money is required to keep parties afloat, compete in elections, and run election campaigns. However, the amount of money needed for political involvement has grown dramatically over time. At the same time, governance failure, ironically, leads to a rise in spending. Furthermore, money is utilised for unlawful vote-buying reasons. Uneven access to financial resources and the growing importance of money can have negative consequences for democratic health, such as a loss of trust and legitimacy.**[17]**

According to the amount of money spent, it appears that money is a need for contesting elections. This is why political parties and candidates are always on the lookout for financial backing. In a democracy, citizens' financial capacities have an impact on their equality. The quality of deliberations in the legislature can only increase if the talents of elected members increase. A national discussion is needed if big election reforms are to be implemented. Money should not be used to influence voters in any way.**[18]**

### Electioneering cost

To appreciate the structure of the political process, it is necessary to investigate the role of campaign money in the election process. Candidates for parliamentary seats compete with other candidates and parties, as well as political parties who endorse them (if they are not running as independents), to persuade voters to vote for them. Many information points that are considered important in political election campaigns are conveyed using this manner. These campaigns will have to spend money to approach voters directly and via other channels of communication unless they intend to depend only on unpaid staffers and supporters to convey information **[19]** And this money extracted from different sources through finances and the money is inculcated in the election process to get victory in elections.

The sheer cost of doing so effectively is the driving force behind the phenomenon of election finance in the first place. Calculating

the number of campaign expenditures needed to give the information needed to make an election decision is difficult. Increased expenditure may just be an indication of competitiveness between competing parties, rather than a legitimate estimate of the expenditure required.[20]

In many long-established democracies, campaign funding is strictly regulated, with the majority of cash coming from the party or third-party sources such as lobbyists and corporations, and the candidate's money playing a minor role. However, in Indian politics, it leads to corruption and parties being more dependent on such wealthy candidates, as well as the fundraising method.[21]To tackle this issue, we need to first understand how policymaking works in India's democratic system.

Recent amendments in electoral financial regulations, however, to eliminate the obligation for public disclosure under the Companies Act of 1956 (as well as contributors' anonymity under the electoral bond system), were hailed as crucial to encourage the requisite contributions.[22]

### Competition electorates

Significantly, one of the ways incumbency benefits electoral competition the most, and one of the most bothersome ways incumbent political parties seek to entrench themselves is by changing election law in their favour. The implementation of contribution limitations is a strategy commonly proposed that challenges have a high probability. Electoral finance legislation must be constructed in order to reduce entrance barriers and promote competition in order to increase a range of voting choices.

### Vertical integration in India's crime-politics nexus

Candidates and political parties both run election campaigns. Because the two are frequently linked in the eyes of voters, election law should at the very least consider the consequences of party campaigns on the chances of its candidates in general. Candidates may find financial assistance to be a useful instrument in integrating with parties. Parties may therefore keep candidates in line and

choose which ideas are stated in their campaigns and then retained in power, gaining trust in their investment and maintaining the coherence of various candidate campaigns.[23]

On the other hand, criminals with considerable personal wealth may seek vertical integration into the legislative process in order to safeguard against government intrusion and law enforcement.

### Policy access and black money access

Money's involvement in erecting political barriers may be viewed in two ways. The first barrier has already been mentioned. If candidates must raise large quantities of money to run for office, this might reduce the number or quantity of candidates in elections, limiting the range of options accessible to voters. Another way to look at this issue is via the prism of financial restrictions on Indian politics. If an aspiring politician's political goals need significant funding, they may just have to match their beliefs with their funders' expectations rather than the electorate's.[24]

The existence of candidates running for office in India based on illegally obtained and unlawfully kept unreported wealth and black money has attracted a lot of attention. The modifications to the Finance Act of 2017 aimed at abolishing political finance have raised worries about the use of dark money in politics. The issue, however, is not new; it was previously connected to the low campaign expenditure cap.[25]

### An analysis of present situation of electoral bonds: Funding, Spending and Disclosure

Individual donations are one of the most important sources of election fundraising. Apart from that, companies make significant donations to political parties in a variety of ways. Foreign aid, with the exception of any gift from a foreign source as defined in clause (e) of section 2 of the Foreign Contribution (Regulation) Act, 1976, is another source. As a result, there are no restrictions on contributions to political parties.[26]

As a result, the Representation of People Act 1951 was revised in 2003, adding provisions 29B and 29C. Political parties may take contributions of any size from any person or

corporation, excluding a government corporation or a foreign source, according to Section 29B.**[27]**According to Section 29C, "*every political party that receives such money must make a report on contributions of more than 20,000 dollars from people and businesses and submit it to theElection Commission before filing their income tax returns. If a party fails to do so, it will not be eligible for a tax exemption under the Income Tax Act for that year.*"**[28]**

Such a party is free from paying income fiscal tax on any voluntary donations received by the political party in accord with section 13A of the 1961 Income Tax Act. However, such exemption depends upon preserving books and papers by the receiving party, which enable IT department employees to deduct appropriately from the revenue received by the recipient and retain records, including donor names and names, as well as sums above 20,000.**[29]**. This provision further says that the exemption in respect of taxes will not be granted if the parties fail to submit the report required by Section 29C of the RPI Act 1951.

The Finance Act of 2017, in which electoral bonds are exempted from Article 29C of the RP Act 1951 and Section 13A of the IT Act 1961, amended both of these acts. In other words, money acquired through electoral bonds must not be reported in the report on the electoral committee.**[30]**. Furthermore, political parties are not obligated to keep any records of the bonds, including the names and addresses of the bond givers. The bonds programme is based on this principle.

The electoral bonds programme is set up in such a way that the donor's name is kept completely hidden. The licenced bank will not reveal any information regarding the purchaser of the bonds to any authority for any reason, according to paragraph 7(4) of the notification.**[31]**. Secondly, the spending on the elections according to section 77(3) of the RPA 1951 establishes limits on the total amount of money that can be spent on an electoral campaign. Article 90 of the Rules of Procedure of 1961 established this requirement for parliamentary and assembly seats. These restrictions differ from one state to the next. Such expenses do not include travel expenditures for the dissemination of the

political party's platform, according to Section 77(1) Explanation 1(a) of the RPA 1951.**[32]**. Political parties are required, under section 29C of the RPA 1951, to report any gift above Rs. 20, 000 received in the financial year from any individual or firm, as stipulated by Part VIIA of the Election Rules, 1961, in a report as defined by Part VIIA of the Election Rules, 1961. Although the allowable amount of monetary donations has been reduced from Rs. 20 000 to Rs. 2000, the confession required in a party's donation report remains at Rs. 20000. The level to which that was necessary for respect to openness pertaining to donations received from a candidate is a requirement under Form 26 of the Election Rules of 1961 to disclose assets. A 2017 amendment further requested that information on the source of these assets be included.**[33]**

But the petitioners, the ADR and the CPI (M) allege that the Finance Act was improperly approved as a Money Bill, allowing alterations to numerous laws to be introduced without the Rajya Sabha's supervision. They argue that for a bill to be enacted as a Money Bill, all of its provisions must address the issues addressed in Article 110 (a) to (g) of the Constitution. They contended that the Finance Act 2017 could not be enacted as a Money Bill just because it contains provisions relating to the Consolidated Fund of India, especially when the rest of the bill does not deal with government spending.**[34]**

That the kind of structure constructed through the amendments in law for promoting funding has entrenched the democracy and its norms as The Reserve Bank of India Act (1934), Companies Act (2013), Income Tax Act (1961), Representation of Peoples Act (1951), and Foreign Contribution Regulation Act (FRCA) were altered by the government through the Finance Act of 2017 in the budget to push through electoral bonds in India.

Even both the Reserve Bank of India and the Election Commission of India has previously released statements condemning these bonds. The ECI warned in a letter to the Ministry of Law and Justice that electoral bonds and the resulting legislative reforms would permit large sums of illegal donations and lead to a proliferation of offshore entities funnelling black money into the system.

## Comparative study between the UK, USA and India

Each country has its own set of regulations that govern which parties/candidates receive public financing, how much they receive, and how they spend it.

### (A)    United Kingdom

There are no limitations on the number of donations political parties can receive; however, regulations are governing who can be a contributor, as well as spending limitations for political parties on campaign expenditures, as mentioned above.**[35]**The law's goal is to control political donations via openness since political parties are required to publish their financial information. Political parties are only allowed to take donations from "*permissible contributors*" who give more than £200 (about US$280)."*Gifts of wealth and assets; membership and affiliation fees; sponsorship; money spent on behalf of a party; the giving of property, services, or facilities; or the loan of money at rates besides commercial rates*," according to the Political Parties, Elections and Referendums Act 2000 (PPERA): Individuals registered on the UK electoral register, political parties registered in the UK, companies registered in the UK, trade unions registered in the UK, building societies registered in the UK, limited liability partnerships registered in the UK, friendly/building societies registered in the UK, and unincorporated associations registered in the UK are all considered permissible donors.**[36]**

Donors to political parties were obliged legally to report donations by January 31 of the year after the contribution to the Electoral Commission if they were donating over £5, 000 (about US$7,000) before the Electoral Administration Act of 2006.   This was removed because this provision has been of little value in practice. Other than registered British voters residing overseas, foreign donors are not regarded as permissible donors. If a political party receives a gift from a donor who does not fit into one of these classifications, the gift must be returned or, if the donor cannot be recognized, the money should be returned to the Electoral Commission. [37]

### (B)    United States of America

The amount that different individuals and entities may contribute to a decision is restricted.Foreign nationals are barred from making contributions or donations to elections, either directly or indirectly. Entities like corporations and labor unions are likewise forbidden from contributing to or spending in federal elections. Political committees, on the other hand, are authorized to donate to Hybrid PACs' non-contribution accounts and to form distinct, distinct funds from the autonomous spending on funds (e.g., Super PCs) (SSFs).

With the use of these resources, corporate and labor PACs may only raise voluntary donations from a small group of people to federal politicians and political organizations.

The prevention of corruption (or the impression of corruption) is widely regarded as a viable constitutional purpose for election financial management, but not for equal electoral conditions (which is seen as an unconstitutional restriction of free speech protections).In the former's rule, this distinct contribution from spending is authorized for anti-corruption aims. The disparity has been masked by a Supreme Court judgment from 2014, which imposes overall limits on the amount of money spent on political campaigns over two years. The prevention of corruption (or the impression of corruption) is widely regarded as a viable constitutional purpose for election financial management, but not for equal electoral conditions (which is seen as an unconstitutional restriction of free speech protections). In the former's rule, this distinct contribution from spending is authorized for anti-corruption aims. The disparity has been masked by a Supreme Court judgment from 2014, which imposes overall limits on the amount of money spent on political campaigns over two years.

As mentioned above, a verdict in 1976 of the Supreme Court removed restrictions on campaign spending because it restricted guarantees of constitutional freedom of speech.**[38]**Political parties shall not be restricted to independent campaign expenditures. The expenditure that can be made in coordination with their candidates shall be subject to limits**.[39]** Independent expenditure by third parties is not limited and has become increasingly unlimited as above.The money collected and spent by the applicant

committees, party committees, and PACs must be reported regularly. These committees must select a treasurer as the nodal person for all donations and expenditure. When the gift exceeds $50, the contributions received by the Commission must be forwarded to the treasurer within a stipulated timeframe, together with information on the necessary names, addresses, and recipient dates. A treasurer is responsible for keeping track of all donations, including the identity of anyone who has contributed more than $200 in total, the identity of any political committee contributors to the donations, and the identity of anyone receiving the distribution, as well as receipts, invoices, and other documentation for disbursements exceeding $200. The treasurer will be subject to strict reporting obligations to the FEC in regards to recorded facts, which the Commission will make public.

If we compare the process of electoral funding in India USA and the UK there is no transparency in India the donor's name is kept secret, it might lead to a flood of illicit money, and that the plan was created to assist huge business companies to give money without their identities being exposed, and therefore this idea of donor "anonymity" challenges democracy's basic ethos. Even though the United States has stringent reporting standards and painstakingly records spending data, information about contributors is not always readily available. The FEC has a flaw: its members are selected on a political basis, which means their independence isn't assured.

In the UK, anyone can give to a political party, a person, or another organization additionally, there is no limit to the amount that may be donated, but donors must register in some circumstances. Parties must declare financing if it exceeds £7,500 to the central party or £1,500 to accounting units (parts of a party whose finances are not overseen directly by the party's headquarters), according to the UK Electoral Commission's website. If an unincorporated association donates more than £25,000 to a political party, individual, or other organization in a year, they must register and declare their donations. The Commission publishes a list of all donations and loans that each political party has taken regularly. They include information such as the donor's name, the amount paid, and whether or not the money came from the government.

In India, there is no transparency regarding the donation and identity of the individual which can be seen in the UK and USA not completely but to a greater extent than in India. That can be the reason for money politics and opaqueness in the election when one considers the system of political funding in India.

## Conclusion

Electoral bonds were taken into consideration by the government to uplift the democratic values and to cherish the elections to make them more transparent but the present scenario and process have made it opaque which led to political corruption and creating an obstacle for the smooth functioning of democracy as there is no limit on the donations even the names are not disclosed remains anonymous of the donors as there are more chances that the government will fulfil the needs and desire of the donors' instead of working for the welfare of the states.

In countries like the USA and UK, their electoral funding is liberal still there is a cap on donation and maintenance of the proper record of maintenance and the contribution are recorded properly.

In India, there is a need that a political donor must register themselves with the competent authority to maintain transparency of donation. RTI should applyto the parties and they should be brought within the scope of RTI in the view of influence and the significant role that political parties play in democracy. There is also a need forthe prohibition of corporate donations as those who are unable to vote must not be allowed to create imbalance and influence the electoral process.

Even National Election Fund or any such relevant body should be created to which all the party fund could be diverted and income tax deduction should not be given as it turns into the icing on the cake to the donors. This type of political funding also violates the rules of law as it develops to enhance the powerful parties that can even use funds for violent protests, illegal funding and misappropriation of funds.

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# VIOLENCE AGAINST WOMEN PRISONERS IN INDIA: A SOCIO-LEGAL RESEARCH IN TACKLING THE MENACE

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## ABSTRACT

*Women in Indian society are treated with respect. She is extremely important in society. She is particularly significant in her function as a mother. Women in India are granted equality under the Indian Constitution in all aspects of life. It also makes the state responsible for protecting women's rights and adhering to international accords on women's rights. However, the reality is that women in jail face numerous challenges. Despite many orders from the Supreme Court and the High Court, as well as recommendations from other committees, her basic human rights are being violated. It causes them problems in prison, necessitating extra treatment and the need to be removed. In India's prisons, the number of female inmates is lower than the number of male inmates. It could be a reason for women's rights in prison being overlooked. The major goal of this research paper is to bring attention to the challenges that women inmates face, as well as violations of their human rights, and to recommend adjustments that should be made despite several regulations concerning women prisoners' rights.*

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**Keywords:** *Violence, Prisoners, Women, Victimization, Human Rights*

## Introduction

"I just want to sleep. A coma would be nice or amnesia. Anything, just to urge obviate this, these thoughts, whispers in my mind. Did he rape my head, too?"
~ Laurie Halse Anderson

The #MeToo movement reached national attention in October of 2017. Activist Tarana Burke created the phrase in 2006 to support women of color who experience sexual intercourse violence.However, the phrase did not become popular until after the revelation of Harvey Weinstein's abuses, when he acted with actress Alyssa Milano who tweeted "If all women who have been sexually abused or assaulted write '#MeToo' as a condition on their status, we can give people a sense of greatness the problem."[1]In 1972, a young tribal girl was allegedly raped by two policemen on the compound of Desaiganj police Station in Gadchiroli, district of Maharashtra and her landmark case awakened India decades ago.[2] But the question is: Do all the voices of sexually abused vulnerable women manage to reach their destination? I open with this example to connect the following paper about sexual harassment in prisons and rule in the national dialogue and activists surrounding social sex harassment and beatings, and to think about why prisoners could not say #MeToo. India has the world's largest democracy beyond the name.

It has free elections, which includes many parties, the Parliamentary system, a unique and free-flowing judicial machine, and a country that aboundswithnon-governmental organizations that are proud of their independence and who help make the community, a living one. A prison is a rehabilitation center designed to convert prisoners.

Apart from this, prison systems often hide violence and immorality behind closed doors.Problems related to incarcerationare becoming more pronounced even under the context of female prisoners. According to the latest data available since the end of 2015, Indian prisons numbered 17,834 women. Only 17% of these women live in women's prisons, and most end up in women's cells. [3]There is a national and international agreement that the state of prisons and the women living in them need urgent improvement.

Prisons are more violent places as compared to society. The rates of physical abuse of female inmates are 27 times higher than the rates of females in the general population, according to prison ministry figures. Violence in prisons should be a priority issue for prison management for several reasons. First, violence kindle violence, that is, exposure to violence among youth increases the risk of later violent

and non-violent crime, drug use, and intimate violence against a partner.[4]Second, under international law, prisoners have a right to protect themselves from violence such asbeatings, rape, and abuse. According to Principle 5 of the United Nation.

BasicPrinciplesfor the Treatment of Prisoners: "Except for those limitations that are demonstrably necessitated by the very fact of incarceration, all prisoners shall retain the human rights and fundamental freedoms began within the Universal Declaration of Human Rights …"[5]Third, it is difficult and very costly to maintain a safe and secure facility with a good quality environment, including a well-functioning environment with a violent organization. Violence is very difficult to address and accurately assess because it is surrounded by silence and is therefore rarely reported. For this reason, reporting violence committed by inmates or staff can lead to retaliation. While this might even be the case within the world outside the prison, the deprivation of liberty means a victim who reports the violence has no possibility of shake the retaliation by the perpetrator. A study found that 25% of respondents who had not reported their most up-to-date experiences of assault said that they didn't believe that reporting victimization would make a difference. A further 20% didn't report an assault because they feared retaliation. [6]

### Reporting A "Custodial Rape" Or Labelling As "Sexual Assault Victimization"

WHO has defined violence as "The intentional use of physical force or power, threatened or actual, against oneself, another person, or against a gaggle or community, that either leads to or features a high likelihood of leading to injury, death, psychological harm, maldevelopment or deprivation"? It's noteworthy that the definition includes threats just like the potential use of force, in which the defining outcome isn't only injury or deathbut also psychological harm,maldevelopmentand deprivation.[7]

Violence may further be categorized as self-directed, interpersonal, or collective when directed towards (i) oneself (ii) one's family, intimate partner, or unrelated person; and (iii) specifically defined groups for reasons of a social, political, or economic agenda. Organized groups or states may perpetrate collective violence.

Thecharacter of the violence could also be physical,Psychological,sexual,ordeprivation/neglect.[8] Sexual violence is particularly difficult to review and assess the stigma associated with being raped or abused and also thanks to the danger of reprisals from the perpetrator. Sexual violence could even be defined as behavior that leads a private to feel that he/she is that the target of aggressive intentions. This may additionally include sexual pressure. During a recent study, sexual victimization was viewed exclusively as non-consensual sexual acts with oral, vaginal, or anal penetration also as abusive sexual contacts (touching or grabbing during a sexually threatening manner or touching genitals).Sexual victimization during imprisonment is experienced by between 1% and 40% of the inmates, while physical victimization is experienced by between 10% and 25% of the inmates.[9]

After the rape and murder of a veterinarian in Hyderabad on November 28 and therefore the burning of a rape survivor in Unnao, Uttar Pradesh, on December 5, there has been an outcry for justice for the victims. Within and out of doors Parliament there has been a clamor to form the criminal justice system tougher on an offender committing sexual crimes against women and youngsters.

'Rape' as a clearly defined offense was first introduced within the Indian legal code in 1860. Section 375 of the IPC made punishable the act of sex by a person with a lady if it had been done against her will or without her consent. The definition of rape also includes sex, when her consenthas been obtained by putting her or an individual in whom she is interested, in fear of death or of hurt. After the Mathura Rape Case of 1972, while the session's court acquitted both the policemen, the Supreme Court reversed the order of acquittal.

The apex court, in its September 15, 1978 verdict, said no marks of injury were found on the girl's private part or body after the incident, and "their absence goes to an extend which indicates that the alleged intercourse was a peaceful affair". The controversial verdict

sparked wide-scale protests across the country seeking a change in existing rape laws. Consequently, the Law was drastically amended and a replacement law entitled legal code Amendment Act, 1998 came into existence during which the very concept of 'custodial rape' as being more heinous than ordinary rapes was accepted. This Act caused some important changes within the existing provisions on rape within the Indian legal code. It amended Section 376 of the IPC and has enhanced the punishment of rape by providing that it shall not be but seven years. It's also provided enhanced punishment of 10 years of imprisonment for cops or staff of jails, remand homes, or other places of custody established by Law. The Act has further inserted a replacement section within the Indian Evidence Act Section 114A which lays down that where sexual activity by the accused has been proved and therefore the victim states before the court that she didn't consent, the court will presume that consent was absent and therefore the onus is going to be on the accused to prove that the ladies had consented to the act. The Act has amended the Code of Criminal Procedure and also provides for trial privately.

Custodial rape is an aggravated sort of rape. It's an assault by those that arealleged to be guardians of the women concerned that are specially entrusted for his or her welfare and safekeeping. Just in the case of custodial rape, the physical power that men have over women gets intensified with the legally sanctioned authority and power. Single women, widows with young children, and ladies belonging to the lower strata of society who need to eke out a living against all odds become easy prey to custodial rape because they're already bereft of the supportive mechanisms. Fortunately, reporting of custodial rape isn't very frequent in this country. Three rape cases in police custody were reported in 2002 and one such case was registered in 2003 which happened in Tamil Nadu. But albeit one such incident takes place that denigrates the image of the whole criminal justice system.

The Judiciary has taken a significant view regarding the commission of custodial rape. Whatever amendments, brought in rape laws to form the punishment more stringent, is especially due to those judgments. Within the State of Maharashtra vs. Chandra Prakash Keval Chand Jain[10] case, the court remarked 'decency and morality publicly life is often protected and promoted' if courts deal strictly with those that violate the societal norms. When crimes are committed by an individual in authority,i.e., a policeman, superintendents of jails, or managers of remands homes or doctors the court's approach shouldn't be equivalent to that case of a personal citizen. When a policeman commits rape on a woman, there's no room for sympathy or pity. The punishment in such cases should be exemplary.

Abusing positions of trust and authority aren't however limited to public officials or cops. Further examination of the lastdecade of official statistics reveals that while enforcement activity concerning violence against women across all categories has increased,[11]custodial rape continues as a rarity: 2002 statistics reveal that only 3 of the 16,370 rape offenses (under section 376 IPC) were custodial rapes, and a decade later, 2012 statistics reveal that custodial rape constituted just one of the 24,206 rape offenses.[12] Reforms to legal code and procedure seem to possess done little to stem the tide of gender violence in India. Does this mean that these legal reforms are a failure? It's documented in criminological circles that 'official' crime reports aren't an accurate estimation of the size or sort of crime in society for a variety of reasons. A 'dark' figure of crime exists, which remains unreported in police official crime statistics.Internationalvictimization studies suggest that much crime against women and youngsters isn't reported. This suggests that the steady increase in the number of rapes and crimes against women that are reported within the official statistics may be viewed because of the 'tip of the iceberg'. Furthermore, increased reporting of rape by victims may simply reflect the better and simpler investigative activity.

Sexual Violence in The Garb Of "Torture": Multifarious Forms of Violence's Against Women in India

"Beauty provokes harassment, the law says, but it's through men's eyes when deciding what provokes it."
~Naomi Wolf

Violence against women, including sexual violence, has been a persistent and chronic social problem within India. This has been the case notwithstanding the emergence of local reform movements within the 19th and 20th centuries that campaigned to enhance the status of girls and eradicate social practices that have entrenched gender inequality, including the repeal of discriminatory laws and practices concerning dowry, the status of widows, child marriage, also as demanding better education and equal political rights for ladies.[13]

By the top of the century, British authorities were finding it increasingly difficult to ignore these involves reform in light of the broader demands for political emancipation from colonial rule, and increasingly vocal demands from the suffragette movement on the domestic home-front. Demands for emancipation(both from Empire and Patriarchy) ledwomen to assume leading roles within the reform movements of India, culminating within the foundation of the All-India Women's Conference (AIWC) within the 1920s. [14]

India's independence from British rule out 1947 witnessed an extra growth ofwomen'sorganizations.[15]demandingreform .6 the principles concerning dowry were an early success: the Dowry Prohibition Act 1961, which was amended in 1984, strengthened the legal measures against perpetrators of dowry-related crimes. It might be fair to mention that these early social movements in post-independence India were focused on eliminating the gravest social harms like dowry-related offenses of torture, murder, and rape.

The key argument of this essay is that a lot of the laws and practices in India that denied women equivalent rights accorded to men were a part of a colonial inheritance, instead of a product of local indigenous customs, traditions, and religious practices. That said, custom, tradition, and religion in India have played, and continues to play, a big part in sustaining the subordination of girls. Of course, this is often not unique to India and maybe a feature of the many cultures. Because the United Nations made clear in its 1993 Declaration on the Elimination of Violenceagainst Women (DEVAW): "States should condemn violence against women and will not invoke any custom, tradition or religious consideration to avoid their obligations concerning its elimination." [16]

That religion plays a prominent role in subordinating women is especially in India perplexing since Hinduism is replete with female goddesses, like Kali and Durga, who were created from the synergies of the Gods to eliminate demons (evil) and were worshipped as a logo of Shakti (feminine power) in Hindu mythology. However, these mythological images of feminine power have done little to displace the entrenched and commonplace attitudes that devalue women in modern Indian society. As this essay concludes, it's this paradox that has been at the core of India's social organization and gender relations for hundreds of years and continues to the present day.

Torture may be a subgroup of collective violence, defined specifically by the severity of the pain, the intentionality, the aim, and therefore the perpetrator. Within the United Nations Convention Against Torture and other Cruel, Inhuman or Degrading Treatment,[17] torture is defined as (i) severe pain or suffering, physical or mental; (ii) inflicted intentionally; (iii) with a selected purpose like to get a confession or to punish; and (iv) by an individual acting during a public capacity.

In contrast, cruel, inhuman, or degrading treatment (also called ill-treatment) may involve less but still substantial pain or suffering and not necessarily be committed for a selected purpose.

Torture is prohibited consistent with the law of nations, and there are not any circumstances that justify an exception to the present prohibition. Nevertheless, consistent with human rights reports, torture is practiced in about 130 countries and is widespread and systematically utilized in 80–100 countries.[18]

Hostilities facilitate torture, for instance, between the fighters in an armed conflict or between religious, sexual, or political majorities and minorities. Such hostility may become de-individualization and dehumanization. Torture could also be interpreted as socialized obedience in an environment where the perpetrators see themselves as performing an excellent service by punishing a gaggle that they perceive

deserves ill-treatment. For this reason, minorities (of a sexual, political, or religious nature) are at increased risk of being victims of torture and should need stronger protection measures. Torture leaves frightful marks on the body and mind. A recent review of 181 studies demonstrates thatposttraumatic stress disorder and depression are frequent consequences of torture and related trauma. [19]

The relationship between prisoners and human rights has always been erratic. There always are conflicting opinions on the position about whether the prisoners are entitled to human rights or not. Some people have the opinion that, when an individual becomes deviant and commits acriminal offense, he should be bereft of all his rights. However, others think that some rights remain vested in a person even after the commission of a criminal offense by that person. There are certain basic rights which the prisoners are entitled to which safeguard them from some abhorrent practices. One such detestable practice is 'Torture' which is employed against the prisoners and under-trials to urge confessions from them a few particular events.

Unfortunately, torture has increased alarmingly throughout the planet. Consistent with the famous NGO 'Amnesty international', quite 100 countries have sanctioned the utilization of torture on their people.[20] The word torture is defined as "intensive suffering, physical, mental or psychological, which is employed to force someone to mention or confess about something against his or her own will". This paper aims to determine that the people undergoing incarceration referred to as 'Prisoners' also are entitled to a number of the essential rights even when a number of their rights are curtailed. Human rights are best defined because of the rights which each person inherits by birth. They're absolute as they are available from eternity and goes to eternity. They will be understood as inalienable rights "to which an individual is entitled to easily due to him being a part of the human family". Every person enjoys these rights despite their nation, location, language, religion, Ethnic or another status.

'Article 1' of "Universal Declaration of Human Rights"[21] states that "All individuals are born free and with equal dignity and rights".

By reading this text in UDHR, it is often construed that every person is equal in their rights before the law and no exclusions are made even when an individual has committed a criminal offense. Human rights are considered legal rights and because of their legal nature, it has a corresponding duty to protect these rights of every individual living in their territory.

It is established through different texts and judicial interpretations that committing a criminal offense doesn't reduce the status of a person's being into a non-human being. The provisions for the treatment of prisoners has been recognized on international levels and are discussed under various International Instruments like "Universal Declaration of Human Rights" (UDHR), "International Covenant on Civil and Political Rights" (ICCPR), the "United Nations Standard Minimum Rules for Treatment of Prisoners", the "European Convention for prevention of torture and inhuman or degrading treatment for the treatment of prisoners", "United Nations basic principles for the treatment of prisoners" and "United Nations convention against torture and other cruel, inhuman and degrading treatment" (UNCAT).

The attention of the Indian Supreme court was first drawn to the Rights of prisoners in 1983 while deciding the case of T.V. Vatheeswaran v State of Tamil Nadu.[22] The court held that the essential fundamental rights that are provided under 'Articles 14,19 and 21' under Part III of the Indian Constitution are available to prisoners at the least times as are given to the freemen. The court further stated that the walls of prisons cannot keep fundamental rights out.The Indian Constitution doesn't state any provisions concerning torture, however, the Indian Supreme Court, while deciding the scope of the elemental rights granted to each individual under Part III of the Indian constitution asserted that "each and each individual has the proper to life and he should live it with human dignity" which incorporates that torture shouldn't be used on an individual which affects his right to measure with dignity. Therefore, the Indian judiciary while deciding different cases has played a serious role in granting the prisoners their rights.

Under the National legislations, "Indian legal code 1890", under "Sections 330 & 348",

makes the act considered as torture as penal, with 7 and three years of imprisonment, but when this offence is committed by a policeman on duty, it's not applied. Therefore, these provisions fall in need of covering all the prospects of torture as defined within the Convention against torture.

Custodial torture in India is so common that the overall public has accepted it as a traditional routine interrogation conducted by police on account of a criminal offense committed by a private. Only the foremost grievous cases of custodial torture are reported, there's nothing quite a momentary shock within the society which eventually leads to a public outcry. Only after this public outcry and appeals, the govt takes the notice of things of prisoners and under-trials in prisons because they're left with no other option. Even when the govt is to require action against the guilty officers, the very best punishment the officer gets maybe a suspension. After the incident fades far away from the general public memory, the guilty officer resumes their services.[23]

Even the Indian Supreme Court, within the recent case of Munshi Singh Gautam vs. State of Madhya Pradesh[24], summarizes their grief concern about this problem of torture in Indian prisons by police. The Supreme Court stated that:

"The dehumanizing torture, assault, and death in custody which has assumed alarming proportions raise serious questions on the credibility of the rule of law and administration of the criminal justice system… the priority which was shown in Raghbir Singh case quite 20 years back seems to possess fallen on deaf ears and thus things don't seem to be showing any noticeable change. The anguish expressed within the cases of Bhagwan Singh v State of Punjab, Pratul Kumar Sinha v State of Bihar, KewalPati v State of UP, Inder Singh v. the State of Punjab, State of MP v Shyamsunder Trivedi and thus the by now celebrated decision within the landmark case of D K Basu vs. State of West Bengal seems 'not even to possess caused any softening of attitude within the inhuman approach in handling persons in custody'."

Therefore, I will conclude by saying that human rights are available to every individual, even when he's a civilian or a criminal. The prison bars cannot exclude the essential rights of a private. It's also been established that the prisoner while in the custody of police in India is entitled to 'Right against custodial torture' under 'Article 21' of the constitution. However, watching the present scenario in India and reports of the National right commission and other NGOs like amnesty international, etc., it's clear that this right of prisoners is still violated in Indian prisons on a day-day even when the politicians deny it.

The Indian government is a signatory to the "United Nations Convention against Torture" has done not perform its obligation to guard this right of people including prisoners. Monthly a replacement case is being reported in India concerning death in police custody because of police torture. The Indian government till now has not ratified the "United Nations convention against torture" and even after the introduction of 'Prevention of Torture Bill, 2017' in the Indian parliament, no such legislation was passed. This shows the voluntary delay of the Indian government to ratify the convention, the most explanation for which is to stop themselves to be answerable to the United Nations for the torture cases.

## "Counting Of Risk" Or "Prevention of Assault": Which One Will You Choose?

"We mute the belief of malevolence- which is just too threatening in touch - by turning offenders into victims themselves and by describing their behavior because of the results of forces beyond their control."

~Anna Salter

Indian Constitution grants equal rights to women, prisoners' rights and arrested persons rights under Articles 14, 15 (3), 21, 22. Various legislations also are enacted to protect the women prisoners from violence like Prisoners Act, 1984, Indian code, Criminal Procedure Code, 1973, Indian Evidence Act 1872. The govt. is additionally providing various recreational programs inside the prison for the rehabilitation of prisoners like Education, Yoga, Meditation, Library, Prison Labor, and Visiting their relations. Once they are released from prison, the govt. also provides for "Aftercare services for released prisoners" to protect them from social stigma. The matter arises only when the poor and illiterate female enters the prison and

repeatedly, they are physically and mentally harassed by the prison staff.

The worst kind of custodial violence is the custodial rape of women prisoners by prison staff. Indifference is a significant issue which they're facing. There are horror stories about the torture in custody of the women prisoners. Asian Centre of Human Rights (ACHR) stated that "custodial rape remains one of the worst kinds of torture perpetrated on women by enforcement personnel and sort of custodial rapes of women happen at regular intervals". Women prisoners who are within the custody of police complained particularly of harsh treatment by the police including sexual indignity or abuse, physical torture, beating, and rough handling. An entire disregard by the police of procedures applicable to arrest, search, custody, and other rights creates immense hardship for the women. Variety of the incidents of custodial rape and thus the relevant decisions of upper courts are as follows.

Padmini, wife of a suspect during a theft case, was gang-raped in 1992.Her husband was taken to the Annamalai Nagar police station in Chidambaram for interrogation on May 30, 1992, and kept in custody till June 2, 1992. Her husband was beaten to death. When Padmini visited the police station to meet her husband, she was gang-raped. Out of the 11 policemen involved during this case, 7 were acquitted and 4 convicted to undergo imprisonment for 10 years.

The convicts went in appeal to the Supreme Court, which upheld the conviction of the trial court and MadrasHigh Court. Before the intervention of the High Court of Madras, the Tamil Nadu government offered to pay Rs. 1 lakh as interim compensation and also agreed to provide Government employment andaccommodation in government homes.[25]

SoniSori a 35-year-old Adivasi school teacher, warden, and mother, was subjected to sexual violence while in custody within theDantewadapolicestationin Chhattisgarh under the direction of the Superintendent of Police (SP) says in her letter to the Supreme Court advocate that

"After repeatedly giving me electric shocks, my clothes were taken off. I was made to stand naked in front of SP who was watching me,

sitting on his chair. While watching my body, he abused me in filthy language and humiliated me. The Supreme Court released her on bail in 2013." [26]

Women prisoners aren't safe in lockups. Ms. Saradha was delivered to Special Prison for girls, Vellore, Tamil Nadu, as a remand prisoner having been remanded by the Judicial Magistrate. She was undressed totally and dragged nude for quite awhile till they reached the doorway of her cell and was put in solitary confinement and was never given back her clothes and no office within the prison bothered about her. She was only offered compensation by the court.[27]

The Supreme Court has rightly observed in State of Punjab v. Gurmit Singh[28], that a rapist not only violates the victim's privacy and private integrity but inevitably causes serious psychological also as physical harm. Rape isn't merely a physical assault;it's often destructive of the entire personality of the victim. A murderer destroys the human body of his victim; a rapist degrades the very soul of the helpless female.

So, women face a lot of hurdles altogether stages of the criminal justice process, especially while in police custody. At the time of her arrest, the women suffer from a lack of knowledge about her basic rights. This custodial violence is daintily a menace or cancer to our Indian Society.To address the prevention of violence, the beginning line is within the reason of models of violence. To understand prison violence, there are two main models, which are as followed:

The importation model emphasizes that prisoners bring their violence-prone behavior to the institutions through their histories, personal attributes, and links to criminal groups, as an example. This model would show efforts of prevention towards addressing the individual prisoners' susceptibility to violence through social programs like anger management programs.

The deprivation model holds that prison and deprivation from liberty can cause psychological trauma so that, for self-preservation, prisoners create an oppositional prison subculture promoting violence. This model would direct prevention efforts towards the environmental factors and general prison

climate, which require to be addressed by prison management. Recent literature has predominantly focused on the tiny print of prison organization, interactions between people, and situational factors of considerable significance for prison violence.

### Risk factors associated with prisoners

Individual risk factors range from potential violence to assaults with seriousinjuries. Youth and short sentences are associated with higher levels of violent misconduct, while older age, drug convictions, and better educational attainment indicate reduced violent misconduct. Using registration of injury, Sung[29] found that a history of violent offenses, violent victimization, and psychiatric treatment was associated with an increased risk of injuries. Work assignments reduced violence-related risks but increased the likelihood of accident-related risks.

Wolff, Blitz & Shi[30] studied sexual victimization in prison for inmates with and without mental disorders and located that the rates were approximately 2.5 times higher for inmates with a mental disturbance and 3 times higher among female inmates compared to males.

Other special needs groups are likely to be in danger of victimization, like inmates affected by chronic diseases, minorities (ethnic, sexual, religious), and inmates with drug abuse. Also, the rising population of older prisoners is victimized to an outsized degree. Considering the health problems and functional deficits prevailing among older prisoners, it's likely that such victimization features a considerable impact on their quality of life and feelings of safety and security.

### Situation risk factors

Studies have found a greater risk of violent incidents in higher-security facilities. This could be expected because high-security facilities host more violence-prone prisoners. However, it'd even be expectedthat security measures serve to manage the danger of violence and thereby prevent it. There is also evidence that mixing the ages of prisoners could also be related to lower levels of violence than those found among groups of younger prisoners. Violence between inmates and violence against staff are correlated because the staff is often injured during attempts to interrupt up fights between inmates.[31]

Crowding is assumed to be a risk factor for violence, but the evidence for this is often not convincing. Last, risk factors for violence in prison settings involve factors associated with the extent of security, mixture of prisoners, staff experience, days of the week, and management approaches and relationships between different staff groups.[32]

### The role of the prison health services

While the prison management, including security measures and prison climate, has been identified above because the key thinks about preventing violence, the health services have the potential to form a crucial contribution to the prevention of violence. Access to health care is related to the prison climate:apositive prison climate facilitates interactions between correctional and health care staff and prisoners, while in negative climates correctional staff act as a filter or barrier between inmates and therefore the health services.

When violence results in injuries or psychological consequences, the prison health service is usually involved in getting to the victims. In delicate cases(cases of sexual violence, torture, or staff-on-prisoner violence), the health services could also be involved under a false pretext, like accidents, fights between prisoners, or "falls". They'll even be pressured to form a false report on the causes of the injury. However, it's important to develop a particular health information registry of the causes and circumstances of the injury, that is, violence between prisoners or between staff and prisoners. With an injury registry in place, the injury data can provide indispensable information on the way to prevent violence through the examination of such factors because of the place, time and day, circumstances, persons involved, and therefore the nature of the violence.

Of particular importance for the prevention of violence is that the initial checkups are administered on arrival within the institution.[33] This examination should specialize in, inter alia, identification of indications (report, signs, and symptoms) of violence or maybe torture experienced before

arrival at the institution. A careful record should be made from such signs and symptoms and made available to the prisoner for potential subsequent complaints or legal remedies.

In addition to the health information registry of episodes of violence for internal consumption and quality development, the health services got to have a reporting mechanism to independent authorities, like the ministry of health or an independent human rights body, to make sure that the fragile and punishable cases of violence, torture or sexual assault could also be evaluated neutrally.

The integrity of the health services, that is, the power to work professionally independent of the prison management, is at stake here, as is that the technical capacity to document sensitive cases of violence, torture, and sexual assault for future documentation and legal remedy.

## Recommendations And Suggestions

"Until justice rolls down like water and righteousness like a mighty stream."
~ Martin Luther King Jr.

As Kiran Bedi, Retd. Joint Commissioner, Special Branch has observed:

"The law of rape isn't just a couple of sentences. It's an entire book, which has demarcated chapters and can't be read selectively. We cannot read the preamble and suddenly reach the last chapter and claim to possess understood and applied it."

Custodial rape is an epidemic problem in certain nations. An individual is in 'custody' when he/she is under the care, supervision, and control of another person or institution called a custodian. Normally, the custodian has an absolute or a high degree of control over the individual, including his/her mobility, liberty, food and water, contact with the surface world, and such. This relationship of control and dependence casts a robust duty of care and protection on the custodian. Rape, under such circumstances, maybe a much more serious violation, since the aggressor takes advantage of his position of control over the lady, violating not only her bodily integrity but also the duty to worry and protect.

The most common example of custody is detention by the State, through the police, army, and other security forces, which canbe at police stations, lockups, prisons, and interrogation centers. As an example, in February 2005, a soldier with the Tripura State Rifles raped a minor girl in the West Tripura district. In January, a report prepared by retired judge ChanambamUpendra Singh found 2 members of the 12th grenadier's military unit guilty of raping 15-year-old Sanjita Devi in Manipur in 2003. In February, an Assam Rifles constable allegedly raped a 12-year- old girl within the KarbiAnglong district of Assam, sparking widespread protests from various women's organizations. In September authorities charged two members of the Bihar police with the custodial rape of a 35-year-old widow who was detained on a murder indictment.

The rape of persons in custody was a part of a broader pattern of custodial abuse. Most of the NGOs asserted that rape by police, including custodial rape, was more common than NHRC figures indicated. A better incidence of abuse appeared credible, given other evidence of abusive behavior by police, and therefore the likelihood that a lot of rapes went unreported thanks to the victims' shame and fear of retribution. Consistent with 2002 records from the National Crime Records Bureau (NCRB), the newest available, courts tried 132 policemen for custodial rape, but only 4 were convicted. The Ministry of Defence reported that it filed 17 rape cases and 10 murder cases against army personnel from 2003-2004. To date, one rape case and five murder cases led to guilty verdicts. Within the remaining cases, the investigations remained ongoing or the fees were proved false. It had been during this climate that three cases of custodial rape occurred in quick succession, Mathura Rape Case, Rameeza Bee, and Maya Tyagi. The three incidents were targeted sorts of violence against women, which also involved anabuse of power by public servants who are duty-bound to guard the people of India.

So how can we then add up those selective, extreme responses? Why selective outrage for "brutal" rapes? Isn't all rape brutal? Why selective outrage for "rape accompanied by torture"? Isn't all rape torture? When women are alive, we don't believe their testimonies. Can we need women to die to storm the streets? During this paper, I hope to convey

those knee-jerk reactions demanding harsher punishments for particular sorts of rape are patriarchal in principle and harmful in practice. While it's difficult to prosecute and punish a rape accused, the challenge is even greater when it involves custodial rape. In legal code, the state is taken into account to be the protector of the people, which is why it's the state that prosecutes rape cases, and not the victim. However, this logic doesn't hold in cases of custodial rape. Since incidents of custodial rape typically happen in police stations, jails and other places travel by/under the control of the govt, the evidence is within the control of the general public servants. They can destroy the evidence from the place of crime. To counter this, the women are asked for a shift in onus of proof from the prosecution to the accused in custodial rape cases.

However, it's difficult to even register an FIR against the police. Problems encountered by women with registering FIRs are:

1. Police or other forces refusing to simply accept the complaint of the victim. this might be under the authority of either Police Standing Orders, or the impunity for offenses granted under unjust laws like the soldiers Special Powers for the Police, Central (Armed) Reserve Police Forces, or the Army.

2. The police practice of recording informal complaints within the sort of Community Social Register (CSR) instead of FIR – this has the effect of removing the recording of the offense outside the purview of CrPC and therefore the safeguards it provides victims;

3. The political compulsion to suppress crime statistics, including statistics about custodial rape.Even if FIR is registered, S. 197 CrPC prescribes that an employee can't be prosecuted for any offense for any act done while discharging the official duty, without the prior sanction of the state or central government, whichever was the authority that appointed the general public servant.

In principle, the demand for harsh retributive justice for rape is summarized upon a patriarchal understanding of rape. It views rape as more horrific than other sorts of violence.

Since we feel something, more is lost when a woman is raped- her value and honor and identity- we feel compelled to require more justice for rape than other sorts of violence, albeit all violence is non-consensual. This is often why we get moved to call for lynching, castration, and hanging of rapists.

To understand the impact of harassment on women one must hear the account of its victims as nobody conveys the meaning and truth of harassment better than the ladies who have endured it. Women often internalize male perceptions of harassment and blame themselves for having brought on the harassment.

Sexual harassment is nothing but the showcasing of male dominance. Every hour, two women are raped in this country. What's more horrendous is that

133 elderly women were sexually assaulted last year, consistent with the newest report prepared by the NationalCrimeRecords Bureau(NCRB). Acomplete of 20,737 cases of rape were reported last year registering a 7.2 percent increase over the previous year, with Madhya Pradesh becoming the "rape capital" of the country by topping the list of such incidents.

Law remains but the number of victims (including minors) continues to extend destroying the very soul of the helpless women. The concept of marital rape doesn't exist in India. Contrary to the favored belief rape is nearly never perpetrated for sexual gratification. It's an 'act of violence that happens to be expressed through sexual means. Severe and certain punishment during a time-bound manner, of therapists, has some deterrent value. An arrest alone might not constitute a robust societal response. Lengthy prison sentences have some behavior-altering deterrent values. Many well-known jurists and public men have advocated execution for the criminals who commit rape because it is an offense worse than murder thus far as its impact cares.

The courts need to comprehend the very fact that these conscienceless criminals- who sometimes even beat and torture their victims- who even include young children, aren't getting to be deterred or ennobled by such a little time of imprisonment. Therefore, within

the best interest of justice and therefore the society, these criminals should be sentenced to captivity execution. Therefore, we need to address custodial rapes as a social evil existing in our society.

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# IDENTIFYING THE CHALLENGES AND OPPORTUNITIES IN FINANCING BY UAE

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## ABSTRACT

*The backbone of any economy is the small and medium enterprises (SMEs) since they are the primary contributors in the employment sector in most developing and developed countries. However, access to finances for SMEs is often problematic or challenging compared to the financing possibilities of the financing scopes that large corporation or firms can avail. Financing is often one of the major problems of SMEs. Apart from challenges, UAE banks today support a good number of SME platforms beyond banking services. For example, an SME Bank Friendliness Index was launched in 2012 with the aim of identifying UAE banks that had the highest orientation towards supporting and developing SMEs in the UAE. Based on extensive surveys of SMEs at different stages of growth, and in different sectors of the economy, an index was developed based on the SMEs' experiences with their banks on all levels of interaction. The present study will present these challenges and opportunities of financing in context with SMEs of UAE through secondary data analysis.*

***Keywords:*** *Finance, SME's, economy, data analysis.*

### Introduction

SMEs or Small and Medium sized enterprises are those which do not come under any bank but have a collaboration with certain banks and are funded by the government bodies. These enterprises provide employment opportunities to the people who are poor and are unable to find jobs due to their low educational qualification. The employment capacities of the SMEs are not that much like the large or big enterprises and have a lesser occupancy. However, the rate of SMEs is constantly increasing which is in turn providing financial support to a country's economy (Abed, 2020). As per the European Union, the upper limit of occupancy of SMEs is upto 250.
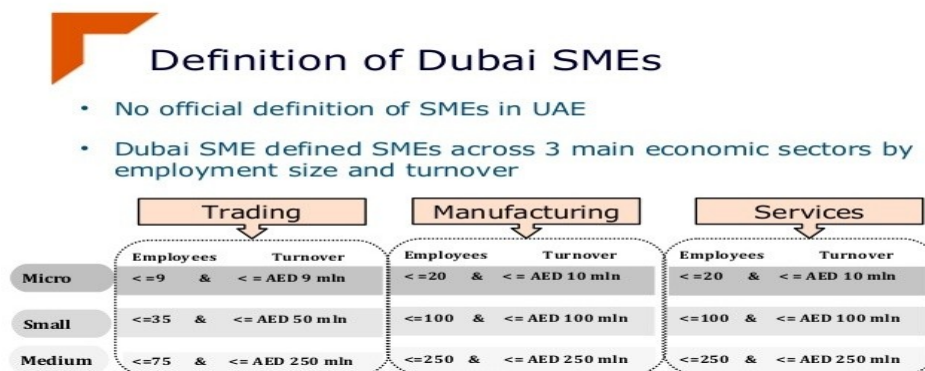


Source: Dubai chamber, 2014

Therefore, we can say that SMEs are the enterprises that keep their revenues, assets, and employment below the average threshold. However, being smaller in size, SMEs are a fundamental part of a country's economy as it contributes more than 40% of total employment and more than 30% of total GDP of a country (Moeuf et al. 2020).The main problem for the SMEs is collecting capital. Due to small size, people hesitate to fund these enterprises. However, these enterprises can apply for funding to the government bodies which can help them to establish their company or business at its initial stage. The government bodies acknowledge the importance of these enterprises and provide those incentives, favorable tax benefits, and help them to access loans easily. They also provide numerous educational and training programs to train people and make them aware of how to run the SMES (Masood and Sonntag 2020).

### Significance of SME sector in UAE

- During the past few years, more than 20,000 SMEs were setup in Dubai and more than 35,000 SMEs were setup in UAE

which provided 80%-82% new job opportunities to the people of UAE.

- As per various observations, it is seen that due to the enhancement and promotion of the SMEs in UAE, new partnerships and startups have been established which has contributed to the UAE's economy in a positive manner.

- The SME sector provides a very positive business environment through which new and innovative business ventures were seen in Dubai. These ventures and startups provided a long term benefit to Dubai's economy.

- Recently, AED has allocated 5 billion SMEs to setup in UAE which is basically instrumental which can provide a vigour and significant result in the enhancement of the world's fastest and most emerging sector (Gundala and Khwaja 2014).

- The future of the UAE will solely depend on the amount of effort they put on setting up SMEs and the amount of focus they put to enhance the present condition of the SMEs. UAE believes that the enhancements that are presently occurring are just a marathon run and there is a long way to go (Kumar, 2014).

## SME Contribution to Dubai Economy

SMEs contributed on average 40% of Dubai total GDP



Dubai SME's GDP by Activity

Manufacturing 13%

Trading 47%

Service 41%

Source: Dubai Chamber, 2014

## Literature review

Tirupathi et al. (2020) stated that SMEs of UAE reported serous fluctuations in its growth and development. It is worth noting fact that around 95% of UAE business sector is engaged in small and medium size industries. Apart from its biggest share in the UAE's economy, SMEs still register high growth fluctuations. This study identified the key challenges and constraints which restrict SMEs in growing further. The purpose of this study is to find out hoe sustained growth is achieved in SME sector of UAE. This study applied the framework of sustained growth to find out the possible reasons behind fluctuated growth of SME sector. This study claimed that there are various factors impact the growth of SMEs in UAE such as competitive succession planning (due to majority of family owned business in UAE), strategic planning, technology, innovation, internationalization, competitive business models and availability of financial resources. This study claimed that finance is an important business consideration among SMEs. Majority of the SMEs failed due to lack of finance in UAE.

Baby and Joseph (2016) attempted a study to explore the banking issues faced by SMEs of UAE. As per this study, SME Sector assumes a significant part in the UAE Economy, it has its own exceptional difficulties, particularly financing by banks. Banks in United Arab Emirates have a significant duty to finance SME Sector which is the genuine spine of the economy, in such a way that there can be a shared mutually beneficial situation. Nonetheless, as of late the banks are hesitant to loan to SME referring to a few skip cases. A few banks have even closed down SME offices. Then again, when we address SME section, we get the feeling of dread and frenzy among them if there should be an occurrence of a potential default. It could be noticed that such a circumstance for the most part emerge because of conditions outside the ability to control of finance managers. In spite of the fact that lion's share of business in UAE are SMEs, the Bank

loaning to them is only 3.85% of the all-out Bank openness. SME area gripes about the challenges associated with managing banks while banks have their complaints about SME customers. In the current market, the circumstance has disturbed with banks further fixing the credit lines that has begun affecting even the certifiable finance managers, setting off a chain response. This article attempts to examine the explanations behind the difficulties looked by the SME and Banks and investigate potential arrangements.

Avevor (2016) explained the financial challenges faced by SMEs of Ghana.In the hypothetical structure it was obviously appeared by exploring past investigates that SMEs are confronted with different difficulties while getting to credit from the monetary organizations. This conviction has been affirmed by the experimental system of this investigation. Monetary organizations have set up different necessities which are not handily met by the SMEs and both SMEs and monetary organizations have a few difficulties/troubles each face while executing business. The fantasy about lack of education rate being the reason for most entrepreneurs not having great accounting records of their deals isn't in correspondence with the exact examination. The examination shows just 25% of the respondents have no formal instruction, consequently the high pace of absence of accounting is because of different elements like administrative abilities for instance and not exclusively because of lack of education. All in all, as per the hypothetical system, monetary establishments think about the SMEs to be exceptionally unsafe. This relates with the way monetary establishments put in a few measures to be met by the SMEs, and furthermore the rate at which they reject advance applications and the high loan cost they typically charge the SMEs which got obvious in the observational investigation.

Jonnes and Mosteanu (2019) explored the challenges faced by SMEs of UAE regarding finance and capital. This study is based on primary survey where interviews are conducted with new business people. Examination uncovered that there is a disarray, absence of data and difficulties of the necessary sum and records required with banks. In a similar time

there is a comparable or a remarkable same methodology with enormous organizations, with regards to banks record or bank financing. While business and SMEs assume a significant part in the UAE economy, it has its own one of a kind difficulties, particularly financing by banks. Banks in the UAE have a significant duty to subsidize business venture and SME area which is the genuine spine of the economy. The way that the absence of lucidity and openness to starting a business account still almost unimaginable or a hard mission to achieve these days in the UAE market. The kickoff of another business account is pivotal for any new companies. That is given the way that the expanding importance and obvious effect of business venture in abundance creation and business advancement in the nation would require schooling programs intended for quick turn of events and development of youthful business people.

## Objectives of the study

➢ To understand the significance of SMEs in economic development of UAE
➢ To study the current scenario of SMEs in UAE regarding financing
➢ To identify challenges faced by SMEs in financing
➢ To identify issues faced by UAE banks while lending to SMEs

## Analysis of literature review

On the basis of literature review, following are the key challenges faced by SMEs of UAE while availing finance from banking institutions.

1. Complexities in opening bank account: There are various difficulties in opening a bank account in UAE. There is a strict requirement of trade licences, memorandum of association, chamber of commerce, contractual documents, multiple emirates identity certificates, visa copies, previous bank statements, statement of any of other existing bank accounts and many more. These strict documentation requirements restricts small and medium business enterprises to even think regarding entering a bank.

2. Requirement of minimum balance while opening bank account: The base

equilibrium needed to start a business account in the UAE varies from one bank to another. Each bank has a bunch of various prerequisites that are totally unique in relation to the next. The figures range from AED 15,000.00 till 50,000.00. This is identical in US Dollar, in view of the conversion scale of USD 1 = AED 3.65 (swapping scale among USD and AED is fixed by law), hence from USD 4,110.00 till 14,859.00. The issue is that for new business people, as we would like to think as specialists, is viewed as an impediment. This cash, for new companies, can be put by one way or another in the business than keeping it in the actual record. That is a difficult impediment as banks ordinarily do not give a credit to small business enterprises.

3. Maintain minimum balance monthly in account: to avail financial opportunities from banks, SMEs have to maintain a minimum amount in the bank as specified by the UAE government. This is the major issue as reported by various studies. Maintain a particular limit in bank account restricts small business enterprise to further expand their operations.

4. Requirement of minimum turnover of SMEs. Other obligation demands a fixed sum of turnover if SMEs require financing opportunities. The turnover required in UAE 100,000 to maximum 5, 000, 00. These limits vary as per the requirements of financing options and bank policies.

5. Lack of financial information: As UAE is a tax exempt country, recording of yearly Balance sheets for SMEs are not compulsory in the vast majority of the cases. A significant number of the Micro SMEs, do not attempt auditing. So in large numbers of the cases, the Banks are constrained to confine their fiscal report investigation to simply Bank explanation examination. Presently Banks are demanding the SMEs to get ready evaluated Balance sheets for looking for Bank account. Anyway larger part of the respondents have worries on the nature of the budget summaries including the Pay articulation and the Balance sheet. Given the shortfall of duties, counterfeit swelling

of turnover and benefits are a typical sight even in examined asset reports.

Furthermore, The SME sector has proven its importance in UAE. In a summit in Delhi, UAE has stated that the SME sector is the backbone of the UAE's economy. UAE also stated that the SME sector is needed to provide more benefits and partnerships so that it can penetrate the market and can create global economic welfare (Muhammad, 2015).

## Challenges faced by SMEs in Financing

Through all the observations and surveys, it is very much clear that the SME sector is the fastest and most emerging sector in the world. The establishment of SMEs provides great financial support to a country's economy. However, there are certain challenges that are faced by the SME sector in terms of financing.

## Lack of Credit

Starting a business is not an easy task. The investment you have to make should be according to the things that you are going to install in your facility. Even if a person has a very creative approach to starting a business, they have to invest a certain amount of money to open or start their business (Ramachandran and Yahmadi 2019). The concept behind starting a SME is to start a business with a minimum initial investment and to provide more and more employment to the untouched sectors. However, the accreditation schematic for SME is not constant as people hesitate to invest in the SME sector.

## Lack of Technology

The SME sectors involve small and medium sized enterprises which have a productivity below the average threshold. The investment which the business owners make is minimal. Therefore, the availability of advanced technology is nearly impossible as these tools require a high amount of investment which is not possible for the business owners (Paul et al. 2017).

## Insufficient marketing

Though the business owners have innovative ideas and creative ways of providing work to the people, they are unable to make proper marketing because a proper marketing requires numerous campaigns and channels through

which a company is made visible to the people. Therefore, due to inadequate marketing, less people are aware about the benefits that the SME are providing them (Ramachandran and Yahamadi 2019).

## Challenges faced by UAE banks in Lending SMEs

There are numerous summits that said that UAE has SMEs as its backbone. However, there are certain challenges faced by the SMEs regarding money lending by banks.

### Lack of Transparency

The lack of financial transparency is the one of the most prevalent reasons due to which the banks in UAE do not lend money to the SMEs as they do not tend to do a risky business regarding money lending.

### Lack of Credit History

We all are aware that to have a proper bank loan, we must have a proper credit history on behalf of which the bank will lend money to us. However, the banks face a problem on lending money to the SMEs in UAE due to the insufficient or lack of a proper credit history (Baby and Joseph 2016).

### Lack of Assets

When people apply for loans from banks and do not have a proper income history, they ask them to provide them with certain assets on behalf of which the bank lends them money. However, the banks in UAE have problems lending money to the people who are going to start a SME as they do not have proper assets due to which the bank finds it difficult to provide them with the appropriate amount which they need (Baby and Joseph 2016).
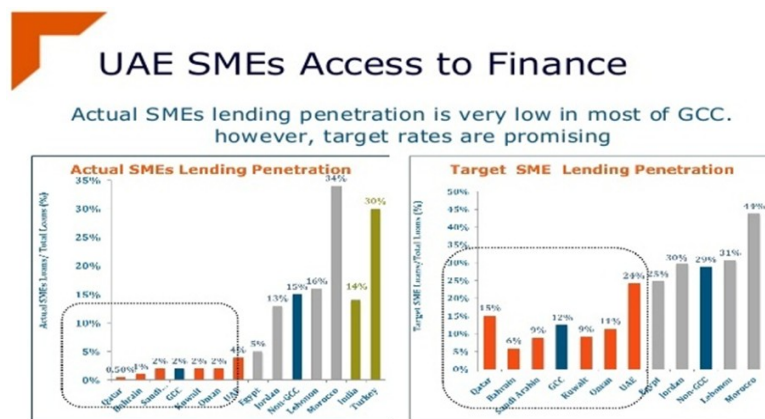


Source: Dubai Chamber, 2014

It is clear from the above picture that there is a big difference between target lending and actual lending of SMEs. Financial challenges are the key restrictions in the growth and development of SMEs in Dubai. The target lending ratios are not even covered in half if we analyze actual lending penetration in UAE SMEs. Venture capital and private equity are reportedly not signification financing options for SMEs in UAE. Approximately 70 percent of SMEs in UAE are not having any financial access. These SMEs are dependent on self-finance options. The SMEs of UAE avail finance from banks for working capital (59%), capital investment (37%) and short term financing (4%). From supply side of finance, banks are cautious while lending to SMEs due to lack of credit information (The world federation of exchanges, 2021). SMEs are not engaged in maintain audit due to high maintenance costs. As per financial institutions, SMEs are risky in terms of lending. Furthermore, there is lack of financial skills, guarantees and collateral availability. Apart from this, SMEs are also reluctant to finance from banking institutions if we consider demand side analysis. There are various reasons such as cost of credit, borrowing requirements, and lack of awareness (The world Federation of Exchanges, 2021).

## Conclusion and recommendations

The above analysis claimed that SMEs are significant source of economic development

which results in numerous externalities to a particular country. SMEs of UAE are contributing a powerful share in generating employment opportunities and enhancing the per capita income of people. Apart from these positive externalities, SMEs are facing various challenges in availing financial opportunities from baking institutions such as complex banking structure, cost of credit, lack of weakness and costly maintenance charges. This study also highlighted the issues faced by banks from supply side.

After investigation, the exploration finishes up with potential answers for SMEs and any new organizations openings. These arrangements might be the following: creating and executing clear, fit and recognized guidelines for opening a financial balance, without a past bank explanation necessity (if there is no any); tolerating substantial resources (as structures, land, devoted hardware and vehicles) as a feature of beginning capital; lower interest rate level for business/business credits/new companies, give advances to new businesses sponsored with genuine bequests and, in a similar time, banks would be smarter to lead mindfulness about terms and conditions for banking account, monetary help and monetary order, helping the new companies and new business people with bank the board record, exchanges and monetary resources.

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# ROLE OF PSYCHOLOGICAL CONTRACT ON EMPLOYEES BEHAVIOUR- A COMPARATIVE STUDY OF GOVERNMENT (BOTH STATE AND CENTRAL) EMPLOYEES IN HIGHER EDUCATIONAL INSTITUTES IN KOLKATA

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## ABSTRACT

*Human resources in associations are the main resources capable of practicing their insight and acumen. Normally more noteworthy the separation and contrast from their pre-passage desires and post-section encounters, more is the possibility of whittling down. Associations hence lose experienced representatives. This investigation examines the effect of HR rehearses on organizational execution through the mediating part of psychological agreement and further examines whether this relationship stays stable during periods of external economic emergency. The examination results demonstrated that both administration style and institutional atmosphere had impacts on personnel's psychological agreement (PC). Multiple regressions were utilized to investigate the data. The outcomes recommend significant relationships between PC satisfaction and occupation mentalities however neglect to set up significant moderating impact of generations.*

**Keywords:** *Psychological, Economic, Organizational, Performance, Attrition.*

## Introduction

The Psychological Contract (PC) has been characterized as the certain relationship between an employee and his/her association which traces what each ought to hope to give and get in the relationship. PC creates when the employer satisfies its obligations to its employees. On the off chance that the guaranteed and suggested obligations are not satisfied by employers, employees react both psychologically just as behaviorally as far as low occupation fulfillment, lower organizational responsibility, lower citizenship conduct and higher aim to leave. PC has gone through generous changes due to the technological changes, cutting back, restructuring and different social and market changes. This has driven the associations to update their strategies so as to oblige the progressions and rethink the employer-employee relationships. All the more critically, given the demographic compositions of the present workforce, it has gotten relevant for associations to deal with the necessities, desires for progressively differing workforce as far as sex, race, social foundations and generations.

Higher educational foundations in Taiwan today are confronting the most serious test because of the educational changes late years. One of the most far reaching developments in educational change occurred in Taiwan when the government provided the "Twelve Education Reform Mandates" in 1998. This change achieved more prominent admittance to education at all levels. Went with this Act, there has been an increase of schools and colleges in four-year level. As per Ministry of Education in 2005, there were just 51 four-year schools and colleges in 1992 contrasted with right now 179 to date, the increase rate in 19 years is phenomenal. The circumstance definitely increases the rivalries among schools and colleges, which additionally increases the rivalries among schools on recruiting and holding qualified resources. Likewise, with a more prominent rivalry in the innovative society today, the climate of advanced education has gotten more confounded, serious and systematic. The school presidents are required to adequately upgrade academic advancement as well as to function as an expert chief who can successfully oversee and spur staff and workforce so as to keep the school competitiveness. It is significantly more the situation for private colleges in Taiwan. It is accepted that one of the pivotal initiative difficulties in any associations today is to make and keep up a more viable relationship among employer and employees. A significant component of this relationship is employee psychological agreement (PC). The psychological agreement speaks to the employee and employer's convictions and observations about what they owe to one another, and is significantly identified with their practices.

The use of psychological agreement turns into even more significant on account of spurring employees to work adequately and to make them focused on their work. Quality of psychological agreement lies in the level of fulfillment of the desires for both the gatherings. Employees should feel that the association is treating them reasonably, doing equity to their efforts or works, valuing their performance and remunerating them appropriately. Employees also ought to improve in their chance by trying sincerely and by dodging the considerations of leaving the association. Employees anticipate psychological protection. By making 'psychological wellbeing atmosphere' associations can shield employees from psychological risk.

## Role of psychological contract on employee behaviour

Psychological agreements contrast from different kinds of agreements not just on account of the countless components they may contain yet additionally in light of the fact that the employee and the employer may have varying expectations as for the business relationship. Not many of these components are probably going to have been explicitly talked about; most are surmised just, and are liable to change as both individual and organizational expectations change. Psychological agreements vary from legal agreements concerning methodology continued in case of break of agreement. Break of a legal agreement permits the aggrieved party to look for enforcement in court. Break of a psychological agreement, in any case, offers no such plan of action, and the aggrieved party may pick just to retain contributions or to pull back from the relationship.

It is usually suggested that the psychological agreement influences employee fulfillment, perspectives and conduct through consistent survey of the exchange relationship among employer and employee. The possibility of this exchange relationship is gotten from models emerging out of social brain science for instance, the prompting contribution model, Homans' Social Exchange Theory and Adams Equity Theory. Without thought being given to the 'employer viewpoint', the advancement of a psychological agreement in the brains of

employees that is, an image of what they owe the association and what the association owes them consequently can bring about impression of inequity in the exchange relationship. To hold balance in the psychological agreement, any apparent increase in employee obligations to the association should be coordinated by a view of increased rewards. On the off chance that increases in employee obligations are resolved as surpassing increases in employee rewards, it is conceivable to expect that a negative move has happened in the psychological agreement. This circumstance, thus, is probably going to bring about a lessening in apparent obligations to the association, as seen in employee withdrawal of organizational citizenship practices (OCBs) or in employees' leaving the association. Organ (1988) recommends that the withdrawal of OCBs will adversely influence organizational performance.

Likely employees and organizational specialists enter the business relationship with a lot of expectations about the possible relationship. These expectations might be value-based (financial) and additionally relational, and will impact the advancement of the psychological agreement. The dynamic nature of the communication between the gatherings to the agreement, along with organizational objectives and ecological conditions and the objective direction of the individual, impact the advancement of the psychological agreement. During their work with a specific association, employees will look for, measure, incorporate, decipher and get significance from information picked up from various sources, for example, collaborators, chiefs and scouts, just as the inferred and formal business contract. From this cycle employees will make their individual interpretations of their obligations and privileges that is, their psychological agreement with the association.

## Literature review

Bhawna Chahar (2019) The motivation behind the article is to investigate the linkage of psychological agreements and with organizational citizenship conduct. To test hypothesis, data gathered from 221 employees in Uttarakhand. Corroborative components examination utilizing SPSS programming was completed to distinguish factors identified with

psychological agreement and Organizational Citizenship Behavior (OCB) of employees. Structural Equation Modeling (SEM) was directed for breaking down the interrelatedness of psychological agreement measurements with Organizational citizenship conduct. Study shows that psychological agreement is identified with organizational citizenship conduct of the employee. Our finding statistically affirms that various segments of psychological agreement are having influence on organizational citizenship conduct. The outcome is additionally uniform with the few different investigates on psychological agreement and its relationship with OCB. The examination gives significant experiences to supervisors to comprehend the employee's brain science towards different element of psychological agreement and how much these elements affect in fortifying the organizational citizenship conduct of employees.

Ade I. Anggraeni (2017) This investigation intends to dissect the business driven reasons and attributes of employee the board of the youthful generation, by breaking down the part of psychological agreement on employee responsibility and organizational citizenship conduct in the light of the qualities of the millennial generation as the proprietors of little and medium-sized endeavors. The primary goal of this examination was to observationally break down the impact of the psychological agreement and organizational help on the organizational duty and organizational citizenship conduct of the employees of little scope ventures run by youthful business people, particularly in the companion generation. Data were gathered in the SMEs claimed by youthful business visionaries in a city in Indonesia including 150 respondents. The exploration model was tried utilizing Structural Equation Modeling with investigation of second structure (AMOS). The outcomes indicated that the employee citizenship conduct is influenced by the organizational responsibility. The dedication of employees was framed by the capacity of entrepreneurs to comprehend the necessities and expectations of employees with respect to chances of self-improvement, lovely workplace, the benefit as the remaining task at hand and the work challenge.

Hui-Chin Chu (2012) This examination targets researching the effects of initiative style and institutional atmosphere on personnel psychological agreement (PC). 200 polls were conveyed to the employees a private college in Taiwan with a substantial return pace of 74.5%. The investigation results demonstrated that both administration style and institutional atmosphere had impacts on workforce's psychological agreement (PC). Supporting to the current writing, high thought/high starting structure administration conduct was discovered the most great in making relational and fulfilled PC. It is worth to take note of that low thought/low starting structure initiative conduct was seen the second great in making staff's relational PC, which is conflicting with the writing that this sort of administration style for the most part prompts disappointed subordinates and the least efficiency among bunch individuals. It is reasoned that in an exceptionally energetic group, for example, school workforce with a homogeneous degree of mastery, this hands-off authority style might be more powerful than high thought/low starting structure administration.

Malik Jawad Saboor (2018) The point of this paper is to comprehend the job, Job Satisfaction plays between the relationship of Psychological Contract Breach (PCB) and Work Engagement (WE) in an advanced education foundation of Pakistan so as to harvest greatest commitment through tending to the occupation fulfillment by maintaining a strategic distance from the effect of PCB. Nature of the connection is seen however test of 240 employees that was taken from a main college of Pakistan. The examination utilized irregular testing with negligible specialists' impedance. Results show that Job Satisfaction intervenes the connection between Psychological Contract Breach (PCB) and Work Engagement (WE). Affirmation of these relations likewise praises Job Demand-Resources model and Social Exchange Theory. Besides, focal point of the said relationships would empower the associations to be proactive so as to evade potential harms because of PCB. This investigation suggests that HR divisions ought to comprehend the significance of the guarantees and duties that are made to the employees. Proactive methodology is proposed to limit the potential harms that could be

brought about by Psychological Contract Breach.

Saikat Chakrabarti (2020) Human resources in associations are the main resources capable of practicing their knowledge and acumen. Normally more noteworthy the separation and contrast from their pre-passage expectations and post-section encounters, more is the possibility of weakening. Associations accordingly lose experienced employees. The specialists here have distinguished the elements behind the break of psychological agreement by the employees. Foreseeing steady loss is a difficult errand for the Human Resource (HR) directors and employers. Along these lines, subsequent to dissecting the provisos in the prior writings, the analysts have endeavored to find the regular parts of psychological agreement penetrate and infringement causing weakening. Strategy for factor decrease has been utilized here. At long last, the creators have presented two components: (I) Effect of post-division treachery on psychological contract (PC) and weakening, (ii) Impact of worldwide exchange battle on the equivalent, i.e., PC and wearing down. The current article is instrumental for employers in distinguishing just as controlling break of psychological agreement and capturing weakening in assembling areas. New factors, recognized by the current creators, open up another extension for future exploration in the assembling areas.

## Research Methodology

Exploratory examination approach is an efficient, target strategy for divulgence with exact affirmation under intensive control. The control is refined by holding consistent all of the conditions beside the wonder under scrutiny for both the trial gathering and the control gathering. Exploration approach and examination setup is the blue print of the system that empowers the researcher to test speculations.

## Population

A population is a social affair whose individuals have specific attributes that the investigator is busy with contemplating. The essential of portraying the general population for an investigation adventure rises up out of the need to show the social occasion to which the outcome of the examination can be summarized. The quantity of inhabitants in the current assessment incorporates all of the agents of cutting edge education establishments. Full-time Employees working in state and Government advanced education foundations in Kolkata was the population under examination.

## Sample Size

The researcher has arranged the Socio demographic Schedule including age, religion, medium, standing, domicile, control of father and mother, kind of family, size of the family, number of siblings, regardless of whether day's researcher or remaining in inns, and separation between home to class. We have picked 60 employees from state and government school.
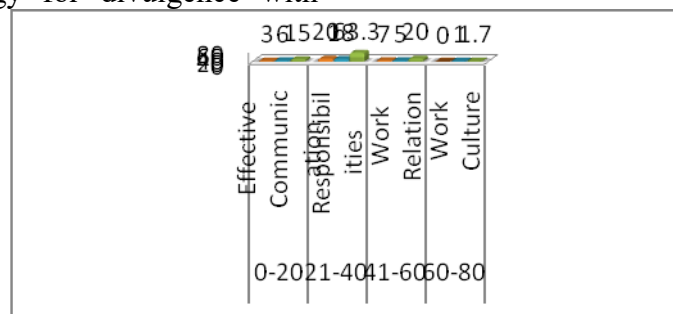


**Fig 1: Employee Behavior scale**

Table 2 Means and Standard Deviation Values Related to Psychological Contract Types.

| Dimensions | | Transactional M | SD | Relational M | SD | Balanced M | SD | Transitional M | SD |
|---|---|---|---|---|---|---|---|---|---|
| Teacher's obligation | State | 1.95 | 0.74 | 3.62 | 0.80 | 3.38 | 0.78 | | |
| | Central | 2.05 | 0.76 | 3.81 | 0.86 | 3.70 | 0.77 | | |
| Schools' obligation | State | 2.11 | 0.74 | 3.66 | 0.80 | 2.96 | 0.87 | 2.15 | 0.92 |
| | Central | 2.31 | 0.83 | 3.40 | 0.88 | 3.05 | 1.03 | 2.34 | 0.95 |

The above table depicts the comparison between Government and state school of Psychological Contract. There was no significant difference between government and state schools on students Psychological Contract (t=330.0; p=.074).

## Conclusion

The current examination demonstrates that psychological agreement for employees among state and focal secondary school employees, and there was no contrast among state and focal secondary school understudies on it and there was no significant distinction on psychological agreement between both school understudies. Our outcomes are intriguing with respect to the important segments of a psychological agreement program explicit to the requirements of state and focal secondary school of understudies. It can likewise be inferred that majority of the employees (staff) showed that they would part away if their expectations from the board are not met. The examination hence suggests that employees who buckle down must be perceived by the executives and remunerated as needs be or advanced so they will be more dedicated to work. Employees who work for additional hours must be paid to support them put forth a strong effort. Likewise, aside composed states of agreement, employees must carry on properly with the goal that they get the best from the executives.

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# DISCTERE WAVELET TRANSFORM AND FCM APPROACH FOR MEDICAL IMAGE RETRIEVAL

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## ABSTRACT

*The field of the medical imaging is increasing day by day in many fields like for the diagnosis, treatment, medical procedure and prediction etc. Now the recovery of an image for a day is one of the most exciting and intensive fields of computer vision research. Content Based Image Recovery (CBIR) is an important and extensively used method for the recovery of photos of different kinds from the large database. The database information can be accessed in multiple sizes, e.g. text, images, charts, etc. Image database are often huge, containing many thousands or many images. In relation to the color, form and texture of the image can be characterized the content of an image. The success of this system depends mostly on the strength, precision and speed of the recovery systems. The medical pictures describe the symptoms of a particular sickness, so both the doctors and researchers can benefit from these photos. This paper article is used to extract and retrieve the functionality of the Discrete Wavelet Transform (DWT) and Fuzzy C Means (FCM) clustering.*

*Keywords: Content Based Image Retrieval, Discrete wavelet Transform, Wavelet, Features, Medical Imaging*

## Introduction

Nowadays the use of digital images is becoming very popular in various fields like education, experiments, criminal records and medical etc. Image retrieval based on content is one of the most active fields in informatics over the past decade as the quantity of digital photos available continues to grow [1]. In hospitals large numbers of digital images are generated daily such as in X–Ray, CT scan, endoscopy, skull, mammogram and Magnetic Resonance Imaging (MRI) etc. Therefore efficient indexing and searching is required. Searching engines usually get the pictures of the approach based on text in which the user enters text or keywords in the search form. The output is produced using matched keywords or text. However, some photographs which are not relevant are also found. This process. The main reason for the generation of the result that is irrelevant is because of the difference in human vision and in manual labeling [2]. There is also a second method for imagery collection, in which an automatic picture annotation system is applied which may label image based on the content of the image (CBIR). The content-based method is to search for the original image content.

CBIR is a framework through which text-based approach approaches can be overcome since this approach is based on visual content analyses. The visual content and the semanticized content consist of image content. CBIR is now hard in the medical industry, because medical images integrate various elements in real time, such as backdrop variations of illumination, interference, etc.. [3]. In CBIR form, color and texture are low image characteristics that are calculated from the query and these characteristics are adapted to get the results. Features of color, texture and form are employed to describe the content of the image [4].

Usually, medical images are merged, highly inconsistent and made up of several smaller structures. For a simple and fast recovery there is a need for functional extraction and categorization of the images [5]. Basic content Recovery of medical images has various applications for medical diagnostics, teaching and research. A diagnostic retrieval of the medical image is also crucial as past pictures of different patients provide useful information on the impending diagnosis with a system that retrieves similar cases and helps us with appropriate treatment. There is virtually no technology available for free access by their content to medical images or for addressing their structural discrepancies. Thus, content-based indexing and recovery based on biomedical image information is likely to have a significant impact on biomedical image base databases [5]. The CE-MRI dataset [15] is set up for 3 kinds of psyche tumors.

### Contact based image retrival

CBIR systems are mostly based on the image similarity, where the user enters a question image and the system responds by delivering the almost entire image comparable to a given measurement of similarity. "Content-based" means the actual contents of an image are being searched. This system distinguishes between the different areas of the image, based on their color, texture, form, etc. similarities, and chooses the similarity between two photos by estimating the closeness of these different parts. Functional removal, feature selection, classification and similarity measurement are the core basis of CBIR system in Figure 1 [6].The main purpose of the content of the image similarity assessment is to convey color, fabric and shape. Image features from the whole picture or certain parts can be extracted. Any two features can also be combined for better retrieval performance.
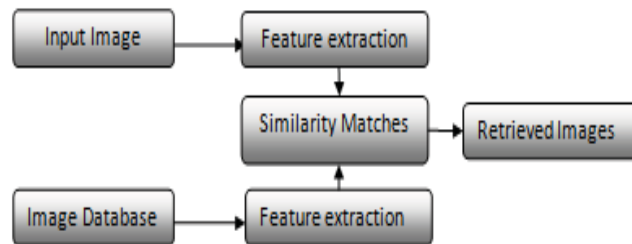


Figure 1. Block Diagram of CBIR

In the CBIR system, the main purpose is to look and search for similar photos based on their content. The system extorts image functionality for query images when an image is specified on the system. The image of the query is compared with the other images in the database. The result will then be shown. The content display of the query image allows quick and accurate retrieval of the data collections. As stated below, lower image characteristics are:

**A. Color Feature:** Color is a key element that people use to identify visuals. The highest function is CBIR with low memory space, and the information on the visual content of an image is available here. This depends on the reflective appearance of the eye and how the information is processed by the brain. Color representations commonly employed are RGB, LUV, HSV, etc. The main color space utilized for the image retrieval is Hue, Saturation, and Value (HSV). The representations are based upon matrix color covariance, histogram color, dominant color descriptor, moments of color, consistent color vector or matrix color. However, medical images are mainly images of grey size, save for color images utilized in the fields of ophthalmology, pathology and dermatology [11].

**B. Texture Feature:** Texture is a useful characterization for a large number of images. The color is usually a pixel property and only a group of the pixel is able to determine the texture [7]. The textures are represented by employing the co-occurrence grey level matrix, Tamura characteristic, coefficients of wavelet, Gabor filter and Haralickcharacteristic. For texture, there are six properties: coarseness, contrast, dimensionality, line length, regularity and robustness. [8].

**C. Shape Feature:** Shape characteristics have not been employed commonly compared to color and texture elements. The previous study shows that it is difficult to use form characteristics in relation to text and color characteristics since they can be erroneous during the segmentation process [9]. The formal characteristics are the finest descriptors to detect diseases, lesions or masses for the recovery of medical pictures. The form characteristics can be separated into two states, such as region and border, which are generally employed for similarity retrieval. There are two types of recall-supported shape functions: firstly, to obtain the contour from the destination after edge removal and to retrieve the picture on the contour; otherwise, the regional features of the image will be supported [6]. Descriptors of

Fourier time for the representation of the form feature, invariants are used.

## Need for cbir in medical

The medical information systems require the appropriate information to be sent to the right person in a right place at the right time to improve the features and efficiency of the medical process. You needed the name of the patient, series, pictures study ID and you could benefit from the process of clinical decision making. The interest in the application of CBIR technologies to facilitate diagnosis by detecting similar historical cases is increasing [10].

While much of this information usually lies in the headings of the Digital Imaging and Medical Communications (DICOM), and many imagery equipments are compliant with DICOM at this point, significant issues remain. DICOM headers have shown a fairly high error rate, for example in the anatomical sector, with 16% error rates reported [5].CBIR has advocated widespread application for medical and medical management, but just a few CBIR systems for medical pictures have been produced. MRI brain scans are utilized to demonstrate an image search strategy for high-resolution computer tomography. Following segmentation, form attributes are employed to search CT brain scanners for medical malignancies. The x-ray spine and PET functional tomography (PET) are employed for the retrieval of medical imaging. In the Department of Radiology, the mammographic are also application area for content search and classification. Where more than one image is accessible for diagnosis, references are required to find similar medical situations and a guide can be used to provide the accurate diagnosis by the image retrieval systems.

## Methodlogy

During the experiment in the field of Content Based Image Retrieval (CBIR) several challenges may emerge in order to recover the photos from the database. The intention of our work is to retrieve the similar pictures of query picture from the clinical database and improve the accuracy of the system. In this firstly the noise removal is done through preprocessing step. After the preprocessing, the texture features extraction is done through wavelet transform. For the classification of the query image the SVM classifier is utilized. The database photos are likewise equally categorized for decontamination of the search. Euclidean Distance is used to search the corresponding algorithm from big databases for corresponding photos. A Euclidean distance measures the similarity between the calculated and matched medical pictures and training [11]. In this framework we have worked on about 200 images. Many methods can be applied for the retrieval of the images but in this framework, we have approached a novel technique in which FCM is combined with the wavelet. The applied method gives more accurate results.

Steps for the methodology are:-
1. Select the query image from the database image set.
2. Convert the image into HSV color space.
3. Texture feature extraction using the wavelet transforms.

4. To measure the similarity between the images, apply similarity measure methods.

## Discrete wavelet transform

A feature extraction process is called for the process of translating input data into feature set. The wavelet transformation is used to extract this characteristic. The principal advantage of the use of wavelets is that they contain information on a particular frequency of a picture that may be classified [12]. The mathematical functions are waves, which divide the data into several frequency components. In comparison to Fourier, wavelets have different advantages. Wavelet Transformations have different advantages compared to typical Fourier Transformations, such as the precise degradation and reconstruction of finite, non-periodical and/or non-stationary signals Wavelet Transformation. A number of wavelet applications are available, including image compression, turbulence, human vision, radar and earthquake prediction. Discrete Transforms (DWT) wavelets can be used to transform pictures from the space domain into the frequency domain. DWT breaks the image into sub-images of different resolutions and scales. Small transformation waves are the house function coverage, known as the most

wavelength functions. By crossing the low pass filter and a high pass filter, the little wavelet will transform, which can collect information from varied signal levels. The wavelet has the stable offset color, thus it is possible effectively to calculate the texture and shape of the information. A signal analysis with multiple resolutions at various frequencies is achievable by means of an approach termed the Multiresolution Analysis (MRA). We employed

2-Dimensional wavelets in this framework. Two-dimensional wavelets are a multi-resolution procedure that uses both recursive filtering and sub sampling. Transforming the levels into four frequencies of a sub band in discrete wavelets, i.e. LL(low-low), LH(low-high), HL(high-low) and HH(high-high) (where, L is a low frequency and H is a high frequency) [14] which is shown in fig 2. figure 2.
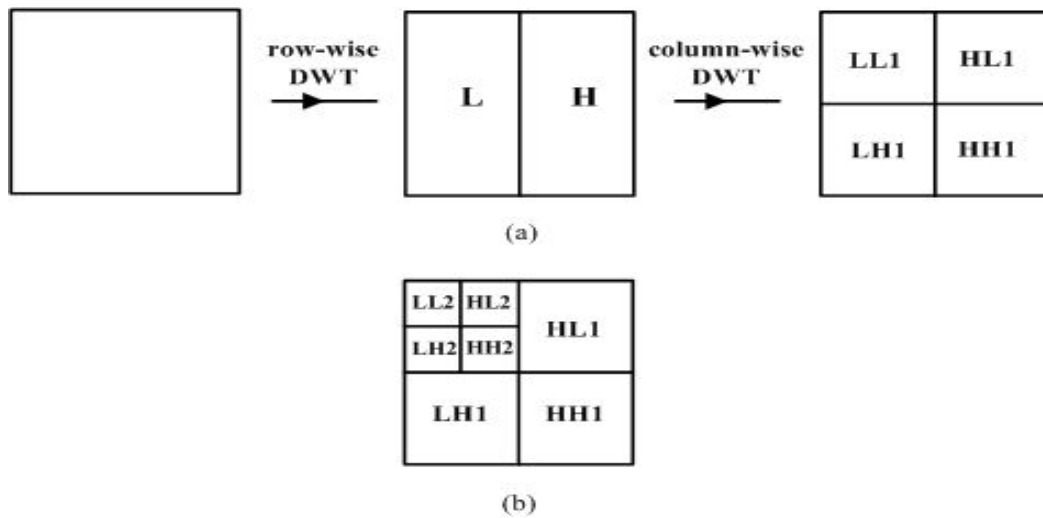


(a) First level decomposition (b) Second level decomposition

### C-MEANS (FCM)

For data clustering, the Fuzzy c-means (FCM) algorithm is utilized. It is the overlapping clustering method in which, based on the two or more cluster centres, one pixel is worth Also called soft clustering approach [18].We can find the membership relation in FCM by the grouping of dataset into 'N' clusters. For the membership relation, Distance is measured between the data point and the clusters. The closer the data to the cluster centre, the more members it becomes of the cluster centre[19].After calculation the data point is moved to the nearest cluster. K-means is another clustering method. The k-means grouping method splits the data entered into k classes by computing a mean intensity for each class and dividing the picture by classifying the next centre of the class by each pixel [20]. The problem with this method is that the procedure is computing demanding. This is also termed hard classification method. An improper choice

of k may also lead to poor and erroneous outcomes. The most prominent and known method for the use with MRIs is the fuzzy C-means clustering (FCM).

### Results

In the analysis, various types of images are used for the retrieval of similar images. We randomly select the 10 pictures from database for the retrieval. The retrieved images are appeared in fig3. In last Euclidean Distance are used for the similarity measure.All characteristics for

medical image diagnosis are handled equally using this metric. [16].

For the evaluation of algorithm performance, the following performance measures were employed [17].

$$Recall = \frac{Number\ of\ relevant\ images\ retrieved}{Total\ Number\ of\ relevant\ images}$$

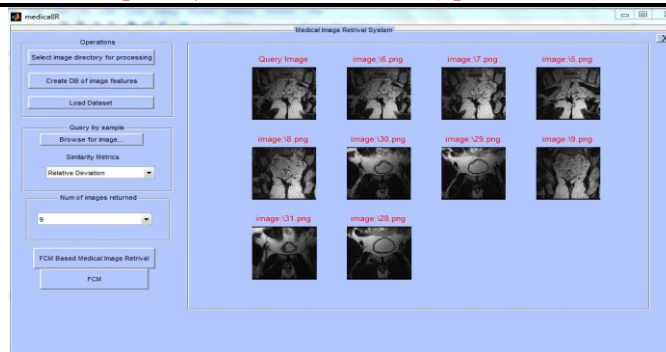$$Precision = \frac{Number\ of\ relevant\ images\ retrieved}{Total\ Number\ of\ retrieved\ images}$$

Figure 3. CBMIR Output

## Conclusion

In this paper, we have described the CBIR system and retrieval of images using feature extraction methods. CBIR is the main technique for image indexing and retrieval than the textbase method. This paper also discussed that CBIR has a variety of applications. In the proposed method the discrete wavelet transform and SVM. The research offered uses color, histogram analysis, and discreet cosine transformation as they are robust and demand minimal computational power. New approaches for MRI brain image recovery could be offered in the future, and an imaging abnormality could be classified. Other picture removal approaches are examined in the next study procedure to acquire superior findings.

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# AN EFFICIENT AUTOMATIC CLASSIFICATION APPROACH TO DETECT AVERAGE OVER POPULAR ITEM ATTACK IN RECOMMENDED SYSTEM

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## ABSTRACT

*In this paper, the proposed approach is based upon the fake movie promotion through social media and detecting such fake promotions. This dataset contains noise in the form of missing values and string literals are present and these literals must be converted into nominal form to enhance the classification accuracy. The first phase in the proposed system is pre-processing. After this phase feature extraction takes place.Pre-processing mechanism eliminates the noise if any from the movie dataset. The segmentation phase extracts the features and then selects the effective features based upon the correlation analysis. Classification uses Raphson based iterative model for fake profile testing. The result of the proposed mechanism is presented in the form of classification accuracy, F-Score, sensitivity and specificity. Overall result shows improvement by significant margin.*

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*Keywords: Pre-processing, Segmentation, F-scope, Classification*

## Introduction

"An Efficient Automatic Classification Approach to Detect Average over Popular Item Attack in Recommended System" is a novel approach which detects the attacks in the recommendation system. The Recommender System is very important for the users and sometimes the whole business depends upon these systems. If these systems get attacked by the attackers, it will result in huge loss in the business. Recent researches has shown that intruder or fake user add the false rating of the products in order to increase the rating of the product and demonstrates the significant vulnerabilities of collaborative recommender systems.The Figure depicts how the recommendation system works in recommending the movie to the user.
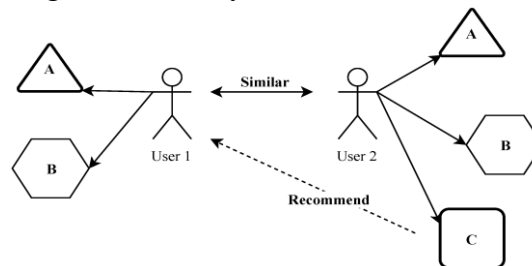


**Figure: Movie Recommender System**

In above Figure, Movie recommendation System, in this system A, B and C represent the movies that they watched. This system works by observing the similarity in the interest of User 1 and User 2 and then saved in their pattern of behaviour in the database. From the database, it is found that both the user prefer to watch same movie A and B. After matching their pattern, a cluster is formed having the user which have common interest. Then, it is found that the one user has watched other movie which is not yet watched by the other user.

### Types of attack

**Bandwagon Attack:** The main aim of this type of attack is to interface the ambushed thing having not many from time to time assessed things [3].

There are several types of attack that the recommendation system has to go through. Some of them are:

**Random Attack:** The unpredictable ambush profiles contain subjective assessments given out that can be filter things and provides rating to goal things [3].

**Average attack:** An even more astounding attack depicted in recommended system by Lam and Ried is average attack which finds the mean of items individually for all different items rather than the overall mean of the items [3].

**Segment Attack:** Past work derived that thing based on computations was more impressive than customer based ones and the ordinary attacks have been viewed as best [3].

**Shilling Attack:** Attacks on recommender system behavior is known as a "shilling" attack or "profile injection" attack. [3].

The Figure depicts the various categories of the attacks which are faced by the recommendation systems.
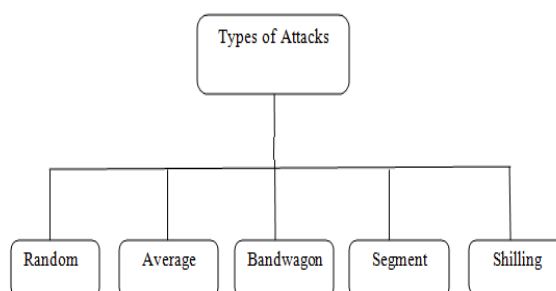


**Figure: Types of attack**

**Filters Used in the Recommendation System**

There are three broad categories of filters that are used in the recommendation system [4]. These are:

- Content Based Recommended System
- Collaborative Filtering Recommended System
- Hybrid Filtering Recommended System

**Literature review**

An efficient Automatic Classification Approach to Detect Average over Popular Item Attack in Recommended System

Yadav [8] at Harcourt Butler Technical University, Kanpur, Uttar Pradesh, India has done research on "Recommendation systems are refining mechanism to envisage the ratings for items and users, to recommend likes mainly from the big data." Their proposed recommendation system gives a mechanism to users to classify with the same interest. This central idea of their work is to develop movie recommender system.

Choudhury et al. (2021) [9] at School of Computer Engineering, KIIT Deemed to be University, Bhubaneswar, India, has done research in Recommendation System using Backpropagation (BPNN) model, SVD (Singular Value Decomposition) model, DNN (Deep Neural Network model) and DNN. Recommender system (RS) are a type of suggestion to the information overload problem suffered by user of websites that allow the rating of particular item.

Gupta et al. (2021), [10] at BhagwanParshuram Institute of Technology, New Delhi, India, has done research on Scientometric Analysis of Transient Patterns in Recommender System with Soft Computing Techniques. Recommender systems recommend items to users based on their interests and have seen tremendous growth due to the use of internet and web services. The study focuses on the topic of recommender system with various soft computing techniques such as fuzzy logic, neural network and genetic algorithm.

**Cintia** et al. (2020) [11], at National Taiwan University of Science and Technology, Taipei, Taiwan, Design of an Unsupervised Machine Learning-Based Movie Recommender System. This research aims to determine the similarities in groups of people to build a film recommender system for users. Users often have difficulty in finding suitable movies due to the increasing amount of movie information.

Zayed et al. (2020)[12], at Cairo University, Giza, Egypt, worked on challenges and promises of Shilling Attacks Detection in Collaborative Recommender System. The reliability of the recommender system is highly essential for the continuity of any system.

Vivekanandan&Praveena (2020)[13], at Pondicherry Engineering College, Puducherry, India, worked in the social aware network (SAN) paradigm, the fundamental activities concentrate on exploring the behaviour and attributes of the users. This investigation of user characteristic aids in the design of highly efficient and suitable protocols.

Ahmad et al. (2020) [14], at Department of Computer Engineering, JamiaMilliaIslamia, New Delhi 25, India, worked on Identifying

Attack Models for Securing Cluster-based Recommendation System. The immense growth of information has led to the wide usage of recommender systems for retrieving relevant information.

## Problem statement

Data mining is not an informal job, as the procedures used can be very difficult and statistics is not continuously available at unique place. It requires to be combined from several heterogeneous data bases. These influences also create certain issues. So these issues are having huge impact on the fields covering data mining are given below:

1. Mining Procedure and User Communication
2. Performance Matters
3. Miscellaneous data types Subjects

## Objectives

The objectives of this paper are:

- To study the process of data analysis using supervised and unsupervised learning approaches for popular item attack in recommender system.
- To propose and implement the novel feature extraction approach to extract the Average over popular item attack and compare it with traditional feature extraction algorithms.
- To propose and implement novel approach for the detection of attack and compare it with the different classifiers for the detection.
- Compare the performance of the proposed approach with the traditional approaches in terms of Precision, Recall and Detection Accuracy

## Research methodology

The proposed methodology is divided into sections or phases. In the first phase, pre-processing mechanism is applied. In the second phase, segmentation is applied. Segmentation is implemented through similarity based KNN approach. Feature extraction with Iterative Raphson based mechanism and the classification is done to finalise the result in terms of identification of attacking nodes. The classification was tested using KNN, CNN and hybrid approach of KNN with Raphson approach. The algorithm searches for innovators similar to the target. The advantage of this technique is that is takes into consideration the release time of an item and the consumption time too.The proposed algorithm NEF is based on the predictable search time in personalized.

## Recommender Algorithm

**Input:** set of genuine profiles (GU), user profiles (UP), popular item rating (PIR), novelty item rating (NIR), user rating popularity (URP), Previous History (h).

**Output**: user profile (UP)

**Begin:**

**Step 1:** set popular (P) item (i) and novelty item sequences and partitions the item set based on the ordered item sequences.

**Popularity of Item:**

Popularity of item is Pi, is defined as the number of genuine users who rate item i, which is computed in the succeeding text

$$Pi = \sum_{u \in Rg} (r_{u,i}) \cdots \cdots \cdots (3)$$

Where $r_{u,x}$ denotes the rating of user u on the xth item in OPIS.

**Step 2:** Create the popular item rating based on popular item sequences PIR;

Popular item rating (PIR). Let x =1,2, …, |3| represent the order of items in OPI; according towhether or not the items have been rated by user u, we can obtain the user u popular item rating $PIRu$, whose xth element is defined as

$$PIR(u(Pi)) = \begin{bmatrix} 1, & r u, x \neq \varnothing \\ 0, & r u, x = \varnothing \end{bmatrix} \cdots \cdots \cdots (4)$$

Where $r_{u,x}$ denotes the rating of user u on the $x^{th}$ item in PIS.

**Step 3:** Create the novelty item rating based on the ordered novelty item sequences NIR; according to whether or not the items have been rated by user u, we can obtain the users popularity rating (UPR).

**Novelty item rating (NIR),**

Novelty rating item, denoted by rated provided by user and describes the statistical characteristic of user u based on the novelty item rating, which is calculated in the succeeding text:

$$URP = \frac{1}{Nu} \sum e * NIR(e) \cdots \cdots (5)$$

e=1, 2, …, |3| represents the order of items

**Steps 4:** compute and return the novel features of user profile UP. Item based classification

$$MCC(i_1, i_2) = \left[\frac{i}{\frac{r-r}{i_1 i_2}} + 1\right] \dots \dots \dots \dots (6)$$

**Step 5:** Find the neighbouring based similar item target by target user.

$$C - NN(u_t, a_t) = \frac{\sum c_{similar_{item}}, d(sim(a_t, d) * r_{u_t, d})}{\sum c_{similar_u}, d(|sim(a_t, d)|)}$$

In this equation INTERATIVE RAPHSON METHOD is denoted as perditions and $u_t$ is target user, $a_t$ target item and $u$ denoted as user. On the basis of this equation system determine neighboring of user target as similar items.

**Step 6:** profiles in the suspicious rated an item with the highest possible rating, we consider that item as a target item. We then move all the profiles that rated the suspected target item with the highest rating into the Detected Result. // profiles are considered to be attackers.

$$C - NN(GU) = Detection \sum_{k=1}^{k} C - NN^{C(UP) \geq \frac{h}{r}} \dots \dots \dots \dots (7)$$

**Step 6:** we believe the attackers will target one specific item many times if they want to push the item to the recommendation list.

**Step 7:** $if \left(GU \geq \left(h/r\right)\right)$ then

Create groups for similar target item rating based Profiles. The higher rating check with user previous search history based (h). INTERATIVE RAPHSON METHOD used to detect distance between similar user groups. Get the INTERATIVE RAPHSON METHOD get neighbour items of each active $U_a$ with the highest similarity score detection. NFE model and obtain the final predictive results by simple majority rating based previous rating strategy.

$$C - NN(GU)$$
$$C - NN(GU) = Attack \sum_{k=1}^{k} C - NN^{C(PIR) \geq \frac{h}{r}} \dots \dots \dots \dots (8)$$

PIR← {attack} //Marked as an attack profile
**Else**

$$C - NN(GU) = normalAttack \sum_{k=1}^{k} C - NN^{C(PIR) \geq \frac{h}{r}} \dots \dots (9)$$

PIR← {genuine} //Marked as a genuine profile
End **if**
**End**

The performance analysis using the iterative Raphson approach. The iterative approach uses the features of CNN and KNN with optimization. The result in terms of classification is given as:
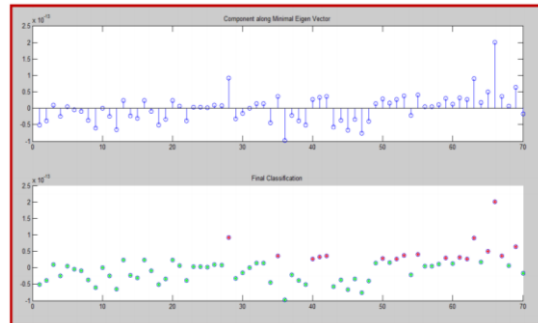


**Figure: Classification results**

The comparative result is presented using the following table listing the covariance, variance and execution time. The detection rate is much better for the proposed mechanism as compared to existing system

## Comparative Result

| Execution time(ms) | | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|
| | KNN | 15 | 17 | 17.8 | 18.5 | 20.5 | 25.5 |
| | CNN | 12 | 13.4 | 14.2 | 16.7 | 19.4 | 25.0 |
| | Raphson Based Approach | 0.89 | 0.91 | 0.89 | 0.88 | 0.9 | 0.91 |

**Figure: Comparative results of used mechanism**

The false detection rate also shows deviation and stable result is obtained in case of proposed model. The plot for the same is indicates as follows



## Comparative Result

| | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| KNN(%) | 21.3 | 22 | 22.2 | 23 | 23.1 | 24 |
| CNN(%) | 12.2 | 13.4 | 13.5 | 14.7 | 14.8 | 15.0 |
| Raphson Based Approach(%) | 5.09 | 5.91 | 6.23 | 6.88 | 6.91 | 6.92 |

**Figure: Comparison in terms of false detection rate**

**Conclusion**

Proposed system uses iterative Raphson method to enhance overall classification accuracy. The iterative Raphson approach is used for the detection of fake profiles. For the detection benchmark dataset is used andthis dataset is derived from movie lenses. To increase the classification accuracy, we applied pre-processing mechanism. In the pre-processing, noise is removed using the string value handling. All the string values are replaced with either 0 or 1 depending upon the degree of requirements. In the next section, feature extraction is performed. This phase is compared against the existing feature extraction mechanisms. The comparison is on the basis of correlation. The final phase is to classify the result into fake or fare profiles. This is accomplished using ensembles of algorithms and compared against the iterative Raphson approach. The classification accuracy of the proposed approach is over 96% proving the worth of study.
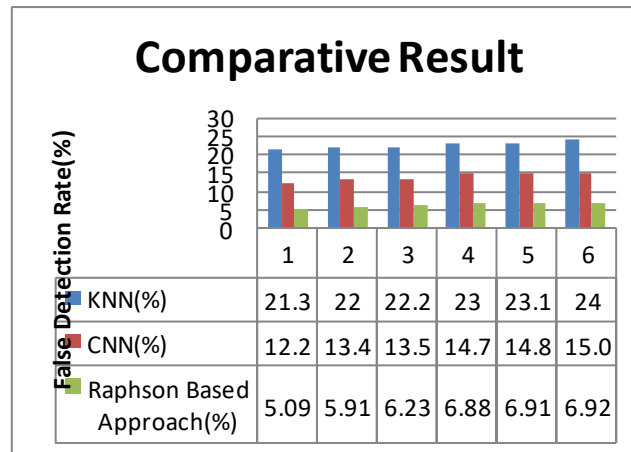
**Future Scope**

The proposed mechanism uses Iterative Raphson mechanism. This mechanism ensures detection of fake profile with good classification accuracy and less execution time. The problem however could be convergence rate. There are other iterative approaches including particle swarm optimization and firefly approaches. This research can be extended to make generalised system that could tackle almost every area. The allocated task of expert system could involve research in distinct market areas like product (electronics, groceries etc). Once fake profiles are accurately detected, they can be chalked out from the system and products having genuine rating will be promoted. The large dataset with more attributes may lead to poor convergence rate. To overcome the issue, lifetime parameter can be set for improving the convergence rate. Real time dataset can also be tested through the proposed approach in future.

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# RELATIONSHIP BETWEEN DIVIDEND PAYOUT AND MARKET PRICE OF SHARE (A CASE STUDY OF NESTLE INDIA AND BRITANNIA INDUSTRIES LTD.)

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## ABSTRACT

*This article attempts to examine the inter connection that exists among the ratio of dividend payout (DP) and market price of share (MPS) of a company. Distribution of amount of profit to the shareholders of the company is most vital decision of the company. The policy of dividend includes the ratio of the profit to be distributed to the shareholders of the company either in way of stock dividends or cash or stock splits. The tests of two hypotheses were conducted. There is no significant connection between profitability and MPS as well as no significant effect exists between dividend payout ratio (DPR) and MPS .With the help of financial statements which are published and annual reports of the companies, the secondary data was collected .Quantitative techniques using appropriate statistical software used to figure out on one hand where there is any connection that prevails among DP and MPS , and on the other hand that connection that exists between profitability and MPS. The result exhibits that there was negative connection among price of share and earnings after tax and negative connection among price of share and the amount of dividend payment or payout in Nestle India. While in case of Britannia Industries Ltd. positive correlation was found between earnings after tax (EAT) and MPS and negative correlation was found between MPS and the amount of dividend paid (DP).*

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*Keywords: Dividend, Dividend Policy, Financial statements, Payout, Share price.*

## Introduction

Shareholders maximisation of wealth, commonly indicates profit maximisation persistent with security for long term. It is usually bring to the light that large amount of profits for short term have been given up in the favour of long term expectations of organisation. In view of this purpose, there are 4 important decisions which finance managers have to face. Financing decisions, decisions related to Investing, decisions related to Dividend decisions and decisions related to Liquidity.

The policy of dividend of the organisation is in the focal light of financial economists since long back like in 1961 Modigliani and Miller (M&M) propounded irrelevance theory in this theory they stated that there is no difference between economic environment rationally and perfectly. From that time there have been arguments and testing on their theory by crippling the assumption or highlighting the imperfections into the analysis.

The distribution of profits/earnings after deducting all liabilities of fixed cost capital bearers is dividend. Dividend may be distributed in cash or kind. The important task is to ascertain that how much amount of earnings to be distributed and how much amount is to retain for future purposes by organisation. The amount of dividend is recommended by the Directors on the Board of the company and finally approved by the members of the company in its AGM. Once the dividend is declared it becomes liability for the company.

## Literature Review

The term dividend can be defined in corporate houses as the amount which is allocated out of profit of an organization and apportioned amongst the shareholders. Or it is the a kind of advantage to customary investors. Dividend payout is made out of organization's profit subsequently decreasing the retained income accessible to the organisation for financing the internal matters.

The Dividend can be in form of kind or in real money. On the off chance that it is dividend in form of cash, money will be paid out to investors, in this way diminishing the sum money holding of the organization. Different types of dividends are: dividend in form of stock, shares as a bonus issue and issue of scripts. These, be that as it may, don't include movement of money. Thus, it is restructuring of capital of the organization and extent of theholding of the shares and does not effect the

balance of cash. The dividend in form of stock has the benefit of rationing money for some different motives. It might have emotional appeal to financial specialists. Be that as it may, it is comparatively costly to regulate than dividend in form of cash.

The researchers and academicians have created numerous hypothetical models portraying the components that managers ought to think about when settling on decisions of policy of dividend (Kanwal and Sujata, 2008). The theory of dividend incorporates contentions called dividend irrelevance and dividend relevance, Miller and Modigliani ,1961 and Walter, 1963 proposed it. The mixed outcomes have been yielded by signalling model created by Rock and Miller (1985). The signalling (asymmetric information) hypothesis is supported by the Study by Lie and Li (2006), Hu and Liu (2005), Mitton (2004), and Palepu and Healy (1988) by searching a positive relationship between increments of dividend and profitability in future. Farrely, Edelman and Baker (1986) and Mullins and Asquith (1983) found that there is positive interrelationship between changes of dividend and returns of stock in the days encompassing the dates of declaration of profits and Meckling and Jensen (1976) presume that there is a positive relationship among the payout portion and ARR. Then again, investigations of Gitman and Pruitt (1991) and Skinner and DeAngelo (1996) discover no help for the hypothesized connection among variations of dividend and profitability in future.

There has been decrease in risks by paying large amount of dividends and along with this effect the value of stock (Gordon, 1963) and is a proxy for income in future (Baskin,1989). From the M&M study, the presumption of perfect capital have been loosened up by different analysts and many theories have been offered that how the esteem of the firm is influenced by dividend and how managers ought to define decisions of policy of dividend .By the time the no. of variables distinguished in the literature as being critical to be considered in settlement of decisions of dividend expanded generously. Henceforth the settlement of policy of dividend of corporate retains a questionable issue and includes deep conclusion/judgment by decision makers (Sujata, 2008).

It was pointed by Rozeff (1982) and French and Fama (2001) firm having opportunities of more development will have tendency to not to pay dividend and to save money, while a mixed for development choices on policy of payout was propsed by Fenn and Liang (2001). They proposed that firms which are aiming high growth are facing increasingly a greater uncertainties/vulnerabilities as well as profitable opportunities. The firms are in need of a progressively adaptable strategy of payout with more distinguished uncertainties, and, as a result there is dependency more on further purchases vigorously than dividend. This point is upheld by Grullon et al (2002) by telling that variations in profits can be identified with the adjustments in the rate of growth and changes in rate of ROA.

There have been focuses on the importance of information substance of dividend by few creators (Asquith and Mullin, 1983). Rock and Mill operator (1985) pointed that missing information about the firm can be given by declaration of dividend and also allows the market to calculate the present income of the company. Khaksari and Ghosh (1994) and Serin and Denis (1994) shows that there is more cash flows stability in large firms and have less information asymmetries, appearing to have lower cost of financing. The larger firms can pay a large amount of dividends in comparison to small firms as they have cash flows stability and low cost of financing.

Generally policies of dividend are the policy of dividend which is stable, have constant proportion of payout and strategy of residual dividend. The policy of dividend is stable in case where management is paying constant amount of dividend per share every year. In case of payout ratio which is stable, the management keeps up a fixed rate of DPR. In a residual policy of dividend, there is utilisation of profits for funding new projects with the profits which are remaining. Investors favour the organisations which have steady development of profits every year and evade to make investment in the organizations having fluctuating policy of dividend.

Krishman (1933) had put forward he bird-in-hand argument in the words:

"of the two stocks with identical earnings record and prospects yet with one paying a larger

dividend than the other, the former will without a doubt command a higher price simply in light of the fact that investors lean toward present to future values .Myopic vision has an influence in the price making process. Stockholders regularly follow up on the rule that a bird in the hand is worth two in the bush and for this reason are eager to pay a premium for the stock with the higher dividend rate, similarly as they discount the one with the lower rate".

Whatever the policy of profit embraced an organization, there must be consideration of the accompanying components: liquidity, legal restrictions, expectations of market, opportunity for investment which are profitable, credit agreement & activity of other organization in a similar zone.

### Statement of the Problem

The presence of the well organised financial system of the country forms the base for the development of the country economically. The financial system which functions smoothly leads to fund flows to more effective activities and lead to promotion of investments.
Dividend policy remains the point of controversy even after decades of empirical and theoretical research comprising aspects of price of share (Rachim and Allen, 1996 , Mohammed and Choudhary, 2003 and Alayemi, 2013).

### Objective of the study

The generous aim of the study is to figure out the effect of ratio of pay-out and MPS of Nestle India and Britannia Industries ltd. both listed on NSE and BSE.
The following are particular objectives of the study :

- To evaluate the relationship that exists between policy of dividend and MPS.
- To evaluate the connection that exists among earnings after tax and dividend payment.

### Formulation of Hypotheses

In the present research the following test of hypotheses will be conducted:
$H_0 1$:    There is no significant impact between DP and MPS.
$H_1 1$:    There is significant impact between DP and MPS.
$H_0 2$:    There is no significant association between EAT and MPS.
$H_1 2$:    There is significant association between EAT and MPS.

### Research Methodology

The population of the study comprises of the organisations listed on the BSE. Out of many sectors, there has been selection of sector of food and beverage by using judgemental sampling technique to select Nestle India ltd. and Britannia Industries ltd.

There are two ways of collection of data one is primary source and another one is secondary sources. In the present study, to gather the information, the secondary source was used. In secondary sources the financial statements of the respective companies were considered for data collection. The period from the year 2014 to 2018 was gathered for carrying the study.

### Data Presentation and Analysis

The below-mentioned table shows the audited financial statements of Nestle India and Britannia Industries Ltd. for the period of 5 years.

Table 7.1: Profit and Loss Account (2014-2018) - Nestle India.

| P & L A/c of Nestle India (in crores) | | | | | |
|---|---|---|---|---|---|
| | **Dec '18** | **Dec '17** | **Dec '16** | **Dec '15** | **Dec '14** |
| **Income** | | | | | |
| Sales TO | 11,292.27 | 10,192.18 | 9,556.24 | 8,482.48 | 10,178.07 |
| Excise Duty | 0 | 182.58 | 332.44 | 307.17 | 323.23 |
| Net Sales | 11,292.27 | 10,009.60 | 9,223.80 | 8,175.31 | 9,854.84 |
| Other Income | 258.92 | 86.2 | 87.25 | -390.75 | 94.32 |
| Stock Adjust. | 6.01 | 79.56 | 10.78 | -11.97 | 67.43 |
| **Total Income** | **11,557.20** | **10,175.36** | **9,321.83** | **7,772.59** | **10,016.59** |

| Exp. | | | | | |
|---|---|---|---|---|---|
| Raw Mat. | 4,596.24 | 4,456.80 | 3,935.73 | 3,498.21 | 4,640.46 |
| Power & Fuel Cost | 0 | 288.44 | 232.79 | 221.99 | 384.33 |
| Employee Cost | 1,124.15 | 1,017.45 | 1,073.36 | 912.75 | 837.05 |
| Selling and Admin Exp. | 62.17 | 506 | 0 | 0 | 0 |
| Misc. Exp. | 2,898.07 | 1,723.94 | 2,281.28 | 1,975.46 | 2,028.63 |
| **Total Exp.** | **8,680.63** | **7,992.63** | **7,523.16** | **6,608.41** | **7,890.47** |
| | **Dec '18** | **Dec '17** | **Dec '16** | **Dec '15** | **Dec '14** |
| **Operating Profit** | **2,617.65** | **2,096.53** | **1,711.42** | **1,554.93** | **2,031.80** |
| PBDIT | 2,876.57 | 2,182.73 | 1,798.67 | 1,164.18 | 2,126.12 |
| Int. | 111.95 | 91.9 | 3.51 | 3.29 | 14.23 |
| PBDT | 2,764.62 | 2,090.83 | 1,795.16 | 1,160.89 | 2,111.89 |
| Dep. | 335.67 | 342.25 | 353.62 | 347.26 | 337.54 |
| PBT | 2,428.95 | 1,748.58 | 1,441.54 | 813.63 | 1,774.35 |
| PBT (Post Extra-ord Items) | 2,428.95 | 1,748.58 | 1,441.54 | 813.63 | 1,774.35 |
| Tax | 822.02 | 614.11 | 515 | 250.36 | 589.66 |
| **Reported Net Profit(NP)** | **1,606.93** | **1,225.19** | **926.54** | **563.27** | **1,184.69** |
| Total Value Addition | 4,084.39 | 3,535.83 | 3,587.43 | 3,110.20 | 3,250.01 |
| Equity Dividend | 0 | 829.18 | 607.42 | 467.62 | 607.42 |
| Corporate Dividend Tax | 0 | 168.77 | 123.66 | 95.63 | 109.16 |
| **Per share data (annualised)** | | | | | |
| Shares in issue (lakhs) | 964.2 | 964.16 | 964.16 | 964.16 | 964.16 |
| **Earnings Per Share (Rs)** | **166.66** | **127.07** | **96.1** | **58.42** | **122.87** |
| Equity Dividend (%) | 1,150.00 | 710 | 780 | 485 | 630 |
| BV (Rs.) | 381.01 | 354.78 | 312.57 | 292.26 | 294.27 |
| Source : Dion Global Solutions Ltd. | | | | | |

| Profit & Loss account of Britannia Industries (in crores) | | | | | |
|---|---|---|---|---|---|
| | **Mar '18** | **Mar '17** | **Mar '16** | **Mar '15** | **Mar '14** |
| **Income** | | | | | |
| Sales TO | 9,380.17 | 8,684.39 | 8,176.82 | 7,344.79 | 6,307.39 |
| Excise Duty | 76.11 | 270.02 | 228.92 | 168.8 | 0 |
| Net Sales | 9,304.06 | 8,414.37 | 7,947.90 | 7,175.99 | 6,307.39 |
| Other Income | 155.93 | 144.78 | 87.88 | 229.59 | 14.82 |
| Stock Adjust. | 4.18 | 49.25 | 7.12 | 25.48 | 12.58 |
| **Total Income** | **9,464.17** | **8,608.40** | **8,042.90** | **7,431.06** | **6,334.79** |
| **Expenditure** | | | | | |
| Raw Mat. | 5,796.49 | 5,263.24 | 4,643.10 | 4,356.44 | 3,835.34 |
| Power & Fuel Cost | 94.98 | 75.04 | 57.06 | 67.42 | 65.12 |
| Employee Cost | 294.87 | 241.68 | 209.21 | 176.79 | 172.45 |
| Selling and Admin Exp. | 345.43 | 322.07 | 384.25 | 0 | 0 |
| Misc. Exp. | 1,365.99 | 1,357.44 | 1,529.58 | 1,829.32 | 1,650.44 |
| Total Exp. | 7,897.76 | 7,259.47 | 6,823.20 | 6,429.97 | 5,723.35 |

| | Mar '18 | Mar '17 | Mar '16 | Mar '15 | Mar '14 |
|---|---|---|---|---|---|
| **Operating Profit** | **1,410.48** | **1,204.15** | **1,131.82** | **771.5** | **596.62** |
| PBDIT | 1,566.41 | 1,348.93 | 1,219.70 | 1,001.09 | 611.44 |
| Int. | 1.45 | 1.34 | 1.25 | 1.21 | 5.44 |
| PBDT | 1,564.96 | 1,347.59 | 1,218.45 | 999.88 | 606 |
| Dep. | 119.76 | 96.43 | 86.89 | 117.27 | 63.38 |
| PBT | 1,445.20 | 1,251.16 | 1,131.56 | 882.61 | 542.62 |
| PBT (Post Extra-ord Items) | 1,445.20 | 1,251.16 | 1,131.56 | 882.61 | 542.62 |
| Tax | 497.31 | 407.47 | 382.47 | 260.2 | 172.79 |
| **Reported NP** | **947.89** | **843.69** | **749.09** | **622.41** | **369.83** |
| Total Value Addition | 2,101.27 | 1,996.23 | 2,180.10 | 2,073.53 | 1,888.01 |
| Equity Dividend | 264.13 | 239.95 | 239.95 | 191.88 | 143.91 |
| Corporate Dividend Tax | 53.78 | 48.85 | 48.85 | 39.06 | 24.46 |
| **Per share data (annualised)** | | | | | |
| Shares in issue (lakhs) | 1,200.59 | 1,200.01 | 1,199.76 | 1,199.26 | 1,199.26 |
| **Earnings Per Share (Rs)** | **78.95** | **70.31** | **62.44** | **51.9** | **30.84** |
| Equity Dividend (%) | 1,250.00 | 1,100.00 | 1,000.00 | 800 | 600 |
| BV (Rs.) | 269.47 | 215.16 | 141.71 | 103.03 | 71.17 |
| Source : Dion Global Solutions Ltd. | | | | | |

Table 7.3: P& L A/c (2014-2019) - Nestle India

| | 2018 | 2017 | 2016 | 2015 | 2014 |
|---|---|---|---|---|---|
| **TO** | 11,557.20 | 10,175.36 | 9,321.83 | 7,772.59 | 10,016.59 |
| **Cost of Sales** | 8,680.63 | 7,992.63 | 7,523.16 | 6,608.41 | 7,890.47 |
| **Gross Prof.** | 2,876.57 | 2,182.73 | 1,798.67 | 1,164.18 | 2,126.12 |
| **Operating Prof.** | 2,617.65 | 2,096.53 | 1,711.42 | 1,554.93 | 2,031.80 |
| **PBDIT** | 2,876.57 | 2,182.73 | 1,798.67 | 1,164.18 | 2,126.12 |
| **PBT** | 2,428.95 | 1,748.58 | 1,441.54 | 813.63 | 1,774.35 |
| **Tax** | 822.02 | 614.11 | 515 | 250.36 | 589.66 |
| **PAT** | 1,606.93 | 1,134.47 | 926.54 | 563.27 | 1,184.69 |
| Source : Dion Global Solutions Ltd. | | | | | |

Table 7.4: P & L A/c  (2014-2018) – Britannia Industries Ltd.

| | 2018 | 2017 | 2016 | 2015 | 2014 |
|---|---|---|---|---|---|
| **TO** | 9,464.17 | 8,608.40 | 8,042.90 | 7,431.06 | 6,334.79 |
| **Cost of Sales** | 7,897.76 | 7,259.47 | 6,823.20 | 6,429.97 | 5,723.35 |
| **Gross Profit** | 1,566.41 | 1,348.93 | 1,219.70 | 1,001.09 | 611.44 |
| **Operating Profit** | 1,410.48 | 1,204.15 | 1,131.82 | 771.5 | 596.62 |
| **PBDIT** | 1,566.41 | 1,348.93 | 1,219.70 | 1,001.09 | 611.44 |
| **PBT** | 1,445.20 | 1,251.16 | 1,131.56 | 882.61 | 542.62 |
| **Tax** | 497.31 | 407.47 | 382.47 | 260.2 | 172.79 |
| **PAT** | 947.89 | 843.69 | 749.09 | 622.41 | 369.83 |
| Source : Dion Global Solutions Ltd. | | | | | |

Table 7.5: Appropriation of Profit and MPS (2014-2018) – Nestle India.

|  | **2018** | **2017** | **2016** | **2015** | **2014** |
|---|---|---|---|---|---|
| **PAT** | 1606.93 | 1134.47 | 926.54 | 563.27 | 1184.69 |
| **DP** | 0 | 829.18 | 607.42 | 467.62 | 607.42 |
| **DPR** | 0 | 0.73 | 0.66 | 0.83 | 0.51 |
| **Retention ratio** | 1.00 | 0.27 | 0.34 | 0.17 | 0.49 |
| **MPS** | 8199.85 | 6600 | 5445.05 | 6950 | 4925 |
| Source : Dion Global Solutions Ltd. | | | | | |

Table 7. 6: Appropriation of Profit and MPS (2014-2018) – Britannia Industries Ltd.

|  | **2018** | **2017** | **2016** | **2015** | **2014** |
|---|---|---|---|---|---|
| **PAT** | 947.89 | 843.69 | 749.09 | 622.41 | 369.83 |
| **DP** | 264.13 | 239.95 | 239.95 | 191.88 | 143.91 |
| **DPR** | 0.28 | 0.28 | 0.32 | 0.31 | 0.39 |
| **Retention ratio** | 0.72 | 0.72 | 0.68 | 0.69 | 0.61 |
| **MPS** | 2499 | 1690 | 1312.70 | 1087 | 414.50 |
| Source : Dion Global Solutions Ltd. | | | | | |

Table 7.7:  Nestle India.

| Year | Market price of share (MPS) | Earnings after Tax(EAT) | Dividend paid (DP) |
|---|---|---|---|
| **2014** | 47481.93 | 1184.69 | 607.42 |
| **2015** | 67004.95 | 563.27 | 467.62 |
| **2016** | 52495.73 | 926.54 | 607.42 |
| **2017** | 63630.6 | 1134.47 | 829.18 |
| **2018** | 79062.95 | 1606.93 | 0 |
| Source : Dion Global Solutions Ltd. | | | |

Table 7.8: Britannia Industries Ltd.

| Year | Market price of share (MPS) | Earnings after Tax(EAT) | Dividend paid (DP) |
|---|---|---|---|
| **2014** | 4969.85 | 369.83 | 143.91 |
| **2015** | 13033.13 | 622.42 | 191.88 |
| **2016** | 15739.27 | 749.09 | 239.95 |
| **2017** | 20280 | 843.69 | 239.95 |
| **2018** | 29988 | 947.89 | 264.13 |
| Source : Dion Global Solutions Ltd. | | | |

**Data Analysis and Interpretation**

Variables:

Independent variables (IV):

MPS in secondary market can be determined with help of many variables. However, to enquire only the amount of profit earned, that is, EAT and the actual DP is the main focus of this study.

Dependent variable (DV):

MPS is the DV of the study.  The model specification for the study is as follows:

$$MPS = \beta 0 + \beta 1(EAT) + \beta 2(DP) + \varepsilon$$

Where

$\beta 0$ = Intercept

EAT = Earnings after Tax

DP = Dividend paid

**Result of hypothesis testing**

In the below table the result of the hypothesis is shown. Decision criterion is that there is rejection of null hypothesis if t-value is higher than 1.95 and Sig. is lower than 0.05 at 95% confidence level. Then it can be conclude that the variable which is independent i.e. EAT and DP has a significant impact on dependent variable i.e. MPS.

Table 9.1: Model Summary for Regression Model

### Nestle India

### Model Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | R Square Change | F Change | df1 | df2 | Sig. F Change |
| 1 | .697 a | .486 | -.028 | 12619.34347 | .486 | .946 | 2 | 2 | .514 |

a. Predictors: (Constant), DP, EAT

b. DV: MPS

(Source: As per SPSS output)

Table 9.2: Correlation table

### Correlations

| | | MPS | EAT | DP |
|---|---|---|---|---|
| Pearson Correlation | MPS | 1.000 | .339 | -.697 |
| | EAT | .339 | 1.000 | -.496 |
| | DP | -.697 | -.496 | 1.000 |
| Sig. (1-tailed) | MPS | . | .289 | .095 |
| | EAT | .289 | . | .198 |
| | DP | .095 | .198 | . |
| N | MPS | 5 | 5 | 5 |
| | EAT | 5 | 5 | 5 |
| | DP | 5 | 5 | 5 |

Table: 9.3: ANOVA

### ANOVA

| Model | | Sum of Squares | Df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 301441514.617 | 2 | 150720757.308 | .946 | .514 b |
| | Residual | 318495659.237 | 2 | 159247829.618 | | |
| | Total | 619937173.854 | 4 | | | |

a. DV: MPS

b. Predictors: (Constant), DP, EAT

Table 9.4: Coefficients of Multiple Linear Regression Model

### Coefficients

| Model | | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 76473.660 | 28960.194 | | 2.641 | .118 |
| | EAT | -.314 | 19.050 | -.010 | -.016 | .988 |
| | DP | -28.265 | 23.501 | -.702 | -1.203 | .352 |

a. Dependent Variable: MPS

### Analysis of correlation:

The co-efficient in the model of each of the variable is shown below:

$$MPS = \beta_0 + \beta_1(EAT) + \beta_2(DP) + \varepsilon$$

$$MPS = 76473.66 - 0.314(EAT) - 28.26(DP) + \varepsilon$$

It is shown from the result that there is negative relationship among EAT and DP with MPS.

This indicates that as when there is decrease in EAT there will be increase in MPS.

## Relationship between DP and MPS

Table 9.1.1: Relationship between DP and MPS

| Independent Variable | t-value | Sig. |
|---|---|---|
| DP | -1.203 | 0.352 |

As t-value is -1.203 which is lower than 1.95 and Sig. value is 0.352 which is higher than 0.05 at 95 % confidence level, there is rejection of the null hypothesis and the alternative hypothesis , there is indication of presence of significant impact among DP and MPS is accepted.

### Result of Hypothesis 2(H02)

There is no significant association between EAT and MPS.

### Relationship between EAT and MPS

| IV | t-value | Sig. |
|---|---|---|
| EAT | -0.016 | 0.988 |

## Britannia Industries Ltd.

Table 9.5: Model Summary for Regression Model

### Model Summary

| R | R Square | Adjusted R Square |
|---|---|---|
| .968[a] | .937 | .874 |

a. Predictors: (Constant), DP, EAT
b. DV: MPS

Table 9.6:Correlation table

### Correlations

| | | MPS | EAT | DP |
|---|---|---|---|---|
| Pearson Correlation | MPS | 1.000 | .960 | .921 |
| | EAT | .960 | 1.000 | .984 |
| | DP | .921 | .984 | 1.000 |
| Sig. (1-tailed) | MPS | . | .005 | .013 |
| | EAT | .005 | . | .001 |
| | DP | .013 | .001 | . |
| N | MPS | 5 | 5 | 5 |
| | EAT | 5 | 5 | 5 |
| | DP | 5 | 5 | 5 |

Table: 9.7: ANOVA

### ANOVA

| Model | | Sum of Squares | Df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 319778102.115 | 2 | 159889051.058 | 14.858 | .063[b] |
| | Residual | 21522527.625 | 2 | 10761263.812 | | |
| | Total | 341300629.740 | 4 | | | |

a. DV: MPS
b. Predictors: (Constant), DP, EAT

Table 9.8: Coefficients of Multiple Linear Regression Model

### Coefficients

| Model | | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | -2296.931 | 13695.822 | | -.168 | .882 |
| | EAT | 68.346 | 40.894 | 1.652 | 1.671 | .237 |
| | DP | -135.176 | 189.908 | -.703 | -.712 | .550 |

a. Dependent Variable: MPS

**Analysis of correlation:**
The co-efficient in the model of each of the variable is shown below:

$MPS = \beta_0 + \beta_1(EAT) + \beta_2(DP) + \varepsilon$

$MPS = -2296.931 + 68.346(EAT) - 135.176(DP) + \varepsilon$

It has been shown from the result that there is positive relationship among EAT and MPS. This indicates that when there is increase in EAT, there will be increase in MPS. However, there is negative relationship among DP and MPS. This shows that as DP decreases there will be rise in the MPS.

**Result of Hypothesis 2($H_0$2)**
There is no significant association between EAT and MPS.

Table 9.4.1: Relationship between DP and MPS

**Relationship between EAT and MPS**

| Independent Variable | t-value | Sig. |
|---|---|---|
| EAT | 1.671 | 0.237 |

Since t-value is 1.671 which is less than 1.95 and Sig. value is 0.237 which is higher than 0.05 at 95 % level of confidence, there is rejection of the null hypothesis and the alternative hypothesis there is an indication of significant impact between EAT and MPS.

**Summary**

The motive of the study is to find out the importance of DP on the MPS. In order to execute the study, Two hypotheses were developed. The analysis was done by collecting data from the Balance sheet of the two companies namely Nestle India & Britannia Industries Ltd. for the period of five (05) years under analysis. Its has been shown from the analysis from data of the two companies that there is negative inter relationship between EAT and MPS for Nestle India and positive connection between EAT and MPS for the another one i.e. Britannia Industries Ltd. This shows that implication of profitability that this will somehow effect MPS. There is negative relationship between DP and MPS. It clearly indicated that increase in payment of dividend will influence MPS. This imparted that share holders have keen interest in amount of return on the amount on which they made investments. There was consideration of the multiple linear regression analysis to conduct the test of hypotheses developed. The results are as appearing in the tables. Under Nestle India, there is rejection of null hypothesis ($H_0$1) which tells about important impact among DP and MPS. It clearly indicates that MPS is influenced by amount of DP .Similarly, there is rejection of the second hypothesis ($H_0$2) resembling no significant relation between EAT and MPS. In case of Britannia Industries Ltd., hypothesis one ($H_0$1) was not accepted which tells that there is no significant effect between DP and MPS. Which clears that MPS is influenced by dividend payment. There was rejection of the second hypothesis ($H_0$2) resembling no significant connection among EAT and MPS. This condition resembles that company has a profit making investment.

This is due to declaration of DP data has the potential to affect the MPS positively or negatively. Sometimes when there is better investment opportunity is on the door, the FM has to make decision to distribute dividend and to forgo the opportunity of investment on the other hand retain the dividend and invest Profitable opportunity for achieving the ultimate goals of organisation.

Since DPR has an effect on the MPS the amount of dividend does not affect the company's credibility. Contrary bonus shares can be issued to existing shareholders for compensating them for lower cash dividend payout or no cash dividend payout. The SEBI should have adequate control on insider dealings. In certain conditions where dividend is the only source of earning of shareholder, their desire is also considered while making dividend payout decisions. The strategies followed by other companies is same sector regarding the dividend payment must be taken into consideration as well

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