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**Chief Editor**  
***Dr. R. V. Bhole***



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## **Impact of indirect Taxation on Indian economy**

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### **Abstract**

One of the major steps to align the India's indirect taxation system with that of the best practices followed by the countries across the globe has been the introduction of the Goods and Services Tax (GST). GST is a single indirect tax proposed to replace all other indirect taxes, thereby reducing the burden of paying different indirect taxes. The introduction of GST facilitated the elimination of the cascading effect of indirect taxation and the concept of double taxation, thereby introducing a uniform regime governing indirect taxation in India. GST has been responsible for pushing the economy a step closer to a common market that involves the free movement of capital and services, making room for doing business in an easier way.

**Keywords :** Indirect Taxes, GST, Growth, Development

### **Introduction**

Tax is a mandatory financial charge levied by central and state government on an individual or an organization to collect revenues for providing public facilities.

Taxes are broadly divided into two categories-Direct and Indirect taxes. Direct tax levied directly on a taxpayer who pays it to the Government. Direct Tax can not be shifted from one taxpayer to another. Some of the important direct taxes imposed in India: Income Tax, Corporate tax, Securities Transaction Tax (STT). Indirect Tax levied by the Government on goods and services and not on the income, profit or revenue of an individual. This tax can be shifted from one taxpayer to another. Some of the important Indirect taxes imposed in India: GST, Customs Duty, Central Excise Duty, Service Tax, Sales Tax, Value Added Tax (VAT).

1. Goods and Service Tax (GST) is one of the existing indirect tax levied in India. It has subsumed many indirect tax laws.
2. Customs Duty: In case products have been imported from outside India, customs duty is levied. The amount of tax that will be levied will depend on the product that has been imported.
3. Excise Duty: The tax is levied on goods or produced goods in India. The manufacturing company directly collects the tax.
4. Service Tax: Service tax is charged on the company's services. It is included in the product's price and collection of the tax will depend on the type of service. Several paid services such as advertising, financial services, banking, consultancy, maintenance, healthcare, and telephone are covered under the tax.
5. Sales Tax: The tax that is charged to sell the product is sales tax. The seller of the product is charged the tax. The different levels that are applicable under sales tax are Intra-State Level, Import/Export Sales, and Inter-State Sale.

### **Objective of study**

1. To know the Meaning of Tax
2. To Examine Tax structure of india.
3. To study Indirect Taxes in India .
4. To understand the Impact of Gst on Indian Economy.

### **Research Methodology**

The study focuses on extensive study of Secondary data collected from various sources i.e books, National and International Journals, government reports, publications from various websites which focused on various Aspects of Goods and Service Tax.

### **Goods and Services Tax (GST)**

The history of GST traces back more than 20 years ago to the year 2000 when the first discussion with regard to India adopting GST was made at a time when the Atal Bihari Vajpayee government was in reign. An empowered committee of state finance ministers was chosen for this purpose since they had prior experience working with State VAT. The Fiscal Responsibility and Budget Management Committee was formed in 2004, and the Committee recommended the introduction of GST.

#### **Timeline and evolution of GST**

2000: An Empowered Committee consisting of State Finance Ministers is set up.

2006: The then Finance Minister, P Chidambaram, announced the implementation of GST on April 1, 2010.

2009: The Empowered Committee of State Finance Ministers submitted the first discussion paper on GST in India.

2010: President Pranab Mukherjee announced the delay in introducing GST, proposing to introduce it in April 2011.

2011: The Constitution (115th Amendment) Bill focused on the introduction of GST in India was introduced in the Lok Sabha. The Lok Sabha then refers the Bill to the Standing Committee on Finance for a detailed examination.

2013: The Standing Committee on Finance submits the report on the Constitution (115th Amendment) Bill.

2014: The Lok Sabha dissolution leads to the lapse of the Bill.

The Constitution (122nd Amendment) Bill introduced in the Lok Sabha focused on introducing GST.

2015: The Bill was passed by the Lok Sabha and referred to a Select Committee in the Rajya Sabha. The Select Committee submits the report. Chief Economic Advisor-led Committee submits a report on the possible GST rates.

2016: The Bill is passed by both the Lok Sabha and the Rajya Sabha and is then notified as the Constitution (101st Amendment) Bill. The first state to ratify the Bill in Assam. President Pranab Mukherjee gives his assent to the Bill. The Union Cabinet approves the setting up of the GST Council, following which the first GST Council meeting is held in New Delhi.

2017 : The CGST Bill, IGST Bill, UTGST Bill, and GST (Compensation to States) Bill is introduced in the Lok Sabha. The Bills are passed by the Lok Sabha and the Rajya Sabha, after which the GST Acts are notified. The GST Council notifies GST rates and cess on goods and services. 1st July, the official rollout of GST.

2018 : Introduction of TDS provisions along with the filing of GSTR-7 Introduction of E-way bill system for inter-state movement of goods

2019 : The reverse charge mechanism is made applicable

Restrictions on availment of ITC for Section 36(4)

2020 : Introduction of e-invoicing voluntarily Quarterly return monthly payment scheme June – Relief to taxpayers in view of COVID-19

2021 : Introduction of GSTR-8 and GST on service supplied by restaurants through e-commerce operators GST on services supplied by State Govt. to their undertakings or PSUs by way of guaranteeing loans taken by them During the 2006-07 Budget Speech, the then Union Finance Minister announced that GST would be introduced by April 1, 2010. However, for various reasons, the introduction of GST had to be pushed further. The Constitution (115th Amendment) Bill, 2011, was introduced in the parliament. This Bill was introduced to incorporate certain provisions of GST and was examined in detail by a Standing Committee. With the dissolution of the Lok Sabha in 2014, the Bill lapsed, thus warranting the need for a new Constitutional Amendment Bill.

It is a tax levied when a consumer buys a good or service. It is meant to be a single, comprehensive tax that will subsume all the other smaller indirect taxes on consumption like service tax, etc. GST is levied on every stage of manufacturing and sales of goods

and services across India. This tax is levied when the goods or services are consumed. Changes after GST introduction. GST is focused on the “supply” of goods and services as opposed to the older taxes that were also applicable to the manufacturing process. Since it is focused on supply, it is regarded as a destination-based tax. It has replaced a host of taxes, including- Service tax, Central Excise Duty, Additional duties related to Excise, Special Additional Customs Duty, Additional duties related to Customs, Other cesses and surcharges. GST has absorbed the following taxes-

1. Central Sales Tax
2. Value Added Tax (VAT)
3. Luxury Tax
4. Purchase Tax
5. Entertainment Tax (except taxes levied by local entities)
6. Taxes on lottery, gambling, advertisements
7. Entry Tax

Since it follows the “one nation, one tax” ideology, the cascading effect of taxes is now mitigated. Fresh GST registrations are necessary for every state where the business has branches or intends to make outward supplies.

There are three subcategories to GST- CGST (Central Goods and Services Tax) is collected by the Central Government on interstate sale of goods and services. SGST (State Goods and Services Tax) is collected by the State Government on intrastate sales. IGST (Integrated Goods and Services Tax) is collected when a supply of products and services is supplied from one state to another. The taxes collected are shared both by the Central and State Government.

#### **Impacts Of GST**

1. Simpler Tax structure
2. With GST, the taxation system of our country has become simpler. It is a single tax, ensuring easier calculation. With this tax, the buyer gets a clear idea of the amount paid as tax when purchasing certain products. This is crucial when considering GST and its impact on the GDP.
3. More funds for Production Another effect of GST on the Indian economy has been the reduction in the total taxable amount. This saved fund can again be invested back into the production cycle to foster production.
4. Support for Small and Medium Enterprises
5. Based on the size of your organization, the amount of GST depends on your firm's annual turnover, provided you have been registered under the Composition Scheme introduced by GST. Enterprises with a yearly turnover of 50 lakhs have to pay 6% GST whereas enterprises with 1.5 crores worth of turnover have to pay 1% GST.

6. 4. Increased volume of Export
7. When considering GST and its impact on the Indian economy, customs duty on exporting goods has reduced. So now production units save money while producing goods and also while shipping them. This two-way savings has lured many production units to export their goods, increasing the export quantity.
8. Enhanced operations throughout India
9. With a unified taxation system, transporting goods around India has now become easy, boosting operations throughout the country.
10. No more Cascading Effect
11. With GST, taxes of the State and Central Government have been merged. This has removed the cascading effect of taxes, reducing the burden on the buyer and the seller. So even if it may look like one big chunk of tax to be paid, you pay lesser hidden taxes.
12. 7. Bring about certainty: Common procedures for registration of taxpayers, refund of taxes, uniform formats of tax return, common tax base, common system of classification of goods and services will lend greater certainty to taxation system;
13. 8. Reduce Corruption: Greater use of IT will reduce human interface between the taxpayer and the tax administration, which will go a long way in reducing corruption;
14. 9. Boost Secondary Sector: It will boost export and manufacturing activity, generate more employment and thus increase GDP with gainful employment leading to substantive economic growth;
15. 10. Enhancing Investments: GST being destination based consumption tax will favour consuming States. Improve the overall investment climate in the country which will naturally benefit the development in the States.
16. Ultimately it will help in poverty eradication by generating more employment and more financial resources.

### **Conclusion**

GST has both Positive as well as Negative impacts on the economy. It provides Economic Growth by being transparent and creates loss over a few sectors by the increased prices of the commodity but the ease of doing business has been helped by a unified taxation system in the country. Thus, how GST is viewed in terms of the Indian economy depends on person to person. After the introduction of GST tax payment got simplified and people were encouraged to take up business by paying a unified tax. GST provide India with a simple tax structure. The buyer upon paying for the product purchased, gets a clear idea as to what amount of tax he has paid. Even though the tax amount that was paid before and after GST did not have much difference it felt simpler for

people to pay a single tax in place of more than ten types of taxes.

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## **Consumer Protection Act, 2019**

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### **Abstract**

The new Consumer Protection Act was passed by Parliament in 2019. It came into force in July 2020 and replaced the Consumer Protection Act, 1986. Consumer Protection Act, 2019 is a law to protect the interests of the consumers. This Act provides safety to consumers regarding defective products, dissatisfactory services, and unfair trade practices. The basic aim of the Consumer Protection Act, 2019 is to save the rights of the consumers by establishing authorities for timely and effective administration and settlement of consumers' disputes.

Consumer Protection is not a new concept. It was embedded in our ancient texts too. In India, around 2500 years ago, during the period of Kautilya, there were guidelines for the government regarding how trade should be regulated and the interest of the consumers be protected. The Consumer Protection movement in modern India began with the Consumer Protection Act of 1986 which built in many clauses for the protection of the consumer for both purchase of goods and availing of services. The Act is since sought to be amended by the government through the Consumer Protection Bill 2018 (taken up in the winter session).

The government has also introduced various standards and measurements for checking of goods and services. Ex: ISI Mark, Hallmark for jewellery, Silkmark for Silk products and the recent Real Estate Regulatory Authority – a landmark regulatory measure for safeguarding the consumers from malpractices in the real estate sector. Other measures such as DBT, Ujjawala etc. are also intended at protecting the common man from becoming the victim of frauds as a beneficiary of the government schemes. Consumer redressal has also been built into the Consumer Protection Act. There are various fora like the National Consumer Disputes Redressal Authority for grievance redressal.

**Keywords : Consumer, Protection, administration, Services & Act.**

### **Need of the new act**

The Digital Age has ushered in a new era of commerce and digital branding, as well as a new set of customer expectations. Digitization has provided easy access, a large variety of choices, convenient payment mechanisms, improved services and shopping as per convenience. However, there are also associated challenges related to consumer protection.

To help address the new set of challenges faced by consumers in the digital age, the Indian Parliament passed the landmark Consumer Protection Bill, 2019 which aims to provide timely and effective administration and settlement of consumer disputes.

### **The salient features of the New Consumer Protection Bill :**

1. The establishment of an executive agency **Central Consumer Protection Authority (CCPA)** to promote protect and enforce the rights of consumers it will make interventions when necessary to prevent consumer detriment arising from unfair trade practices and to initiate class action including enforcing recall, refund and return of products.
2. Provisions for “product liability” action for or on account of personal injury, death, or property damage caused by or resulting from any product with basis for product liability action and the liability of a manufacturer to a claimant.

3. Provision for “mediation” as an Alternate Dispute Resolution (ADR) mechanism making the process less cumbersome, simple and quicker.
4. Making clear the consumer dispute adjudication process in the consumer forums are envisioned.
5. Improving the financial jurisdiction of the consumer disputes redressal agencies, raising the least required number of members in the consumer forum to facilitate speedy disposal of complaints, power to evaluate their own orders by the state and district commission, Penalising of celebrity and endorsements for false and misleading ads.
6. Declaring of unfair terms of a contract as null and void.

### **Objectives of the Study :**

1. Consumers have the right to information on various aspects of goods and services. This could be information about the quantity, quality, purity, potency, price, and standard of goods or services.
2. To be protected from hazardous goods and services. Right to protection against goods and services that can be dangerous to life and property.
3. To be protected from unfair or restrictive trade practices.
4. Consumers have the right to access a variety of goods and services at competitive prices.

5. Consumers should have the right to redressal.

### **Salient Provisions of the Consumer Protection Act**

The new Act has widened the definition of 'consumer'.

#### **Definition of consumer:**

"As per the Act, a person is called a consumer who avails the services and buys any good for self-use. Worth to mention that if a person buys any good or avails any service for resale or commercial purposes, he/she is not considered a consumer. This definition covers all types of transactions i.e. offline and online through teleshopping, direct selling or multi-level marketing."

#### **Central Consumer Protection Authority:**

1. The Act proposes the establishment of the Central Consumer Protection Authority (CCPA) as a regulatory authority.
2. The CCPA will protect, promote and enforce the rights of consumers and regulate cases related to unfair trade practices, misleading advertisements, and violation of consumer rights.
3. CCPA would be given wide-ranging powers.
4. The CCPA will have the right to take suo-moto actions, recall products, order reimbursement of the price of goods/services, cancel licenses, impose penalties and file class-action suits.
5. The CCPA will have an investigation wing to conduct independent inquiry or investigation into consumer law violations..

#### **Consumer Disputes Redressal Commission:**

1. The Act has the provision of the establishment of Consumer Disputes Redressal Commissions (CDRCs) at the national, state and district levels to entertain consumer complaints.
2. As per the notified rules, the State Commissions will furnish information to the Central Government on a quarterly basis on vacancies, disposal, the pendency of cases and other matters.

#### **The CDRCs will entertain complaints related to:**

1. Overcharging or deceptive charging
2. Unfair or restrictive trade practices
3. Sale of hazardous goods and services which may be hazardous to life.
4. Sale of defective goods or services
5. As per the Consumer Disputes Redressal Commission Rules, there will be no fee for filing cases up to Rs. 5 lakh.

#### **E-Filing of Complaints:**

1. The new Act provides flexibility to the consumer to file complaints with the jurisdictional consumer forum located at the place of residence or work of the consumer. This is unlike the earlier condition where the consumer had to file a complaint at the place of

purchase or where the seller has its registered office address.

2. The new Act also contains enabling provisions for consumers to file complaints electronically and for hearing and/or examining parties through video-conferencing.
3. Consumers will also not need to hire a lawyer to represent their cases.

#### **Product Liability & Penal Consequences:**

1. The Act has introduced the concept of product liability.
2. A manufacturer or product service provider or product seller will now be responsible to compensate for injury or damage caused by defective products or deficiency in services.
3. This provision brings within its scope, the product manufacturer, product service provider and product seller, for any claim for compensation. The term 'product seller' would also include e-commerce platforms.

#### **Penalties for Misleading Advertisement:**

1. The CCPA may impose a penalty on a manufacturer or an endorser, for a false or misleading advertisement. The CCPA may also sentence them to imprisonment.

#### **Provision for Alternate Dispute Resolution:**

1. The new Act provides for mediation as an Alternate Dispute Resolution mechanism. For mediation, there will be a strict timeline fixed in the rules.
2. As per the recently notified rules, a complaint will be referred by a Consumer Commission for mediation, wherever scope for early settlement exists and parties agree for it. The mediation will be held in the Mediation Cells to be established under the aegis of the Consumer Commissions. There will be no appeal against settlement through mediation.

#### **Hypothesis of the study:**

1. The new Act has armed the authorities to take action against unfair trade practices too.
2. The Act introduces a broad definition of Unfair Trade Practices, which also includes the sharing of personal information given by the consumer in confidence unless such disclosure is made in accordance with the provisions of any other law.

#### **Methodology of the study**

I used a qualitative research methodology. Qualitative method is used to understand people's beliefs, experiences, attitudes, behavior, and interactions. It generates non-numerical data. The integration of qualitative research into intervention studies is a research strategy that is gaining increased attention across disciplines.

#### **The Central Consumer Protection Council:**

1. The Consumer Protection Act empowers the Central Government to establish a Central

Consumer Protection Council. It will act as an advisory body on consumer issues.

2. As per the notified Central Consumer Protection Council Rules, the Central Consumer Protection Council would be headed by the Union Minister of Consumer Affairs, Food and Public Distribution with the Minister of State as Vice Chairperson and 34 other members from different fields.
3. The Council, which has a three-year tenure, will have a Minister-in-charge of consumer affairs from two States from each region – North, South, East, West, and NER. There is also a provision for having working groups from amongst the members for specific tasks.

#### **Applicability**

1. This Act is applicable to all the products and services, until or unless any product or service is especially debarred out of the scope of this Act by the Central Government.

#### **Significance of the Act**

##### **Empowering consumers**

1. The new Act will empower consumers and help them in protecting their rights through its various rules and provisions. The new Act will help in safeguarding consumer interests and rights.
2. Consumer-driven businesses such as retail, e-commerce would need to have robust policies dealing with consumer redressal in place.
3. The new Act will also push the consumer-driven businesses to take extra precautions against unfair trade practices and unethical business practices.

##### **Inclusion of the e-commerce sector:**

1. The earlier Act did not specifically include e-commerce transactions, and this lacuna has been addressed by the new Act.
2. E-commerce has been witnessing tremendous growth in recent times. The Indian e-commerce market is expected to grow to US\$ 200 billion by 2026.
3. The Act also enables regulations to be notified on e-commerce and direct selling with a focus on the protection of interest of consumers. This would involve rules for the prevention of unfair trade practices by e-commerce platforms.
4. As per the notified rules, every e-commerce entity is required to provide information relating to return, refund, exchange, warranty and guarantee, delivery and shipment, modes of payment, grievance redressal mechanism, payment methods, the security of payment methods, charge-back options, etc. including country of origin which are necessary for enabling the consumer to make an informed decision at the pre-purchase stage on its platform.

- a. The e-commerce platforms will have to acknowledge the receipt of any consumer complaint within forty-eight hours and redress the complaint within one month from the date of receipt under this Act. This will bring e-commerce companies under the ambit of a structured consumer redressal mechanism.
- b. E-commerce entities that do not comply will face penal action.

##### **Time-bound redressal:**

1. A large number of pending consumer complaints in consumer courts have been common across the country. The new Act by simplifying the resolution process can help solve the consumer grievances speedily.
2. A main feature of the Act is that under this, the cases are decided in a limited time period.

##### **Responsible endorsement:**

1. The new Act fixes liability on endorsers considering that there have been numerous instances in the recent past where consumers have fallen prey to unfair trade practices under the influence of celebrities acting as brand ambassadors.
2. This will make all stakeholders – brands, agencies, celebrities, influencers and e-commerce players – a lot more responsible. The new Act would force the endorser to take the onus and exercise due diligence to verify the veracity of the claims made in the advertisement to refute liability claims.

##### **Upholding consumer interests:**

1. For the first time, there will be an exclusive law dealing with Product Liability.
2. Product liability provision will deter manufacturers and service providers from delivering defective products or deficient services.
3. The new legislation empowers the National Consumers Dispute Redressal Committee as well as the State Commission to declare null and void any terms of a contract while purchasing a product. This will go a long way in protecting consumers, who are often subject to contract conditions that favour a seller or manufacturer.

##### **Alternate dispute redressal mechanism:**

1. The provision of Mediation will make the process of dispute adjudication simpler and quicker.
2. This will provide a better mechanism to dispose of consumer complaints in a speedy manner and will help in the disposal of a large number of pending cases in consumer courts across the nation.

##### **Simplified process for grievance redressal:**

1. The new Act would ease the overall process of consumer grievance redressal and dispute



resolution process. This will help reduce inconvenience and harassment for the consumers.

2. The enhanced pecuniary jurisdiction and provisions providing statutory recognition to mediation processes, enabling filing of complaints from any jurisdiction and for hearing parties through video-conferencing will increase accessibility to judicial forums and afford crucial protection in times when international e-commerce giants are expanding their base.

#### **State regulation:**

1. As part of the Consumer Protection Act, 2019, the Ministry of Consumer Affairs will compile a code of conduct for advertisers and agencies, a move designed to curb unfair practices and misleading claims. The planned code will detail penalties for advertisers and their agencies and publishers if misleading advertising and false claims are found.
2. There have been concerns that this approach would mark a move from self-regulation to a more federated oversight.

#### **Implementational challenges:**

1. The existing vacancies at the district commission level would undermine the effective implementation of the new Act.

#### **Lack of differentiated approach:**

1. As per the proposed rules for the e-commerce businesses, companies are not allowed to “manipulate the price” of goods and services offered on their platforms to gain unreasonable profit or discriminate between consumers of the same class or make any arbitrary classification of consumers affecting their rights under the Act.
2. The clause on the manipulation of price by e-commerce companies appears irrelevant as sometimes, the e-commerce companies would want to reduce the price to enhance sales volume. For a country with market size of around \$25 billion, the guidelines should have taken a deeper view of the e-commerce ecosystem, covering all prevailing business models between consumers, marketplaces and sellers.

#### **Suggestions :**

1. Consumer Education is a way to balance the power between producers and consumer. Government has been conducting a countrywide multimedia awareness campaign educating consumers on various issues related to consumer right and responsibilities across diverse subjects. “*Jago Grahak Jago*” has today become a household maximum.

**Joint publicity campaigns** have been launched in partnership with the related Government

Departments/Organizations that serve with a mass consumer clientele. For instance, on foods, with the Foods Safety & Standard Standards Authority of India (FSSAI); on financial services with the Reserve Bank of India (RBI); and on medicines with the National Pharmaceutical Pricing Authority (NPPA) through various electronic and print media such as Television, Radio, Newspapers and outdoor advertising. The consumer awareness campaign is implemented through the Directorate of Audio and visual Publicity (DAVP).

1. The Consumer Protection Bill, 2015 and the newly enacted Bureau of Indian Standards Act, 2016 are efforts to provide for up gradation.
2. Government of India has set up a National Consumer Helpline (NCH), with a toll free number which provides advice, information to empower consumers and persuade business to reorient their policy and management systems to address consumer concerns and grievances adopting global standards.
3. **INGRAM:** An Integrated Grievance Redressal Mechanism (INGRAM) portal was launched for bringing all stakeholders such as consumers, Central and State Government Agencies, private companies, regulator Ombudsmen and cell centres etc., on to a single platform. The portal helps in creating awareness among consumers to protect their right and inform them of their responsibilities.
4. **State Consumer Helplines:** State Consumer Helplines have been set up by State (provincial) Government with the objective to encourage Alternate Consumer Disputes Redressal mechanism at State level.
5. **Smart Consumer Application:** A mobile application “Smart Consumer” to enable the consumer to scan the bar code of the product and get all details of the product such as name of the product, details of manufacturer, year and month of manufacture, net content and consumer care details for making a complaint in case of any defect.
6. **GAME:** In its endeavour to address the problem of misleading advertisements, the Government has launched a portal called “Grievances against Misleading Advertisements (GAMA)”
7. **Online Dispute Resolution:** An Online Consumer Mediation Centre, established at the National Law School of India University, Bengaluru under the aegis of Ministry of Consumer Affairs, Government of India aims to provide for a state-of-the-art infrastructure for resolving consumer disputes both through physical as well as online mediation through its platform.

8. **Online Consumers Communities:** In association with the Local Circles, a social media platform, the Government has launched a platform 'Online Consumers Communities' for citizens to discuss and opine about governance and daily life issues.
9. **Campaign on Internet Safety:** Government in association with a Partner Company has initiated a year-long campaign organizing 'Digital Literacy, Safety and Security' workshops to educate users about the challenges of internet safety and security

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## **Impact of Branding On Consumer Purchase Decision**

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### **Abstract**

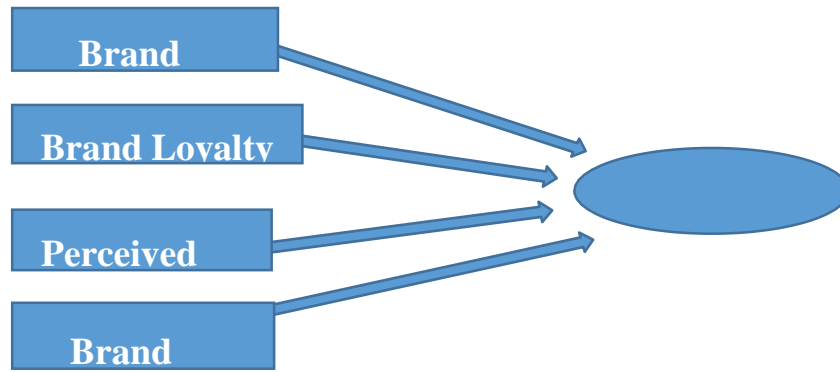
This paper is about studying the impact of branding on consumer purchase decisions. Brand affiliation put a high impact on consumer buying patterns. Now, the consumer is more knowledgeable about various brands and factors such as price, quality, value, and other factors. Brands create a sense of status in society so consumers are now starting to use various brands according to the trends or fashion. The consumer wants a sense of recognition that's why they prefer to buy branded products or expensive products over non-branded ones to show their status. The sense of status gives recognition in society, family, and friends that make the consumer happy. Branding is imperative marketing through which observation of buying behavior of consumers and their viewpoint towards brands can be studied. The purchasing decision towards brands is also affected by the nature of the consumer, age factor, income, gender, or personality traits. The word loyalty also comes in branding if consumers are fully loyal to branded products then he/she may prefer brands over brands. Branding association can affect organizations in a positive or negatively way, if brand image is positive then consumers prefer to buy products and repeats purchases also. But if there is negative image of the brand in the eyes of consumers then there will be no repetition of purchases and retention of consumers. So firms incur huge amount of expenditure on the advertisement to maintain their brand image and also organizes brand equity management programs.

**Keywords: - Brand Association, Consumer buying behavior, Imperative marketing.**

### **Introduction**

Branding is important for any business. Brand Association put a great impact on customer choice. Now, Consumer is aware of brand knowledge. Studying the behavior of consumers is generally significant for marketers. Studying the nature or behavior of consumers provides a way to understand what way consumer make their purchases. A good brand image and brand awareness lead to good brand knowledge which in turn. The higher the brand knowledge, the higher will be the consumer's concern about the reliability of the brand. Consumers prefer branded products over ordinary products and customers think that branded products are more durable and can be used for extended periods of your time. A brand enhances product quality by highlighting various opportunities that make the products more attractive and better. If a company wants to manage their brands, then it should have to fulfill the desires and wishes of the consumers. The brand is a sense of recognition that makes or changes the consumer's decision in favor of a product or a brand. Now the market become too much competitive, with this

competition in the market is arises. If you want to compete in this market, you should have to develop a strong brand image. Brand image is an image that a consumer has specific concerns about the brand and reaction to the brand in the market places. Consumers are more status conscious and they always prefer to buy branded products over non-branded ones. It is always seen that behavior of the consumers toward branded products or services is based on their age, gender, and personality traits. This study is aimed at analyzing the behavior of consumers toward purchasing branded products and services and what factors or attributes they consider while making their purchases. If we talk about modern society, brands not only represent the company but have also a strong attachment to the product's quality, social class, taste, etc. Branding is a key tool that helps create customer value, creating and maintaining competitive advantage.



### Literature Review

#### Literature Review

There have been various researches (Fatima Sarwar, 2014) have been conducted by the researchers to study the purchasing patterns of the customers. Marketers use brands to gain a competitive edge in the market and for long term success for the organisation. (Kunal Kshirsagar, 2020). These researches shows that there are various factors that are need to be considered while studying the buying behaviour of the customers. Various factors such as price, quality, quantity, branding power, marketing strategies and design of the retail store and its layout influence the purchasing power of the customers. In this study, we are considering the **BRANDING** as an imperative factor that changes the purchasing behaviour of the customers. If successfully branding strategies is planned, then the customers have positive viewpoint towards that retail store, and they repetition their purchases.

#### Objectives

The main objective of the study is to examine the impact of branding on customer purchase decision. Some of the objectives of the study are under as follows:-

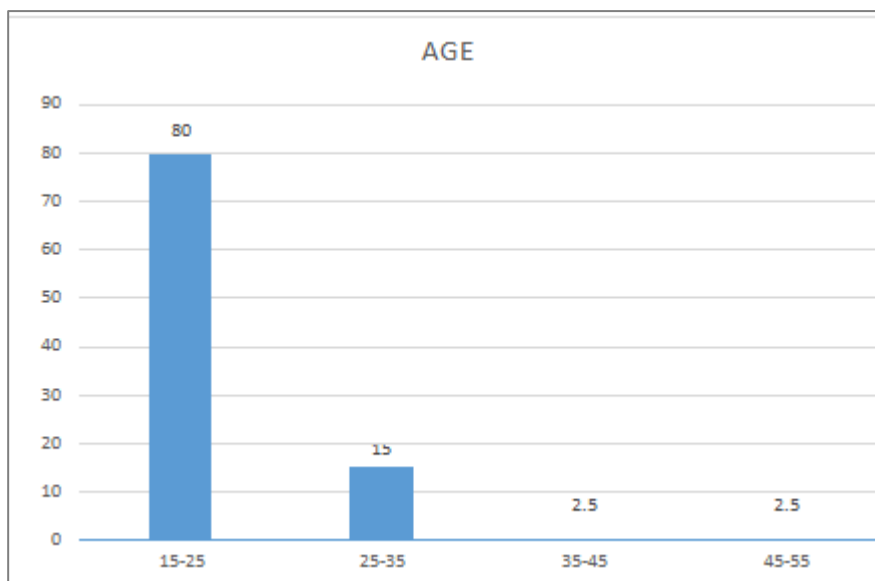
1. To study the preference of customers towards branded products over unbranded products.
2. To study consumer perception towards branded products.

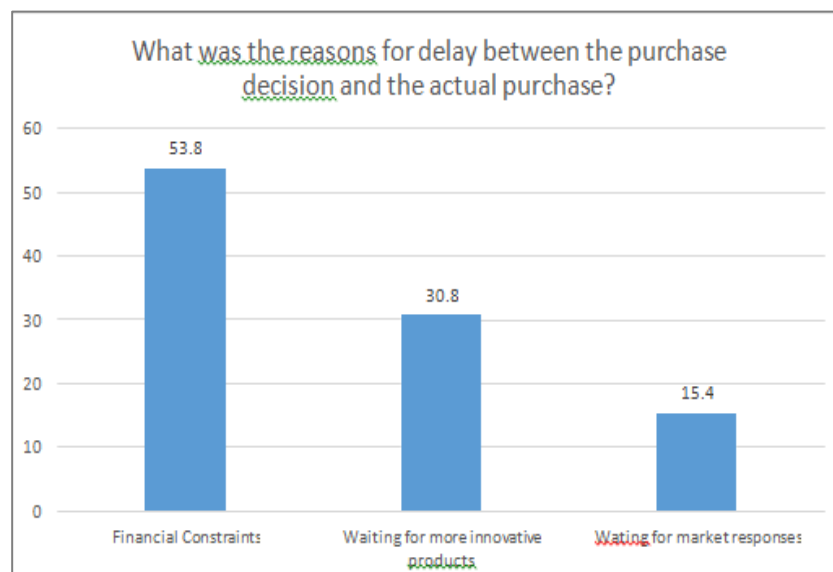
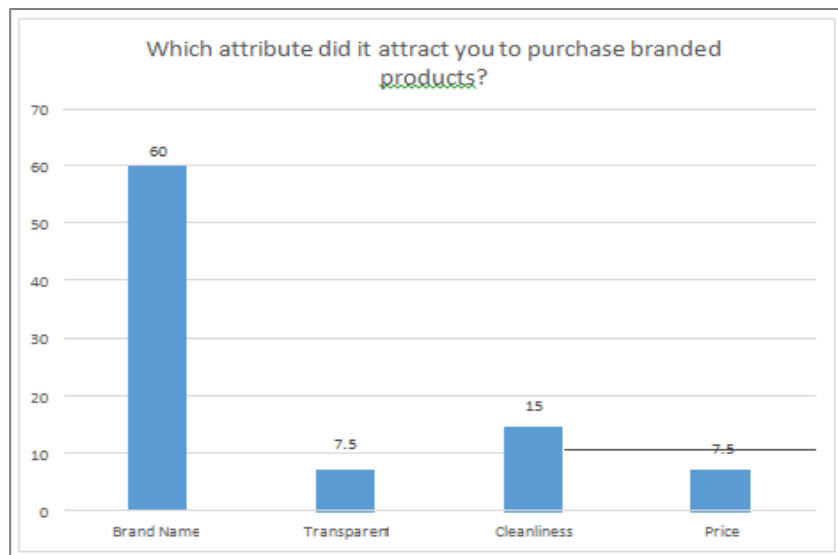
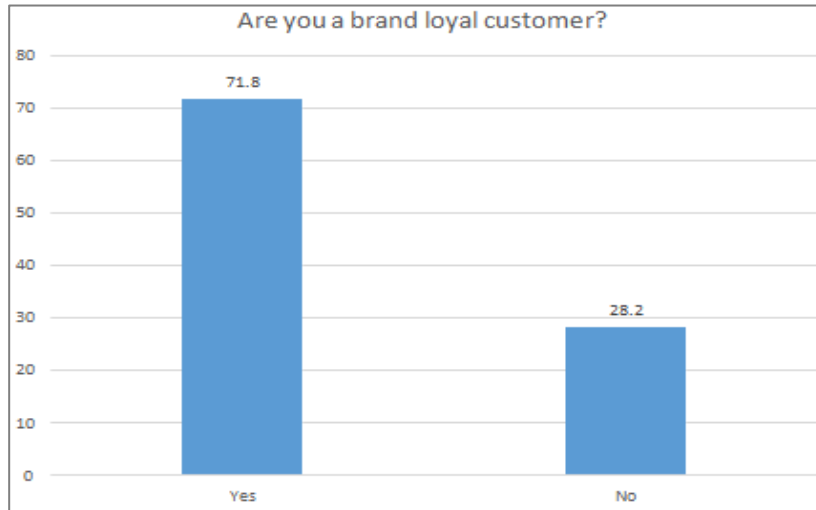
#### Type Of Study

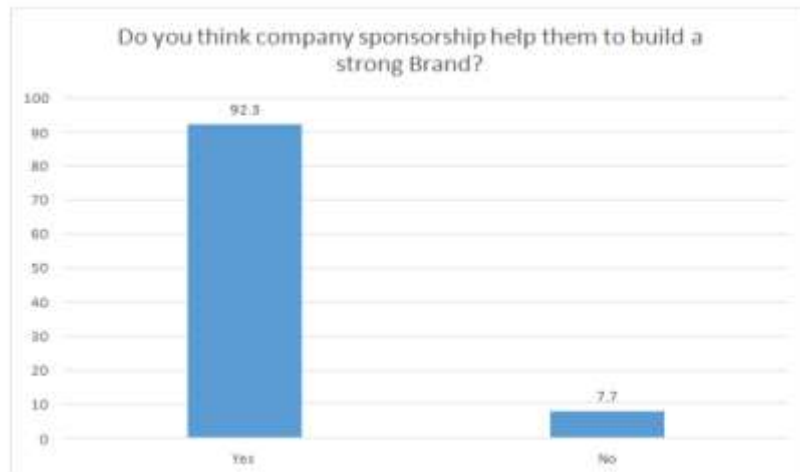
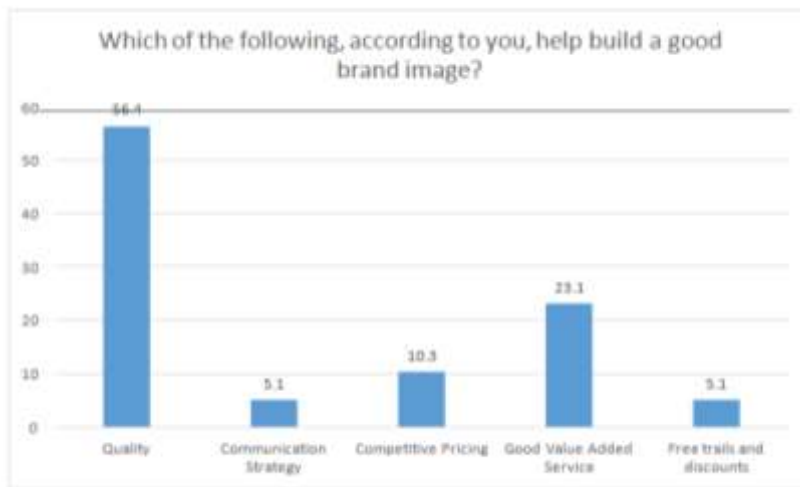
Primary Data is collected for this study through survey method. A questionnaire is designed and necessary or relevant information is collected that are useful for the study. A Close ended questionnaire is made, alternative choice are provided to respondents. A questionnaire is designed in such a way that provide basis to the objectives of the study. Clear and easily understandable questions are used to prepare the questionnaire so that everyone can give the answers properly. Secondary information is also used to study the questions that are need to be asked while making questionnaire so that all objectives of the study can be achieved.

#### Data Interpretation And Analysis

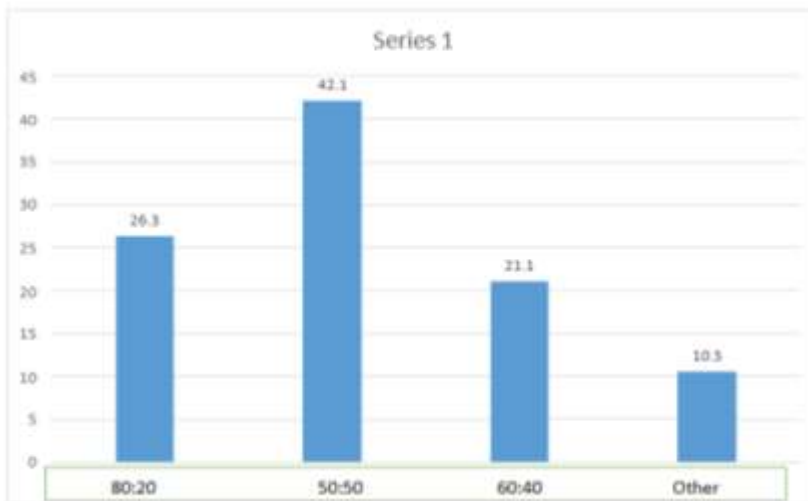
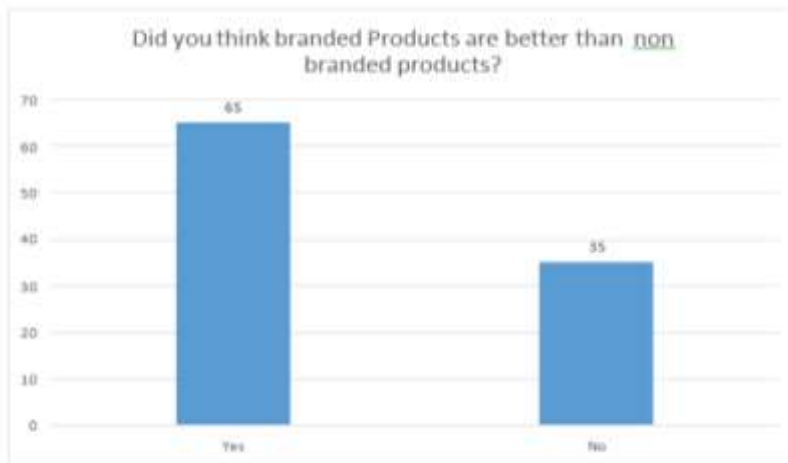
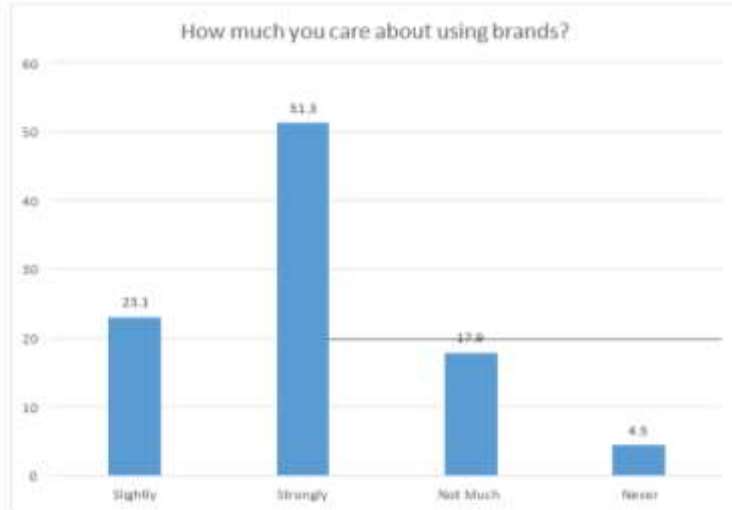
This Study is based on the 40 responses.

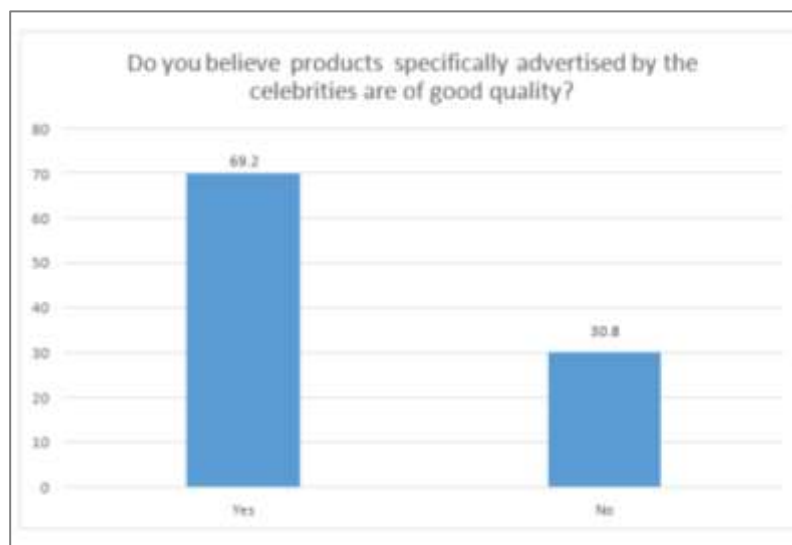
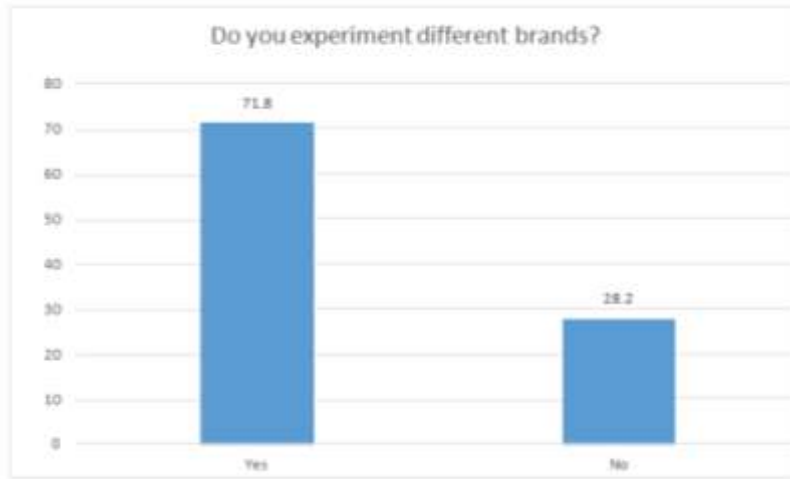












### **Interpretation**

1. In this Study, we find out that there are highly number of customers are brand loyal i.e 71.8% customers are loyal towards brand.
2. There are different attributes such as such as Brand Name, Transparency, Cleanliness and price are responsible that persuade customers to buy branded products but 60% of the customers choose brand name attribute while purchasing.
3. In this study, we analyse that the main reason delay between actual purchase and purchase decision is financial Constraints i.e 53.8%. Customers choose financial constraints as a reason for delay in purchasing of branded products.
4. It is to be noted that 59% customers switch over brand preference from one to another brand if they get better promotional schemes.
5. We find out that the customers are become aware as well as conscious towards their purchase decision, they wait for market responses and for more innovative products.
6. Quality is the main factor that encourage customers to buy branded products i.e. 56.4%
7. In this era, Youth always goes on the path of their idols or follow them i.e. celebrities, cricketers or the singers. And in this we find out that 69.2% customers believe that products advertise by the celebrities are of a good quality.
8. Now, Customers are become more aware towards their purchases, they like to do experiment different brands i.e. around 71.8% customers do experiment among brands while purchasing.

9. In this study, we analyse that 92.3% respondents believe that sponsorship help companies to build strong brand image.

### **Findings**

1. It is to be found that most of the customers prefer branded products because of the attribute of quality.
2. It is also found that financial constraint is the factor persuade the customers not to buy the products whichever they like.
3. In India, most of the population is in between 15-25 and 25-35 age criteria. So, it is found that our youth is highly attracted towards branded products rather than non-branded.
4. So, based on the results found by this survey, customers are now becoming more brand conscious and stick loyal towards Particular Brands.

### **Limitations**

1. Most of the respondent in the study is College students or working class people. So, it may not be possible to generalize the finding to the entire population of the

country.

2. Close ended questionnaire is used for collecting responses. This cannot help in getting customer opinions and comments.
3. In this study, the size of universe or population taken into account is small. So, every type of population criteria is not included in this study.
4. The information provided by some of the respondents is not true.

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## **Value Crisis & its Remediation through Education**

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### **Abstract**

Education is a process of initiating the learner to good life. But present day, the prime focus of education is to transmission of knowledge and cultivation of occupational skills for getting a job. But in this process of balancing our pace with modernization, westernization and Materialism, we ourselves are eroding the core of human values. The atmosphere of conflict and turmoil, the rate of crime and delinquency, murder, alcoholism, drug addiction, suicide etc has increased. This erosion of human value is not only creeping in western society but it is spreading in India as well which is said to be the land of values. The deepening value crisis in the Indian society is casting its evil shadow in all walks of our life. Even after fifty years of progress in different fields-economic, industrial, scientific, educational-it is doubtful if we are moving towards creation of a just society, a happy society, a good society. The promises of the bryst with the destiny, and the dreams of prosperity, social wellbeing and human happiness are proving to be false. This value crisis is prevailing at individual level as well as it is affecting our society. Value is felling down day by day. We have to think about this value crisis and the ways for getting out of this situation.

### **Introduction:**

Education is necessarily a process of inculcating values to equip the learner lead a life-a kind of life that is satisfying to the individual in accordance with the cherished values and ideals of the society. Philosophers, spiritual leaders and educationists of our country, all in various ways, have emphasized the role of education for character development", "bringing out the latent potentialities and inherent qualities' and developing an 'integrated personality' for the well being of the individual and the society at large. But present day, the prime focus of education is to transmission of knowledge and cultivation of occupational skills for getting a job. Education is becoming day by day more or less materialistic and the values are slowly given up. The modern India is being educated mainly with the bread and butter aim of education and as a result as a most of our graduates run after money, power, comforts without caring for any values. Moral, Religious and spiritual education is being deliberately neglected in our educational system. In the process of balancing our pace with modernization, westernization and Materialism, we ourselves are eroding the core of human values. India is passing through a period of value crisis. Even after fifty years of progress in different fields-economic, industrial, scientific, educational-it is doubtful if we are moving towards creation of a just society, a happy society, a good society. Massive industrial infrastructure is being built with an increasing insistence on efficiency needed for an industrial society, leaving no room for the growth of humane and spiritual consciousness. Our social life is full of corruption. violence. hypocrisy, exploitation, disparity and disruption. The erosion of values is now a national phenomenon. so complex

and gigantic that a more balanced curriculum, new learning materials and competent teachers, alone can correct this phenomenon (NPE. 1986). It is a daunting task to examine the nature of today's value crisis in this gloomy climate. Yet, there is no escape from it either. One must grapple with it as best as one can. Value crisis is spreading its wings in all spheres of our life. These spheres may be categorized as individual and societal.

### **Value Crisis at Individual Level:**

In this era of globalisation and so called progressivism, the sole aim of all the individual has become attainment of personal success. The rat race to this success commands enthusiastic support of the powerful middle and elite classes. Their upbringing and enculturation have tuned them for single minded pursuit of career growth and economic success. All other life values which give meaning, worth and fullness to human existence are seen as roadblocks and unnecessary diversions from the high road to material success.

Similarly, the concept of a good life has become the synonymous for unrestricted enjoyment of sensuous pleasures and fulfilment of unlimited desires. It is defined as a situation of consumerist haven filled with all kinds of artifacts for comfort and luxury. In this time all believe in the slogan of higher the quantity of consumption, better the quality of life'. The new economic policies of liberalisation and globalisation have further propelled this ever aggressive march of consumerism. It does not mean that the commonly accepted notion of success and good life i.e., natural human inclinations for economic betterment, material comforts and enjoyment of life's pleasures is totally wrongful. They certainly are important components of a good life. But they are not the most

important and single component of a good life. They are not the ultimate goals of human striving for happiness and fulfilment. The modern value crisis is mainly due to the excessive overplaying of the importance of material values of life, and consequent down playing of other life values like the moral, aesthetic and spiritual.

A related dimension of the value crisis is the increasing respectability of selfish individualism. It takes the form of exclusive concern for personal gains without any consideration for the common good. In every situation the guiding principle and the main question is, "what is in it for me?" Such selfish persons use their friends, parents, relatives, and all other human relationships merely as means for personal advancement, without cherishing them or giving them much in return. They develop their talents, skills and knowledge, not because they make for a good person or a good society, but only to encase them at the opportune moment for gaining personal advantage. Such self-seeking, careerist ambitions are encouraged, even admired, by the modern professional and managerial class as the desirable virtues of motivation, goal-orientation, competitive spirit, etc.

Another dimension of the value crisis at the individual level is the steep rise in the rights-consciousness, along with a steeper decline in the duty-consciousness. No one is talking about the duties and responsibilities of individuals and groups, towards each other and towards the collective whole. The common ethical principle that the rights of one can be fulfilled only if others performed their duties seems to have been forgotten.

The third dimension of this crisis is the common mentality of adopting double standards of value judgment, a much higher one for others and a much lower one for us. Even the smallest mistakes of others do not escape our censorious scrutiny while we casually ignore or explain away our own wrongful conducts and malicious intentions. We refuse to accept any part of responsibility for the evils around us, let alone take initiative to do something about them. This duality of value standards also exhibits itself in the wide gap between profession and practice. The very persons, who talk about high ideals, give frequent quotations in Sanskrit, exhort us to follow examples of national Heroes, stoop down to lowest levels of conduct for their own personal gains. And they have little qualm about it because it is generally accepted that words need not match deeds. This has generated a pervasive disvalue of mistrust in social intercourse where it is difficult to accept any statement on its face value.

#### **Value Crisis at Societal Level:**

We live in society. An individual's success has no meaning until it is approved by society.

Anybody who tries to achieve success works this for getting a better position in his society. The Indian society has traditionally been a group-oriented society. Although this group consciousness has generally been limited to caste, clan and village community, it did provide a counterbalancing communitarian pull to the tendency of selfish individualism. With the ascendancy of ideologies and isms like/ individualism, consumerism, rights-ism, etc., this communitarian feeling has declined, particularly amongst the middle and the elite classes. Nor has it been replaced by a larger social consciousness which prompts the feeling of oneness with the society. It is this social consciousness which reminds us that all our individual attainments are derived from the society and have validity only in relation to it. We are entitled to fulfilment of our rightful expectations only when we perform our social duties and obligations efficiently and enthusiastically. It is this social consciousness which prompts individuals to work for the promotion of common social good, at least not to harm it for the sake of their individual gains. This deadening of social consciousness has reduced our sensitivity to a variety of social evils like, poverty, injustice, exploitation, caste, class and gender inequalities, etc. The better endowed citizens, whose sensitivities and attitudes affect social transformation, have closed their eyes to these problems and have retreated into their own citadels of comfort and prosperity.

The realisation that even for our personal growth we have to fulfil our social obligations is one level of social consciousness. At a deeper level we identify more closely with our society when we say 'it is my society'. This emotional identification serves the psychological need for a larger group identity. It generates a sense of pride in the achievements, the glory, and the common heritage of the society. This belongingness also creates a sense of responsibility for working towards removal of social inequalities, disharmonies and afflictions of various kinds. It nurtures the social virtues of care and concern. Without it society ceases to be a web of social relationships' for the nurturance of human values, human happiness and human growth. It becomes a cold, numerical collectivity of individuals and groups, and worse still, a tension filled, strife torn, ruthless and oppressive system, governed by the jungle law of might is right. Lack of social consciousness and social cohesiveness are the major features of the contemporary value crisis at the societal level.

The two most devalued words in our society today are politics and politician. Political pursuit has become unscrupulous manipulation for grabbing power and using it for selfish, partisan ends. Political parties are organized less on the lines of ideologies and socio-economic programmes, and

more on the basis of caste, religion, and regional identities. Instead of acting as a unite force for reconciling narrow group interests they have become a divisive force. fanning fissiparous tendencies. Corruption, scams, nexus with black marketeers and criminals have become the main features of the political character. The common citizen, who in theory is the sovereign in a democracy, is forced to remain a helpless, mute spectator to the open loot of public funds by politicians and conniving public servants.

In this era of progressivism, the gains of economic progress have been concerned by the small upper class. The gap between the rich and the poor has widened resulting in increased social tensions and strifes. It is going in the path of Markownikoff's rule of rich becomes richer and poor becomes poorer'. The society has become divided into two classes, a small but economically and socially powerful class which is happily busy raising its living standards to the international levels, and the much larger but disempowered class which is condemned to remain deprived of even the minimum needs of a civilized life. In its crassly materialistic perceptions the new economic order has little place for human happiness.

Indian society is known for its strong family bond system which used to be a source of value inculcation. Individual learnt here the values of sharing and caring, of reconciling divergent needs and personalities, of subordinating individual interests to the collective interests of the family, of co-operative living. But with the emergence of new economic world, joint family is disappearing and nuclear family is taking its place where the demands of career success and the necessities of consumerist fulfilment leave little time and energy for value inculcation. Instead of being a social and human unit the family is becoming more of an economic unit where the child is conditioned to work single minded for career success, to meet the competition in all fields and to become worldly wise.

#### **The Way Out:**

The way out of this crisis will have to be negotiated between various opposing perceptions, ideas and attitudes about life-values. It will require creative intellectual effort of the highest order. It will also need all the wisdom that we can marshal. Therein lies our greatest weakness. The curse of centuries of political subjugation, economic exploitation and cultural stagnation is not so much in the defilement of the socio-economic order but in crushing out the spirit of rational enquiry from our intellectual temper. The crisis situation demands vigorous exploration and generation of new ideas in all dimensions of life values-social, aesthetic, ethical and spiritual. Collectively they can all be put under the umbrella term 'Human Values'. Its core

philosophical concepts would require creative synthesis of the modern humanist and communitarian thoughts on human life and society, and the holistic Indian world view.

Who will bring about this new value revolution? Our traditional institutional structures for value generation and transmission, the gurukulas and the ancient universities, decayed long ago. It is this noble human spirit of progress, based on continuous refinement of socio-cultural processes and philosophical enquiry into the nature of good life, and the whole spectrum of human values, that needs to be revived today. It would be pathetic to seek solutions for modern problems in ancient prescriptions meant for an all-together different socio-cultural milieu. Therefore, in this time the teacher has the most pivotal role to play in the pursuit and promotion of human values. All over the world, it is accepted that the future will be the product of what is being done in the present day schools. This depends largely on the competence as well as dedication of teachers. Real, good and dedicated teachers, who are able to provide proper guidance to the students, have to be identified, professionally trained, promoted and provided appropriate economic status, which attract the best and most talented persons to the teaching profession. It is very important that during the teacher education programme, the teacher are introduced to the concept of value development and also made aware of the methods and techniques keeping in view the physical and psychological development of the students to promote human values. It is important to develop the vision of the teachers in such a way that they can incorporate suitable strategies and methods while teaching any subject. Thus, we see that it is the true teacher who can change the students and produce right citizens.

It is obvious that teachers are the main source of value inculcation among future citizen for the formation of a value based society. Hence, it is needed to train them properly so that they can become an ideal teacher and produce good citizen. Teacher education is an integral component of the educational system. The functions of teacher education is to produce good teachers, the good teacher is one who develop proper value system among children. Curriculum is the important tools in the hands of the teacher. The pragmatic, skill oriented and responsible teacher education programmes will help to prepare skilled teachers through in-service and pre-service programmes, value based curriculum, residential teacher education programme, co-curricular activities etc. A nation concerned with value crisis needs teacher who are professionally committed and prepared to present a value based model of interaction with their learners. References:



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## Immortality of caste in Buddhism and Jainism

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### Abstract:

The presence of Caste System in the Jain and Buddhist community has often been seen as a problem by the observers and scholars. Jainism as well as Buddhism religion as such does not recognise the castes in the community. Some Scholars believes It was at later stage that the These Religions adopted casteist feature. But the seeds of Casteism was existed in both the religions from the very beginning of their establishment. Variety of factors can be related to the formation of the caste system among the Jains and Baudhs. In many respects the caste system among the Jains and Baudhs shared similarities with those of the Hindus. Yet by twentieth century certain unique and typical features emerged in These Religions. The paper will discuss this dynamics of the caste system in the Jainism and Buddhism. It has been long recognised that Buddhism and Jainism were not movements for social reform directed against the caste system, and that the Buddha's doctrine did not aim at transformation or improvement of the social conditions. Still, the Buddha's criticism of the caste system in general and of the social superiority claimed by the brahmanas is still interpreted by some to mean that the Buddha held that "all men are born equal" or that his ideal was to establish a classless society.<sup>3</sup> We are of the view that the Buddha by his teaching unwittingly strengthened the caste system by explaining it in terms of the doctrine of karma.

**Keywords:** Jainism, Buddhism, Casteism, Samgha

### Features of the Caste System in Buddhist Scriptures:

It seems clear that by the time the Buddhist texts were composed, the caste system had already acquired most of its essential features. In the *Madhura Sutta* of the *Majjhimanikaya* (II 4.4) and in the *Assalayana Sutta* of *Majjhima* (II 5.3), the brahmanas claim to be of superior caste (*brdmano settho venno*) and the rest are of inferior caste (*hino anno vanno*) the *brahmanas* claim to have fair complexion (*sukko vanno*), while others are dark (*kanho*); the *brahmanas* are pure (*sujjhanti*), while *non-brahmanas* are not. The purity of caste blood was highly prized and was a bar to inter-caste marriages. In the *Canki Sutta* of the *Majjhima* (II 5.5), one of the grounds on which Canki is dissuaded from going to the Buddha is that Canki, both on his father's and mother's side, is of pure descent back through seven successive generations, without break or blemish in his caste lineage (*jati vadana*). Canki replies that Gotama is also of pure descent for seven generations both on the mother's and father's sides.

The *Ambattha Sutta* (iii) of the *Dighanidya* (I 92-93) records the fear, entertained by the exiled children of Okkaka, a King of the Sakyas, of caste impurity (*jati sambheda bhaya*) that may lead to marriage between brothers and sisters (*sakahi bhaginihi saddhim samvasam kappenti*). There is also a reference to denial of seat (*dsana*) or water (*uddakam*) (*ibid.* III 98) to a person excommunicated from the caste group. In modern Indian parlance, it means that there can be no sharing of *hookah* (smoking bubble) and water with the person who is expelled from the caste.

In the story of Vidudabha contained in the *Dhammapada Atthakatha* (4.3), King Pasenadi of Kosala is incensed at being tricked by Mahanama, King of the Sakyas, who has given him in marriage a daughter, advertised as a pure ksatriya blood, but actually Vasabhakhattiya, born from a slave girl. When Pasenadi discovers this deception, he degrades his queen and her son, Vidudabha, to the status of slaves. The Buddha, the kinsman of the Sakyas, pacifies Pasenadi by emphasising to him that the family of the mother does not matter; "it is the family (*gotra*) of the father that affords the only true measure of social position." Thus, the Buddha seems to have accepted the principle of blood purity as the determinant of social superiority.

The *Esukari Sutta* of the *Majjhima* (II 5.6) indicates that occupations were linked to castes, and that occupational mobility across caste divisions was frowned upon. The *sutta* states that a member of the higher caste could not serve a member of the lower caste: a brahmana may be served by members of all the castes; a ksatriya (*khattiyya*) by a ksatriya, vaisya (*vessa*) or sudra (*sudda*), a vaisya by a vaisya or sudra; and a sudra by a sudra only. At *Majjhima* II 180, a brahmana maintains that it is blameable conduct for anyone to desert his vocation for something else: *bhikkhacariyam ca pana brahmano sandhanam atimannamano akiccakari hoti, gopo va adinnam ddivamano ti*: by discarding alms begging, a brahmana fails to fulfil his duty or obligations, and is like a guardian who takes what is not given to him. The same

is true of a ksatriya, vaisya or sudra, who abandons the duties prescribed for his caste.

This is in consonance with the teaching of the *Bhagavadgita* which enjoins (4.13, 18.41—47) performance of *varra-karma* as the most important means for attainment of *siddhi*, liberation. T.W. Rhys Davids, in *Buddhist India* adduces considerable evidence from the *Jatakas* to establish that caste-based occupational rigidity had ceased to exist and that there were marriages between members of higher and lower castes (including sudras) that did not lead to loss of caste. So far as the question of occupational flexibility is concerned, the successful assault on *yajna-karma*, religious sacrifices, by Buddhism and Jainism, and consequent occupational loss to the brahmanas would have driven them to take up professions that in theory were the monopoly of other castes.

### **The Buddha's Attitude Toward Caste:**

The Buddha's reactions to these features of the caste system do not indicate that he repudiated or condemned the caste system. In the *Madhura Sutta* of the *Majjhima* (II 85), he maintains that all four castes are equal: *ime cattaro vanna samasamahonti*; and describes the brahmanas' claim to superiority as an empty boast (*ghoso*). In the *Assaldyana Sutta* of the *Majjhima* (II 149) and the *Madhura Sutta, Majjhima* II 87, the Buddha refutes the claim of higher castes to superiority—but on metaphysical grounds: after death, they shall be reborn in accordance with their karmas and not in accordance with their caste (*jati*): "a man who is a murderer or a thief or a fornicator, or a liar, or a slanderer, or of violent speech or rattles or covets or is malevolent or holds wrong views, he will, after death at body's dissolution pass to the state of misery and woe, whether he be a brahmana, a ksatriya, a vaisya or a Sudra." In *Jataka* no. 498, the origin of *candlas*, described as the lowest race and the meanest of men, is traced to karma: "When all our deeds were ripe as guerdon meet, we both as young *candalas* had our birth" (*sakehi kammehi supapekhi candala gabbhe avasimha pubbe*). Regarding the concept of the purity of caste blood, in the *Assalayana Sutta* of the *Majjhima* (II 154), the Buddha maintains that all castes are of equal purity: *catu vannim suddhim paccagato*. But he attacks the claims of the caste conscious brahmana to social superiority on the ground that his purity of blood might be suspect: *jananti pana . . . ya janimatu mata yava sattama mata mahayuga brahmanam yeva agamasi no abrahmana*: "Do you know for certain that your mother's mother and your grandmother for seven generations had intercourse with brahmanas only and never with non-brahmanas?" The Buddha goes on to repeat the same for the father's side (*sattampita mahayugd*). (*ibid* II 156) In the *Ambaittha Sutta* of *Dighanikaya* III, the Buddha recognises the caste-superiority of ksatriyas over

brahmanas by pointing out that the ksatriyas do not admit a child born of *ananuloma*, or *pratiloma* marriage into their caste, even though the mother or father might be a ksatriya and the other a brahmana. Such a child was admitted to the brahmana caste.

The Buddha therefore concludes that when one compares women with women (*itthiya va itthim*) or men with men (*purisena va purisam*), the ksatriyas are superior (*settho*) to the brahmanas, who are lower (*hina*). The Buddha avers: *khattiyo parama nihinatam patto hoti*, even when a ksatriya is fallen in the deepest degradation, *khattiyo va settha hino brahmano*, the ksatriya is superior, brahmana inferior. The Buddha quotes Sanam Kumara, a Brahma god, to the effect that the ksatriya is the best among those who believe in caste lineage (*gotra*): *khattiyo settho jani tasmin ye gotta patisarino*.

Again, in the *Esukdri Sutta*, the Buddha's reaction to occupational restrictions and rigidity in relation to various castes is equivocal; all that he emphasises is that "if the service makes a man bad and not good, it should not be rendered but if it makes him better and not bad, then it should be rendered." He emphasises: "I assert that *uccakullna*, high class family, does not enter into a man's being either good or bad, nor do good looks or wealth, for you will find a man of noble birth who is a murderer, a thief, a fornicator; therefore I assert that noble birth does not make a good man . . ." In other words, the Buddha recognises the existence of the caste system and only emphasises that it is the moral conduct of a person and not his caste that determines whether he is good or bad. This is saying the obvious; it is no challenge to the caste system. There is direct evidence in the *suttas* that the Buddha recognised caste distinctions. In the *Kannakatthala Sutta* of *Majjhima* 4.10 (II 128-129), the Buddha, addressing Pasenadi, observes that there are four castes, *khattiyas, brahmanas, vessas* and *suddas*. "Among these four castes . . . two are pointed to as chief, the nobles (*khattiya*) and the brahmanas, that is to say, in the way of addressing them, rising up from one's seat for them, saluting them with joined palms and rendering them service." Again, Buddhas take birth only in two castes, ksatriya and brahmana. The Buddha clarifies that from the point of view of causality (*heturupam*) there is no distinction or difference in a future state between the castes provided they strive equally for freedom or the end of sorrow. Again in the *Esukari Sutta*

{*Majjhima* II 181), a person's birth in a particular family of known parentage on the father's and mother's side is what determines his caste designation:

*poranam—pan'assa mata pettikam kulavarhsam [khattiya, brahmana, etc.] anussarato yatha yatth'*

*evamattabhavassa abhinibbati hoti, ten ten' eva sankham gacchati.*

From the *Assalayana Sutta (Majjhima II 149)* it is evident that the Buddha was also aware that among the Yonas and Kambojas, those outside the aryan fold, there were only two classes, nobles and slaves, but that their classes and occupations were interchangeable:

*yona kambojesu dveva vanna ayyo c'eva daso ca; ayyo hutva daso hoti daso hutva ayyo hoti.* The Buddha never advocated this class structure as a first step to a casteless society. Regarding the participation of sudras and outcastes in religious life, it is significant that the Buddha's sermons are addressed to ksatriyas, brahmanas, *grhapatis* (respectable householders) and *sramanas* or their *parisds* (assemblies). In the *Kutadanta Sutta (Dighanikdya V 136)* only the ksatriyas, brahmanas and householders are invited to attend the great *yajna (homam)* organised by the king—a *yajna* approved by the Buddha. At *Anguttaranikdya III 363*, the Buddha describes the goals in life of the three upper castes and makes no mention of the goals of the sudras and *pancamas*. In other words, the Buddha ignored the Sudras and outcastes while encouraging religious life among the people. There is also no evidence that the Buddha ever denounced the discriminatory caste system based penal laws of the *Dharmasdstas*. In fact, the Buddhist texts do not even show any awareness of such discrimination.

#### **Buddhist and Jainism Monks and the Caste System:**

Both Buddhism and Jainism led to the creation of another class outside the lay social system: the *bhikkhus* of the Buddhists, the *sadhhus and yatis* of the Jainas, and the *parivrajakas* and *sadhhus* of the Brahmanical faith. They were a class *sui generis*, not bound by the caste restrictions, who had renounced lay life for good, irrevocably. Unlike outcastes, they commanded the respect of all the lay castes. This group and this group alone the Buddha had proclaimed free from caste distinctions: it was casteless. In the *Cullavagga* of the *Vinaya Pitaka (IX I. 4)* the Buddha says, "just as . . . all the great rivers namely Gariga, Yamuna, Aicravati, Sarabhu, Mahl, when they reach the great ocean, lose their former names and differences and are denominated as the great ocean, even so . . . these four castes (*vanna*) ksatriyas, brahmanas, vaisyas, Sudras, when they go forth from the household to houseless life under the doctrine and discipline (*dhamma vinaye*), lose their former family names (*namagottani*) and are denominated as *samana* . . . ." In the *Anguttaranikdya (III 240)*, this is graphically represented by a dream of Gotama in which four birds of four different colours (*nana vanna*) fall at his feet and become entirely white (*sabbaseta*),

symbolising abandonment of castes by those laymen who give up the household life and, join the sangha. Thus, in the *Ambattha Sutta (Digha III 2.1)*, the Buddha emphasises that "there is not. . . in the highest perfection of knowledge and virtue, any talk of caste (*jativddo*) or of family (*gotta-vado*)". In the *Madhura Sutta (Majjhima 84)*, it is emphasised that whosoever renounces household life and joins the order of monks—be he a brahmana, ksatriya, vaishya or Sudra—and abstains from stealing, falsehood, etc., and observes the good law, would be entitled to respect and honour irrespective of his caste prior to renunciation. The *Uddalakajataka*, no. 487 (307), and *Nimijataka*, no. 541 (101), make it clear that caste ceases to have relevance when a person attains sainthood.

On the other hand, slaves and debtors were not admitted to the sangha unless the slaves had been freed by their masters and the debtors had discharged their debts. This could only restrict severely any scope for breakdown of the caste system via the sangha.

#### **Caste System among the Jainism:**

It is at the later stage that the Jain community adopted this feature of socio-economic and ideological life of India and gradually castes, which existed in Hinduism, emerged in Jainism, too. Variety of factors can be related to the formation of the caste system among the Jains. The mass conversion of Hindus to Jainism was one of the significant reasons. The overwhelming and dominant influence of Hinduism was difficult to escape from. As a small number of Jains had to live among the non-Jains, in particularly among the Hindus, the acceptance of Hindu practices became natural and obvious. Again, regional variations and traditions contributed to, a greater extent, to the formation of the castes in Jainism. The origin of many of the Jain castes can be traced to 'particular' place. In most cases the Jain castes originated from the urban background. They were named after the places of their origin. *Śrīmālīs* were so called as they came from Srimala; *Osavāls* from Osia and so on.

With this historical background the caste system of the Jains conceptually developed. For the fact that the Jains as a community originated from different backgrounds, they organised themselves into differing groups known as *Jati* or *naat*. The Jain caste system is evolved in the sense that each individual is regarded as belonging to a social group. Some of the features of the caste system of the Jains are as follows:

- By twentieth century the Jains stood as caste-bound community. The castes became significant component of the Jain community.
- One finds the existence of Jain castes wherein all the members of the caste are Jains.

- At the same time there have been Jain divisions of several Hindu castes. To illustrate there are Agravālas, Śrīmālīs, Porvāḍas etc. both among Hindus and Jains.

- Many of the castes in the Jain community are spread over a wide area. They are found in large number in cities like Mumbai, Calcutta, Delhi, and Nagpur.

- There are different regions where different Jain castes have been mainly concentrated. Śrīmālīs are found mainly in Gujarat, Osavāls in Gujarat and Rajasthan and so on. Many of these Jain castes have their national and state associations. These organisations conduct their caste-journals, get their caste-histories published and hold conferences at regular intervals. Thus, the caste sentiments and loyalties are strengthened and preserved.

#### **Jains & Hindus:**

The caste system of the Jains differed in many respects from those of the Hindus.

- The caste system among the Jains is a social and not religious institution. The system neither in the past nor in the present sanctioned by the Jain religion. This is a crucial point when compared with the Hindu castes.

- The attitude of the Jainism is nonetheless is that it is one of the social practices unconnected with religion, observed by people.

- While the Jains claim to have a separate religion, they are invariably classified into the Hindu Varna system, with the appellation 'Bania' often suffixed to their community name.

- One of the important features of caste system of the Hindus is the hierarchy of the castes. The Hindu castes have been arranged in an order of social precedence with Brahmins as the head of the hierarchy. The highest position accorded to the Brahmins is the important basis of the Caste organisation of Hindu society. Even the reformist movements of the twentieth century largely aimed to bring better status and treatment to the lower strata than to reject the hierarchy or the privileged positions. On the other hand in spite of the existence of the numerous castes in the Jain community, hardly prominent position is assigned to any caste. All castes are treated on equal footing and there is no differentiation as regard to social prestige. There is prevalence of a feeling of superiority among some Jain castes. They consider themselves superior over other castes or particular divisions of a caste. This may be due to differences in moral standards, social practices, customs and manners for e.g. the castes which do not allow widow remarriage consider themselves as superior to those which allow and practice widow remarriage. The division of Osavāls in Visa and Dasa is traced to this practice. Yet on the whole there is lack of caste hierarchy on the basis of social precedence in the Jain community.

Jainism has rejected the traditional idea of society being structured around purity and impurity. Implied from this, there is no ban on dining with any other member of the Jain community irrespective of his or her caste. Untouchability practically does not exist amongst Jains. No restrictions exist on social intercourse between different Jain castes. This may be due to the uniformity of practice in matters of diet. Hence differences of social nature do not operate as a bar. No more caste prescriptions play a vital role in the life of the Jains. It would not be wrong to say that today the prime determinant for Jain caste ranking is essentially economic status.

#### **Caste as religious division:**

Caste was not considered as part of the cosmic order in Jainism. The doctrinal claim of a divine origin of the castes was not adhered to. It has never been seen as a religious division for e.g. Jain sects do not reject or obstruct the recruitment to asceticism on the grounds of the caste. The caste as sociopolitical distinction did not face great objection but has not been accepted valid in the religious domain. There is absence of caste restrictions in religious domain. However, some practices did prevail. Many of the Jain castes have Visa and Dasa subdivisions. Religious disabilities were imposed on Dasa persons. They could not worship in temples at all.

#### **Conclusion:**

The classification as has been prevalent in the society was worth based and not the one based on birth as is prevalent in the present day society of India. The caste system slowly but systematically took its root in the Indian society with social discrimination as its dangerous byproduct. The Caste system became hereditary ensuing its present day characteristics over the changes that occurred over the past 1000 years. The major reason for such a diversion from the concept of 'Theory of three Varnas' of the Rig Vedic period into the 'Chaturvarna system' as explained by Dr. B.R. Ambedkar was due to constant aggression between the kings [sudras] and the priestly class [brahmins] as in some of the Sudra kingdoms, the Brahmins underwent tyrannies. The Brahmanas in vengeance decided to refuse to consecrate the Sudras with sacred thread which led to slow degradation of the social status of the Sudras. The Sudras were thereafter, relegated to the deplorable condition and slowly the 'class' changed into the 'fourth caste' in the Caste system. the Jains converted the caste system into what was acceptable and fitting in the context of their tradition. The role of theistic creation was eliminated, and the existence of the caste system on the basis of conduct, rather than of some irrevocable cosmic order was justifiably accepted. The research also concludes that the Buddhism and Jainism[especially the former one]

that evolved as a result of social evils also played its part in worsening the already deplorable condition of the lowest caste despite their fleshy claims of equality. Infact, few scholars are of the opinion that the forced drive for vegetarianism as was done by the two faiths led to its adoption in the vedic society too which reinforced the dormant untouchability. These faiths also played their part for making social groups untouchable in the manner that strong moralist tendencies and blind emphasis on non-violence lead to occupations like dancers, hunters, fishermen and butchers into defiled professions which propogated exactly opposite of what was envisioned in the pre-modern times the heredity or family was a unit for successfully instating skills that would run the society smoothly. At the end, the later Vedic Religion also played its part in slowly building up the caste system. The logical conclusion for such a state of development for later vedic religion is the ocean of scriptures which supported the plurality and diversity of ideas expressed by diverse people who wrote the literature and scriptures in later vedic age which lead to eclectic conflicting and incoherent ideas in the compilations of that period.

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## **Physiological disorders of tomato and their management**

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### **Abstract**

Tomato is one of the important crop in the family solanaceae. It is the third most important cultivated crop in India but it is adversely affected by various abiotic factors. This article will help growers in understanding various physiological disorders that impact the crop, and remedies which should be followed to control them. The major physiological disorders which are affecting the crop are blossom end rot, fruit cracking (radial and concentric cracking), puffiness, sunscald, blotchy ripening etc., The visible symptoms of the blossom end rot affected fruits are showing small darkened or water soaked area near the blossom end of the fruit which is majorly caused due to Calcium deficiency. Fruit cracking is associated with cracks develop at the stem end of the fruit, due to heavy rainfall or irrigation followed by long dry spell. The fruits affected with puffiness are looks normal from outside, but the fruit are hollow inside. One of the seed cavities is usually empty. Causes of puffiness are extreme high or low temperature, excessive fertilization and poor pollination and fertilization. Sunscald occurs on fruit exposed to the sun during periods of extreme heat and the affected fruits are shiny white or yellow patches would be on the sides of the fruit exposed to the sun. So this article will help the growers on various physiological disorders which are affecting the crop and the remedial measures to be followed to grow the healthy crop.

### **Introduction**

Tomato occupies a prime position in list of protective foods since it is a rich source of minerals like calcium sodium (12.9 mg), trace elements, copper (0.19 mg), vitamins like vitamin A (900 IU), vitamin C (27 mg), vitamin B complex (thiamine), essential amino acids and healthy organic acids like citric, formic and acetic acids. The attractive red colour of fruit is due to lycopene and yellow colour is due to carotenes. The leading tomato growing states are UP, Karnataka, Maharashtra, Haryana, Punjab and Bihar. Several processed items like paste, puree, syrup, juice, ketchup, drinks etc are prepared on large scale. Some times, it is called poor man's orange.

color, shape, size, hardness, texture, dry matter, organoleptic, and nutraceutical characteristics all play a role in determining tomato fruit quality for fresh eating (Dorais et al., 2001). Tomatoes should be free of physiological problems not just for decorative purposes, but also because other characteristics, such as nutritional status and shelf life, may be influenced. Physiological or abiotic diseases are mostly caused by changing environmental circumstances such as temperature, moisture, imbalanced soil nutrients, insufficient or excessive amounts of specific soil minerals, soil pH extremes, and poor drainage (Khavari-Nejad et al., 2009). Genetic factors have a role in this. Blossom-end rot, catface, growth cracks, sunscald, yellow shoulder, chemical damage, adventitious root, puffiness, blotchy ripening, gold spots/ specks, and chilling injury are the most common physiological problems that affect tomatoes. The crop's productivity is severely harmed by these illnesses. Therefore, the understanding the symptoms, cause

and management is necessary which is discussed below:

#### **1. Blossom end rot**

Brown water soaked discoloration appears at the blossom end of the fruit where the senescent petals are attached while the fruit is still green. The spots enlarge and darken rapidly and the affected portion of the fruit becomes sunken, leathery and dark coloured. Development of grey to black discoloration of epidermis of fruit.

#### **Causes**

Imbalance of magnesium and potassium. High soil and moisture and high temperature. Moisture stress conditions. Deficiency of calcium in the **Blossom end rot**

**Control** 1. Give light and frequent irrigation to maintain optimum soil moisture. 2. Apply recommended quantity of nitrogen. 3. Spray crop with calcium chloride (0.5%) at fruit development stage.

#### **2. Fruit cracking:**

Two types of cracking occur in tomato fruit (Radial and Concentric cracking). Concentric cracking is a splitting of the epidermis in circular patterns around the stem scar. Radial cracking is a splitting that radiates toward the blossom end from the stem scar. Radial cracking is more likely to develop in full ripe fruit than in mature green. Fruits exposed to sun develop more concentric cracking than those, which are covered with foliage. Cracks occur on tomatoes as they near maturity, depending on the cultivar. Less susceptible cultivars do not crack until the breaker stage; more tolerant cultivars do not crack until they are red ripe; resistant cultivars rarely crack at all. Cracking is associated with rapid fruit development and wide fluctuations in water

availability to the plant. Fruit that has reached the ripening stage during dry weather may show considerable cracking if the dry period is followed by heavy rains and high temperatures.

**Cause** 1. Long dry spell during rainy season. 2. Moisture stress condition due to irregular irrigation. Sudden fluctuation in day and night temperature. 3. Exposure of fruit to sunlight. 4. Boron deficiency in soil.

**Control** 1. Maintain optimum soil moisture through light irrigation. 2. Avoid pruning and staking of plants during summer. 3. Grow resistant varieties like Sioux, Punjab Chhuhara, Pusa Ruby, Roma, Pant T-1, Arka Saurabh etc. 4. Spray borax @ 0.3 to 0.4% two to three times. 5. Harvest the fruits before they ripe fully.

**3. Puffiness:** The outer wall of the fruit is normal, but the tomato is hollow inside. One of the seed cavities is usually empty. Cause: Extreme high or low temperatures, excessive nitrogen fertilization, and heavy rains may interfere with normal pollination, resulting in puffy fruit. Puffiness occurs most frequently on early fruit. (Richard Jauron, 1997) [5] . Control: No effective controls. Puffiness should decline later in the summer. Optimum dosage of fertilizers should be applied to minimize the disorder.

**4. Sunscald:** Green fruits exposed to direct sunlight ripen unevenly so that yellow patches appear on the side of the tomato fruit when it ripens. Symptoms are most likely to appear at the mature green to breaker stage of development. The lesions are infected by secondary infection of fungus which shows black dark spots making tomatoes unfit for consumption. Sunscald caused due to High fruit pericarp temperature 40C. In bright sunlight, surface temperature may be more than 10C highest than the air temperature. (K.L. Chada, 2001).

**Control:** The best protection against sunscald is to utilize cultivars with enough foliage to cover the fruit and to provide enough water and pest protection to maintain the healthy foliage. Crop are planted at higher densities are less susceptible to this malady. Cultivation of indeterminate /semideterminate varieties without staking also could be helpful.

**5. Cate Face** The affected fruits are characterized by the distortion of the blossom end rot and development of ridge, furrow indentations and blotches

**Causes** Unfavorable climatic conditions during flowering cause distortion of growth of the pistil cells.

**Control** 1. Grow varieties free from this disorder. 2. Cultivation condition makes favorable as much as

possible by adopting appropriate and timely management.

**6. Blotchy ripening:** This disorder also known as the gray wall is recognized as grayish appearance caused by partial collapse of the wall tissue hence the term gray wall. The affected area remain green or yellow are usually found nearly at the stem end of the tomato fruit. It was due to the deficiency of potassium (K). (Lalit Kumar Verma et al, 2018)

**Control:** Use of balanced fertilizer dose (after soil testing) in the crop prevents the occurrence of blotchy ripening. Adjust the planting date to achieve favorable light intensity for good fruit development.

**7. Chemical injury:** Major chemical damages to tomatoes are caused by herbicides. A common herbicide injury problem in tomatoes is caused by phenoxy herbicides such as 2,4-D and dicamba. These are hormone-type herbicides that are common components of products used to control broadleaf weeds in lawns, pastures and grain crops. These herbicides are prone to drift or move with water to non-target sites. Symptoms of phenoxy herbicide injury appear primarily as a distortion of new growth that occurs following exposure to the herbicide. Young leaves do not fully expand, are narrow and pointed, and tend to curl downward

**Control:** To avoid herbicide injury, spray of the herbicide should be avoided when wind may carry spray drift toward tomatoes or other sensitive crops. Also, herbicide spray should be with low pressures coarse spray nozzle, and spray should be applied as close to the ground as possible.

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## Post-harvest Diseases of Mango their Management.

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### Abstract

Mango is one of the major fruit crops of India. It is well known with name of King of Fruits. India contributes about 56 per cent of global production Botanical name of mango is *Mangifera indica L.* and is the most important species of the genus *Mangifera*. The main objective of this study was to find out the most important pre-harvest treatment and management of mango fruit to get the maximum fruit yield with better quality and shelf life of mango. Shelf life is one of the important quality characters for fruit production especially for climacteric fruits which might be affected by various factors. Post-harvest management means the handling of an agricultural product after harvest to prolong storage life, freshness and an attractive appearance. Postharvest diseases of mango include anthracnose, stem-end rot, Diplodia stem-end rot, black mould rot, brown spot and black spot rot. Rotting of fruits due to several other fungal infestation is also very common. Post-harvest diseases can be managed by preharvest spray with fungicides, careful handling during harvesting, sorting and grading, hot water treatment ( $52\pm 1^\circ\text{C}$ , 10 minutes) and coating of fruits with essential oil/s help in management of post-harvest diseases of mango. There is a need to focus on use of nontoxic substances, biocontrol control and physical methods to manage post-harvest diseases.

**Keyword:** Mango, Postharvest disease, Rot, Grading and Fungicide.

### Introduction

Mango is native of india and one of the major fruit crops of India. It is well known with name of King of Fruits. The Mango is the national fruit of India, Pakistan, Philippines and Bangladesh. India contributes about 56 per cent of global production. Botanical name of mango is *Mangifera indica L.* and is the most important species of the genus *Mangifera*, which produces the most delicious fruit called the mango. It belongs to the dicotyledonous family Anacardiaceae. The genus *Mangifera* contains about 49 species, of which 8 are of doubtful status and 41 are valid species. Morphologically the genus could be separated under two sections based on the character of the flower disc: the first, with 34 species, has flowers with well-developed swollen disc, and the second, with 7 species, has obsolete or pedicellate disc. Mango is grown in all tropical countries. Mango fruits are greatly relished for their succulence, pleasant flavour and delicious taste. They are also a rich source of Beta-carotene, the precursor of vitamin-A, which is essential for the prevention of night blindness in human beings and rich source of vitamin-C also. Many parts of the plant, namely, trunk, branch, twig, leaf, petiole, flower and fruit have many pharmacological properties like Anticancer, Antidiabetic, Anti-inflammatory, Hepatoprotective, Anti-hemorrhagic, Anti-tetanus, Analgesic and Antipyretic, Kidney damage, Anti-ulcer, Antibacterial, Antifungal, Antiviral, Antimalarial etc. In India, mango is one of the sacred fruits and finds place on religious ceremonies. It is grown in almost all the parts of our country India and is the most important fruit crop. Although mango is affected by large number of

diseases but some diseases are of great economic importance and are responsible for high loss in the mango production in our country. The mango crop is affected by large number of diseases but some diseases are of great economic importance and are responsible for high loss in the mango production in our country. It is very essential to protect the fruits from post-harvest diseases as the post-harvest losses are huge. More than 25% mangoes are spoiled in India because of lack of proper postharvest management technique. To reduce the postharvest losses, it is essential to start protecting it in the field and then careful harvesting, hygienic handling, packaging and storage, temperature regulated transportation and finally intelligent marketing. Mango fruits are susceptible to many postharvest diseases mainly caused by fungi and bacteria. Injury during harvesting, defective handling, high temperature and high relative humidity during harvest and storage affect the storage life of the fruits. Presence of blemished fruits along with healthy ones also contributes to the fruit decay. If there is any surface bruise or injury on the fruit, micro-organisms such as fungi and bacteria invade into it and cause internal decay. High temperature and high relative humidity accelerate process of postharvest decaying by microorganisms. Some important post-harvest diseases of mango are Anthracnose (caused by *Colletotrichum gloeosporioides*), Stem end rot (*Lasiodyplodia theobromae*), Black Rot (*Aspergillus niger*), Botryosphaeria rot (*Botryosphaeria ribis*), Stem end soft rot (*Ceratocystis paradoxa*), rot (*Pestalotiopsis versicolor*), Phoma rot (*Phoma mangiferae*), Alternaria rot (*Alternaria tenuissima*), Rhizopus rot (*Rhizopus arrhizus*), Grey mould (*Botrytis cinerea*)

etc. The main objective of the experimental study was to find out the most important pre-harvest treatment to get the maximum fruit yield with better quality and shelf life of mango.

#### Diseases and their management

1. **Anthraxnose** (*Colletotrichum gloeosporioides*)  
Symptoms: Leaves, stems, young flowers and fruit are affected. Sunken black spots appear on the surface of the fruit during ripening. Disease gradually spreads and whole fruit get rotten and also spreads to other fruits in the lot. High relative humidity, high temperature, fruit injuries during harvest are the predisposing factors. Inoculum remains on dried leaves, defoliated branches, mummified flowers and flower brackets. Spread through air-borne conidia

**Management:** Spray with mancozeb (2.0 g/L) or prochloraz (2 g/L) or Copper oxychloride sprays (4 g/L) weekly during flowering and then monthly until harvest. Harvested fruits should be treated with carbendazim (0.5g/L) before storage. Dip fruits within 24 hours of harvest for 5 minutes in hot water (52°C). Benomyl was found more effective against quiescent infections of anthracnose of mango in hot water than cold water. The effectiveness of hot water dips as post-harvest treatments for the control of mango anthracnose has been known for many years. Dip treatment .

2. **Stem End Rot** (*Lasiodiplodia theobromae*)  
Symptoms In fruits, the pericarp base of the pedicel become black Later, it enlarges to form a circular, black patch and which further extends rapidly and whole fruit become completely black within two or three days., The pulp becomes brown and softer.

**Management** :Avoid harvesting of immature fruits. Dip fruits within 24 hours of harvest for 5 minutes in hot water (52°C). Post-harvest treatment with carbendazim (0.5g/L). Controlled atmosphere storage i.e. cold storage. Fruit from orchards with stem end rot infection should be rejected for long term storage.

3. **Black mould rot:** (*Aspergillus niger*) Symptoms Yellowing of base of fruit and development of irregular, hazy, greyish spots. Mesocarp of the rotted (soft rot) area of fruit become depressed. The fruit surface covered blackish fungal growth.

**Management:** Careful handling of fruits at all stages to avoid mechanical injury and sap bum damage to the fruits. Pre-harvest sprays and post-harvest dip of fruit in hot water containing carbendazim (0.05%) for 5m at 52± 1 0C to prevent fungus already seated in the injuries. Storing fruits at 12°C prevents the rotting.

4. **Botryosphaeria rot** (*Botryosphaeria ribis*)  
Symptoms The first sign is a slight softening of the tissue around the spot. The affected skin turns brown and the flesh beneath become black. Lesions on the fruits are dark, sunken and oval to round,

sometimes elliptical with a shallow decay of the flesh beneath. Minute black bodies are formed in the skin and white to grey mouldy growth is developed. Various symptoms viz., purplish brown spots and stem end rot have been noticed on mango fruits with a decay of flesh beneath.

**Management:** Strict orchard hygiene and good tree vigour should be maintained. Pre-harvest spraying of fungicide viz., carbendazim (0.05-0.1 %). Dipping of fruits in hot water (52± 10C for 30m) after harvest. Harvesting of fruits with stalk.

5. **Phoma rot** (*Phoma mangiferae*) Symptoms Black to brown spots are present on the entire fruit surface. Outer skin is hard but the internal portion rot quickly. In advance stage, dark pycnidia appear over such rotten tissues. Pycnidia are irregular in shape and liberate small rounded spores when pressed.

**Management:** Maintenance of field hygiene. Removal of diseased fruits helpsto limit the disease spread before sclerotia can proliferate and fall on to the soil. Careful handling of harvested fruits to avoid soil contamination and bruising. Fruits, which may have field infection, can be treated by means of a post-harvest fungicide dip.

6. **Alternaria rot** (*Alternaria tenuissima*) Symptoms: On fruits, initially the spots are water soaked and later become black, circular and sub-cuticular. Spots gradually enlarge and become irregular. Initially the decay is firm and does not penetrate into the pulp. Later, the disease makes headway into the flesh. The centre of the spots is slightly sunken. Under humid conditions dark brown spores are seen over the lesions. In advance stages, the whole fruit becomes rotten. When the skin of diseased fruit is removed, reddish patches can be seen on the flesh below the lesions.

**Management:** Field sanitation. Sprays with protectant fungicide mancozeb (0.2%) at 15 days interval until fruit set. Post-harvest dip with thiophanate methyle or prochloraz (0.1%). Fruits should be stored at lower temperature (10-120C).

7. **Rhizopus rot** (*Rhizopus arrhizus*) Symptoms: Fungus enters the fruit through injuries and becomes more destructive at higher temperature. The disease is characterized by large watersoaked areas developing on any portion of the fruit with profuse growth of the fungus with black sporangial bodies. Skin is easily displaced from infected flesh. Emitting foul smell. Liquid leak from the fruit and the odour is peculiar and unpleasant. There is profuse development of coarse white mould strands giving rise to globular white spore heads (sporangia), which later turn black and easily visible to naked eyes. Sporangia arise from dark branched, rootlike structure (rhizoids).

**Management:** Strict hygiene in orchard should be maintained. Pre-harvest spray with mancozeb (2g/L)

help to reduce post-harvest rotting. Fallen and rejected fruits should be removed and destroyed. Care should be taken during harvesting and handling of the fruits. Post-harvest dip in thiophanate methyl (0.1 %) Heat treatment ( $52\pm 1^{\circ}$  C for 30m) is essential to deactivate latent infection. Fruit should be stored at lower temperature (10-12°C).

### **Conclusion**

This study has been carried out to investigate the post-harvest disease of mango fruits, pre-harvest and post-harvest management of post-harvest disease and the efficiencies of different control measures. The economic costs of such postharvest losses are higher than the field losses. The successful management of such diseases depends on understanding the biology of the pathogen, that promote disease development and the economics, efficacy and market acceptability of the various control measures.

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## Traumatic Perspective in Manju Kapur's *The Immigrant* – A Study

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### Abstract

The predicament of belongingness in Manju Kapur's work is one of upheaval and anguish, which further highlights the problems of cultural identification, ethnic identity, and the doubts of remaining in one location. The purpose of this paper is to reveal the protagonist's experience of feeling alienated and displaced in Canada in one of Kapur's novels titled *The Immigrant*. In this novel, the author suggests that life as an immigrant was intolerable, compelling the individuals to make an effort to go through the process of economic, social, and cultural adjustment. In addition, the paper discusses the yearning for cultural fusion in the new dwelling, which is, in fact, the premise upon which the novel is built; in addition, Kapur's skillful presentation of the circumstances in which the characters find themselves is another significant aspect of this novel that is also examined in the paper. Yet, the discussion also covers the issues of "alienation" and "displacement," which are present in the lives of many Indians who move overseas. These factors are given by few more women authors, but only to a limited level.

**Keywords:** Alienation, trauma, identity, displacement, diaspora, globalization, immigration

In Manju Kapur's novel *The Immigrant* the author portrays the experience of displacement and the challenges faced by immigrants in a foreign land. Through the protagonist Nina's journey, Kapur highlights the trauma and emotional distress that comes with leaving behind one's homeland and adapting to a new culture. The novel delves into the psychological impact of immigration, depicting the struggles of the characters as they navigate their way through a new society. Nina's experiences are a powerful reminder that the trauma of immigration is not limited to physical displacement but can also have long-lasting effects on mental health and emotional well-being.

Manju Kapur, one of the most brilliant and highly renowned contemporary Indian English women novelists, is one of the increasing number of women writers from India on whom the spotlight is being cast. The carving of the suffering but powerful women ultimately shattering the customary bounds has had an extraordinary impact. Her books mostly centre on the topic of happy marriages and the roles that women play, both within and outside the home, particularly in a culture that emphasises individualism and purity at every turn. as alien ideas.

Ananda, together with his uncle and Nina, who are both occupied with their own activities, are currently communicating themselves as a large number in Canada, where the majority of contemporary women authors are now communicating themselves. assignments in Canada. Nina, one of the protagonists is shown as a wife at home. *The Immigrant* therefore examines the transition of an immigrant who was once a

passionate and self-assured citizen into someone who is not any longer off-track in her chosen world but tied with her husband's identity. She passes through the phase of alienation in the earliest stage of her new existence at her husband's home. The effective shift in her instance illustrates the pure spirit of the women who readily considers the necessity of the transition to a new world.

Kapur sounded supportive of her notion that Indian women have surely attained their accomplishments in the post-independence age of the country where her heroines originate and that they are never depicted as acting like rubber dolls for others to play with their wishes. On this topic, Sunita Sinha is of the opinion that "discovery of one's self is the key theme of the novel and refers to the aspiration for freedom and independence attained by an individual, as well as by a woman residing in, between one's family and one's own identity, which is the primary focus of Kapur's novel. She is a feminist in that I get the impression that she is extremely concerned with the issues that pertain to women.

Kapur's fiction focuses on the requirements of women to achieve self-actualization, autonomy, and self-fulfilment. independence, individuality, and self-actualization. (160) The facets of estrangement and displacement have been articulated by Manju Kapur through the enunciation of the fears or concerns held by the protagonist. When one makes the choice to move to a different country, it unavoidably necessitates the willingness of the intellect to assimilate and modify one's self to the alien ethos without leaving their old persona.

In this book, Ananda and Nina's relocation to a new land is not merely a change of scenery; rather, it is a transformation. geographical and cultural, but also inevitable due to their interests. Such a judgement finally causes them to lose track of their own interests and identities, which causes them to feel displaced. The novel serves as a representation of the topic of migration, which is of interest to people all over the world, as well as the hybrid identities to which the majority of the people or communities that people living in present times believe to be foreign. The mental state of an immigrant is constantly influenced by the culture of the country to which they relocate. the native home as well as the culture that has been absorbed by an alien place. It paves the way for the reconstruction of the acquired customs and culture of 'the immigrant'.

The range of cultural backgrounds brought by immigration is often considered to function as the novel's primary location. Because of immigration, they are required to do so. Embrace the contrasting culture of a foreign land while breaking down the boundaries of the indigenous people. Moving to a new country doesn't cause separation anymore; instead, it can be seen as a rebirth and a fresh start. openly and fearlessly about a variety of topics, yet without conforming to any feminist ideas on societal issues.

The novels written by Manju Kapur communicate an admirable modernist concept of self-identity, especially when it comes to engaging with or thinking about a subject that is connected to competing cultural beliefs that are at odds with one another. The lives of the women who figure in her books are fraught with a variety of challenges, and they face profound obstacles. The major cause of their suffering is the constant surveillance of their lives by the authoritarian institutions of a closed society.

In addition, her stories are thoughtful since they take into account the complexities of life, particularly that of women, which involve a wide range of history and a variety of cultural traditions and an infinite number of patterns of human values that are being challenged by women in society and which are on the receiving end. the framework of the sociocultural conditions of either one's home country or another country. In an interview given Deepa Diddi, she asserts the following:

Yes. I am a feminist writer in the sense that my works are women-centric. My novels focus on the needs and desires of women from different backgrounds and in different situations. Women yearn for recognition for their work, particularly since domestic labour so often goes unappreciated. They want concern and a sharing of responsibilities.(159)

Immigrants in her stories are generally caught between the traditional culture of their hometowns and the traditions of the foreign land. *The Immigrant*, which was published in 2008, is Manju Kapur's fourth novel. According to what the book's title implies, the fictional locales of this violent novel are split between India and Canada. context of globalisation with a much greater emphasis than any of Kapur's prior books, particularly those written before this one. The arranged marriage system as well as Nina's sexuality are topics this novel investigates through the lens of her story compatibility between individuals, the clash of cultures, and the upheaval in their environments.

Manju Kapur's *The Immigrant* follows the lives of two people, Nina and Ananda, who relocate to Canada from India. The topic of this thesis is how Manju Kapur's primary characters, despite their varied backgrounds and experiences, attempt to establish and locate their identities as members of the Indian Diaspora in Canada and explain how such attempts are made. People are having to deal with the challenges posed by the treatment of the diaspora in a different country. Manju Kapur discusses Throughout this story, the author discusses the conditions of the Indian diaspora in three important parts: the lives of Indians in Canada in general as a large number; Ananda, together with his uncle and Nina, who are occupied with their respective endeavours; and assignments in the Canadian territory.

Nina, one of the protagonists, is shown to be a housewife throughout the film. Because of this, *The Immigrant* investigates the transition of an immigrant who was once a passionate and self-assured citizen into someone who is no longer, despite being off-kilter in the life she's chosen, embroiled in her husband's identity. She does not pass through the phase of alienation in the earliest stage of her new existence at her husband's home. The fact that she was able to make a successful shift illustrates the undiluted spirit of the women who readily considers the necessity of the transition to a new world. It appears from what Kapur is saying that she believes that Indian women have been successful in the post-independence era of the country's history where her heroines are never depicted as acting like rubber dolls for others to play with their wish. On this topic, Sunita Sinha is of the opinion that:

Discovery of one's self is the key theme of the novel and refers to the aspiration for freedom and liberty achieved by an individual as well as by a woman dwelling in between family and self is primarily considered in Kapur's novel....She is feminist in the sense that she is intensely concerned with the issues related to woman. Kapur's fiction stresses on the woman's need for self-fulfillment, autonomy, self-



realization, independence, individuality, and self-actualization. (160)

The facets of estrangement and displacement have been articulated by Manju Kapur through the enunciation of the fears or concerns held by the protagonist. When one makes the choice to move to a different country, it unavoidably necessitates a mental disposition that is open to assimilating and adapting oneself to the culture of another without physically moving there. their former self-image.

In this book, Ananda and Nina's relocation to a new land is not merely a change of scenery; rather, it is a transformation. geographically and culturally, but it was also unavoidable due to their common interests. A choice like this one, in the end, causes individuals to lose track of their own interests and identities, which causes them to feel displaced. The novel serves as a representation of the topic of migration, which is of interest to people all over the world, as well as the hybrid identities to which the majority of the people or communities that people living in present times believe to be foreign.

The mental state of an immigrant is constantly influenced by the culture of the country to which they relocate. the native home as well as the culture that has been absorbed by an alien place. It paves the way for the rehabilitation of the inherited practises and traditions of 'the immigrant,' often known as "the native." The range of cultural backgrounds brought by immigration that the novel is concerned with is often considered to function as the novel's primary location. Because of immigration, they are required to do so. Embrace the contrasting culture of a foreign land while breaking down the barriers of the indigenous people.

Moving to a new country no longer causes separation but may be seen as rebirth and reinvention in a new area, city, and country that is noticeable for its new culture by the individual moving there. The belongings of the past are never completely lost, but the memories of the past continue to follow people who knowingly engage with them. Please explain them to me because I crave new experiences. Regarding this fusion, Professor A. K. Singh makes a valid point when he says that "the diaspora is always forced, in one sense, each of us is in a state of diaspora"(227). It literally translates to "one's own territory of one's own." Culture, history, and traditions of the native people are preserved in full inside the host nation.

It provides information regarding a certain or within a distinct geographical and social setting, an individual's unaltered rational position in the context of the makes an effort to live. While defining more about this situation, Julian Wolfreys compiles it more frankly by saying: "Setting of various peoples away from their homelands; often

apporgated with the notion of the Jewish Diaspora in modern Israel, but extended in cultural studies, post-colonial studies and race theory to consider the displacement of peoples by means of force such as slavery" (110). Nina puts forth her best effort in an effort to readjust to the ways of the new world.

On the other hand, events do not go as planned. She had a premonition about them. The most traumatic event for her is when her close friend Anton is sexually assaulted. She additional distress is brought on by the passing of her mother. Her own existence appears pitiful to her when viewed through her own eyes. comparison with each and every other individual In a state of annoyance Nina coveys her dissatisfaction to a letter sent to her spouse, written in the style of a letter, stated, "This is not your country. You are deceived and you have deceived me. You made it out to be a liberal haven where everyone loved you. This woman is looking for a reason to get rid of me. I am the wrong colour, I come from the wrong place. See me in this airport, of all the passengers the only one not allowed to sail through immigration, made me feel like an illegal alien" (107).

According to Kapur's writing, Nina is the one responsible for carving or moulding her own life and she has no right to blame anybody or seek explanation from anybody for displacement (323). Finally, when her one and only source, Ananda, lies to her, she has the sensation that she is alone. completely bereft of all knowledge and power to act. In the same way as his wife, Ananda vacillates between two distinct worlds and does his best to adapt to both of them. entering the land of the strangers. His narrative also begins in India, where he trains to become a dentist and begins his professional life.

The tragic that took the lives of his parents, he and his sister Alkaas are now orphans. To begin, here is the When he first arrives in the country, he lives with his uncle and his family. However, he realises very quickly that family life in the culture in Canada is not as self-sacrificing as the one in the country where he was born. Because of this, he must begin again. lifestyle as a guest in the home of Gary Geller, a close friend and business associate of his.

These new developments point to the protagonist being "displaced" from one function to another, which results in complete and utter disorientation for the reader. in making an ethical choice in the course of his life. The understanding that Ananda came to, to quote Kapur, "This was the country to live in, despite the cold, the darkness and the never-ending winter" (27) which is only a partial statement, is only a partial statement. The intentional reveal of each person's experience of 'alienation' and dislocation in a foreign environment land.



Home and work are the two places that stand out as particularly significant in the lives of people everywhere identity. In spite of the fact that people who are immigrants live in a culture that is not their own, they are still very much a part of that culture. related to their traditional and cultural identities as well as their respective homes and countries of origin. They make every effort to reserve a distinct section within their homes for the expression of their native cultural identities. minds. These individuals are not prepared to forge their own path by adhering to their own set of norms and practises.

It is a well-established fact that nothing in a foreign land can be considered constant or reliable. If one thing doesn't work out, the other immigrant tries another. He or she has no other option and ready to go back. However, the displacement of the individual from one position to the other and in the process the individuals in the context of the modern global environment, making an effort to adapt to something foreign is always a tough undertaking and Kapur has best portrayed these concepts through her characters. The novel ends with a message that really depicts the case of immigrants "The continent was full of people escaping unhappy parts. She too was heading towards fresh territories, a different set of circumstances, a floating resident of the Western world" (334).

Kapur's novel highlights the complex layers of trauma and identity that can come with the experience of migration. By showing the struggles and challenges of the characters, the author emphasizes the importance of empathy and understanding towards immigrants and their experiences. *The Immigrant* is a powerful portrayal of the trauma of immigration. Through the story of Nina and her family, Kapur presents a moving account of the emotional toll that the experience of displacement and adapting to a new culture can have on individuals. The novel serves as a reminder of the importance of empathy and understanding towards the struggles of immigrants, and the need for support and resources to help them navigate these challenges.

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## Soil micronutrients and their functions

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### Abstract

Most of the nutrients required for plant growth come from the soil. But to some extent, this nutrient requirement of crops can be met by chemical fertilizers, green manures, manures, compost, crop rotation, inclusion of leguminous crops etc. It is necessary to have scientific information about the quantity, form, availability of major nutrients in the soil and also the method, quantity, etc. of chemical fertilizers. A total of 17 different nutrients are required for proper growth of crops. An element is essential if a plant cannot complete its life cycle without it, if no other element can perform the same function, and if it is directly involved in nutrition. An essential nutrient required by the plant in large amounts is called a macronutrient, while one required in very small amounts is termed a micronutrient. Missing or inadequate supplies of nutrients adversely affect plant growth, leading to stunted growth, slow growth, chlorosis, or cell death. About half the essential nutrients are micronutrients such as boron, chlorine, manganese, iron, zinc, copper, molybdenum, nickel, silicon, and sodium. These nutrients are secondary nutrients and called as micronutrients. The present research topic gathers several studies that focus on the beneficial role of micronutrients in plant nutrition, while aiming at the same time to set the borderlines between excessive use and deficiencies in plant development.

**Keyword:** *Micronutrients, Roles, Deficiencies and Management.*

### Introduction

Plants require only light, water, and about 17 elements to support all their biochemical needs. These 17 elements are called essential nutrients. For an element to be regarded as essential, three criteria are required: A plant cannot complete its life cycle without the element, no other element can perform the function of the element, and the element is directly involved in plant nutrition. The essential elements can be divided into macronutrients and micronutrients. Nutrients that plants require in larger amounts are called macronutrients. About half of the essential elements are considered macronutrients: carbon, hydrogen, oxygen, nitrogen, phosphorus, potassium, calcium, magnesium, and sulfur. The first of these macronutrients, carbon (C), is required to form carbohydrates, proteins, nucleic acids, and many other compounds; it is, therefore, present in all macromolecules. On average, the dry weight (excluding water) of a cell is 50 percent carbon, making it a key part of plant biomolecules. In addition to macronutrients, organisms require various elements in small amounts. These micronutrients, or trace elements, are present in very small quantities. The seven main micronutrients include boron, chlorine, manganese, iron, zinc, copper, and molybdenum. Boron (B) is believed to be involved in carbohydrate transport in plants; it also assists in metabolic regulation. Boron deficiency will often result in bud dieback. Chlorine (Cl) is necessary for osmosis and ionic balance; it also plays a role in photosynthesis. Copper (Cu) is a component of some enzymes. Symptoms of copper deficiency include browning of leaf tips and chlorosis (yellowing of the leaves). Iron (Fe) is essential for chlorophyll synthesis, which is why an iron deficiency results in chlorosis. Manganese (Mn) activates some important enzymes involved in chlorophyll formation. Manganese-deficient plants will develop chlorosis between the veins of its leaves. The availability of manganese is partially dependent on soil

pH. Molybdenum (Mo) is essential to plant health as it is used by plants to reduce nitrates into usable forms. Some plants use it for nitrogen fixation; thus, it may need to be added to some soils before seeding legumes. Zinc (Zn) participates in chlorophyll formation and also activates many enzymes. Symptoms of zinc deficiency include chlorosis and stunted growth. Deficiencies in any of these nutrients, particularly the macronutrients and micronutrients, can adversely affect plant growth. Depending on the specific nutrient, a lack can cause stunted growth, slow growth, or chlorosis. Extreme deficiencies may result in leaves showing signs of cell death. Let's learn a little more about these micronutrients functions, deficiency symptoms and management.

#### 1. Iron (Fe):-

##### Functions of iron nutrients:-

1. This nutrient helps plants produce green matter.
2. With an adequate supply of iron, crops can absorb other nutrients in abundance.
3. Iron is a modulator of many hormones.
4. 100 to 500 milligrams per kilogram of iron is considered a suitable nutrient in plants.

##### Symptoms of Iron Deficiency (Shown in Fig. 1):-

1. Iron deficiency first appears on young leaves.
2. A major symptom is yellowing of leaf veins but veins remaining green.
3. In case of iron deficiency, leaves do not turn green. Leaves become hollow, new branches become crooked.
4. Soils with more than 5 percent free limestone are deficient in iron.
5. If the deficiency is severe, the entire veins also turn yellow and the entire leaves turn pale yellow and white and fall off.
6. The crop does not flower regularly. Fruits are smaller in size.
7. If you touch the leaf, it feels like paper.

##### Fertilizers containing iron:-

1. Iron: Iron sulphate : 19 percent : 10 to 25 kg/ha.
2. Iron : Ferrous ammonium sulphate : 14 percent : 10 to 25 kg/ha.
3. Iron : Ferrous EDTA chelate : 12 percent : 10 to 25 kg/ha.

#### **Management :-**

Fertilizers containing iron should be used as recommended according to the type of land and crops. Generally, 20 kg/ha of ferric fertilizer should be applied along with organic fertilizers or 1 per cent (100g in 10 liters of water) iron sulphate or ferrous ammonium sulphate by spraying at sensitive stages of crop growth.

#### **2. Manganese (Mn)**

##### **Function :-**

1. Helping in the process of photosynthesis.
2. Producing vitamins like carotene, riboflavin, ascorbic acid.
3. Affects the rate of absorption of calcium and potassium.

##### **Symptoms of Manganese Deficiency (Shown in Fig. 1) :-**

1. The veins of the new leaves remain green and the interveins turn yellow.
2. Yellow spots appear on the yellowed area and the leaf looks webbed.
3. Black and oily spots appear on the leaves.
4. The process of photosynthesis is hindered.

##### **Manganese Fertilizers :-**

1. Manganese Sulphate : 30 percent : 10 to 25 kg/ha
2. Manganese oxide
3. Chelated Manganese : 12 percent : 10 to 25 kg/ha

##### **Management:**

Manganese fertilizers should be used as recommended according to the soil and type of crops. In general, 20 kg/ha of manganese fertilizer should be applied along with organic fertilizers or by spraying 0.5 percent (50g in 10L of water) manganese sulfate at sensitive stages of crop growth.

#### **3. Zinc(Zn)-**

##### **Functions of Zinc in Crops :-**

1. The essential nutrient in the formation of oxygen mainly assists in the formation of indole acetic acid, which helps in vigorous growth of the crop.
2. Zinc is essential for starch formation and root growth in crops.
3. Zinc affects seed and stem ripening.
4. Zinc is essential in the production of green algae and carbohydrates.
5. The presence of adequate amount of zinc in the plant cells helps the plant survive even at low temperatures.

##### **Zinc Deficiency Symptoms (Shown in Fig. 1):-**

1. Zinc deficiency causes the leaves to become small, narrow and tapering.
2. The growth of the pods is limited and the leaves turn into clumps.
3. The leaf lacks green fluid. The veins of older leaves turn yellow.
4. Sugar accumulates on the surface of the leaves.
5. The tree has few flowers.

6. Crop flowering and fruit ripening are delayed.

##### **Zinc Fertilizers:-**

1. Zinc Sulphate : 21 percent : 20 to 40 kg/ha
2. Zinc ethoxylate : 12 percent : 20 to 40 kg/ha

##### **Remedy:**

Zinc fertilizers should be used as recommended according to the type of land and crops. In general, 20 kg/ha of zinc fertilizer should be applied along with organic fertilizers or 0.5 per cent (50 g in 10 L of water) zinc sulphate by spraying at sensitive stages of crop growth.

#### **4. Copper (Cu)-**

##### **Functions of copper nutrients :-**

1. Inducers activated in essential processes of crop growth.
2. To promote the reproductive process in the plant.
3. Helping to produce vitamin A.
4. Involvement in fruit ripening process.

##### **Copper Deficiency Symptoms (Shown in Fig. 1):-**

1. Copper deficiency is found in leaves.
2. First the young leaves turn dark green and then turn pale yellow and fall off.
3. Leaves bend near the stem. The leaves turn yellow and fold and curl.
4. Trunks get crazy crooked. As soon as the flowers do not bloom, the flower dies.
5. The prevalence of fungal diseases increases.
6. We call it dieback when it dries down from the branches.

##### **Copper Fertilizers :-**

1. Copper sulphate : 25 percent : 5 to 10 kg/ha
2. Copper EDTA Chelated: 12 percent : 5 to 10 kg/ha

##### **Management :-**

Copper fertilizers should be used as recommended according to the type of land and crops. In general, 10 kg/ha of copper-containing fertilizer should be applied along with organic fertilizers or 0.5 percent (50 g in 10 L of water) copper sulfate by spraying at sensitive stages of crop growth.

#### **5. Boron (B) :-**

##### **Functions :-**

1. Boron balances sugars and starches in crops.
2. It is essential in the transport of sugars and carbohydrates in the crop.
3. It is essential in pollination and seed production.
4. It is essential for regular cell wall formation.
5. It is essential for regular cell division, nitrogen metabolism and protein metabolism.
6. It is essential in crop water management.

##### **Boron Deficiency Symptoms (Shown in Fig. 1):-**

1. Boron deficiency causes rotting of young roots and shoots.
2. The new stem dies mainly by wilting.
3. The branches formed are short length.
4. The leaves turn yellow and become thick, coarse and hard. The shape of the leaves becomes irregular.
5. Cracks on the trunk make it brittle.
6. Fruits are blighted before maturity.
7. Fruits grow into curved shapes. A black spot occurs on the fruit and in the fruit.

**Boron Fertilizers :-**

1. Boron: 11 percent : 5 to 10 kg/ha
2. Boron : Solubor : 20 percent : 5 to 10 kg/ha

**Solution :-**

1. Fertilizers containing boron should be used as recommended according to the type of soil and crops.
2. Borax / Solubor should be applied during sensitive stages of crop growth.

**6. Molybdenum (Mo) :-**

**Functions :-**

1. Molybdenum acts in the conversion of nitrates into amino acids in the plant.
2. Essential in symbiotic nitrogen stabilization.

**Solution :-**

Molybdenum fertilizers should be used as recommended by soil and crop type.

3. Aiding in phosphate formation and vitamin K formation.

**Symptoms of molybdenum deficiency (Shown in Fig. 1):-**

1. Mainly found on the old leaves near the bottom and adjacent leaves above them.
2. The leaves turn yellow and brown spots appear on them and the leaves become discolored.
3. The edges of the leaves are curled and the leaves die.
4. The tree flowers very little.

**Molybdenum Fertilizers :-**

1. Sodium molybdenum : 39 percent : 50 to 100 g/ha
2. Ammonium molybdenum : 52 percent : 50 to 100 g/ha

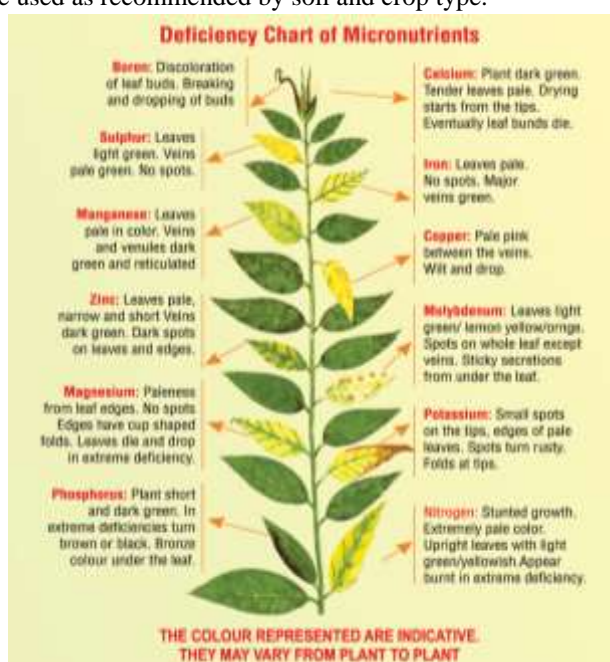


Fig.1 Different micronutrients deficiency symptoms

**Conclusion-**

This study has been carried out to investigate the roles, deficiency symptoms and management practices of micronutrients in plants, as deficiencies of any of these micronutrients, can adversely affect plant growth as well as production of the crop. The successful management of such micronutrients in soil will promote nutrients efficacy and market acceptability of the various control measures.

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## **Evaluation of student teachers' beliefs about Science Teaching**

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### **Abstract:**

The aim of research is to investigate Science student teachers' beliefs about teaching and learning of science before the method course. The sample consisted of 20 Science student teachers from two teacher training institutions of WBUTTAP. The -draw -a -science- teacher -test check list (DASTT-C) instrument was used for data collection. It measures student's illustration as a science teacher at work place. Analysis of data revealed that most of the student teachers before the method course beliefs on teacher centred elements of teaching. Less no of student teachers beliefs on student centred elements of teaching before the method course.

**Key Words:** Student Teachers' Beliefs, Science teaching, Teacher centred Elements, Student centred Elements.

### **Introduction**

In today's world memorization of facts and information is not the most important skill. What is needed is an understanding of how to get and make sense of information. Many countries devise their education system in the light of constructivist prospective not a description of teaching and learning. In constructivist prospective, students are encouraged to ask their own questions carry out their own experience, make their own analogies and come to their own conclusion by teachers.(Caprio1994,Staver1998,Yilmaz& Huyuguzed Cavas2006).

In recent years, research evidence about students learning of science has increasingly influenced educational reforms. The aim was to more strongly promote students active and constructivist learning environment in the science classroom. Such Reforms oriented themselves towards applicable knowledge learned within student's relevant contexts and achieving the objectives of. Scientific literacy for all students (e.g Valanides&Angeli 2002) Research data on Teachers learning and professional development has shown that educational reform will only succeed if teachers believe their knowledge attitudes seriously. (Clark and Peterson, 1987). Researchers unanimously agreed that each science teacher has personal beliefs about teaching and learning science which influence all of his /her respective teaching strategies and behaviours (Hewson &Kerby, 1993). The character and fields where such beliefs come into play are very broad and multidimensional. For example Koballa, Grabber, Coleman and Kemp (2002) concluded that belief influences all interactions between teachers and pupils. They also found that teacher's beliefs about teaching and learning always include aspects of beliefs exclusive to their chosen discipline.

Beliefs influence people's actions. This is why teachers' beliefs about teaching and learning are crucial for establishing proper actions in classroom

situations. These beliefs start to influence teachers' behaviour yearly in teacher education programs and learners pre-existing knowledge also interact during uptake and processing of new knowledge. Fischer(2000) supported this position by evaluating the influence of student teachers believe on their practical action in the classroom by asking trainees to document their initial teaching experience in school internships thus the processing knowledge about student teachers beliefs is a very valuable source of information for better understanding and improving teacher training and professional development(Pajares,1992).

Pajares, (1992) we view beliefs as an inclusive construct which covers any mental disposition a teacher and a student teacher holds and which affects his/her behaviour in the classroom. These beliefs can stem from personal experience, knowledge, social background and many others different sources.

### **Review of related literature:**

Hulya,H,Hakan.T,Jon,E.P,Pinar,H,C,(2000) Conducted a study on evaluation of pre-service teachers images of science teaching in Turkey. The main purpose of this study is to investigate elementary pre-service teachers' image of science teaching, analyse the gender differences in image of science teaching. Draw-a-science-teacher- Text checklist (DASTT-C) used for data collection. 213 free service elementary teachers from different Western universities participated in this study. The result of the study shows that the perspective of science teaching style is 20% student centred, 41% teachers centred, 39% between student centred and teacher centred.

Margareta, W. (2000) conducted a study on student teachers' beliefs. This paper reports the results from the first part of the study focusing mainly on the beliefs that student teachers have about the teaching and learning of science. The finding of the study challenges teacher education to develop science teaching and learning as a more democratic, moral

and cultural enterprise. This has an impact on thinking about how and what students learn in science classes.

Boz, Y.& Uzuntiryaki,E.(2006). In the study of semi-structured interviews was conducted with 12 prospective teachers. The analysis of the interview revealed that most of the perspective teachers held intermediate about chemistry teaching. Most exhibited inconsistency in their beliefs about teaching chemistry. The findings indicate the significance of identifying perspective teachers believe for the design of teacher education programs.

Aguirre, J.M., Haggerty,S.M., & Linder,C,L.(1990).In this study the conceptions of the nature of science, teaching and learning were identified through a questionnaire at the beginning of the training programme for secondary school level student teachers. Five district conceptions were identified for the nature of science, two for teaching and three for learning. The paper view that science teacher educators should consider the repertoire of conceptions bought by student-teachers during the training programme

**Objectives:**

- 1) To find out the beliefs of student teachers about teaching and learning of science.
- 2) To find out the beliefs of student teachers about teaching style

**Research methodology:**

**Sample :**

This study examines sample consisting of 20 B.Ed science student teachers from two teacher training institutes of West Bengal University of teacher training administration and planning. The sample is composed of 20 science students. All the students attending this study were in the B.Ed second semester (2020-2022) batch.

**Tools and Techniques:**

In this study, the DASTT-C was used as the primary data collection instrument. On the first page students were instructed to draw a picture of yourself as a science teacher at work. On the second page students were instructed to write a brief explanation of these drawings and given answers for the questions what is the teacher doing and what are

Table:1  
 The number and percentage of student teachers who responded positively to the teacher elements of the DASTT-C before intensive.

the students doing regarding their drawings. The DASTT-C consist of three sections,

a: Teacher elements, it includes teacher's activity(Demonstrating, Lecturing, visual aids, etc.) And the Teacher's position.

b :student elements, it includes activity of students ( passively receiving information, responding to the teacher,etc) and students' position( seated within the classroom).

c: environment elements, it includes the elements typically found inside classroom such as desks arranged in rows, symbols of teaching (e.g chalkboards) and science equipment etc.DASST-C also includes student shortly describing their drawings and indicating what the teachers and students are doing which help the researcher for scoring the drawing.

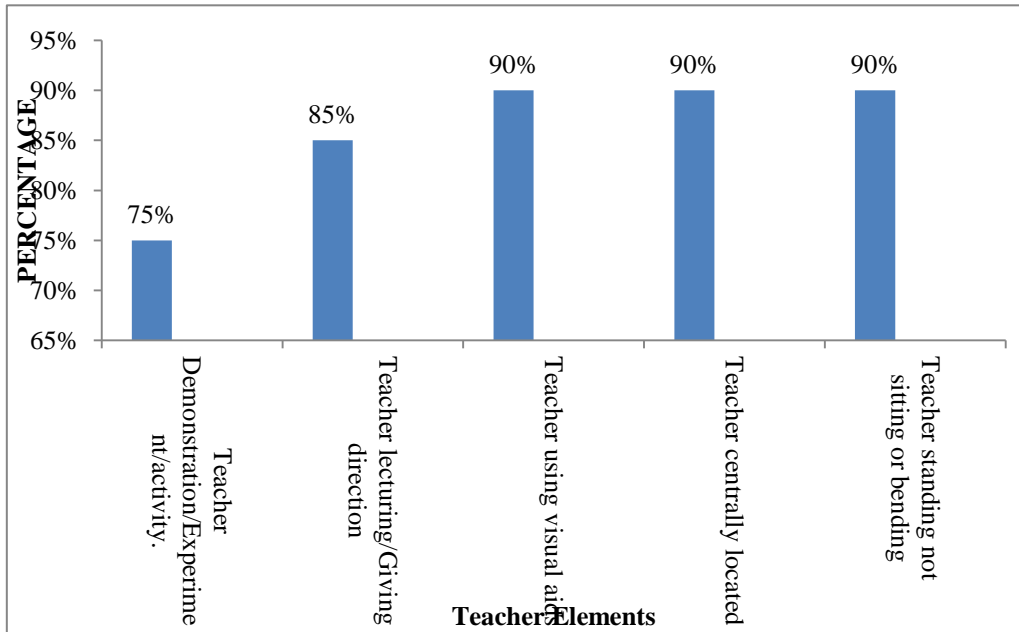
**Data Collection:**

The instrument, the draw-A-science Teacher check list (DASTT-C) was used for collection of data from B.Ed second semester student teachers. The instrument represents stereotypical aspects of teaching and classroom images. If this element appear in the drawing scores are simply marked in the checklist. Each section sub scores as well as an overall check list score were added. Checklist score ranges from 0 to 13.From this score, student teachers were placed from student centred (0) to more teacher centred (13) as indicated by DASTT-C measure. Thus students illustration were organised into two distinct groups: student centred and teacher centred.

**Result and Discussion:**

The nature of beginning teachers' beliefs and practices before the science method course with regards to the teacher's elements. Several drawings illustrated that the teachers demonstrating an experiment or activities. Some students illustrated the teacher lecturing next to the chalk board or giving directions. Many students drawing illustrated teachers using visual aids like chalkboard and chart while presenting the materials. Most of the students drawing indicated the teacher centrally, located as head of the class. As for the Teacher's postures several students illustrated the teacher standing, not sitting or bending.(see table-1)

Teacher Elements	Test number	%
Teacher Demonstration/Experiment/activity.	15	75%
Teacher lecturing/Giving direction	17	85%
Teacher using visual aids	18	90%
Teacher centrally located	18	90%
Teacher standing not sitting or bending	18	90%

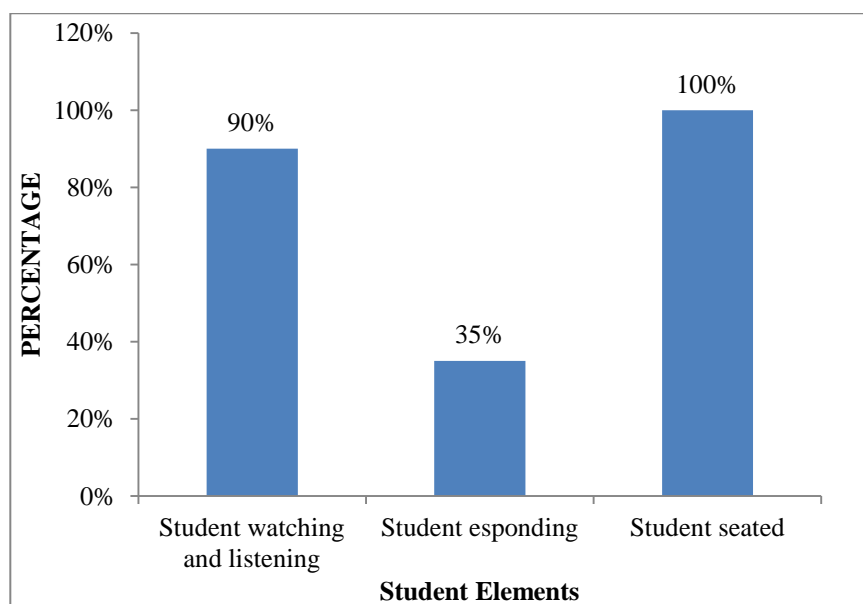


Regarding student elements the number of students drawing illustrated the students listening and watching to their teacher. Likewise, very few Table: 2

students are drawing illustrated students responding. Most of the students drawing illustrated students seated. (See table-2)

The number and percentage of student teachers who responded positively to the student elements of the DASTT before intensive.

Student Elements	Test number	Percentage %
Student watching and listening	18	90%
Student responding	7	35%
Student seated	20	100%

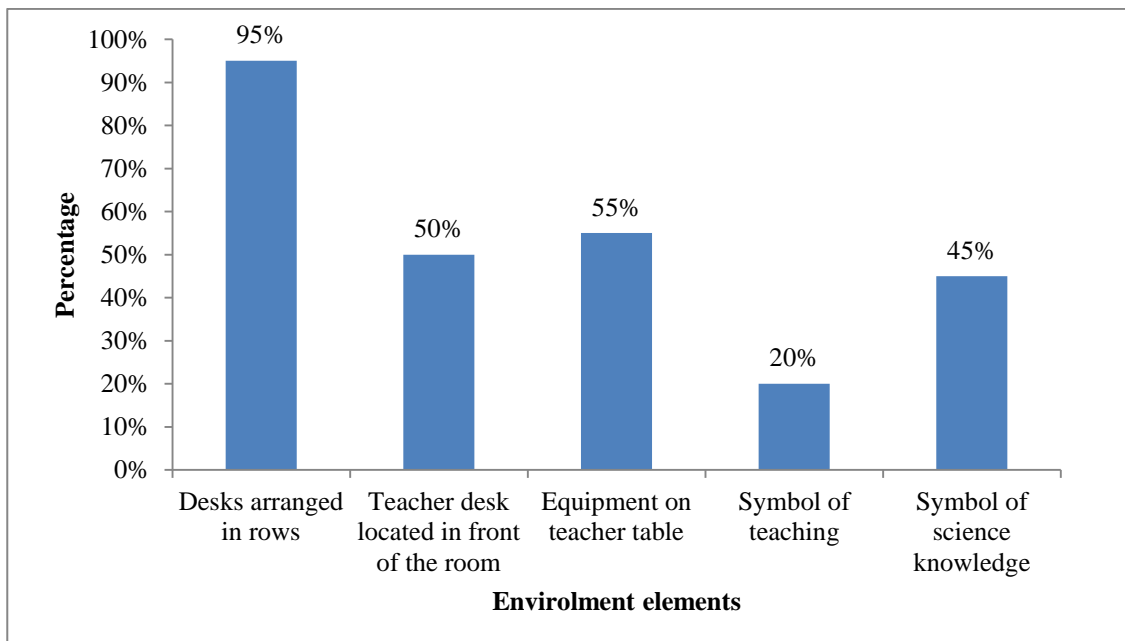


As for the environment elements related to classroom organisation, most of the drawing illustrated the desks are arranged in rows. This revealed that number of instructional strategies that require cooperative group activities cannot be carried out in a classroom with desks placed in rows. With reference to the teachers table, half of the drawing is located in front of the classroom. More Table: 3

than half of the teachers drawing showed the equipment on Teachers' desk. As for the presence of symbols of teaching in the classroom nearly all drawing included teaching symbols as chalkboard and bulletin board. Regarding the presence of science symbols such as wall charts and lap instruments, less than half of the student teacher included in their drawing.(see table-3)

The number and percentage of student teachers who responded positively to the environment elements of the DASTT-C before intensive.

Environment Elements	Test numbers	Percentage
Desks arranged in rows	19	95%
Teacher desk located in front of the room	10	50 %
Equipment on teacher table	11	55%
Symbol of teaching (Chalkboard, bulletin board)	18	20%
Symbol of science knowledge	9	45%



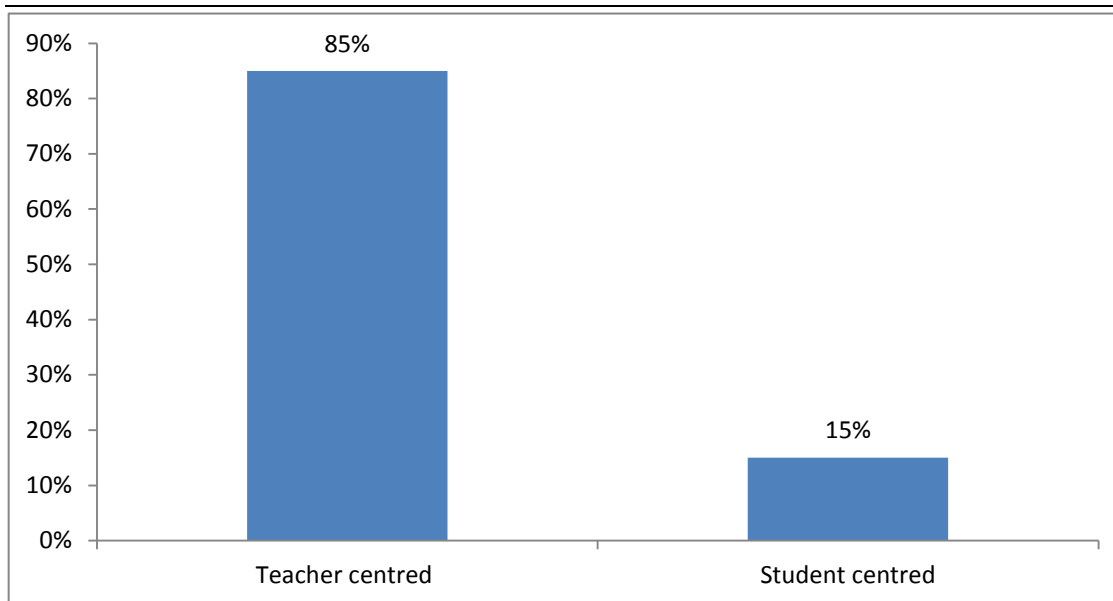
Based on their illustrations, Students were organised into two fairly distinct groups, teacher-centred and student –centred based on their overall checklist scores. Students who scored from (0-6) points were rated student centred and those who Table: 4

scored from (7-13) points were rated teacher-centred, the number of student teachers who were rated as teacher centred students was found to be 85%and those who were rated student- centred were15%.(seeTable-4)

The number and percentage of student teachers who were rated student centred and teacher centred before intensive.

Teacher centred		Student centred	
No of students	%	No. Of students	%
17	85	3	15





### Conclusion:

The result of the study noted that student teachers drawing yielded many significant natures of their beliefs about teaching and learning of science. The DASS-C instrument used as a tool in assisting student teachers believes before the method course. Most of the student teachers believe the teachers centre approach of teaching before the method course. During the course the student teacher had the opportunity to get introduced to different learning methodologies that challenge the previous beliefs. This indicates that who taught the method course, was able to change students theories that result from the new learning .However, beliefs can be strengthened or modified by classroom practice. Student teachers should be taught in the way they are expected to teach. Teacher education programmes should be engaging students more actively in teaching learning process that will provide opportunities for teacher's reflection. Student teachers should be trained to take the initiative to an organised hand on activities, group work and laboratory investigation in order to build classroom environment. All teachers need to consider all teaching methodologies in order to improve their beliefs and practices related to teaching. There is always demand for well prepared teachers who play an important role in facilitating excellent instruction for systematic long lasting reform

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## **The Media in India: An Analysis on Actors and Their Roles in Politics**

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### **Abstract**

Media holds a very significant role in liberal democratic regimes. Media actors influences the way social and political events are seen and evaluated. Free and plural media is the safeguard of a healthy democracy. Media has critical functions in a democratic regime. Journalism serves functions such as giving information , making investigation, and providing society a public forum. The main objective of this articles is to seek answers to the questions “how can the media profile and ownership in India be described” and “ what is the nature of the relationship between media and politics in India”. India has a developing media scene with thousands of outlets in multiple languages. Media in the country has been subjected to a structural change in recent years.

**Keywords:** Media in India, Media Freedom, Media Ownership.

### **Introduction**

This articles aims to analyse media and politics relationship in India with a special emphasis on media structure , media actors, and media ownership with in the framework of the role of media in modern democratic regimes. Media actors play a major role in liberal democracies. Media discourses shapes the perceptions and preferences of the masses and the political elites generally use media as an instruments to influence the masses and gain consent to reproduce their dominant ideology.

This articles consists of three sections. The first section provides a theoretical framework about media- politics relationship. This section also includes a literature review on the topic. The second section addresses the Indian media profile in a general framework with actors in print and online media scene as well as radio. The third section will be the discussion part analyzing the role of media in Indian political life and also covering media ownership practices and the impact of these practices.

Media is seen as the “ fourth estate” in modern democracies besides the judiciary , executive, and legislative branches. It can be regarded as a watch dog for government roles such as giving information , making investment and analysis providing a basis for mobilization and education. Media freedom is therefore , vital for democracies.

India has powerful media organizations with thousands of outlets operating in different languages. Indian media has been active since the late 18<sup>th</sup> century . The print media started in India as early as 18<sup>th</sup> century . Indian media is seen as one of the oldest in the world .Media in India entered the period of privatization in the 1990s . It is known that there are no regulatory safeguards against political control over media actors in India.

### **Literature Review :**

The Relationship between Media and Politics The ruling elites need media support in order to be able to hold effective public support and to be successful in the decision making process. The

press has been an indispensable part in establishing working democracies. The phenomenon of press freedom is a concept introduced as a vital prerequisite among democratic principles. In line to the economic and technological developments, the media has gained a more important dimension with the adoption of digital journalism. Thus, the “ press freedom “ today has more weight in democratic debates than it used to do in previous decades.

On other hand, the role of media in the political socialization process is important while media politics relationship. Acting as an independent political communication tool between different groups with a society , media contributes to the awareness of citizens especially in election times while contributing to their awareness in the case of abuse of power and political crisis as well.

### **The Media Profile in India**

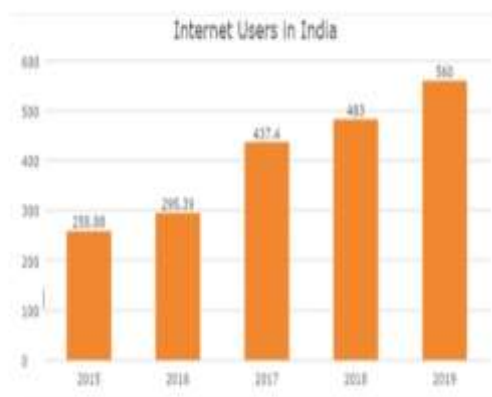
Indian media has been active since last 18<sup>th</sup> century . The print media started in India as early as 1780. In 1927 , radio broadcasting was launched in the country . Indian media is known as one of the oldest in the world based on 2019 data, there are around 900 private satellite TV stations and nearly the half of them are devoted to news coverage in India. In 2009, India was among the fourth largest television broadcast stations in the world with around 1400 stations. India has witnessed a huge media sector growth with the rise in the number of news TV channels as well as online and printed newspapers. As of 2018 there are more than 100000 registered publications in the country. India holds the second largest newspaper market in the world , with daily newspaper having a circulation of over 240 million copies as of 2018.

In terms of political orientations it can be said that the media of India is regarded as left leaning liberal ,especially the English languages media outlets. The main media actors in India are largely family owned . It is known that media ownership remains concentrated in the hands of the few in India. It is to be noted that the country currently hosts a growing tendency towards the cross media ownership where

the same content property in one sector is prompted through a different sector while audiences remain the same. According to a "Cross Media Ownership and Concentration in Indian Media" that was held

in 2017, it is stated that the cross media ownership has gained a new momentum with the privatization of more media sectors.

Graphic 1: Internet Users in India between 2015 and 2019



The Press Council of India is known as the actor responsible for the press regulation. It has the function of ensuring that the media in India is free. However it is very hard to keep the media free in Indian context as the big families own media outlets and compete in different business sectors as well.

#### **The Role of Media in Indian Politics**

I want this government to be criticized . Criticism makes democracy strong. Democracy cannot succeed without constructive criticism .These words were stated by the Indian prime Minister Narendra Modi in 2014. As Modi government faced with the rising crisis in the economy at home and increased tensions across the country , the Prime Minister took steps to weaken free media.

An important dimension related to the analysis of media freedoms in India today is the lack of an effective and independent regulatory regime. A significant point to emphasize while discussing media and politics relationship in India is the issues of advertising .In today media landscape in India , media actors are not only act as the intermediaries between the public opinion itself. The Hindu and National Herald newspapers have played an important role in the shaping as well as putting forth of the public opinion.

#### **Conclusion**

Media politics relationship is one of the main determinants showing the quality of the democratic governance in a country . A free and independent media is an indispensable actor in liberal democracies. It both presents information to the masses in a variety of issues from politics to economy and world affairs and it also functions as a watchdog , as an actor of surveillance over the activities of the government exercises upon media actors, the weaker the accountability and

transparency principles become in a political regime. Media and politics have always been in constant interaction and communication with one another. The medias function of reporting and monitoring should be kept away from political pressure. For this reason , a well-functioning regulatory regime along with institution and legal regulation must be established to protect media freedoms.

The main problem of the media in India is related with the media ownership structure. The use of advertising as a tool for reward and punishment by the political elites is the main factor that undermines media freedoms in India. The media ownership in India rests within the hands of a small group of elites who have certain political or financial affiliations and this paves the way for the weakening of democracy. The media actors cannot function freely in editorial and reporting process as they need profit making in order to survive.

The media sector in India is growing faster than the country 's economy, However it is not functioning as a watchdog to monitor elites and political affairs. It should be noted that not only India, but every country should adopt the goal of proving an appropriate ground for media actors to be able to make news and reporting in an open and free way based on editorial independence that serves the public interest.

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## **Style and Literary Techniques Used to Make a Literary Work Alive: Anna Ernaux & Arundhati Roy**

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### **Abstract:**

The personal narratives of two significant writers, Anna Ernaux and Arundhati Roy, are investigated and analysed in this comparative study. It emphasises their unique writing styles, subject interests, and involvement with societal and personal issues. This research explores the various ways in which these authors construct their identities, reflect on social realities, and challenge established structures through the medium of personal storytelling by looking at Ernaux's works, such as "The Years" and "A Man's Place," and Roy's narratives, such as "The God of Small Things" and "The Ministry of Utmost Happiness." "Personal narratives by Ernaux provide a look into her recollections and experiences, which are intertwined with a broader memory of post-war France. She expertly weaves together the historical and the personal, weaving a narrative tapestry that examines topics of gender, class, and personal identity. Her introspective examination of her own life offers a window into more general societal shifts and the challenges of adjusting to shifting social conventions.

**Keywords:** Personal narratives, identity, gender, politics, social change, memory, literature.

### **Introduction**

Personal narratives are meant to reflect on social reality in connection to the author and are intended to question established societal structures while also conveying the author's unique experiences. It is generally known that both Indian author Arundhati Roy and French writer Anna Ernaux are well-known for their fascinating personal narratives that provide insight into their lives and the world around them from their unique points of view. In this paper, we analyse the many literary genres, thematic issues, and social circumstances that have an impact on the personal narratives of the two authors while analysing how these factors differ from one another. They both explore identity, which is a fundamental theme in both Anna Ernaux and Arundhati Roy's personal narratives. To build their identities and consider their role in society, both authors focus on their own personal experiences and recollections. In order to question cultural norms and undermine power systems, Ernaux and Roy turn to personal tales. In doing so, they illuminate the connections between individual experiences and broader social, cultural, and political settings. They also explore the boundaries between individual and communal identities.

Many of Ernaux's works, such as "The Years" and "A Man's Place," explore her own recollections and experiences while creating a communal memory of post-World War II France and delving into topics of gender, class, and individual identity. In her personal narratives, especially "The God of Small Things" and "The Ministry of Utmost Happiness," Roy both describes her own background in India and

investigates her upbringing in India, her political involvement, and the marginalised voices and groups in India. In order to identify the contrasts between Ernaux and Roy, I compare their tales side-by-side in this research paper to discover the distinctive ways each of them used. It will be able to pinpoint issues and themes that the groups have in common as well.

The discussion of the writers' linguistic choices, narrative strategies, and literary devices will be included in the examination of these personal accounts. They will be able to share their messages and experiences as a result. In addition, the socio-cultural and historical settings in which Ernaux and Roy write will be examined, revealing how the authors' distinct upbringings influenced their narratives. With the help of this comparative study, I learnt more about the ways in which society institutions and norms may be challenged and illuminated by individual narratives.

Even though their experiences and surroundings are different, social transformation is a prominent subject in Anna Ernaux and Arundhati Roy's personal narratives. I can see from their comparative studies how societal change affects their viewpoints on numerous topics and forms their narratives. The societal transformation in post-war France is frequently reflected in Anna Ernaux's personal memoirs. Her works, including "The Years," which examines changes in gender roles, social groups, and political beliefs, chart the evolution of French society over a number of decades. The narratives of Ernaux convey the communal memory of a civilization in transition.

Both writers draw attention to how her own experiences and identity have changed as a result of societal advancement, cultural changes, and developing standards.

In this research paper I observed how societal change affects Ernaux and Roy's storytelling techniques through a comparative analysis of their personal narratives. The historical, cultural, and political circumstances in which these stories take place are clearly understood by both authors. They examine the effects of social change on people and communities by drawing on their own experiences to provide light on larger societal challenges.

The personal narratives of Ernaux and Roy both emphasise the importance of individual action and resistance to social change. Offering glimmerings of hope, resiliency, and transformational action, they give voice to marginalised voices and confront oppressive structures.

**Conclusion:**

Comparing the autobiographical narratives of Arundhati Roy and Anna Ernaux reveals significant differences in how authors develop and express their identities. Social and political concerns are addressed and pre-existing power structures are contested as a result of their actions. In order to portray a feeling of the communal memory of post-war France, Ernaux examines issues in his artwork including gender, class, and personal identity. Her political involvement is woven within Roy's storytelling, which depict marginalised voices and communities in India. Both Ernaux and Roy are passionate about using personal experiences as a vehicle for societal critique and change, despite the fact that their writing methods and aesthetic choices differ. They explore memory, history, and the context of their respective cultures via their stories. They challenge readers to think critically about prevailing narratives and to accept dissident viewpoints.

This research paper uses a comparative approach to pinpoint the unique literary devices, narrative devices, and thematic issues used by Ernaux and Roy. It looks at how the sociocultural and historical settings in which people write are reflected in their personal narratives and how these contexts influence how they see topics like identity, gender, politics, and social change. We learn more about the ability of personal storytelling to expose and question societal norms as well as to promote empathy and understanding across cultural borders by comparing and contrasting their experiences. The results of this comparative study show that, despite the fact that Ernaux and Roy come from various cultural backgrounds and write in various socio-political settings, their personal narratives have a common goal: to reflect on unique experiences, negotiate identity complexities, and engage with more

significant societal issues. Both writers pledge to use personal narratives as a vehicle for social criticism, female emancipation, and societal change. Readers are encouraged to consider the effects of both personal and societal experiences through their works. This promotes a greater comprehension of the intricacies of human existence and the possibility for societal transformation.

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## Resurrecting Eco Spiritual Myth: Understanding the Hidden Message of Amitav Ghosh's Jungle Nama

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### Abstract

This paper mainly explores Jungle Nama by Amitav Ghosh from an Eco-spiritual perspective. This long narrative poem deals with certain existing legends which have been a source of strength for the natives of Sundarban since ages. In this work, Amitav Ghosh beautifully captures the spirit of the Jungle which stands as a grand entity inhabited by figures like Bon Bibi, Shah Jangoli, the evil Dokkhin Rai and the sometimes innocent, sometimes ignorant human beings. For the natives, the goddess - Bon Bibi is a saviour and an integral part of their identity. Irrespective of religion, people associate with her and seek solace. She commands respect and generates eco-spiritual values which renders the locals as eco-friendly people. In the current scenario, the third-world countries are struggling to build their post-colonial identity. The aspects of 'Eco-spirituality' as upheld in this work can provide distinctness to the Indian spirit. Also, as a potential theoretical framework, this will generate ideas to the western world for sustainable development.

**Keywords:** Sundarban, Amitav Ghosh, Bon Bibi, Tigers, Eco-spirituality

### Introduction

'Eco-spirituality' is a phenomenon of revering nature as God. Following this perspective, one does not look at the environment from a physical perspective but rather from a metaphysical perspective. It has originated from the Latin word 'Spiritus' which means breath and also symbolizes life. It emphasizes on valuing nature beyond its material things and acknowledges its intrinsic value in life. This idea of equating nature with God creates a spiritual and moral imperative for the protection and conservation of the environment. Indians have respected the supernatural force of nature and worshipped the different units of it as manifestation of God. They even adore several animal forms like cows, elephants, snakes etc. Similarly, plants like Neem, Tulasi, and many more have been included as Gods. Thus, it can be asserted that eco-spirituality as a phenomenon existed in India since ancient times.

Jungle Nama by Amitav Ghosh is a 21st century long narrative poem that evokes ancient myths and legends to induce a consciousness for the past and its rich Eco Spiritual traditions. The word 'Jungle Nama' has its etymological roots in English, Sanskrit, and Persian languages. While the English word 'Jungle' is derived from a Sanskrit root, the word 'Nama' is Persian which means a tale. Thus, *Jungle Nama* is a long narrative poem that glorifies the forest by upholding the several supernatural legends it supports. By presenting all these aspects, Amitav Ghosh hoists the supremacy of the Indian Eco Spiritual ideal to the 21st-century world that laments the degradation of the environment.

### Objective and Methodology:

This paper aims to thematically interpret the work- Jungle Nama by Amitav Ghosh to explore the vivid aspects of eco-spiritual philosophy forever

present in the Indian society. In the Twenty-First century, with the world pacing towards to newer developments in the field of technology, Ghosh takes a bold step into the past and resurrects the richness of its tradition. The exploration of this aspect would help Indians to claim their dominance on the newly evolving theory of Eco-spirituality. Indians have always been practitioners of eco-spiritual ideology which is being developed by the western people as an idea to protect the environment. Understanding this rich heritage will not only refresh Indians' adoration for the environment, but also help them to claim their ownership on the discourse. This discourse will further help in uplifting the Indian identity in the post-colonial scenario. For a systematic study, the paper has been divided into three sub-units:

1. Personification of Nature in Jungle-Nama
2. The Ever-present Conflict of Good and Evil.
3. Significance of Eco-spiritual tradition in Twenty-first century.

### Personification of Nature in Jungle-Nama:

The work Jungle-Nama treats 'Nature' as an entity with an active consciousness. The Jungle in it is a place that thrives nature, animals and human beings in a dynamic and yet holistic bond. It can be better asserted that the Jungle anchors the existence of all the life forms within it.

Tiger, the main source of terror in the lives of these people is personified by the character of Dokkhin Rai. He loves absolute power and thus terrorizes the people with his earth shaking roars. Amitav Ghosh invokes the original legends about Dokkhin Rai that asserts that "every animal, every ghost and every malevolent spirit of the forest was under the exclusive command of Dokkhin Rai". (Karmar-438). He is projected as a demon king lusting after human blood especially those

belonging to the pure souls. Absolute Control over ignorant and innocent human being had made him so preposterous that he openly challenged Bon Bibi and Shah Jongoli (Divine Beings) for a battle. Such a magnificent presentation of the menacing side of the nature certainly evokes consciousness for its immense power. All the devilish attributes are presented through the image of Dokkhin Rai

Contrary to the character of Dokkhin Rai, Bon Bibi and Shah Jongoli are divine saviours of the people. Bon Bibi is the Mistress of the forest. Her source of strength is her compassion. Shah Jongoli is a divine warrior whose one stroke sends his enemy swiftly flying back. People's faith on Bon Bibi and their worship of her reveals their spiritual inclination towards the environment. The nature acts as a source of terror as well as a saviour for them. Thus, it can be asserted that in this part of the world, nature plays an all-encompassing role in the lives of people

#### **The Ever-Present Conflict of Good and Evil**

The work *Jungle Nama* also projects the universal metaphor for the struggle between Good and Evil. The characters- Bon Bibi and Shah Jongoli represent goodness whereas Dokkhin Rai is a representative of the evil in human psyche. Any good act is considered to be a form of worship and also people revere whatever is virtuous. In this part of the world, people pray to celebrate the goodness of Bon Bibi. Perhaps her divinity lies in the fact that despite being a mistress of the forest, she never claims her authority over it like Dokkhin Rai does. Such aspects of eco-spirituality in Indian culture reminds one of the fact that nature is Supreme.

Dhona and Dukhey are the human representative forms of Dokkin Rai and Bon Bibi. Dhona is an egocentric person and wants to exploit the forest of its rich resources like wax, honey and timber. He Bargained for Dukhey's life in exchange of the riches offered by Dokkhin Rai. His deal over Dukhey's life for material wealth presents his lack of respect for the world that sustains him. He stands as a Metaphor for people who compromise with natural resources for the sake of their luxury. Dukhey is a pure and innocent soul. His heart is full of faith. His devotion on God represents human faith on the environment for their lives. According to the major theoretical understanding, he might be considered to be a subaltern character. However, Ghosh presents him as a figure richer than the wealthy and powerful ones. His greatest treasury was his undefeated trust on nature that takes up a Godly proportion here. His belief helps him to surpass the worldly miseries and unite with God. Instead of being treated as a subaltern, Amitav Ghosh presents Dukhey as a 'man of the nature' who is preserved by it.

#### **Significance of Eco-spiritual tradition in Twenty-first century:**

Environmental affiliations are not much removed from the complex concept of identity. In the post-colonial context, people are struggling to create their identity by opposing the western dominant ideology on one hand and reiterating their traditions and simple way of living on the other. Environmental concerns are problematic in the post-colonial scenario. In the first place, it is the western pattern of living that has led to the crisis. Apart from *Jungle Nama*, other works by poets like Desmond Kharmawphlang, Kynphan SingNongkynrih and many more also prove that the traditional ways of life have been simpler. The lifestyle was sustainable as people shared a correlative bond with the environment. It is ironical that in the current times, both environmental degradation and consciousness are promoted by the western world. Their anthropocentric philosophy is uninviting to the indigenous masses who are working under the economic supervision of the western world. To them, the native philosophy of a spiritual bond with the nature is best extended. In such circumstances, aspects of eco-spirituality will communicate acceptable messages on environment. The western world which is trying to formulate eco-spiritual discourse to protect the environment can learn a valuable lesson from the Indian example.

#### **Conclusion:**

Amitav Ghosh's work *Jungle Nama* not only rejuvenates the traditional patterns of life, but also generates a deep-regard for its rich heritage. An understanding of this work leaves future scope for research into the dimensions of Indian Eco-spirituality and how it can revolutionize the discourse on environment.

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## **A Study of Students' Absenteeism in Higher Education of a Tribal Area of Maharashtra**

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### **Abstract**

One of the problems that the majority of higher education institutions (HEIs) face today is student attendance. Many colleges and universities have policies requiring students to attend class. In higher education system, it is believed that attendance has a favorable impact on academic success, notwithstanding the various restrictions. One of the causes of academic failure is considered to be absenteeism from class lectures. Being physically present for class does not constitute being actively engaged in the work and activities of the class. Absences may be authorized, unauthorized or caused by extenuating circumstances. In this present study, an attempt has been made to identify the factors which cause students' absenteeism in a higher education institute of a tribal area. In order to do this, a survey was conducted using a questionnaire.

**Keywords:** Students' absenteeism, higher education, tribal area

### **Introduction**

The attitude of students skipping courses has spread throughout higher education and is a big source of worry higher education institutes. It has been determined that such absences have detrimental effects on both students and the institutes. Academic performance is a measure of how well a student or institution has met its educational objectives. It is frequently assessed by testing or ongoing evaluation. Learning achievement preceded consistent attendance in class. Students must be in class regularly in order to profit from the educational programme. Fewer opportunities exist for irregular students to study. As a result, their academic potential is limited. Therefore, regular attendance in class is given top attention. When students miss class, they lose out on important learning and the advantages of the specific examples that teachers employ to simplify complex ideas. Student absenteeism can be attributed to a variety of circumstances. In practically all Indian institutions and colleges, attendance of 75% is required; failing to do so might result in a student receiving a failing mark or even failure.

### **Review of Literature**

Tripathi Archana (2022) carried out a study to examine the factors which are responsible for students' absenteeism in higher education in the district of Champawat in Uttarakhand. The factors identified were lack of desire and motivation, availability of substandard material in the market, defected and wrongful evaluation system etc. Lukkarinen Anna, Paula Koivukangas and Seppala Tomi (2016) in their investigation showed the relationship between class attendance and student performance. Ancheta Ruel F., Daniel Deny and Ahmad Reshma (2021) explained the effect of class attendance on academic performance of students. Khanal Shanti Prasad (2019) examined the irregular attendance of university students at class and its

relation to their academic achievement. He formulated a hypothesis that there is significance relationship between attendance of the students of the class and their academic performance. Kousalya P., Ravindranath V., and Vizayakumar K. (2006) in their study illustrated the application of analytical hierarchy process (AHP) in the context of student absenteeism in engineering colleges. Clores Michael A. (2009) in his qualitative research study on school absenteeism among college students discussed pedagogical, psychological and socio-cultural implications based on the findings. Srivastava Meenakshi (2018) conducted a study to identify factors that cause students discontent with the classroom learning environment. Lucey Siobhan and Grydaki Maria (2022) examined the effect of implementing an incentive scheme on seminar and performance. Khan Mohammed Shamim (2021) conducted a research to investigate the causes and remedies of students absentee. The identified major factors responsible for students' absenteeism were as students' financial crisis, distant residence, unsafe public transport, sometimes teacher absenteeism and a lacking in the education policy. Muir Jenny (2009) in the research showed that tendency for students who attend classes more regularly to gain better marks, especially if they are weaker or if they have the potential for a top mark, although it is not clear cut. Akkus Murat and Cinkir Sakir (2022) evaluated the status of student absenteeism, its impacts on educational environments and the relevant policies available.

### **Aim of Study**

Arts, Science and Commerce College, Chikhaldara run by Sipna Shikshan Prasarak Mandal, Amravati, was established in the year 1996 with the aim of achieving holistic development of the people of Melghat, a remote, hilly and tribal area of Maharashtra. The vast area of Melghat is about 4000 sq. km. formed mainly by two talukas

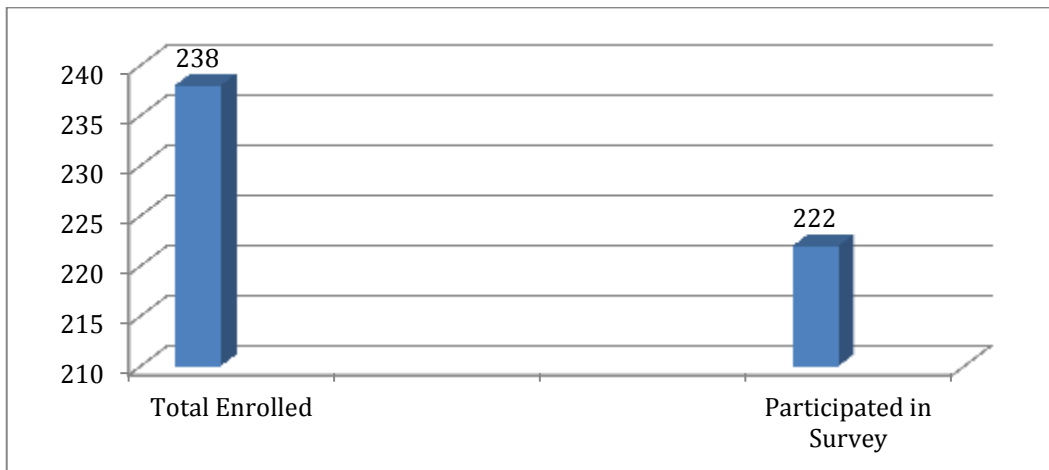
Chikhaldara and Dharni, partly Anjangaon Surji and Achalpur talukas of Amravati district and partly Akot taluka of Akola district. The area is predominantly tribal and educationally as well as economically backward. The main social problems here are superstition, unemployment, malnutrition, migration, educational dropout etc. It is very important to increase the GER of this area in overcoming such problems. Most of the students in the college come from this area. Absenteeism can cause their academic performance. In today's higher education, student involvement and attendance in class are crucial factors. Class attendance has been found to be a significant predictor of academic results in several earlier studies: Attending more classes, results in better final grades for students. For this, it was proposed to carry out a systematic study to identify the factors causing students' absenteeism.

**Study Objective**

To identify the causes of the student absenteeism.

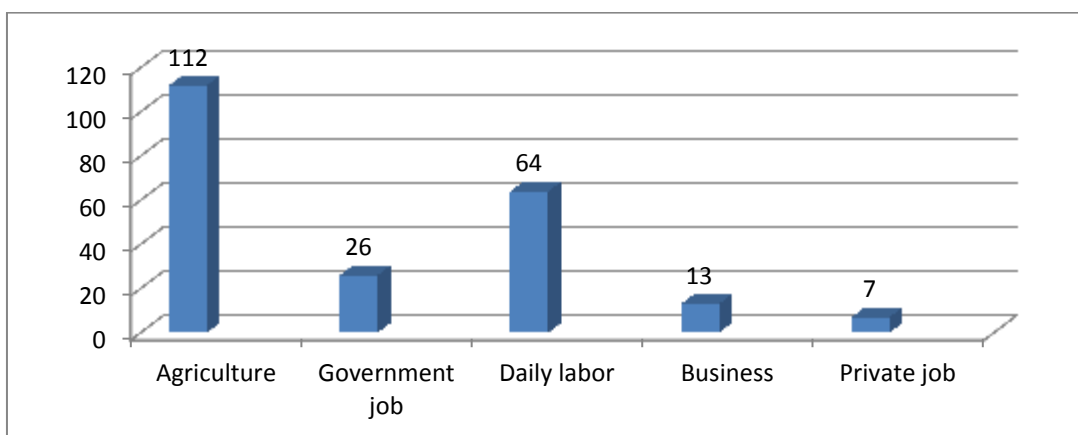
**Data Analysis and Interpretation**

**Students enrolled in college and participating in the survey**



The total number of students enrolled in the science stream is 238 out of which 222 (93.27%) students have participated in the survey.

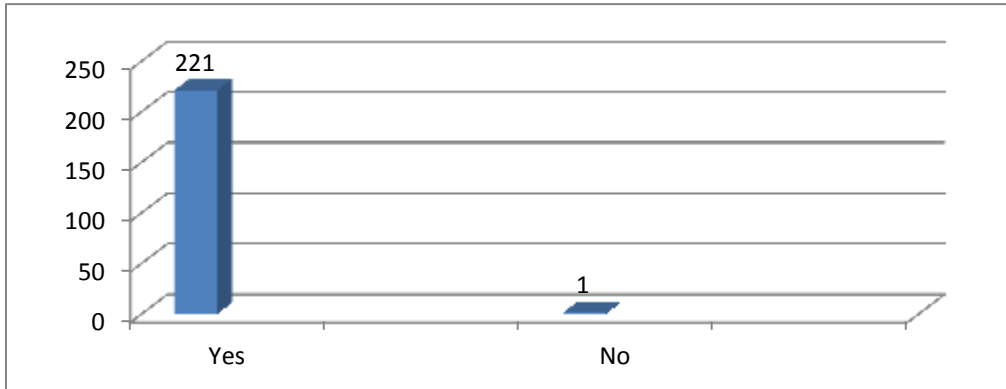
**Main means of household income**



Out of total 222 respondents 112 (50.45%) of the respondents has agriculture as their main source of family income. There are 26 (11.71%) students who said that the main source of family income is government job. While 64(28.82%) students responded that daily wage is the main source of their income of the family. 13 (5.75%) students indicated that the primary source of family income is a private job. From this we can see that the main source of income for most of the students' families is agriculture and daily labor.

**Willingness to pursue higher education**

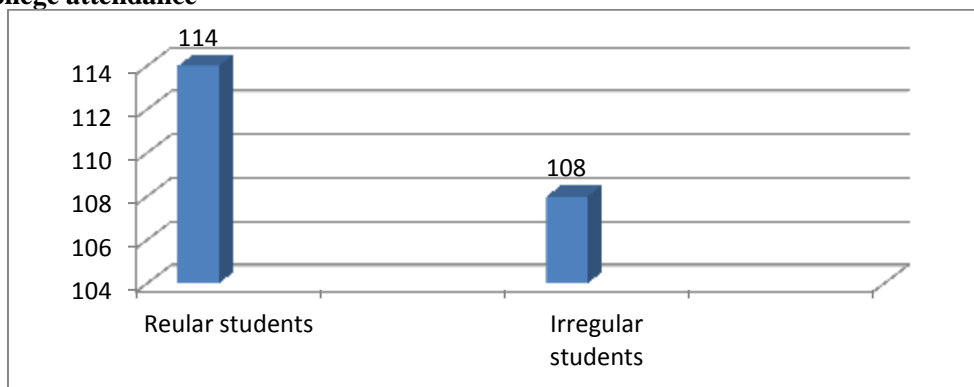
source of their income of the family. 13 (5.75%) students indicated that the primary source of family income is a private job. From this we can see that the main source of income for most of the students' families is agriculture and daily labor.



221 (99.54%) students wanted to pursue higher education while only 1 (0.45%) didn't want to pursue higher education. This demonstrates that

**Students' college attendance**

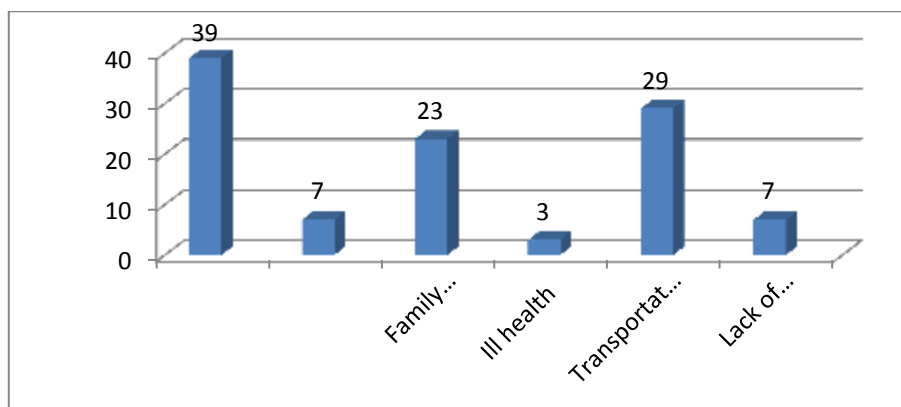
the number of students who want to pursue higher education is large while the number of students who do not want to pursue higher education is negligible.



When trying to know the attendance of the students in the college, 114 (51.35%) students expressed that they come regularly to the college while 108(48.65 %) students expressed that they are

**Reasons for absenteeism in college**

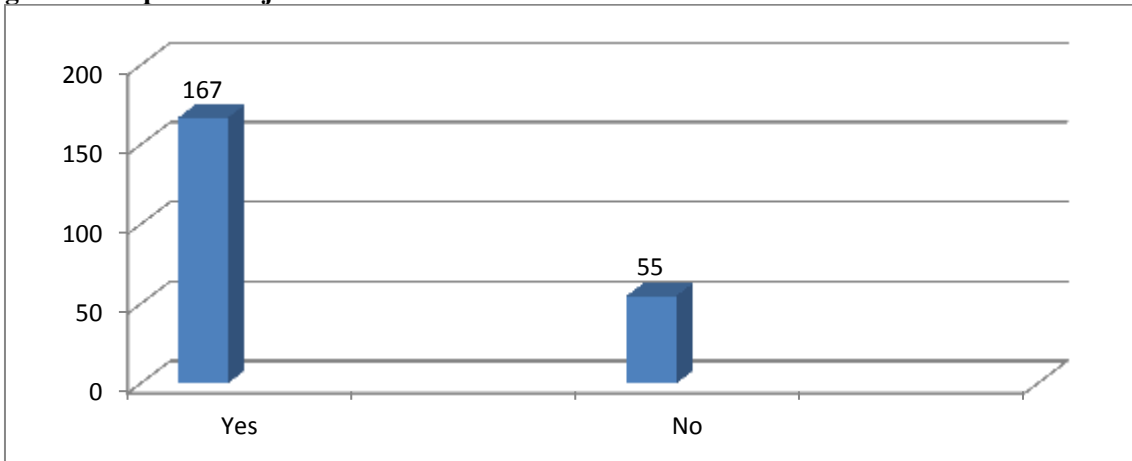
irregular. This shows that the percent of regular students is slightly higher than the irregular students.



On knowing the reasons for this, 39(36.11%) students remain absent due to poor economic conditions. 07(6.48%) students remain absent due to not getting admission in the hostel. 23(21.29%) students are absent due to family

responsibilities. 03(2.77%) students remain absent due to ill health. 29(26.85%) students are absent due to transportation (accessibility) problem, 07(6.48%) students are absent due to lack of accommodation

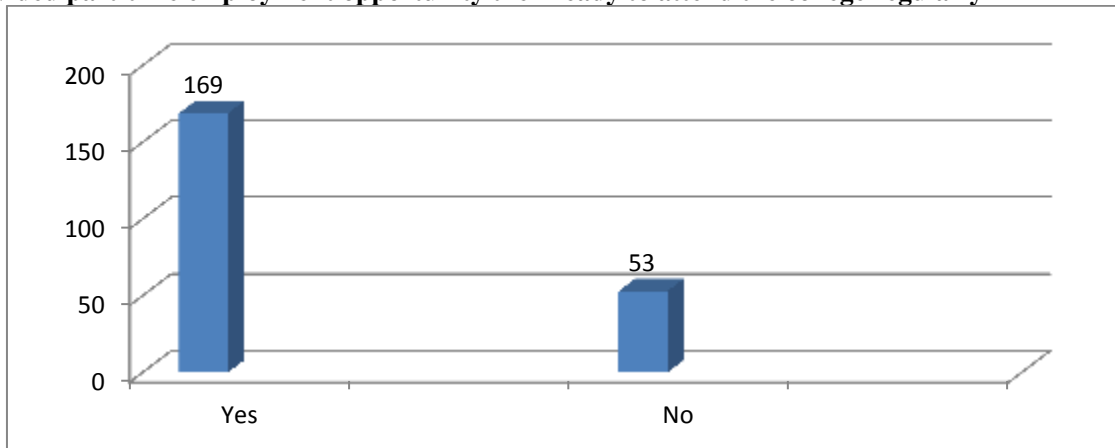
**Willingness to do part-time job**



Are the students willing to do employment if they get part time employment? Knowing this, 167 (75.22%) students were willing to do this job

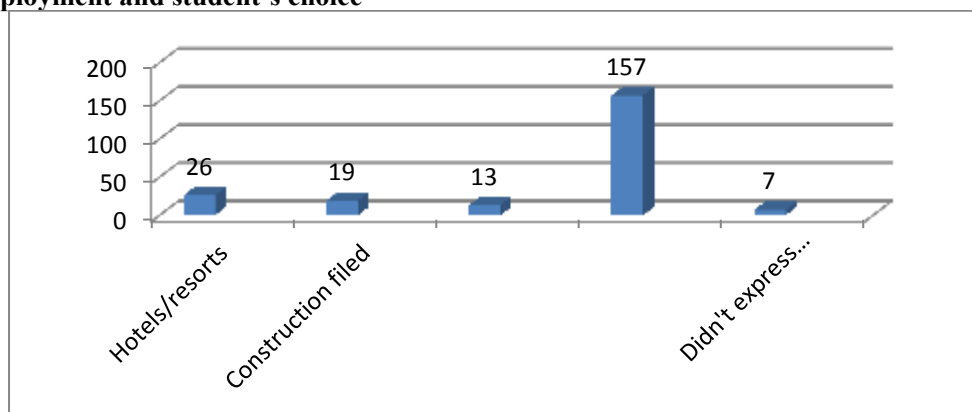
while unwilling to employ, the number was 55 (24.77%).

**If provided part-time employment opportunity then ready to attend the college regularly**



169(76.12%) students expressed their reaction that they will attend college regularly if part-time employment is provided to them in Chikhaldara and nearby areas.

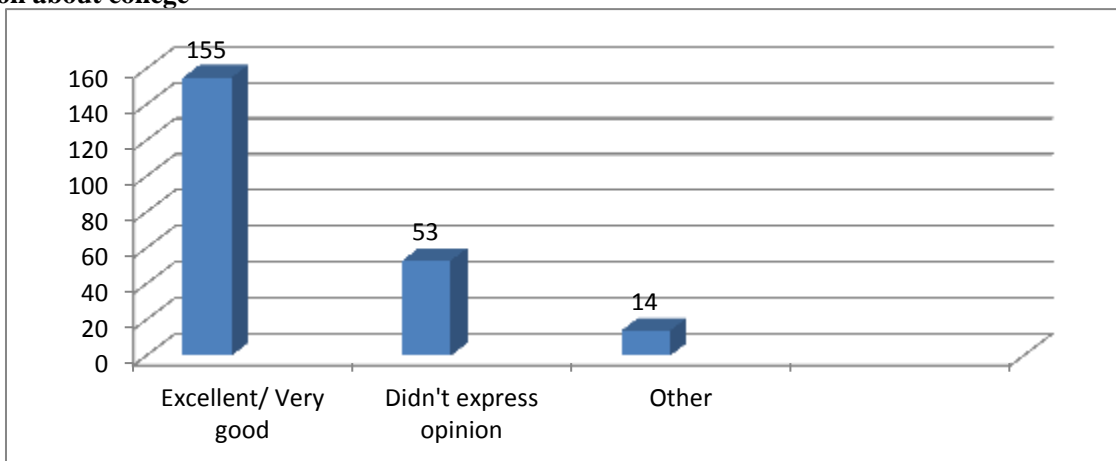
**Fields of employment and student's choice**



Many students mentioned their interest to do part time jobs. Considering the field of temporary employment opportunities available in Chikhaldara and trying to know in which field the students want to do part time job, 157(70.72%) means most of the students were interested to work in government/semi-government offices The number

of those who were willing to work in hotels, resorts was 26(11.71%) The number of students willing to work in construction field was 19 (12.05%). The number of students who were willing to work in different shops, private offices, NGOs etc. was 13(5.85%). The number of students who didn't express any kind of reaction is 7(3.15%).

**Opinion about college**



155(69.81%) students responded that the college is excellent/ very good when their opinions were asked about the college. The number of students who did not express any opinion about the college is 53(23.87%). While expressing their opinions in this context, the teachers in the college are good, the college has many facilities for students and the college premises are good.

**Conclusion**

On the basis of striking findings from this research, the conclusive remarks may be expressed in the following way.

Agriculture and daily wage labor is the main source of income for most of the students' families. 99.54% of students desire to pursue higher education. Percent of regular students is slightly higher than the irregular students. Financial situation, daily work and family responsibilities, lack of transportation are the major reasons for student absenteeism in college.75.22% of the admitted students are willing to take up employment. In the field of employment, most 70 % students preferred part-time employment in government and semi-government offices. Majority of the students expressed their opinion that the college is excellent/ very good and the teachers, staff and facilities of the college are also very good.

**Acknowledgement**

I wish to acknowledge the Management and Principal of our college for providing the opportunity to undertake the study and their valuable suggestions for this. Thanks are also due to my colleagues for their support.

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# A Study of Understanding the Assignment and Study Environment of Undergraduate Students

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## Abstract

In the educational parlance, performance manifests through academic achievement, which is the manifestation of a student's habit of study and they in turn are formed and strengthened through education. The development of good study habits is equally relative and helpful not only in academic work but in career actualization. The aim of this study is to find the relationship between understanding of assignment and study environment of undergraduate students of west Bengal. For testing hypothesis 100 students were selected randomly. Study habit scale was applied on students of Science & Humanities. Statistical analysis (both descriptive & inferential) showed significant differences between the sample group.

**Keywords:** Study habit, Study environment, performance, under graduate students

## 1.1 Introduction

Education is the most viable legacy left behind by our colonial masters. It is the only heritage transmitted to us which is well embraced because of its usefulness in shaping our society and "building" of an individual. Education enlightens and creates averseness of one's self and the world around. 21st century learning can be defined as student-centered learning. We refer to it this way because 21st century innovations make student-centered learning possible on an unprecedented scale. One must concentrate on study skills. Study skills are the skills one need to enable him / her to study and learn efficiently. Study skills, *academic skill*, or *study strategies* are approaches applied to learning. Study skills are an array of skills which tackle the process of organizing and taking in new information, retaining information, or dealing with assessments. They are discrete techniques that can be learned, usually in a short time, and applied to all or most fields of study. More broadly, any skill which boosts a person's ability to study, retain and recall information which assists in and passing exams can be termed a study skill, and this could include time management and motivational techniques.

Looking at the history of mankind, we find that each century has witnessed different transformations. Accordingly, there has been new emphasis and shift in educational processes (Mangal, 2001, p.1). Education is an activity or process, which modifies the behavior of a person from insinctive to human behavior (Taneja, 2003, p.9). This definition reveals the innate truth that education aims at discovering aptitudes as well as to progressively prepare man for social activity; because of this, education through which the basic

needs (food, shelter and clothing) are provided is necessary for the survival of the society. Simply put, performance is how well or badly something is done. Its relevance stand out because of the significance it holds to the society. In the educational parlance, performance manifests through academic achievement, which is the manifestation of a student's habit of study and they in turn are formed and strengthened through education. The development of good study habits is equally relative and helpful not only in academic work but in career actualization.

## 1.2 Objective of the study

1. To examine and compare the extent of understanding the assignment and study environment in undergraduate students of Science and Arts stream.
2. To examine and compare the extent of understanding the assignment and study environment in undergraduate male and female students.

## 1.3 Hypotheses

HO: 1.0 No significant difference exists between the mean scores in understanding the assignment of undergraduate students of Science and Arts stream.

HO: 1.1 No significant difference exists between the mean scores in understanding the assignment of undergraduate Male and Female students.

HO: 2.0 No significant difference exists between the mean scores in study environment of undergraduate students of Science and Arts stream.

HO: 2.1 No significant difference exists between the mean scores in study environment of undergraduate Male and Female students.

## 1.4 Definition of the terms

**Understanding the assignment** You've probably seen the phrase "understood the assignment" used to



death on social media. Here's why everyone is saying it. The slang term is a popular way to praise someone who is going above and beyond to do a good job.

**Study environment**

Study environment refers to the physical, psychological and social circumstances that as affect your wellbeing a student and how you experience your studies. The term study environment is often used, but the law often refers to students' work environment.

**1.5 Methodology**

**Sample**

The researcher selected undergraduate colleges using non-probability based purposive sampling method. The sample comprised of 100 students, selected from three institutions, namely APC College, New Barrackpore; Chandraketugarh Sahudullah Smriti Mahavidyalaya, Berachampa; Amity University, Kolkata.

**1.6 Research Tools**

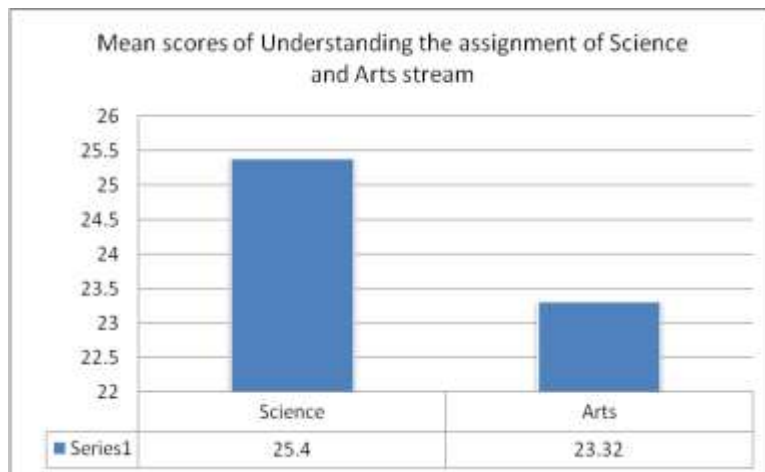
The tool for data collection by the researcher is the standardized scale of study habit (Sen Barat,K., 1988)

Out of five dimension of the scale the researcher have taken two dimensions, namely Understanding the assignment and Study Environment.

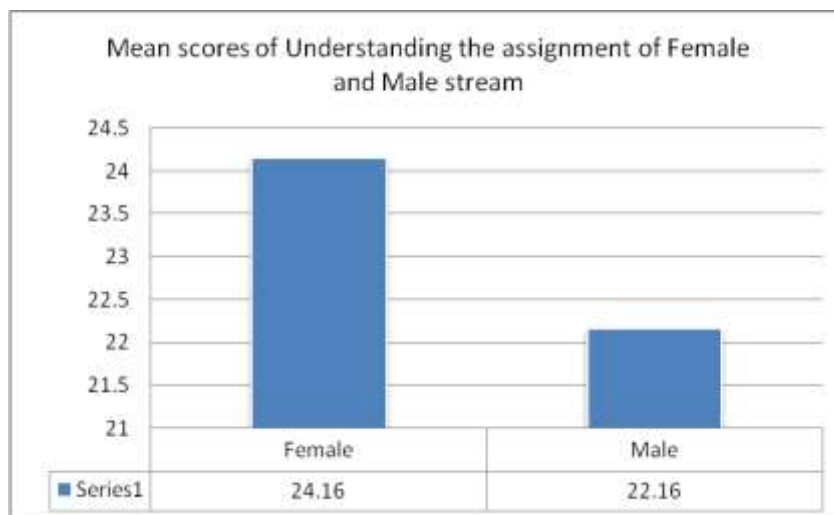
**1.7 Analysis and Discussion**

The sample size of the dissertation was 100 respondents. Out of which 25 were girls and 25 were boys.25 students from Humanities and 25 students from Science stream were selected. The data was collected with the help of the tool mentioned earlier and the entire data were analyzed quantitatively. The quantitative analysis was done through descriptive and inferential statistics by dividing the total sample into two independent categories i.e., gender and stream.

**Figure 1.1 Mean scores of Understanding the assignment of science and arts stream**

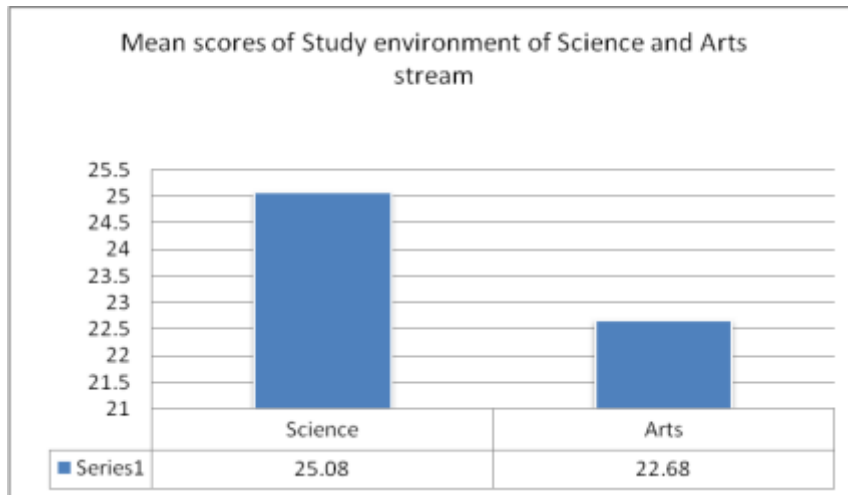


**Figure 1.2 Mean scores of Understanding the assignment of Female and Male stream**

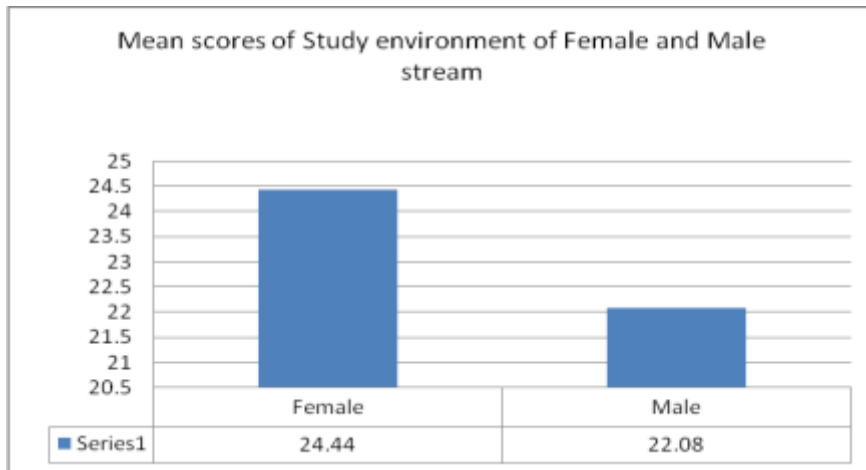




**Figure 1.3 Mean scores of Study environment of Science and Arts stream**



**Figure 1.4 Mean scores of Study environment of Female and Male stream**



**Table 4.1 T- test between the mean scores of Humanities and Science students**

t-Test: Two-Sample Assuming Unequal Variances		
Variable 1(Understanding the assignment)		
	SCIENCE	HUMANITIES
Mean	25.4	23.32
Variance	7.833333333	13.47666667
Observations	25	25
Hypothesized Mean Difference	0	
df	45	
t Stat	2.252898441	
P(T<=t) one-tail	0.014593847	
t Critical one-tail	1.679427393	
P(T<=t) two-tail	0.029187695	
t Critical two-tail	2.014103389	

Calculated value (2.252) is greater than table value (2.014), P value or Alpha value is less than 0.05 so the null hypothesis (HO 1.0) is rejected. It can be

said that there is significant difference between the mean scores of understanding the assignment of undergraduate students of Science and Arts stream.

**Table 4.2**

t-Test: Two-Sample Assuming Unequal Variances Variable 2(Study environment)		
	<i>SCIENCE</i>	<i>ARTS</i>
Mean	25.08	22.68
Variance	7.66	11.64333333
Observations	25	25
Hypothesized Mean Difference	0	
df	46	
t Stat	2.731272871	
P(T<=t) one-tail	0.004458122	
t Critical one-tail	1.678660414	
P(T<=t) two-tail	0.008916243	
t Critical two-tail	2.012895599	

Calculated value (2.731) is greater than table value (2.012), P value or Alpha value is less than 0.05 so the null hypothesis (HO 2.0) is rejected. It can be

said that there is significant difference between the mean scores of study environment of undergraduate students of Science and Arts stream.

**Table 4.3 T test between the mean scores of boy and girl students**

t-Test: Two-Sample Assuming Unequal Variances Variable 1(Understanding the assignment)		
	<i>FEMALE</i>	<i>MALE</i>
Mean	24.16	22.16
df	46	
t Stat	2.472089052	
P(T<=t) one-tail	0.00859626	
t Critical one-tail	1.678660414	
P(T<=t) two-tail	0.01719252	
t Critical two-tail	2.012895599	

Calculated value (2.472) is greater than table value (2.012), P value or Alpha value is less than 0.05 so the null hypothesis (HO 1.1) is rejected. It can be said that there is significant difference between the

mean scores of understanding the assignment of undergraduate students of Female and Male students.

**Table 4.4**

t-Test: Two-Sample Assuming Unequal Variances Variable 2(Study environment)		
	<i>FEMALE</i>	<i>MALE</i>
Mean	24.44	22.08
Variance	8.756666667	17.24333333
Observations	25	25
Hypothesized Mean Difference	0	
df	43	
t Stat	2.314170395	
P(T<=t) one-tail	0.012751074	
t Critical one-tail	1.681070703	
P(T<=t) two-tail	0.025502148	
t Critical two-tail	2.016692199	

Calculated value (2.314) is greater than table value (2.016), P value or Alpha value is less than 0.05 So the null hypothesis (H<sub>0</sub> 2.1) is rejected. It can be said that there is significant difference between the mean scores of study environment of undergraduate students of Female and Male stream.

### **5.0 Conclusion**

The present study has focused on understanding the assignment and study environment of undergraduate students. The data was collated from students of second, fourth & six semesters respectively. The study reveals that a proper study related behavior of the students will have a positive impact on their performance. Based on the major findings of the study, it can be concluded that a good study habit certainly has an impact on the performance of the students. Most of the students are unaware of the positive impact of study habit. If the study environment is conducive then it will be of great benefit for the students learning. Therefore more emphasis needs to be laid on imparting study skill related training for the students.

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## **Data Evolution: Harnessing the Power of Big Data Analytics to Drive Innovation**

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### **Abstract:**

Organisations today must deal with a volume, pace, and variety of data that is unprecedented. This has brought about the growth of big data and the requirement for efficient data analytics approaches to get insightful information. In order to handle current difficulties and take advantage of opportunities across multiple disciplines, this research paper examines the importance of big data and data analytics. It examines how big data analytics might be used to improve operational effectiveness, decision-making processes, and consumer experiences. This study also looks at the procedures and equipment used to gather, store, analyse, and analyse big data. The paper shows the advantages, drawbacks, and ethical issues related to big data and data analytics through an extensive assessment of the literature that has already been written and case studies. Additionally, it covers how big data analytics will affect data governance, security, and privacy. This study seeks to provide light on the transformative potential of big data and data analytics in influencing company strategies and fostering innovation. To do so, it examines existing trends and future prospects. The study's findings help us grasp the potential and problems that big data presents, and they also lay the groundwork for future studies in this quickly developing area

**Keywords:** -Data security, Data privacy, Data analytics, Volume, velocity and variety of data, Consumer experiences.

### **Introduction:**

Organisations in many areas are confronted with an excessive amount of data in today's data-driven society. This data influx, also known as big data, is distinguished by its volume, velocity, and variety. For organisations looking to gather insightful information, make wise decisions, and maintain competitiveness in their respective industries, the capacity to efficiently harness and analyse this data has emerged as a crucial component. This prompted the development and quick expansion of data analytics as a potent tool for removing valuable information from complicated datasets.

The term "data analytics" refers to a broad range of methods and techniques for analysing and interpreting data in order to find patterns, trends, and correlations. Data analytics gives businesses the tools to glean insightful information and make defensible judgements by utilising cutting-edge algorithms, statistical models, and machine learning. Data analytics has the ability to completely change how businesses function and interact in the contemporary digital landscape, from maximising operational efficiency to boosting consumer experiences.

The application of data analytics spans a wide range of industries, including supply chain

management, healthcare, marketing, and finance. Organisations can get a competitive edge by recognising new business opportunities, increasing process efficiency, and comprehending customer behaviour in ways that were previously imagined by utilising big data and utilising sophisticated analytics tools. However, there are difficulties along the way from raw data to useful insights. Due to the sheer amount and complexity of data, a strong infrastructure, scalable storage, and effective processing are all required. To ensure ethical and responsible use of data, concerns relating to data quality, privacy, security, and ethical considerations must also be properly considered. This study intends to examine the value of data and data analytics in the current business environment. It will delve into big data with a specific focus on the approaches, tools, and techniques used in data analytics. This presentation will highlight the advantages, restrictions, and moral issues related to data analytics by evaluating the available research, case studies, and practical applications. The impact of data analytics on decision-making, operational efficiency, and consumer experiences will also be explored. This research intends to offer useful insights into the revolutionary potential of data analytics through a thorough review of the present trends and future prospects in the area.

Organisations can effectively use their data assets to drive innovation, make informed decisions, and stay ahead in today's data-driven world by recognising the opportunities and challenges given by data analytics

### **What Is Big Data?**

Big data refers to extremely large and complex sets of data that traditional data processing methods are unable to handle. Big data is typically characterized by its volume, variety, and velocity. Big data can come from various sources, including social media, sensors, transactional systems, and more. Analysing big data can reveal patterns, insights, and trends that may not be visible using traditional data analysis methods, which can be leveraged to make data-driven decisions and gain a competitive advantage.

### **What Is Data Analytics?**

Data analytics is the process of examining and interpreting large sets of data to identify patterns, correlations, and other insights. It involves using statistical and computational techniques to extract meaning from data and draw conclusions that can inform business decisions, drive innovation, and solve complex problems.

### **Equipment and Procedures for Gathering, Storing, and Analysing Big Data:**

#### **Data Collection Equipment:**

1. Sensors and Internet of Things (IoT) devices: These devices can collect data from various sources such as environmental sensors, wearable devices, and smart devices.
2. Data acquisition systems: These systems are used to collect data from different sources, such as databases, web scraping tools, or data feeds.
3. Data logging devices: These devices capture and store data from physical or digital sources, such as temperature loggers or network traffic loggers.

#### **Data Storage:**

1. Distributed file systems: Technologies like Hadoop Distributed File System (HDFS) provide scalable and fault-tolerant storage for big data.
2. Cloud storage: Services such as Amazon S3, Google Cloud Storage, or Microsoft Azure Blob Storage offer scalable and accessible storage options.
3. Data warehouses: These systems provide structured and organized storage for large volumes of data, often optimized for analytical queries.
4. NoSQL databases: Non-relational databases like MongoDB or Cassandra are suitable for handling unstructured or semi-structured big data.

### **Data Analysis Tools and Procedures:**

1. Apache Hadoop: An open-source framework that enables distributed processing of large datasets across clusters of computers.
2. Apache Spark: A fast and flexible data processing engine that supports real-time streaming, machine learning, and graph processing.
3. Data mining algorithms: Techniques like clustering, classification, and association rule mining are applied to extract patterns and insights from data.
4. Machine learning algorithms: These algorithms can be used to develop predictive models, perform anomaly detection, or automate decision-making processes.
5. Data visualization tools: Software such as Tableau, Power BI, or matplotlib helps in presenting data in a visually appealing and understandable manner.
6. Statistical analysis software: Tools like R or Python libraries (e.g., pandas, NumPy) offer powerful capabilities for statistical analysis and data manipulation.

### **Importance Of Big Data And Data Analytics:**

#### **Importance of big data:**

Big data is the term used to describe large, complex data sets that require advanced analytical techniques to process and interpret. The importance of big data lies in its ability to provide valuable insights and intelligence that can be used to improve decision-making, drive innovation, and optimize business processes.

#### **Some of the key benefits of big data include:**

**Improved decision-making:** By analysing large data sets, organizations can make more informed decisions based on factual evidence rather than intuition or guesswork.

**Increased efficiency:** Big data analysis can identify inefficiencies and bottlenecks in business processes, allowing organizations to optimize their operations and reduce costs.

**Better customer insights:** By analysing customer data, organizations can gain a deeper understanding of their customer's behaviour, preferences, and needs, allowing them to improve their products and services.

**Enhanced innovation:** Big data analysis can uncover new trends, patterns, and opportunities, leading to the development of new products, services, and business models.

**Competitive advantage:** Organizations that effectively leverage big data can gain a competitive advantage over their rivals by making better decisions, improving efficiency, and delivering superior customer experiences.

Overall, the importance of big data lies in its ability to provide organizations with the insights and

intelligence they need to stay competitive in today's rapidly evolving business landscape.

### **Importance Of Big Data And Data Analytics On Business:**

Data analytics plays a critical role in today's business world. With the explosive growth of data and the increasing importance of data-driven decision-making, businesses need to leverage data analytics to stay competitive and succeed in their respective industries.

#### **Data analytics helps businesses in several ways:**

1. **Improving operational efficiency:** By analysing data on key business processes and operations, businesses can identify inefficiencies and bottlenecks and take action to optimize their operations.
2. **Enhancing customer experience:** By analysing customer data, such as purchase history and customer feedback, businesses can gain insights into customer behaviour and preferences and use this information to personalize their offerings and improve the customer experience.
3. **Enabling better decision-making:** By analysing data from multiple sources, businesses can gain a comprehensive understanding of their operations, customers, and market trends, which can inform better decision-making.
4. **Identifying new business opportunities:** By analysing data on market trends, customer needs, and competitor activities, businesses can identify new business opportunities and develop strategies to capitalize on them.

#### **Conclusion:**

In conclusion, big data and data analytics are more important in today's organisations due to the rapid increase and rising complexity of data. For organisations to effectively handle current issues and grasp opportunities across numerous disciplines, the capacity to efficiently collect, store, analyse, and extrapolate insights from vast volumes of data has become essential.

1. The importance of big data and data analytics in enhancing operational effectiveness, decision-making procedures, and consumer experiences has been examined in this study article. The use of big data analytics has demonstrated enormous potential for changing a variety of organisational aspects, from process optimisation to gaining deeper understanding of customer behaviour and preferences.
2. We have also analysed the techniques and equipment utilised to obtain, store, and analyse large data. Technology tools like sensor networks, online scraping, surveys, and social media monitoring make it possible for businesses to gather a wide range of data from several sources. Additionally, scalable and effective storage solutions for managing big

data are offered by traditional and NoSQL databases, distributed file systems, and data lakes.

3. Big data analytics have many advantages, but it's crucial to be aware of their constraints and ethical implications as well. Organisations must handle issues with data governance, security, and privacy when they use data analytics to acquire insights. To make sure that sensitive data is handled and protected properly, ethical standards and responsible practises should be put into place.
4. We have shed light on the transformative potential of big data and data analytics in influencing business strategies and encouraging innovation by reviewing the current literature and case studies. The results of this study lay a framework for comprehending the possible advantages and difficulties presented by big data. They also lay the groundwork for additional research in this quickly developing area.
5. To sum up, big data and data analytics are now crucial tools for businesses looking to prosper in the data-driven era. Organisations may make wise decisions, unearth insightful information, and gain a competitive edge in today's changing business environment by utilising the potential of big data and putting smart data analytics methodologies into practise. Big data and data analytics will continue to have a revolutionary effect on organisations across all industries, and further study and inquiry in this area will open the door for more innovation and development.

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## **A Study on Healthcare Access and Utilization with special reference to Textile Women Workers in Coimbatore District of Tamil Nadu**

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### **Abstract**

Sound health is a primary requirement for living a socially and economically productive life. Poor health inflicts great hardships on households, including debilitation, substantial monetary expenditures, and loss of labour and sometimes deceases. Health care seeking behaviour is influenced by a variety of socio-economic variables, including sex, age, the social status of women, the type of illness, access to services and perceived quality of the service etc. The present study would be useful for estimating the demand for health care services in future. The number of people, affected by various diseases, is on the increase. It would bring out the availability and adequacy of health facilities in the study area. The present study is based on primary data. The study area is Coimbatore City. The data collected from the sample of 150 respondents by using simple random sampling method. The data was collected from five textile units. The collected data were analyzed with the help of SPSS/windows version 20.0. To conclude that the study establishes that in this age of inflation and higher costs of treatment, subsidized public health care services are extremely critical for achieving the objective of universal healthcare. Policy makers must make efforts to ensure that budgetary allocations might be sufficient as per the need. Considering the current lack of access to quality, rational and affordable healthcare for the majority of the urban poor and organised sector workers the universal health coverage in India is an urgent necessity.

**Keywords:** Healthcare Access, Utilization of Healthcare Services and Textile Women Workers.

### **Introduction**

Sound health is a primary requirement for living a socially and economically productive life. Poor health inflicts great hardships on households, including debilitation, substantial monetary expenditures, and loss of labour and sometimes deceases. Access to healthcare services may be a multidimensional course of action involving the standard of care, geographical accessibility, and availability of the exact sort of care for those in requirement, financial accessibility, and satisfactoriness of service. Health care seeking behavior is influenced by a variety of socio-economic variables, including sex, age, the social status of women, the type of illness, access to services and perceived quality of the service etc. Health care seeking behavior has been found to be associated with type of illness and gender of ill-person, income group and area of residence. The number of people, affected by various diseases, is on the increase. It would bring out the availability and adequacy of health facilities in the study area. The life style, food habit, the study of the people's perception of health care services would indicate the line of improvement to be made in the health care services in future.

Access to healthcare may be defined access as the timely use of personal health services to achieve the best possible health outcomes. The residents should be able to conveniently and confidently access services such as primary care,

dental care, behavioral health, emergency care, and public health services.

### **Statement Of The Problem**

Health is an important determinant of economic and social development because ill health creates vicious circle by depleting human energy, leading to low productivity and earning capacity; deteriorating quality and quantity of consumption and standard of living. Therefore, a developing nation like India, where medical and health services have yet to cover the rural and urban poor. Health care, is a right of every individual, has been recognized in many countries. It has also been declared that the attainment of the highest possible level of health is the most important worldwide social goal. Health of the people is really the foundation upon which all their happiness and well – being depends. Health is not only the starting point of all welfare but also a significant yardstick to measure the progress of a country. Health care seeking behaviour is influenced by a variety of socio-economic variables, including sex, age, the social status of women, the type of illness, access to services and perceived quality of the service etc. The present study would be useful for estimating the demand for health care services in future.

### **Objectives Of The Study**

1. To analyse the socio economic status of the respondents.
2. To study the choice of health care services of the respondents.



3. To find the availability and adequacy of healthcare facilities.
4. To examine the respondents perception to improve the health care services in the study area.

### **Scope Of The Study**

The growth of population, health awareness among the people and the growing diseases has triggered the demand for health care services, which, in turn stains the overburdened health infrastructure both in rural and urban areas. For better health attainment, the health care services, and which would go a long way in removing, bottlenecks in the way of better performance. The results of the study will be useful in the field of human resources development as health is an important factor of human resources. The household choice of health care service is significant. Therefore the present study will highlight the relative influence of variables determining the choice for the future development of health care services in the study area. The present study would be useful for estimating the demand for health care services in future. The study will also be much useful to the Government, health administration and planners. The students of health economics would find this study useful, as it would add it to their knowledge.

### **Hypothesis**

1. There is no relationship between age and utilization of healthcare services.
2. There is no association between education and utilization of health services

### **Review of literature**

**GulnawazUsmani and Nighat Ahmad (2018)** in their study on "Health status in India: A Study of Urban slum and non-slum population" which seeks to examine the large disparities within the urban population in health-related indicators from India and in some of its selected states. It shows the disparities for child and maternal health. The study also shows that the poor performance in some health-related indicators in slum and non-slum population. It was found that there is an urgent demand to focus on the urban health, with the given pace of urbanization, the increasing number of urban slum with little access to healthcare facilities to cater to the essential living needs of urban population.

**Oladipo et al.(2014)** in their study on "utilization of health care services in rural and urban areas: a determinant factor in planning and managing health care delivery systems" reveals that the relative importance of the various predisposing, enabling, need and health services factors on utilization of health services, similarity between rural and urban areas. A four-stage model of service utilization was constructed with 31 variables under appropriate model components. Data is collected

using cross-sectional sample survey. The 4-stage model is validated for the aggregate data and data for the rural areas with 3-stage model for urban areas. The order of importance of the factors is need, enabling, predisposing and health services. It was concluded that the planning of different categories of health care facilities in different locations should be based on utilization rates while proper management of established facilities should aim to improve health seeking behavior of people.

**Mitchell et al (2011)** in their work on "Health care utilization in rural Andhra Pradesh" found that health insurance might lower the financial burden of the poorest citizens of Andhra Pradesh. Around 40 per cent of low income residents both from rural and urban do not care due to their financial inability. India is spending just one per cent of the GDP on health care financing. Around 40 per cent of individuals borrow money or selling assets to pay the hospital expenses. Cost of hospitalization in India has been estimated to reach almost 60 per cent of individual's total annual expenditure.

### **Methodology**

The research methodology adopted for the present study related to the choice of the area, selection of the sample, sampling procedure, collection of data and tools of analysis are presented below.

### **Research Design**

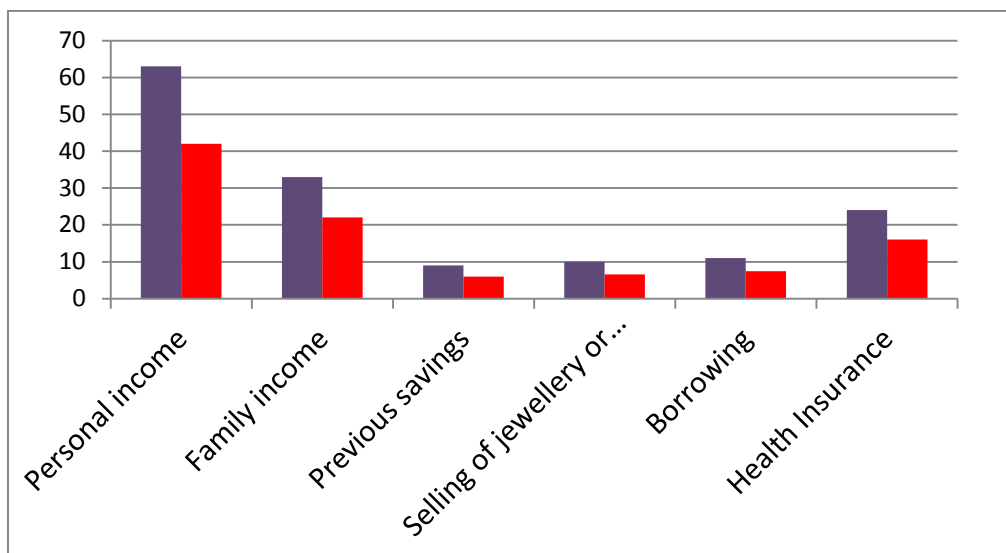
Descriptive as well as exploratory research designs are made use to carry out this study. While most of the health related issues faced by the respondents have been discussed in explanatory form, the analysis of data is mostly logical and systematic in nature. The present study is based on primary data. The population of the study is Coimbatore City. The data was collected from the sample of 150 respondents by using simple random sampling method. The data was collected from five textile units such as laxmi mills, Karappan mills, SN mills, Jayam&Co, Mangai silks to elicit information from the respondents on various health related issues faced. The data was collected through a well-designed questioner. The field investigation and data collection for this study were carried out during the period of January 2023- March 2023.

### **Analysis of Data**

The data collected were analyzed with the help of SPSS/windows version 20.0. Exported data were checked randomly against original completed interview schedule. Errors were detected and necessary corrections were made accordingly after exporting the data. The following statistical tools were used for drawing inferences and testing the hypothesis.

1. Percentage
2. Chi-square
3. Garret Ranking

### Analysis And Interpretation Source Of Spending On Health



#### Chi-square Tests

In order to find out whether there is any correlation between the age and utilization of healthcare services of the respondents, chi-square test has been applied. The results of the chi-square test are given below.

#### Null Hypothesis

H<sub>0</sub>: There is no relationship between age and utilization of healthcare services.

#### Alternative Hypothesis

H<sub>1</sub>: There is a relationship between age and utilization of healthcare services.

Chi-Square Tests	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.244 <sup>a</sup>	4	.083
N of Valid Cases	150		
2 cells (20.0%) have expected count less than 5. The minimum expected count is 2.89.			

As the calculated value of chi-square is greater than the table value at 5 percent level of significance the hypothesis is rejected.

**There is a significant relationship between age and utilization of health care services.**

So it can be inferred that as there is increase in age, the utilization of health care services are also increases.

#### Garret Ranking

Facility Available at Hospital	Mean Score	Average Score	Rank
Visitors Time	6767	41.11	V
Diagnostic Test	6900	46.00	IV
Doctors Approach	6957	46.38	III
Payment for Service	7095	47.30	II
Ease of Getting Care	7363	49.08	I
Clean Ward	5983	39.88	VIII
Clean Toilet	6668	44.45	VII
Availability of Bed	6567	43.78	VI

The above table shows that the facilities available at hospitals. ease of getting care facility scored the highest mean score and stood at first followed by payment for service availed at hospitals stood at second, doctors approach at hospitals stood at third, diagnostic test in the laboratories stood at fourth, visitors time at the hospitals stood at fifth, availability of bed in the hospitals stood at sixth and toilet facilities in the hospitals stood at seventh, finally clean ward secured least mean score and stood at last. Thus it is found that the ease of getting care is high.

### **Conclusion**

The study establishes that in this age of inflation and higher costs of treatment, subsidized public health care services are extremely critical for achieving the objective of universal healthcare. Policy makers must make efforts to ensure that budgetary allocations might be sufficient as per the need. Considering the current lack of access to quality, rational and affordable healthcare for the majority of the urban poor and organised sector workers the universal health coverage in India is an urgent necessity. Additional strategies are also likely to be necessary to fully address the particular barriers to accessing care that disadvantaged and marginalized groups face. The peoples' Right to Health in India which is the fundamental right that can be eventually achieved only by strengthening health services and addressing the social determinants of health, including food security and nutrition, water supply, sanitation and living conditions.

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## **Academic Procrastination: Causes and Solution**

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### **Introduction**

Procrastination comes from the Latin “pro,” which means forward, and “crastinus,” which means of tomorrow. It is a tendency to put off, avoid or delay activities. It has also been characterized as “delaying task completion to the point of experiencing subjective discomfort”, an “intentional delay of an intended course of action” or as a stable personality trait with negative consequences. There seems to be agreement on procrastination as consistently delaying behaviors regardless of consequences.

Research has suggested, however, that procrastination is extremely common among college students. Moreover, due to the wide availability of students in a college setting, research on academic procrastination can be more easily studied. It should be noted that academic procrastination is a unique outlet for procrastination. People procrastinate on a wide variety of activities and in a wide variety of circumstances, whether it is putting off completing a project, grading papers, or leaving for a meeting. Nevertheless, unique outlets of procrastination, such as in academics, can exist where individuals tend to delay activities in certain areas. Unique outlets of procrastination have been of interest to researchers concerned in narrowing the behavioral and dependent outcomes of procrastination.

### **Academic Procrastination**

Academic procrastination is the tendency to put off or delay school-related activities and behaviors. Academic procrastination occurs with students of all ages, whether those students are attending grade school or pursuing some type of educational attainment or degree.

Specific outlets of procrastination can be more easily studied, as well. Moreover, although it does appear that individuals have a tendency towards procrastinating or not, which in turn affects the likelihood of demonstrating procrastinator behaviors in these specific outlets, other factors can come into play which weaken this relationship. For example, individuals who do not typically procrastinate in their everyday lives may procrastinate in their academic endeavors because of a lack of understanding of the complexities of meeting numerous deadlines, inadequate beliefs regarding studying habits or because of a false belief that their high abilities allow them to do so.

Procrastination among undergraduate students in college is more common and some studies have even found that over 70% of university students admit that they procrastinate regularly. Academic procrastination occurs when students needlessly delay completing activities, projects or assignments. Such procrastination can place undue stress or anxiety upon individuals as they hasten to meet deadlines and complete assignments. Putting things off can not only affect ones psychological well-being, but can also affect ones relationship with others. As individuals fail to meet deadlines and commitments, relationships become strained. However, research is somewhat mixed on the effects of procrastination. For example, Schraw et al. (2007) argue that procrastination might have a

useful adaptive advantage that allows students to garner better use of available study time. However, other studies have established that procrastination corresponds to less success in life. The concentration of this research, like most others, is on the negative form of procrastination. Colleges have become overly reliant on predictors of academic success such as scores on the Scholastic Aptitude Test (SAT) to the point where scores on the SAT are used in extremely important selection decisions.

However, studies have shown that “procrastination is capable of accounting for variance in college grades beyond what is explainable by the SAT” (Wesley, 1994). Therefore, procrastination can possibly be distinguished as a particularly vital predictor of success in college. As a result, a valid and reliable scale of academic procrastination could be quite profitable and of great importance to colleges and universities. Such a scale can prove valuable in remediating students. Those students who exhibit higher levels of academic procrastinator tendencies could be given lessons in studying effectively and keeping deadlines and goals. If identified early enough, students can be given the right tools for overcoming procrastination and succeeding in college. Regardless of the effects of procrastination, there appears to be numerous conceptualizations and components of academic procrastination. However, several dimensions or facets of academic procrastination have been identified through past literature. Identifying those possible dimensions of academic procrastination, therefore, is one step towards the creation of a valid and reliable scale. Academic procrastination linked with perfectionism. Perfectionism depends upon some factors like:

1. Self Imposition of rather high standards.

2. Critical assessment of one's behaviors and performance.
3. Adopting all or none principle.
4. Sale focuses on either failure or success.
5. External sources beyond internal ability.

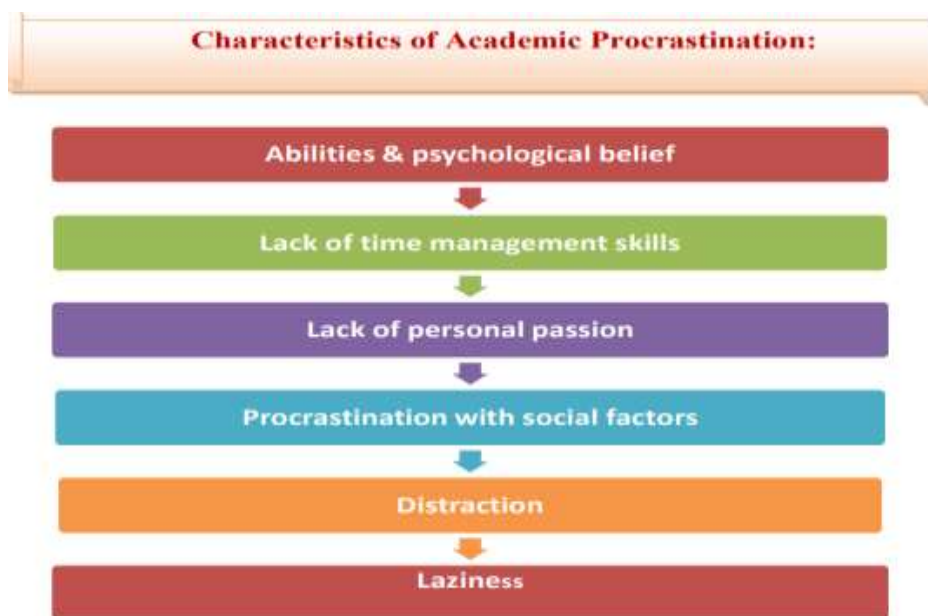
#### **Why do people procrastinate?**

1. People procrastinate as the task they perform is unpleasant or irresistible to them. When the in hand is unpleasant, then we become reluctant to complete it or to start it. Some time we feel fear of the future. We are comfortable in our own present day. The things may be unpleasant or we may encounter some unpleasant events while doing a task. That fear also promotes procrastination.
2. Fear of the unknown what's going to happen or what you are going to encounter when talking on a particular task. Fear of change people tends to 21 resist changes. Some people are set in their ways and don't want to change their life style. They will do only those things which fascinate them and make them feel more excited and thrilled.
3. Set feasible goals extend an intimate link amid assignment actual significant goals.
4. Evaluate their own goal, strengths, weaknesses and priorities.

5. Modify their environment for that newly gained perspective.
6. Restructure activities of daily life.
7. Discipline their self to the priority them position
8. Academic procrastination is a phenomenon where students unnecessarily postpone academic assignments, like studying for a test or working on a school project. This is a common problem, which can lead to issues like worse academic outcomes and increased stress. An example of academic procrastination is a student who has a week to study for an exam, but ends up postponing their studying unnecessarily until the night before, even though they want to get started. Another example of academic procrastination is a student who delays working on an important project for an entire semester, until right before it's due. An undergraduate student who puts off studying for a test by doing unimportant chores, such as cleaning their room or baking snacks.

#### **Characteristics of Academic Procrastination**

The six characteristics of academic procrastination are psychological beliefs about abilities, distractions, social factors, time management, personal initiative and laziness. Each will be discussed briefly.



**Figure 1: Characteristics of Academic Procrastination**

#### **1. Psychological Belief about Abilities**

Although other studies have failed to validate the four-factor approach to active academic procrastination, studies have found that procrastinators tend to rationalize their tendencies to put things off and their ability to work under pressure. Therefore, one aspect of procrastination involves psychological beliefs about the ability to

work under pressure. This has been defined in similar studies as sensation-seeking. In other words, academic procrastinators seek, either actively or passively, to work under pressure. Those who procrastinate have an undeniable belief in their ability to work under pressure. In fact, this belief in ability might have some basis in other psychological research.

## **2. Distractions of Attention**

One reason students tend to distract themselves with other things instead of deadlines and schoolwork stems from the fact that, typically, tasks such as projects and assignments are aversive to students. Distracting oneself from responsibilities also gives “an out” if one fails at that task. For example, if a student has an extremely difficult test or project due and is afraid of failing, he or she can protect self-worth or self-esteem by giving an outside excuse or external distracter for failing. Thus, the student instead distracts him or herself with another activity, blaming failure on said activity. Therefore, a unique characteristic of procrastinators is that they tend to immerse themselves in distractions.

## **3. Social Factors of Procrastination**

Social factors, such as friends or family could keep one from keeping timelines or deadlines. This task aversion to school work was recognized by Brownlow and Reasinger (2000) as one of the major reasons procrastinators put off school work. Social factors can promote task aversiveness or task avoidance, both of which are dimensions of procrastination mentioned. Traditional college students are those in their early adulthood and late adolescence, aged 18-23 years of age. Such an age is characterized by social adjustment and independence. Students attempt to juggle and schedule time with family, friends and work. Add a newfound sense of independence and autonomy to this struggle and college students can turn away from school work and deadlines and choose instead to work or socialize with friends. Therefore, social factors are indicative and promotive of procrastination.

## **4. Time Management Skills**

Time management can be defined as having an ability to consciously control activities and behaviors so as to maximize ones available time. Procrastinators tend to have an inability to manage their time and experience a wide discrepancy between their actual intent and their realized behaviors. Difficulty in managing ones time was discovered in previous studies as a reason why students academically procrastinate. Time management skills are not an inherent trait, but a learned characteristic within individuals. Time management is “a critical contributor to procrastination in academic settings”. To succeed in an academic environment, students must show up on time to classes and keep deadlines. They must also complete assignments and tests by predetermined dates.

## **5. Personal Initiative**

Personal initiative is most synonymous to internal motivation. Therefore, it is proposed that those students who possess personal initiative and the intrinsic drive for completing their academic work

procrastinate to a lesser extent. Fear of failure, as well, could be a potential reason behind some forms of procrastination. Academic procrastinators might be prone to not carrying out tasks for fear of failing at that task. Thus, fear of failing could quite possibly be one of the reasons why students procrastinate. Students might lack initiative and have an absence of motivation and enthusiasm to complete school work because they fear failing at those tasks. Thus an academic procrastination scale must assess a student’s personal initiative.

## **6. Laziness**

Laziness is a tendency to avoid work even when physically able. Aversiveness and laziness were factors that accounted for 18% of the variance in reasons for students’ procrastination according to Solomon and Rothblum. If students are physically avoiding school work, they are merely putting off all of this work until the end of the semester. Thus, they are exhibiting a degree of laziness and task aversiveness. According to a recent theoretical study on procrastination, up to 40% of students stated that they would drop a college course if the professor expected too much of students or was too inflexible on due dates or deadlines. Thus, academic procrastination might involve the tendency to avoid a great deal of school work, or laziness.

## **Prevalence of Academic Procrastination**

Academic procrastination is common among students, as a large portion of them procrastinate often and to a significant degree. For example, when it comes to college students, studies show that approximately 80%–95% of college students engage in procrastination to some degree, approximately 75% consider themselves to be procrastinators, and approximately 50% say that they procrastinate in a consistent and problematic manner. Furthermore, additional studies have found procrastination in various other student populations, including those in elementary school, middle school, high school, and graduate school. In fact, procrastination is so common among students that the tendency to procrastinate on tasks until right before they are due is sometimes referred to as the student syndrome. The prevalence of academic procrastination varies based on the task involved.

## **Dangers of Academic Procrastination**

Academic procrastination is associated with various negative effects, such as worse academic performance, worse emotional wellbeing, and worse mental and physical health. Accordingly, academic procrastination is often detrimental to those who engage in it.

Specifically, the following are the key issues that are associated with academic procrastination:

1. Worse academic performance. For example, procrastination is associated with a wide range of academic issues, like lower quality work,

worse exam scores, worse grades, increased academic misconduct and dishonesty,

2. Worse emotional wellbeing. For example, procrastination can lead to various negative emotions, like guilt, shame, and sadness.
3. Worse mental and physical health. For example, procrastination can lead to various mental health issues, like stress, as well as physical health issues, like lack of sleep and exhaustion.

Many of these issues are interrelated. For example, when academic procrastination leads to increased negative emotions, it can also lead to increased stress at the same time. Similarly, when academic procrastination leads to increased stress, this can, in turn, lead to issues such as exhaustion, which increases the likelihood that people will procrastinate on academic tasks, and consequently suffer from worse academic performance. In addition, the tendency to engage in procrastination is associated with a variety of issues from a career perspective, including lower salaries, shorter periods of employment, and a higher likelihood of unemployment. This can affect students who are employed while engaging in academic studies, as well as students who enter the job market after graduation.

This behavior is sometimes called “academic procrastination”. However, this term is mainly used to refer to student procrastination. Procrastination by teachers and other academics is usually more accurately categorized as a form workplace procrastination, or as a more specific form of it, like teacher procrastination and professor procrastination.

### **Causes of Academic Procrastination**

Academic procrastination occurs when issues like anxiety and perfectionism outweigh students’ self-control and motivation. That’s why students often postpone academic tasks even when they want to get them done, and why they often only manage to start shortly before the deadline, when the increasing pressure finally pushes them to do their work.

Accordingly, there are various common internal and external causes of academic procrastination.

### **Internal causes of academic procrastination include the following:**

1. Anxiety, for example when it comes to being anxious about studying in general. Fear of failure, for example when it comes to worrying about failing an upcoming exam.
2. Perfectionism, for example when it comes to wanting to write an essay draft without any flaws.
3. Task aversion, for example when it comes to wanting to avoid dealing with a homework assignment that’s perceived as boring.

4. Sensation seeking, for example when it comes to finding assignments more exciting to work on assignments when there’s intense time pressure.
5. Feeling overwhelmed, for example when it comes to being unsure about how to handle a large research project.
6. Physical or mental exhaustion, for example when it comes to being tired due to a demanding academic workload.
7. Lack of study or organizational skills, for example when it comes to not knowing how to set an effective study schedule.
8. Many of these issues can be attributed to negative past experiences. For example, if someone does badly in a number of course assignments, they might feel anxious when it comes to future assignments or exams in that course, which can cause them to procrastinate. However, this isn’t always the case, and lack of experience can also cause procrastination, for instance when it leads to low self-confidence. Finally, certain underlying issues can also lead to or exacerbate academic procrastination.. Similarly, issues such as low self-esteem or low self-efficacy may also lead to increased academic procrastination in some cases.

### **External Causes Of Academic Procrastination Include The Following:**

1. Poor study environment, for example because this environment is overly loud or filled with distractions.
2. Unpleasant assignments, for example because an assignment requires students to use only a limited range of skills, which makes students more likely to perceive it as boring, and consequently more likely to be averse to it.
3. Lack of clear directions or expectations, for example because the explanation of how a paper will be graded is incomplete, vague, or ambiguous.
4. Lack of clear due dates, for example in terms of when the first draft of an essay should be submitted.
5. Lack of communication, for example in the case of an instructor not responding to a student’s requests for clarification.
6. The instructor being too lax, for example by never enforcing any deadlines in their course.
7. The instructor being too harsh, for example by providing unnecessarily unpleasant feedback on assignments.
8. External issues can sometimes lead to or exacerbate internal ones. For example, an instructor being too harsh can lead to fear of failure in a student who wouldn’t have it otherwise, or it can increase anxiety in an already anxious student.



## **Solutions to Academic Procrastination**

Academic procrastination can be reduced by analyzing the situation, in terms of factors such as the number of students involved and the causes of their procrastination, and then implementing an appropriate solution, which consists of interventions such as intermediate deadlines, automated reminders, and self-regulation training. The subsections below contain more information on the topic. Specifically, they first outline the general types of approaches that can be used to deal with academic procrastination, and then provide examples of specific interventions and techniques that can be used as part of these approaches.

### **General Approaches**

There are three main types of approaches for dealing with academic procrastination:

**Student-led approach** This involves students taking most of the responsibility for reducing their academic procrastination, with little to no external guidance. External guidance in this case might include something as minimal as a lecturer mentioning the problem of procrastination and giving students a link to a relevant guide on the topic.

**Externally led approach** This involves stakeholders, such as educators or administrators, using relevant anti-procrastination techniques to reduce students' procrastination, without directly discussing the issue of procrastination with the students. For example, this can involve an instructor setting a series of intermediate deadlines for all students in their course.

**Joint approach** This involves using both external guidance and having students take an active role in their attempts to stop procrastinating. For example, this can involve going over relevant anti-procrastination techniques with students, and helping them choose and implement their preferred ones.

None of these approaches is inherently superior to the others. Accordingly, the optimal approach in a given situation should be selected based on relevant considerations, such as effectiveness, cost, and practicality. For example, it's important to take into account the number of students that you're trying to help, since an approach that's practical when it comes to helping a single student might not be practical if you're trying to help dozens of students.

In this regard, an important factor to consider is how independent the students in question are. The more autonomy they display, the more they should generally be involved in the process of overcoming their procrastination, since this can increase their motivation and make the process more effective, while also contributing to their long-term personal growth.

“Approaches in decreasing academic procrastination found in the literature can essentially be categorized into three groups; 1. Therapeutic treatment, 2. Therapeutic prevention and 3. Instructor/teacher intervention. The first two approaches are similar in that they employ therapeutic interventions to decrease procrastination. The third approach attempts to recruit the instructor of the course to provide no therapeutic methods of decreasing procrastination tendencies among student participants.”

As such, from both a theoretical and practical perspective, if you find that you need to categorize the different types of approaches, you can do so based on the criteria that are most relevant and helpful in your particular circumstances.

### **Specific Techniques**

Various techniques and interventions have been shown to help reduce academic procrastination. This includes, for example, teaching students motivation-regulation strategies and time management skills, or having them undergo interventions rooted in acceptance-based behavioral therapy or cognitive behavioral therapy. This also includes various educational interventions, such as regular quizzes that motivate students to study continuously rather than wait until right before final exams, automated reminders to complete assignments, and personal communication with the instructor to build a plan for avoiding late assignments. In general, it is best if the chosen anti-procrastination techniques and interventions are tailored to the specific needs of the students. However, this isn't always possible in practice, from a practical perspective; the following are general things that you can do to reduce academic procrastination:

1. Explain to students what procrastination is and what it looks like, and help them identify when they engage in it themselves. Show students why procrastination can be dangerous, when it comes to factors such as their academic performance, their career prospects, and their health.
2. Explain to students what causes procrastination, and help them identify the causes of their own procrastination. Tell students about relevant anti-procrastination techniques, some of which are listed below, Implement anti-procrastination techniques on behalf of the students, for example by breaking apart large tasks into small manageable steps. In addition, the following are some specific anti-procrastination techniques that you can use to reduce academic procrastination:
  1. Give clear directions. From the students' perspective, they can set clear goals for themselves by doing things such as deciding



where, when, and how long they plan to work on the paper.

2. Incentivize and reward progress. From the students' perspective, this can involve gamifying the studying process, for example by marking down streaks of days on which they successfully managed to achieve their study goals.
3. Find ways to make studying more enjoyable.
4. Give permission to make mistakes. Identify and resolve fear and anxieties. Figure out what students are afraid of, and resolve those fears.
5. Promote self-compassion. Self-compassion can help reduce procrastination, as well as various issues that are associated with it, such as stress.
6. Promote self-efficacy. Self-efficacy is the belief in your ability to perform the actions needed to achieve your goals, and it can help reduce procrastination.
7. Finally, there are two other important things to keep in mind when it comes to handling academic procrastination. First, most procrastinators need more than one technique in order to overcome their procrastination. Second, different techniques work better for different students in different circumstances, so just because a certain technique works well for some students, doesn't mean that it will work well for others.

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## Growth of Feminism in Indian English Fiction: Major Nuances

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### Abstract

Men in India always had a privileged position in Indian society. They are the torch bearers of the patriarchal system existing in Indian society. They have been in an advantageous position in gaining upper hand over women in almost all matters. Broadly speaking there are three phases in the growth of feminism in India, British Period, Freedom Movement and Post Independence. “Real talk “ about Feminism in India can be attributed to the decades of the 1970s. Feminism, female power, women rights and such terms started to have gravity and seriousness of its own. Men started to hear distinct feeble voices of protest and assertion. This led to significant changes in law and regulations. Indian English writers like Kamla Das, Shashi Deshpande, Ruth Jhabwala, Anita Desai, Kamla Markandeya, Shobha De and many more have often explored what it is like to be a woman in Indian society. Even male writers like RK Narayan, Mulk Raj Anand, Salman Rushdie have rejected the male hegemony and have discussed women rights. Indian English writers have done monumental work to vent the voice of downtrodden women in Indian society. Though contributing almost half a population, Indian women have been exploited to the core.

### Keywords – Feminism, Woman, Society, Patriarchal

*“Remember, all men would be tyrants if they could. If particular care and attention is not paid to the ladies, we are determined to foment a rebellion, and will not hold ourselves bound by any laws in which we have no voice or representation.”*

- Abigail Adams, 1776

### Introduction

Men in India always had a privileged position in Indian society. They are so called the ‘torch bearers’ of the patriarchal system existing in Indian society. They have been in an advantageous position in gaining upper hand over women in almost all matters. Women are exploited sexually, socially and financially by their male counterparts. Their spirits are crushed to let them become servile and subservient. Feminism in India means providing equal rights to women to their male counterparts. It also means more working opportunities, financial independence, and sexual freedom. It can be summed as rejecting all existing patriarchal notions meant to suppress women.

### Growth of Feminism in India

Broadly speaking there are three phases in the growth of feminism in India. The first stage began in the mid-nineteenth century during British rule. With the endless efforts of social reformists like Raja Ram Mohan Roy, Jyotiba Phule, Savitri Phule and many more reforms for women started to trickle down. The precursor was when male European pioneers started to take a stand in opposition to the social shades of malice of Sati (Gangoli, 2007). The second stage can be attributed from 1915 to Indian independence, when our National leader Mahatma Gandhi joined women's developments into his various freedom movements. He ensured that there was equal participation of women in all protests and often urged men to respect women and advocated

for their education. The third stage, post-independence ushered women rights into new momentum. There was a great urgency for equal treatment of women in the work power and right to political equality. The “real talk “ about Feminism in India can be attributed to the decades of the 1970s. Feminism, female power, women rights and such terms started to have gravity and seriousness of its own. Men started to hear distinct feeble voices of protest and assertion. This led to significant changes in law and regulations. Government started to treat its women voters with more dignity and respect. They brought about welcoming changes in policies, rules and regulations. Journalists started covering news on women atrocities and exploitation. Writers in different languages started writing about the predicament of the women. It was in these times that we witnessed the growth of feminism in Indian English Fiction.

### Major Feminist Writers in Indian English Fiction

Indian English Writers like Kamla Das investigated the common women's problems and dilemma in everyday life. She often talks about the financial independence of women in their empowerment. Das portrays women trapped in their poverty like Rukmani in Nectar in a Sieve and Nalini in A Handful of Rice, whereas in The Golden Honeycomb she talks about economic freedom. Shashi Deshpande portrays pathetic and suppressive

conditions of women both in home and social life. Deshpande focuses on the growth of woman by recognizing the weakness, overcoming them and asserting one's own identity. Bapsi Sidhwa features financial state of Parsi women. Male writers too are visibly revolted by the atrocities on women and the patriarchal system of hegemony. R.K. Narayan is worried about house-spouses of working class families. While, Mulk Raj Anand exposes the socio-religious unreasonability and shallowness existing in Indian society. Anita Desai dissects the minds and thought process of women who are suffering so much in the hands of their men whether as father, husband or brother. The main female characters in *Cry, the Peacock* and *Voices in the city*, Maya and Monisha finally stand up against the atrocities of their husband and assert their position. Another phenomenal feminist writer is Nayantara Sahgal. Sahgal's protagonists are portrayed as women fighting their male oppressors. In her works like *the Day in Shadow* and *Rice Like Us*, protagonists fight for their equal rights. They finally reject the 'male centric' conception of life and society. Thus, Sahgal in her inimitable way shows "maleness" is not important for a woman's survival. Kamla Markandeya ponders about the dilemma of women and her conflicting east – west experiences. Contemporary writer Salman Rushdie often portrays sexual maltreatment of youngsters in social strata. Writers like Shobha De who herself had unconventional lifestyle shatters the myth of "good woman". De explores sexual independence of women in present days. She also caricatures the hegemony of males in every possible way. De often discusses the life of a modern woman, her ambitions and gratification. In *Socialite Evenings*, the protagonist Karuna has a physical relationship with another man and accepts it freely. Similarly in the *Sisters*, the hero Mallika Hiralal is an ambitious woman who does business on her own terms and neither needs male counsel. Similarly, Feminism in English short stories started with the publication of short stories of self by Kamala Sathianandan in the year 1898. Later on Anita Desai in her phenomenal work "Recreations at Twilight and Different Stories" in 1978 muses over her womanhood, self and impending life. Desai often focuses on the fragile relationship between men and women. She urges women to overcome male suppression and vent their voice. According to Deshpande her protagonists are not mere characters but represent Indian womanhood. Writers like Rajeshwari Sunder Rajan, Leela Kasturi, Sharmila Rege and Vidyut Bhagat are some other group of essayists and critics, who have often depicted rights of women and the notion of feminism in Indian English literature. They have rejected "property status" and

objectification of women exposing the hollowness of the Indian patriarchal system.

### **Conclusion**

Indian English writers have done monumental work to vent the voice of downtrodden women in Indian society. Though contributing almost half a population, Indian women have been exploited to the core. It is these dire conditions which Indian English writers have portrayed in their phenomenal works. They have created awareness and consciousness about the plights of women. To conclude it would be apt to quote Beauvoir, "Representation of the world, like the world itself, is the work of men; they describe it from their own point of view, which they confuse with absolute truth."

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## **Women Self Help Groups (WSHGs): A Change Agent for Socio-economic Development in Soreng District, Sikkim, India**

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### **Abstract**

Women Self Help Groups (WSHGs), now become one of the crucial instruments for microfinance in the area/locality so as to use for earning activities and solving common problems. In rural area, microfinance is also considered to be an instrumental tool for financing small scale business activities. The main purpose is to providing the financial support and services to poor people, upgrade of standard of living and empower to the rural women. WSHG can generates income and saving in the rural area. This paper focused into how WSHGs contribution towards the society and development of rural women in Sikkim. The development of rural women in terms of socio-economic development of their family, income, expenditure, saving etc. With the help of amenities provided by the government in order to increase their economic activities for development of society, state and nation also. It also examines the socio-economic status, the changes in the level of income, expenditure and saving before and after joining the WSHGs and the problems faced by the WSHGs' members. Primary data collected from Chakung village under Chumbong-Chakung block of Soreng District of West Sikkim. The sample size is considered for the study is 112 respondents from selected village. The descriptive and inferential statistics has been used for analyzing the data. In this study, frequency table's chart was also used. In order to testing the hypotheses, chi-square and descriptive statistics were used. The findings indicate that demographic and social-economic status of the respondents have indicated positive sign and favourable for the rural development in the study area. Therefore, there is change in economic conditions after joining the WSHGs. The average monthly household income and saving of respondents has increased after joining the WSHGs in the West Sikkim. The key role of WSHG is too self-reliant in the area/locality. So, that they can used their local resources and generating income for their development of society as well as nation also.

**Keywords:** Women Self Help Groups (WSHG), socio-economic status, Saving, Income, Z-test.

### **1. Introduction**

Women Self Help Groups (WSHGs) is one of the important tools for poverty alleviation. WSHG have become more significance for people to work together, solving usual problem. It helps to improve socio-economic status in the village. WSHG is the dynamic platform to the people which self-reliant, self-sufficient, self-production, common responsibility by catalyze local available resource of the person in the group (Gaikwad & Reddy, 2013). In rural area, microfinance is also considered to be an instrumental tool for financing small scale business activities. There should be proper facilities for providing financial services required which is creative supply system and channels. Microfinance system is encouraged by the Government, Nationalized Bank, National Bank for Agricultural and Rural Development (NABARD), Cooperative Banks and various other institutions, so as to reduce the poverty level. The main objective is to providing the financial support and services to poor people, upgrade of standard of living and empower to the rural women (Gadkari, 2015).

As per NABARD, define WSHG is "small, economical homogeneous affinity groups of rural

poor, voluntarily formed to save and mutually contribute to a common fund to be lent to its members as per the group members' decision". In 1991-92, NABARD initiated encouraging and promoting WSHG in a large scale in the country. Beside this Reserve Bank of India (RBI) also take decision regarding allow to saving accounts in their bank for accessing banking services, facilities. This was a great revolution to the WSHGs movement for the rural people who are deprived from such facilities. WSHGs have that capability which helps to combine the rural development and transforms them into desired output such as social, economic, political and technological value (Microfinance and Rural Development, 2009).

In Sikkim, the concept of WSHGs was introduced with the initiative taken by Sikkim Rural Development Agency (SRDA) in 1999. This scheme is centrally sponsored scheme and the financing of the programme which was shared between the Centre and State in the ratio of 75:25. But from 15<sup>th</sup> Sepetember, 2008, the Funding Pattern has been changed i.e., 90:10 vide GOI Letter No.G.20011/02/2008-SGSY-I Dated 18<sup>th</sup> November, 2008 (Annual Report, RDD,

Government of Sikkim, 2008-2009). In order to improve the socio-economic status of the village, WSHG working under the National Rural Livelihood Mission (NRLM) and North East Rural Livelihoods Project (NERLP). The objective of NRLM is to alleviation of poverty among rural Below Poverty Line (BPL) through promotion of varied and beneficial self employment opportunities (Annual Report, 2013-14). WSHG is one of the institutions which is Universal mobilization of BPL households into effective self-managed and self-governed (ibid). NERLP is a World Bank funded project which is to implemented in the states for the alleviation of poverty. The objective of NERLP is to improve rural livelihoods, mainly focused to the women, unemployed youth, and the most disadvantaged section of people in the North Eastern States. They provide economic opportunities, adoption of agricultural sustainability and natural resources management (ibid). At Present, Sikkim State Rural Livelihood Mission (SSRLM) is implemented all six districts. It is observing in-depth process in gradual manner (Annual Report, 2019-20).

In Sikkim, SSRLM under Rural Development Department has been functioning in all the districts of Sikkim. The main purpose of the project is to ameliorate the quality of life of the rural poor families with the help of sustainability of capacity building and motivation of WSHG members. Now, there are more than 5,200 WSHG with 50,000 members in the state. The WSHG are join together into approximately 500 federations at Ward Level, Gram Panchayat Level and Block Level. SSRLM is also helping and promoting 211 producers Groups and 7 Producer Organization operating across the state. They are occupied in various farm and non-farm activities (SRLM Report, 2022).

Chumbong-Chakung is the blocks in the Soreng district of West Sikkim have taken sample study. The study was conducted at Chakung village under Chumbong-Chakung block of Soreng district of West Sikkim. In the village, found that most of the WSHGs have less than nine members group. There is no any age bar to become members in the group. Every member of WSHGs collect Rs.50 to Rs.200 per members for average monthly saving of group. The inter-group loaning practice among the groups which is less costly rates of interest ranging Rs.1 per month for WSHG members and Rs. 5 per month for nonmembers. But earlier, there was a 2/100 per month for WSHG members. The majority of the WSHGs have engaged in activities such as ginger cultivation, poultry activities, piggyery, milching cows, vegetable cultivation, pickle making, tailoring, toy making, knitting, mask making, mushroom cultivation but have faced the marketing

problems for their product. But in Sikkim, the WSHG members takes loan from WSHG fund predominantly for their medical treatment, marriage ceremony, children's education and festival of people (MART Report,2011). There are many financial institutions and bank branches which provide financial support and encourage to WSHGs. SRDA and RDD had organized annual fair and exhibitions in the market where selected WSHGs from various districts of Sikkim showcase of their individual group's products (Mukhia, 2016).

## **2. Review of Related Literature**

**Anand, Saxena, Martinez, & Dang (2020)** have discussed on their article "Can Women's Self-help Groups Contribute to Sustainable Development? Evidence of capability Changes from Northern India" about the SHG members. The findings resulted that the SHG have more potentiality index in several life realms than non-SHG members. SHGs have reduced the poverty and women empowerment which indicates the potentialities of women in various places being self-employed, improvement in standard of living of people and importance of life. It enhanced the social environment so as to bring the development of culture and custom in the society. The study revealed that SHGs have potentialities to work on low or middle income level, gender equality and quality of life. Further, SHGs laid down emphasis towards the micro-finance program, training, health, education and socio-political encouragement.

**Badruddin (2017)** has analysed the self-help groups. In his study, it was found that the participation of women in SHGs made an important role on their empowerment both in social and economic aspects. This study showed the addresses the self-help groups. He observed that the self-help group is a participatory endeavour of women, which they are trying to secure through three adjectives of power, such as social, political and psychological-that would empower them and improve their lives.

**Das (2016)** in his paper titled Role of SHGs in Socioeconomic Change of Rural Women': A Micro Level Study has revealed that the social status and empowerment of respondents' women were increased after joining SHGs. It has also empowered women members largely to increase self-confidence and positive behavioural changes in the post-SHG period. It also showed that there was a significant increase in the amount of saving after joining SHG. The researcher suggested that the SHG members feel free to work with their groups. It leads them to participate on various social welfare activities with good co-operation. The SHG can play vital role to creating a difference in economic conditions, social status, decision making and by increasing women participants in other activities.

**Selvakumar & Samundeeswari (2015)** in their study has emphasized the participation of women in Self Help Groups (SHGs) made a significant impact on their empowerment both in social and economic aspects. This study revealed women empowerment through self-help groups in Krishnagiri district of Tamilnadu. The result of the study found that the SHGs have more impact on economic and social conditions. Further, the study showed that after joining SHG is not just for the credit as it led to an empowerment process both economically and socially.

**Dhakal and Nepal (2016)** have mentioned that they attempted in their study, micro-finance is the services that provide savings, credit services to the rural poor in the community and focussed on uplifting the socio-economic status of women in Nepal. Result revealed that focussed on finding out the contribution of microfinance on socio-economic development of rural community, alleviate the burden of loan for farmers, various social development works, microfinance and to lessen the poverty. It also showed that majority of the respondents 86.9% reported that their living standard had improved. However, their findings suggested that there was a need to standardised internal management system of microfinance which provide the service more efficiently and effectively.

### 3. Rationale of the study

Women plays indispensable role in the society which helps to contribute more to the country. But they are deprived from providing the contribution as they are rural backwardness and other social complications in the society. The study mainly concentrates on socio-economic development through WSHG. The study has been conducted in the sample area with special interest to find out the role and significance of WSHG towards socio-economic development in the area. So, the research work is based on WSHGs: A change agent for socio-economic development and economic position of women, the way in which they are empowered and to identify the challenges they encountered.

### 4. Research Questions

1. What is the socio-economic status of WSHGs ?
2. What is the problem faced by WSHG member ?

### 5. Objectives of the Study

1. To study the socio-economic status of WSHGs in the study areas.
2. To identify the problems faced by the WSHGs' members.

### 6. Research Hypothesis

The research hypothesis are as follows: -

- H<sub>1</sub>: There is significant change in the economic status after joining WSHGs.

### 7. Methodology

The study was conducted at Chakung village under Chumbong-Chakung block of Soreng District of West Sikkim. The sample size is considered for the study is 20 WSHGs consisting 112 respondents from selected village. In this present study, 20 WSHGs were selected on random basis taking 6 members from each group in which total 120 members as a respondent but 8 respondents have not responded questionnaire. A simple random sampling technique was used. The questionnaire was prepared for both WSHGs leaders and members for different villages and interview schedules has prepared.

The study is exploratory in nature and both primary and secondary data has been used in the present study. The primary data for this study is collected from 1<sup>st</sup> December, 2022 to 31<sup>st</sup> January, 2023. The primary data has been accessed from the WSHG with the help of questionnaire prepared. The secondary data regarding WSHG and microfinance has been accessed from books, internet, journals, articles, periodicals, newspaper and other sources etc.

The descriptive and inferential statistics has been used for analyzing the data. The descriptive statistics tool such as simple percentage, mean, average, and standard deviation were used. In this study, frequency table's chart was also used. In order to testing the hypotheses, chi-square test and descriptive statistics were used.

### 8. Result and Discussion

Keeping in view the objectives of the study an attempt is made to analysis of results of collected data has been carried. To begin with the socio-economic status of women WSHG members, total household income of WSHGs, total household expenditure of WSHGs and total saving of WSHGs.

**Table 1: Social Status of WSHGs**

Variable	No. of respondents	Percentage
<b>Age</b>		
21-30	26	23.21
31-40	30	26.78
41-50	31	27.70
51-60	14	12.5
61-70	8	7.14
71-80	2	1.79
81-90	1	0.89

<b>Marital Status</b>		
Married	94	83.93
Unmarried	13	11.61
Widow	4	3.57
Separated	1	0.89
<b>Education</b>		
Illiterate	18	16.07
Primary (I-V)	27	24.11
Junior High School (VI-VIII)	29	25.89
Secondary School (IX-X)	19	16.96
Senior Secondary (XI-XII)	10	8.93
Graduate	7	6.25
Post Graduate	2	1.79
<b>Occupation</b>		
Farmers and Agriculture labour	80	71.43
Business	5	4.46
Housewife	11	9.82
Wage labour	10	8.93
Tailoring/Handlooms	6	5.36
<b>Religion</b>		
Hindu	23	20.54
Buddhists	42	37.50
Christian	47	41.96
<b>Category</b>		
OBC (Central list)	81	72.32
OBC (State List)	1	0.89
Schedule Tribe (ST)	27	24.11
Schedule Caste (SC)	3	2.68
<b>Type of Family</b>		
Joint	39	34.82
Nuclear	73	65.18
<b>No. of Family members</b>		
1-3	36	32.14
4-6	68	60.72
7-9	8	7.14
<b>Nature of house</b>		
Pucca (Cemented Buildings)	90	80.35
Semi pucca (Wooden House)	15	13.39
Kaccha (Hut, thatched)	7	6.26

Source: Computed by Author using primary data through field survey

#### **Age Structure**

The age is one of the important components of socioeconomic status of WSHGs. It assists to make right decision in the groups, so as to strengthen the performance of the groups. In the table shows 4 that 23.21 per cent of respondents fall in the age groups of 21-30 years, 26.78 per cent in 31-40, 27.70 per cent in 41-50 years, 12.5 per cent in 51-60, 7.14 per cent in 61-70 years, 1.79 per cent in 71-80 years and 0.89 per cent in 81-90 years. It is found that the most of the WSHGs in the village lies between 21-30, 31-40 and 41-50 years, which specify that the age group is actively participating in the WSHGs for their improvement of living standard and for their livelihood.

#### **Marital Status**

Marriage in our society is highly cherished (Ekong, 2003). It is shows that the 83.93 per cent of WSHGs are married, 11.61 per cent are unmarried, very few groups are widow and separated. This indicate that the married women are energetically participate in the WSHGs activities as comparison with unmarried, widow and separated.

#### **Education Status**

Education is one of the important tools which helps to provide the chance for gaining knowledge and skills that will facilitate people to grow their capability and become successful members of society. When the increase in the educational standards of the respondent may create full potential for rural development. This will help to improve better performance of WSHGs and



gaining the level of income of members. In this study, it is shows that the majority of the respondents i.e. 25.89 per cent and 24.11 per cent belong to the primary (I-V) and junior high school level of education (VI-VIII), similarly followed by secondary school level (IX-X) are 16.96 per cent, senior secondary level (XI-XII) are 8.93 per cent, Graduate level are 6.25 per cent, Post Graduate are 1.79 per cent and 16.07 per cent are still illiterate. It is found that the majority of the WSHGs have attained the primary and junior high school in the villages. Therefore, it is one of the important decision and courage of women empowerment through the education.

**Occupation**

Occupation is the tools which helps to compute or estimate living standard of people. Table 1 shows that the most of the respondents are engaged in the farmers and agriculture labour i.e., 71.43 per cent, similarly followed by housewife (9.82 per cent), wage labour (8.93 per cent), Tailoring/handloom (5.36), and in business (4.46 per cent). In the present study clearly mention that the majority of respondent are engaged in farmer and agriculture labour. Overall, the study revealed the main occupation of the respondents are agriculture in the sample village.

**Religion**

In this study, the tables resulted that, majority of respondents belongs to Christian religion is 41.96 per cent, Buddhist is 37.50 percent and Hindu is 20.54 per cent in the village.

**Social Category**

In this study, the table 1 show that the WSHGs from four social categories only. The four social

categories are Other Backward Central (Central List), Other Backward Central (State List), Scheduled Tribe (ST), Scheduled Caste (SC). It is revealed that out of 112 respondents, 72.32 per cent of WSHGs are from OBC (ST), 24.11 per cent are from ST, 2.68 per cent are from SC, only 0.89 per cent are from OBC (SL). Overall, it is pointed that OBC (SL) community are considered to be very less in the village.

**Type of family**

From the study, it is indicating that majority of the respondents i.e. 65.18 per cent are from nuclear family and 34.82 per cent from joint family. It revealed that the women from the nuclear family have greater privilege and power for taking part and contribution in the WSHGs.

**Number of family members**

Family size is one of the socio-economic factors which measure the status of people in the society. In this study, indicates that the most of the respondents of the WSHGs are 60.72 per cent having household size of 4-6 members per household, 32.14 per cent respondents whose household size having 1-3 members per household and 7.14 per cent of respondents are from 7-9 members per household. Larger size family members are less participation in the groups because of lack of counselling and motivation of rural people.

**Nature of house**

House is an important component of peoples' living and life. From the study, it indicates that about 80.35 per cent of respondents have pucca house, 13.39 per cent have semi pucca house, and 6.26 per cent have kaccha house.

**Table 2: Caste Structure of Respondents**

Variable	No. of respondents	Percentage
<b>Caste</b>		
Bhutia	3	2.68
Lepcha	17	15.18
Tamang	5	4.46
Limboo	3	2.68
Rai	22	19.64
Gurung	30	26.79
Manger	21	18.75
Mukhia	6	5.35
Chettri	2	1.79
Darnal (Damai)	3	2.68

Source: Computed by Author using primary data through field survey

**Caste**

Caste is one of the important socioeconomic factors of the WSHGs. In this study, it was revealed that 26.79 per cent are Gurung, 19.64 per cent are Rai, 18.75 per cent are Manger, 15.18 per cent are Lepcha represent the majority of WSHGs in the sample village of West Sikkim and then accompany by Mukhia (5.35 per cent), Tamang (4.46 per cent), Bhutia (2.68 per cent), Darnal (2.68 per cent), Limboo (2.68 per cent) and Chettri (1.79 per cent). It indicates that the WSHGs are found to be strengthen in participation in the groups, decision making process and to accomplish the target objectives.



**Table 3: Economic Status of WSHGs**

Variable	No. of Respondents	Percentage
<b>Income of Household (in Rs.)</b>		
Less than 10,000	6	5.36
10,000 – 30,000	72	64.29
30,000 – 50,000	25	22.32
50,000 – 100,000	8	7.14
1,00,000 and above	1	0.89
<b>Expenditure ((in Rs.)</b>		
Less than 10,000	73	65.17
10,000 – 30,000	34	30.36
30,000 – 50,000	3	2.68
50,000 – 100,000	2	1.79
1,00,000 and above	0	0.00
<b>Saving (in Rs.)</b>		
Less than 10,000	87	77.68
10,000 -30,000	21	18.75
30,000-50,000	3	2.68
50,000-100,000	1	0.89
1,00,000 and above	0	0.00

Source: Computed by Author using primary data through field survey

**Income of household**

Table 3 indicates that Rs. 10000 to 30000 incomes of the family respondents are high i.e., 64.29 percent, followed by Rs. 30000 to 50000 income groups are 22.32 per cent which means that respondents of group have improve the economic conditions of households in the village. Similarly, Rs.50000 to 100000 income group are 7.14 per cent, less than 10,000 income group are 5.36 per cent and Rs. 100000 and above income group are 0.89 per cent only. Overall, in the village more than 64 per cent of the WSHGs have reported the growth and development in their economic conditions in the village.

**Expenditure**

Table 3 shows that the majority of WSHG (65.17 percent and 30.36 per cent) fall in the expenditure groups of less than 10000 and Rs. 10000 to 30000 per month respectively. Similarly, follow by other WSHGs (2.68 per cent & 1.79 per cent) fall in the expenditure groups Rs.30000 to 50000 and Rs. 50000 to 100000 per month respectively. In our

present study, it is revealed that expenditure of the respondents has been decrease after joining WSHGs due to the training and counselling of groups.

**Saving** -Table 3 shows that the most of the WSHGs have increased (77.68 per cent and 18.75 per cent) which is fall in the less than 10000 and Rs.10000 to 30000. Similarly, saving of the respondents (2.68 per cent & 0.68 per cent) fall in the Rs.30000 to 50000 and 50000 to 100000. In our sample study, it is observed that saving has been increased. The respondents of WSHGs are aware and conscious about money, how to utilize the resource and financial management process. Therefore, saving is the platform for money generation and determinants of socio economic in the area.

**Hypothesis**

H<sub>0</sub>: There is no significant change in the economic conditions of rural women after joining WSHGs.

H<sub>1</sub>: There is a significant change in the economic conditions of rural women after joining WSHGs.

Chi-Square Test ( $\chi^2$ ) for change in economic conditions after joining WSHGs.

The formula is,  $\chi^2 = \frac{\sum (O_i - E_i)^2}{E_i}$

**Table 4: There is a change in economic condition after joining WSHGs**

Sl.no	Alternatives/options	No. of respondents	Percentage (%)	$\chi^2$
1.	Very Convenient	59	52.68	14.067
2.	Construction of House	4	3.57	
3.	Investment in land	1	0.89	
4.	Initiate business	20	17.86	
5.	Educate Children	9	8.04	
6.	Gained leadership	6	5.36	
7.	Learnt bookkeeping & accounting	8	7.14	
8.	Easy access to microcredit	5	4.46	
	Total	112	100	

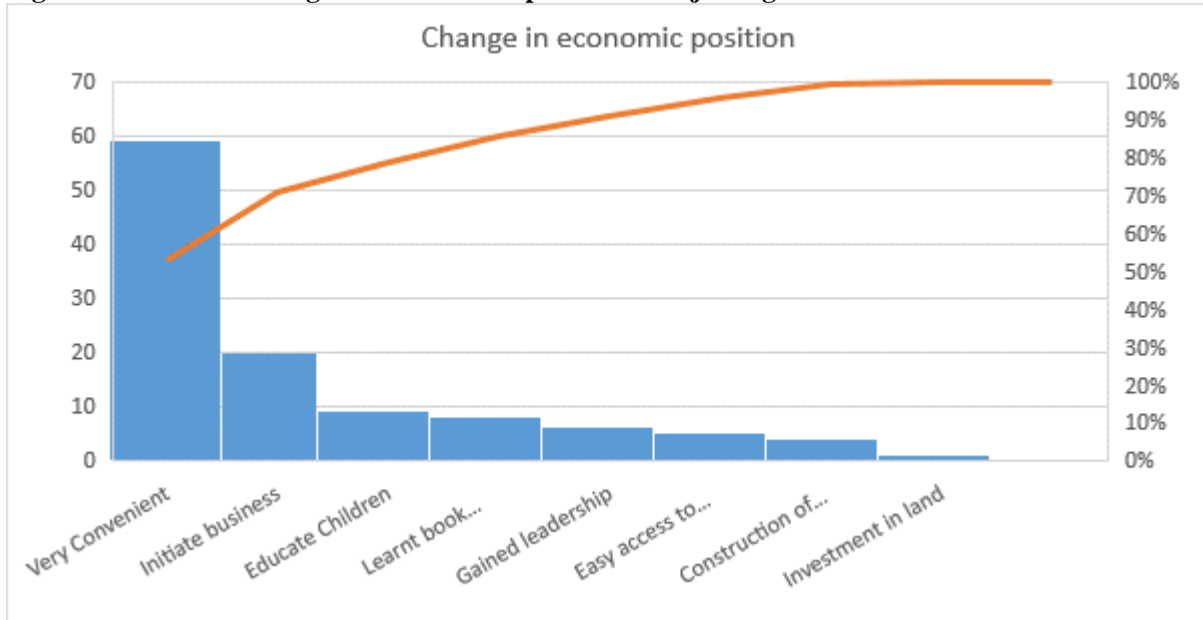
Source: Computed by Author using primary data through field survey

Expected Value ( $E_i$ ) =  $\frac{112}{8} = 14$ , Calculated value = 181.12, Table Value = 14.067, Degree of freedom = (n-1), = (8-1) = 7, Alpha value = 0.05

According to the hypothesis, the expected value is obtained 14, the calculated value is 181.12 more

than the critical value of ( $\chi^2$ ) is 14.067 at 5 percent level of significance ( $\alpha$ ), therefore, null hypothesis is rejected here. Hence, it is concluding that there is a significant change in an economic position after the joining the WSHGs. It is clear from the above results; we can say that the economic benefit has increased after joining WSHGs in the study area.

**Figure 1: There is a change in an economic position after joining WSHGs**



**Problem faced by the WSHGs**

In the present study, there are various problems regarding WSHGs in the sample area in which they are facing problems such as lack of marketing facilities, lack of adequate training facilities, lack of financial support from financial institutions and family members, inadequate socio-economic problems, lack of new technology and knowledge, lack of leadership qualities as they should be insightful and expertness in the area, very low demand of WSHG product even though good quality of product produce, very low price for product due to the lack of awareness of product produce by group in the rural area, very less credit facilities available and found absence of collaborative attitude towards WSHGs members from financial institution.

**Major Findings of the study**

From the above analysis the following findings are as follows: -

1. The demographic and social-economic status of the respondents have indicated positive sign and favourable for the rural development in the study area. Therefore, there is change in socio-economic conditions after joining the WSHGs.
2. The average monthly household income and saving of respondents has increased after joining the WSHGs in the West Sikkim.

3. WSHG members were participated and engaged or initiate small business in their locality which enhances the living standard of members and self-reliant.

4. In the present study, it is shows that active involvement and participation in the WSHGs, there is an absolutely development in social, economic and physiological spheres in the district.

5. The various problems faced by the WSHGs in the area/locality that it is necessary to reduce the problems with the help of improving socio-economic and financial assistance. This will help to accomplish key driver of sustainable rural development in the sample area.

**Suggestions and policy implications**

Taking into consideration, the socio-economic status and rural development of WSHG in the sample area, the following suggestion are constructed:

1. The Government and NGOs should organize the orientation, workshop, and motivational classes to the WSHGs in rural area so as to achieve the knowledge and awareness of groups, importance of microfinance and educate women which lead for development of leadership qualities.
2. It is advised to the Government should provide the vocational training opportunities to all WSHG members compulsorily, so that they become self-sufficient, self-reliant and empower themselves for rural development.

3. The Government and NGOs should take necessary step for the marketing facilities of product manufacture by the WSHGs in the rural area.

4. It is suggested that Government should concentrate towards problem faced by WSHG in the village, in order to prevent loss from their business in the locality which means not to harm their livelihood in the area.

#### **Conclusion**

In Sikkim, WSHGs is one of the burning issues which helps to develop women in the rural area. It made a very remarkable achievement has been made over the last five years in the context of WSHG as self-reliant and self-sufficient. The socio-economic status has been improved or strengthen in the sample area. WSHGs become empowerment of women, engagement in small business activities, increase in the level of income, mode of bank saving, decrease the expenditure level and change in their life style. After joining the WSHG, there is a huge change in their standard of living and women empowerment. It is becoming an economic undependable or independence situation in regard the microfinance to awake at all aspect. The study revealed that brings the stability in their personal income through WSHG. Through the WSHG activities, the respondents have upgraded the confidence, decision making, capacity of the women and leadership qualities. WSHG has become one of the effective tools for social, economic and unemployment problem in the rural area and this helps to control the unemployment issues through the small economic activities. The orientation of WSHG is mainly for economic and social empowerment. It helps to link and bridging the gap between the financial institution and the rural poor people. WSHG helps to reduce poverty, encourage women empowerment and rural development. The Government alone is not possible for women empowerment, so that collective efforts of all the members of the groups must play respective roles for achieving their goals.

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## **Book chapter title - "Social justice and sustainability in higher education "**

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### **Abstract**

Education is the first fundamental sector which establish inclusive environment for people and make them aware about rights, and justice. But our regional, socio culture and socio economic differences engulf the sector of higher education and created education exclusion in the higher education field. Social justice and sustainability is a essential component of education but disparities and gaps had been festering the opportunity of the minorities, tribes and backward class students .a nation without inclusion and equity, similar access to recourses cannot be alive in peace and development with harmony. We have to prepare a framework & solid roadmap to eradicate exclusion and social injustice in higher education and firmly we have to ensure the regulation and systematic monitoring of the education policy followed in the institutions or universities.

**Keywords:** equity, inclusion, higher education, gaps, disparities

### **Introduction**

We are a social animal and we exist in society form decades but yet we have created so many gaps and differences on the name of rituals, region and socioeconomic subjects. The world is transforming into a new form in many ways and getting united on global platform to achieve sustainable development goals for mankind but equity and inclusion are key element that needs to be added in roots of system & society so that it can bear the fruits of peace and prosperity in whole world. The problem of education exclusion is still prevailing in our system. The concept of social justice has been introduced in our education system by UGC norms but still we are severely facing the challenge of inequity.

### **Objectives**

To understand the concept of social justice and its expansion to the mankind and education. Role of the social justice in the overall development of the students of higher education. Need of the equity and inclusive education in all perspectives. Understanding the Barriers and obstacles in brining the social justice in higher education institutions. Efforts and scheme by the govt and administration to check the exclusion in education.

### **Methodology**

By observation study and the use of the both quantitative and qualitative method in the campus of the higher education institutions. Survey has done among the students.

### **Understanding Social Justice**

Social justice simply refers to equal access to resources, opportunities, education, social rights & privileges in a society. It also refereed as distributive justice which brings a political, social fairness and equality for individual being. Social justice as a strong theory make stronger emphasis on human rights and now its mandatory tool to improve the lives of backward, exploited disadvantaged,

minority and vulnerable groups facing discrimination in society either on the basis of gender, race, religion or economically.

### **Expansion of the Social justice concept in higher education**

For a long time period Social justice was treated as a subject matter for financial and e economic distress ,gaps and inequality but later by privatization and globalization industrialization ,social media revolution transformed the concept of the social justice completely. Now it focuses on the key words inclusion. Inclusion is a broad term which represents sex, environment, race, gender, ethnicity, heritage, social status, religion based fairness and equity. Hence at preset era the measure of social justice covers the all major human dimension in universal way for better treatment, access, and inclusion.

India has been emerging as a power hub for the youth all over the world we have largest youth man power working and studying but these vast youth generation came across from the various state and with differences & diversity in culture, races, gender language and other forms. This generates challenges of inequity and exclusion. In the present era education sector is the fastest growing sector in the world, even in our country UGC has initiated so many higher education institution but even though providing equal education to most rural population and the backward groups is a biggest challenge. The higher education sector is facing the challenge to incorporate social inclusion into their curricula and HEIs and established a roadmap to provide more flexible and accessible educational opportunities to students. UGC has created a frame work for inclusive education which is mandatory to follow by the all HEIs and universities .In the NAAC ACCREDITION criteria 7 the institution or university has to submit the report to UGC regarding the initiative applied and followed for the social

inclusion and equity. To support the inclusive National Education Policy 2020 has been announced in our country to bring various reforms in school education as well as higher education with the aim for equity inclusive and equitable education for all. The New Education Policy is designed in keeping the point of social justice and eradicate gaps in education system. The key initiative of the national education policy 2020 is :- Promote language inclusion by giving priority to the education in mother tongue and availability of the content for the students in the local dialects and language.

Launch of new scheme and policy for socially and Economically Disadvantaged Groups (SEDGs) To support the marginalized and below poverty line students students scholarship scheme has been launched. Making strict policy for gender inclusion and creating awareness program for gender sensitization Reservation for tribal and particularly vulnerable group and minority class people has been announced for admission and fees. Physically challenged students have now right to free education and equal access.

**Implementing social justice in higher education & challenges**

We must need to update the education system despite of the following challenges-

**Gender inequality and gender gap in India -**

Accessibility, equity, quality and Gender neutral – these are the key feature of the education. In last few decades to promote girl education & gender sensitization the Indian government has launched a plenty of schemes and initiatives to promote education among girl & women empowerment. Some major successful key initiative are beti bachao beti padhao scheme,suknkya samdrdhi yojna,working women hostel,suchita – sanitary & hygiene scheme for higher education girls, girl scholarship schemes etc. these scheme emerge out as a game changer in the political social and economic perspective for girls.

The gross enrolment ratio of girls has a been increased in higher education and either in technical ,medical ,education ,media or political level footprints of girls has chalked a mark of success in every field. As per the report of the ministry of higher education and PIB(press information bureau ) of India- The enrolment of girl in higher education has been increased in 2022 and girl enrolment percentage is now 49 percent in our country the Gender Parity Index (GPI) is 1.05 has been also increased.

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**Table B.3: Gross Enrolment Ratio (per cent)**

States/UTs	2021-22									2020-21		
	Elementary Schools (I-VIII)			Secondary Schools (IX-X)			Sr. Secondary Schools (XI-XII)			Higher Education (18-23 years age group)		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
D & N Haveli Daman & Diu	87.8	92.0	89.8	71.9	79.0	75.0	44.7	70.8	54.9	7.9	13.6	10.4
Delhi	118.3	124.5	121.3	110.3	112.2	111.2	91.2	99.5	94.9	46.7	48.5	47.6
Goa	80.4	93.0	86.1	80.6	85.7	83.0	71.2	76.3	73.7	30.8	37.3	33.8
Lakshadweep	75.4	71.1	73.2	64.7	61.9	63.3	64.9	60.0	62.4	3.3	11.4	7.2
Puducherry	76.4	77.7	77.0	73.4	79.1	76.1	64.6	71.1	68.7	60.3	61.1	60.8
<b>All India</b>	<b>89.3</b>	<b>101.1</b>	<b>100.1</b>	<b>78.7</b>	<b>79.4</b>	<b>79.6</b>	<b>67.0</b>	<b>88.2</b>	<b>87.6</b>	<b>26.7</b>	<b>27.9</b>	<b>27.3</b>

Source: Unified District Information System for Education (UDISE)+ 2021-22, Department of School Education & Literacy and All India Survey on Higher Education (AISHE) 2020-21

As per the report of the economic survey 2023 the India has made consistent progress and achieved the score value of only 0.490 in the gender inequality index but the HDI (human development index) 2023 of India reveals the inequality and gender disparities in our country.

The socio economic and socio culture of India is also a key factors which is causing the gender disparities in various form specially Higher education is the major sector where the gender

inequalities is still prevailing .the key causes for the gender gap and gender inequality are -

1. The social system of India is traditional and male dominant society even in present era that’s why it’s creating gender exclusion in the higher education of our country. Economically weak families are generally large and they cannot prefer to educate each and every children .they prefers male education over the girl education.
2. The condition varies from urban to rural areas in addition to it the gender gap conditions also

varies from one state to another .In the rural areas the girls' gross enrollment ratio is still lagging far behind as compared to urban region. A traditional role expectation for girls is limited in rural area so they don't allow them to go outside the skirt of village for higher education.

3. Availability of resources for higher education in nearby.UGC has established HEIs in large numbers and state govt are also making effort to provide the higher education easily accessible and approachable for girls. Remote and tribal girls have to visit more than 50 kms for quality education so due to remote access they ought to drop out each year.

### **Linguistic Inclusion:**

Language barriers are a major issue that causes education exclusion. Even in now a day's language barriers is a key obstacle for students specially it impacts the higher education sector. In higher education sector the student came across from different state in universities or colleges. India is country of versatility and diversity in language and culture. Different dialects and various languages are spoken in each state. In so many states the medium of instruction for teaching is the local dialects and local language in the schools so the students of such schools have not well & enough command over the key language like English. It affects the students when they visit to universities or college for further higher studies. After independence the numbers of school and college have been consistently increasing but the number of Hindi medium school has been established more as compared to English medium schools .a large numbers of students complete their school education in local language or Hindi medium. They face severe difficulty to cop up with the other students in higher education. Medical, engineering, aeronautics, information technology or deference sectors these sectors primary requirement is god command over the English language. The high dropout rate in higher education is also the language barrier .in a tough competitive world so many students are lagging behind just because of the language exclusion. We need to ensure the design the curriculum and availability of the study material in the all the major language so that it can reach up to all students it will provide the equity and equal access to all open resource and brings social justice in our education society.

Great Initiative -We can look over the example of the Madhya Pradesh state where they initiated the Medical study in the Hindi medium so the students can over come from the barriers of the language barrier and a healthy competitive environment will be established al over the state. We need restructuring and updatation in the higher education model to avoid educational exclusion.

**Regional Inclusion** India has huge diversity in regional level and it's a mammoth challenge to overcome from this issue to bring inclusion. Especially it becomes very difficult for the students from different region to survive when they take admission for higher education in universities.

In cultural and social way it's a crucial task to mingle up with other students with geographical and cultural differences.. To promote regional inclusion central govt has started Conduct of NEET and other central examinations under the NTA (National testing agency).For every states students only one entrance examination will be conducted for medical entrance .It will provide a healthy and equal opportunity for students without the barriers of region & geographical differences.

Allocation of Scholarship in state and central collaboration as per regional inclusion

Third language teaching has been started in central govt schools so that students will be familiar and learn the third culture language in their curriculum. In jawahar navodya vidyalaya student can opt for one year migration and they can study for 9<sup>th</sup> class in other state for one year

### **Inclusion of the students with benchmark disabilities**

Education always gives strength to the Persons with Disabilities and it's the only power for the physically challenged students by which they can become self depend and change their lives.

Our constitution has declared the right to Education for such students so that they not only become Skilled but also serve the nation and society. Its mandatory for all HEIs to make supportive infrastructure in the campus for the physically challenged students and provide the learning equipments in the campus. Pre metric and post metric scholarships are available for the physically disabled students type of the physical disability has been benchmarked for the students to gain the benefit provided by the govt.

### **Recommendation & Conclusion-**

However, despite the growing number of institutions, one of the biggest challenges is providing access and equity to quality higher education to a diverse population. But to provide social justice to students Rashtriya Uchchatar Shiksha Abhiyan (RUSA) and the National Institutional Ranking Framework (NIRF) has been established by govt. In addition to it e-learning platforms is being developed to make higher education more accessible and affordable for all.

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## **Unleashing the Power of Digital Marketing for Business Success**

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### **Abstract:-**

Digital marketing is tremendously beneficial to business owners and as well as entrepreneurs. It aids in improving businesses. Their revenue expand quickly thanks to online shopping. The act of conducting business using digital platform is known as electronic commerce. To buy or sell things, a person can utilise all of the Internet's features while seated in front of a computer. Nowadays, the term "E-commerce age" is widely used. In its most basic form, that is the online sale of goods. By the Forrester Research—a company that studies online trends and statistics estimates that the internet retail sector in the United States would reach \$230-240 billion. Which is exactly 10% of projected total U.S. retail sales.

### **It objects includes:-**

Strategically Managing Online Selling Costs Once you begin dealing online. The Start up and operating cost of a business drop and when you start dealing online, with Builderfly you can launch your business for free with no fiscal disbursement.

A digital platform lets an entrepreneur increase the selection of goods and services available for purchase, grow their establishment, attract further guests, and diversify their profit aqueducts. Digital marketing enables business possessors to vend their goods internationally Along with saving time for both the consumer and the patron. This also leads to the delivery of affordable goods for consumers by the business proprietor, as it helps in profitable growth. E-commerce is a whole- business bid rather than an IT problem. The businesses that use it as an reason to catch their functional procedures stand to gain the most also, Digital marketing is also a useful tool that allows guests access to businesses and organisations around the globe.

**Keywords-** Digital marketing, entrepreneur, digital platform, profitable growth are some of the terms used in this composition.

### **Introduction:-**

Marketing refers to the sweats taken by a pot to promote the purchase of any products or services. As it's used by the company to find guests or consumers for their products or services. The creation of any product or service in digital form is appertained to as digital marketing. Marketing via mobile phones, laptops, or any other digital device. Digital marketing is a type of direct marketing that electronically connects buyers and merchandisers through interactive technologies similar as emails, websites, online forums and mobile dispatches, and so on.The term "digital marketing" originally appeared in the 1990s. Its evolution in the 1990s and 2000s altered how brands and businesses used technology for marketing. Digital marketing is occasionally known as 'online marketing,' 'internet marketing,' or 'web marketing'. It's appertained to as 'internet marketing' since digital marketing has grown fleetly by resemblant with the emergence of the internet. The main advantage of digital marketing is that marketers may promote their products or services far and wide and any time where they want, at a cheaper cost, increase effectiveness, move guests to spend further, and ameliorate client service.



Because of its high position of connectivity, it facilitates numerous-to-numerous exchanges and is generally used to vend services or products in a timely, applicable, private, and cost-effective manner. With the vacuity of digital media, consumers can't only calculate on what the establishment says about its brand, but also on what the media, musketeers, associations, peers, and so on are saying. Digital marketing is a broad word that refers to a variety of promotional strategies used to attract guests through digital technologies. Digital marketing encompasses a wide range of service, product, and brand marketing styles that primarily employ the Internet as a primary promotional media in addition to mobile and traditional television and radio.

#### **Various components of digital marketing:-**

##### **Search engine marketing:-**

An online tool that assists druggies in chancing the information they need is a search machine. Search machine includes Google, yahoo, Microsoft and others. Search machine is any practices that raises a stoner's website's ranking in a search machine. Paid search and search machine optimisation ( SEO) are the two styles of search machine marketing. Search machine optimization is the art of ranking high on a hunt machine in the overdue section. It's also known as organic marketing or organic table. In general, the advanced the rank of the webpage in the search machine more callers will visit that webpage. When it comes to SEO it consists of a search machine and search. So Google is the most important search machine in the world. One must pay to get ranked more in a Search machine while using paid hunt. The same types of terms used in organic advertising will also be used in patronized hunt. A marketable search machine like Google, Yahoo, Microsoft etc., runs the maturity of a paid search machine. Grounded on the advertiser's shot and quality score, the search machine algorithm will decide where the advertiser's announcement will appear. Due of its eventuality to produce results more snappily, paid search is constantly preferred by advertisers over SEO in the near term. Due to its capacity to produce results more snappily, numerous advertisers favour paid search over SEO in the near term.

**Affiliate Marketing :-** In affiliate marketing, the firm compensates subsidiaries for each client or visitor brought to the company's website through their marketing efforts or plan on the company's behalf. Affiliate marketing is the practise of earning a commission by advertising the products or services of others. company's products". You locate a product you enjoy, promote it to others, and earn a share of each sale's proceeds." Affiliate marketing entails four distinct steps parties:

**1) The Merchant:** This could be the vendor, brand, or retailer. This party created a product for sale. It could be an individual, a small business, or a large corporation. .

**2) The Affiliate:** A publisher is another name for this party. It can also be an individual, a start-up, or a large corporation. For each service or product they sell, they receive a commission from the vendor. Customers are referred to the merchant via the affiliate.

**3) The client:** The client, often known as the consumer, is a key component of the whole system. They go to affiliates, who then lead them to merchants for a commission.

**4) The Network:** The network acts as a go-between for the affiliate and the merchant. To advertise items or services, affiliates require a network.

##### **E-mail Marketing:-**

Email marketing occurs when a message about a Product or service is sent to a prospective client via email. It is a straight forward digital marketing medium to understand. Email marketing is used to promote a product through discounts and event advertisements, raise brand awareness, and send consumers to a company's website. The following email types can be sent in an email marketing campaign: blog subscription newsletter, welcome email series, Cart, seasonal promotion, post-purchase drip Abandon the campaign. When a website visitor downloads something, send a follow-up email. Re-engagement through holiday promotions to loyal members campaign, and so on. The most significant advantage of email marketing is its low cost in comparison to other marketing channels. It is commonly used in construction.

##### **Online Display Advertising:-**

In traditional marketing, a corporation may place a sign or billboard on both sides of the road, or place an ad in a

magazine/newspaper to promote their product or service. Online display advertising is the digital equivalent of this. A marketer can now achieve the same result by using online display advertising. Display advertising comes in many forms, including video commercials, banner ads, interactive ads, and rich media. Because of the graphic adverts, display advertising is excellent for attracting the eye. A marketer of online display advertising can target an audience based on website content, geography, gender, age, device kind, and other factors. As a result, the marketer can present a relevant ad to the appropriate customer, lowering the budget and improving sales.

**Social Media Marketing:-**

In today's world, social media marketing is one of the most essential forms of digital marketing. It is the most rapidly expanding digital channel. The process of generating traffic or sites through social media sites is known as social media marketing. "Social media marketing is the process of creating content that is customised to the context of each social media platform to drive user engagement and sharing. The population of internet users has increased from 16.6 percent to 62 percent in 15 years, with social media marketing benefiting the most.

1. **Facebook:** It is the most widely used social media platform. A corporation can

use Facebook to promote their products and services.

2. **LinkedIn:** Professionals create and publish their profiles on LinkedIn. The company also creates a profile, and LinkedIn connects the dots between companies and professionals.
3. **Google+:** It is Google's social network, user can easily connect based on their common interest and friendship.
4. **Twitter:** The company's aim is to raise brand exposure and revenues, acquire new followers, and lead and boost conversions.
5. **Pinterest:** It is a social media platform in which visual content is available and the user can share or store with others.

**Comparison between traditional marketing and digital marketing:-**

Traditional marketing is the most widely-known type of marketing. Because of its history, utmost individualities are oriented to traditional marketing. Traditional marketing might include palpable goods similar as announcements in a review or magazine. It also comprises a billboard, leaflet, television or radio announcement, bill, and so forth. It's a non-digital marketing system. Digital marketing, on the other hand, uses a variety of digital styles to contact guests.

<b>Traditional marketing</b>	<b>Digital marketing</b>
1) It is a sort of marketing that uses media such as TV or magazines to advertise a company's services and products.	1) It is a sort of marketing that uses the internet and social media to advertise businesses.
2) Low	2) Relatively high
3) Slow	3) Extremely fast
4) Static	4) Dynamic
5) Not easy to measure	5) Simple to measure
6) More expensive and less effective	6) Less expensive and more effective
7) It is mostly one way communication	7) It is two way communication

1. **Advantages and Disadvantages of Digital marketing:-** The primary benefit of digital marketing is the ability to target a specific audience in a cost-effective and measurable manner. Other benefits of digital marketing include greater brand loyalty and online purchases.

**Global reach** - For a minimal investment, a website helps you to

identify new markets and trade globally.

2. **Lower cost** - A well-planned and well-targeted digital marketing campaign can reach the clients for a less money cost than compare to traditional marketing strategies.

**3) Trackable Measurable Results** - Evaluating your online marketing with data interpretation and other online

tracking tools makes it easy to determine the productiveness of your campaign. You can get precise information about how customers interact with your website or react to your advertising. **Personalization** - If your client database is linked to your website, you can greet visitors with targeted offers whenever they visit. The more sales they made from you, the more you can refine their profile and promote them efficiently.

3. **Openness** - By engaging in social media and carefully controlling it, you may generate customer's loyalty and establish a well reputation for being straight forward to engage with. **Improved conversion rates** - If you have a website, your customers are never more than a few clicks away from buying your products. Unlike other forms of media that require Users to stand in line or contact or visit the near by stores to purchase, digital marketing is smooth and immediate.

#### **Disadvantages:-**

1. **Skills and training** - You must ensure that your employees have the necessary knowledge and competence to successfully carry out digital marketing. Tools, platforms, and trends change frequently, and it is vital that you keep up.
2. **Time-consuming** - Tasks such as enhancing internet advertising campaigns and creating marketing content can be time-consuming. It is critical to track your progress in order to achieve a positive return on investment.
3. **High competition** - While internet marketing helps you to reach a global audience, you are also competing against global competitors. It might be difficult to distinguish out from competitors and attract attention amid the various communications offered to consumers online.  
**4) Complaints and feedback** - Any bad comments or criticism of your brand might be seen by your target audience via social media and review websites. It may be challenging to give outstanding customer service online. Negative comments or a failure to respond

appropriately might harm your brand's reputation.

4. **Security and privacy concerns** - There are several legal implications to collecting and using client data for digital marketing purposes.

#### **Challenges faced by entrepreneur:-**

Getting fund for any business is the biggest issue for any entrepreneur. He need to ensure well prepared business strategy for successful running of business.

1. Business Requires high amount of planning which could be possible through ideal promotion.
2. Hiring the right talent having the knowledge and skills related to the. Effective marketing within a limited budget.
3. It is a challenge for the businessman to attract the pool of customers.
4. Decision making is again a biggest challenge for any entrepreneur.

#### **Conclusion:-**

It is impossible to deny that the world is rapidly moving from a simple to a digital environment. Individuals are investing more in online content, and organisations who are struggling to incorporate this fact into their advertising plan must adapt swiftly. The more time people spend on the internet each year, the more digital platforms they utilise play a growing role in their lives. Digital India's primary purpose is to encourage the use of digital media. Because customers may access digital platforms from anywhere in the world at any time, businesses must shift their marketing approach from traditional to digital. If businesses do not use digital platforms to advertise their products and services, they will be unable to compete and will eventually fail. Customers who wish to buy a product online can simply obtain product information and compare it to other products without having to visit a retail store or shopping centre. It demonstrates that consumers prefer to shop online rather than in a physical store. As customer purchasing habits shift, businesses must adapt their advertising strategies and adopt digital marketing channels.

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## **Challenges before Objective History Writing In Modern Era**

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### **Abstract:**

Objectivity is the voice of history. In history, more emphasis is placed on facts than on personalities. In fact, by giving primacy to fact, we can protect historical objectivity. Historical objectivity can be postponed by practice rather than theory. Those historians are worthy of condemnation who distort facts or give importance to personal feelings. Historian should not give up objectivity and describe according to his personal interest. The impartial and independent approach of the historian leads him from one fact to another. Therefore the historian does not need to select the facts. The facts themselves pave the way for each other. The historian is only required to give respect to the facts while maintaining objectivity. Historians face the problem that they remain unbiased while describing the historical. In this research paper, the study of the problems faced in making history objective has been highlighted.

**Key Words:** Objectivity, fair and independent approach, personal interest and emotion.

The problems of historical objectivity are extremely complex. Historical objectivity can be recognized only after solving these problems by the efforts of scientific historians. At present, special attention is being paid to the need for historical objectivity, so that the study of history can be given a scientific form. In the absence of objectivity, it cannot be recognized as scientific. Before the inclusion of objectivity in history, it is necessary that we know the difference between general history and research history. General history can be objective due to being brief, but objectivity is not found in research history due to being detailed. In the first, the historian cannot use his personal feelings, whereas in research history, the scholar writer is able to select the fact and interpret it according to his personal interest and feeling. Despite the complexities of the problem of objectivity, historians have offered some solutions to it. It is true that historical details are not universal and timeless and are influenced by facts. The imprint of the personality of the historian is automatically visible on them.

### **3. Lack of Fairness:**

According to Dardel's opinion, no substance itself is objective, but objectivity is established in it. Modern scholars seek to make history objective from outside disciplines, due to which the question of objectivity has become a matter of debate among scholarly writers and philosophers. To establish his opinion, the modern historian presents the description of the past in the context of a particular point of view, concept, culture, personal envy, malice or delusion, which is never fair. Because of this biased description, proving historical objectivity remains controversial among scholars.

### **4. Influence Of Social Environment**

Karl Marx has considered man as a social animal attached to rituals. Due to the birth and development of history in the social environment, it is also influenced by religion and culture. Historian is also not free from these influences, so according to Marx, there is lack of uniformity in the description of Arab-Jewish, Hindu-Muslim and Russian-American historians. Therefore, historians who are supporters of the scientific method should try to find objectivity outside the society.

### **5. Change in History:**

Undoubtedly, history is the study of the events of the past which have been presented by the historians of different eras in their own way. Mandelbaum also believes that the historian of each generation writes history according to the needs of his era. If slavery has been written as a boon in any era, it is currently considered a curse. Thus the very idea of scientific objectivity is a nightmare because of the variability of history.

### **6. Change In Beliefs:**

Many authentic beliefs of the past have no importance at present. Similarly, the certified historicity of the present will also become meaningless in the future, while there is no change in objectivity with time. Arithmetically, there are always 2 and 2 make 4. Therefore, objectivity is always universal and timeless. In fact, scientific objectivity is beyond challenge, whereas the form of historical objectivity is not universal and timeless.

### **7. Age-Old Need:**

According to J. A. Robbins opinion, the historian presents the collected historical evidence and facts according to the circumstances and needs of his era. Edward Meyer has written that, 'Contemporary social need has primacy in history

writing. ' The great philosopher Croce has also accepted history as contemporary and he believes that the human soul should be sensitive to its era, only then it can present the correct picture of the society in history. P . Gardiner has also mentioned that, the usefulness and non-usefulness of the same historical fact varies in different ages. Since the nature of interests and vested interests of human life has always been changing, the history of one era has been found to be different from another. Therefore, it is not possible to prove historical objectivity.

#### **8. Impact Of Personal Emotion:**

Beard has written that the approach of the historian in the selection of historical facts is influenced by personal feelings, social environment and circumstances. In such a situation, it is natural that historical rules are disregarded by him, due to which it is not fair to expect objectivity from him. Mostly the books of historians are inspired by personal feelings due to which historical facts are neglected and the effort of objectivity becomes almost dead.

#### **9. Sense Of Prejudice:**

Akashat believes that it is natural for a historian to be prejudiced. Often in history we study the side of the past. S. M. Trevelyan has mentioned on this basis that it is natural to have hatred and sympathy in history. The description done according to interest is not objective but subjective. Weber also says that finding objectivity in history is a flaw.

#### **10. Selective Format:**

Walsh believes that the nature of history is selective. Since it is not possible for a historian to describe the past completely, he presents only one aspect of it according to his ability. Being trapped in his prejudices, the historian writes the incident in his own way. Doctor . Ishwari Prasad and Dr. Agha Mehdi Hussain expressed conflicting opinion regarding the death of Ghiyasuddin Tughlaq. The first holds Juna Khan (Mohammed Tughluq) responsible for the murder of the Sultan, while the second holds natural disaster responsible for proving Juna Khan's innocence. So it is clear that the historian selects the facts in support of his opinion. This type of tendency is a great obstacle in the path of historical objectivity.

#### **11. Predominance Of Feelings:**

The writing of history is not rational but emotional. Renwef has written that, 'History writing is a matter of conscience. It is natural for him to be sentimental. Famous historian Gooch has also mentioned that the personality of a writer made of flesh and blood is expressed in the pages written by him. In which it will not be possible to separate the predominance of emotions and make them objective. Schiller also wrote that historical objectivity is a complex problem. Henri Pirenne has also written that no matter how fair a historian is, he

cannot be completely objective because the writer describes the events related to his own flesh and blood man.

#### **12. Religion and Caste Problem :**

Another problem of objectivity is related to religion and caste. Even if he wants to, the historian cannot free himself from the feelings of religion and caste. Medieval historians have tried to present historical facts arbitrarily due to the influence of religion and caste. On the one hand, if Sir Yadunath Sarkar has severely criticized Aurangzeb because of his bigotry, on the other hand, Farooqui has praised Aurangzeb highly because of this feeling. Similar sharp differences are also found in Roman Catholic, Protestant, Jewish and Arab historians.

#### **13. Other Problems:**

It is not possible for a historian and journalist to be objective. S. Dunner has also clearly written, 'The whole form of history may not be objective. Mandelbaum has also mentioned that historical justice is value-based, due to which it cannot be called objective. Social values always change. That which is not useful in the present tense does not necessarily mean that it was of no importance in the past. The historian cannot free himself from the influence of changing social values. Humans of a civilized society have relations with various political parties and the historian, being a social animal, is influenced by the ideology of the political parties and presents the interpretation of historical events according to his point of view. Therefore, it is unfair to expect objectivity from the historian.

Walsh has also written, it is as impossible for a historian to get personal bias out of his work as it is to get himself out of his own skin. In fact, objectivity refers to consensus and not the description of conflicting viewpoints. There is no difference of opinion in objective knowledge until the object changes. Objective knowledge is free from the influence of space and time. Yet, like scientific objectivity, the idea of historical objectivity is just a dream.

#### **14. Conclusion**

A learned historian does not present facts by distorting them as per his wish. His personal interest or isolation, biased approach and various theories also clearly indicate how the historian's approach maintains a relationship with objectivity. It is also mandatory for a historian to follow a certain code of conduct. In fact, in the absence of intellectual integrity, history loses its original character and becomes a novel or a work of fiction. The rules and discipline of history always inspire objectivity to the historian and the importance of historians like Gibbon, who ignore it, is gradually disappearing.

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## **Multidisciplinary Approach in Arts, Science and Commerce**

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### **Abstract-**

Multidisciplinary Approach for Arts, Science and Commerce is represented as methods, way, policies, techniques, rules and regulation in the foundation and successful functioning of the Education, Learning and Research work in the management of the three different streams of Departments those are Arts, Science and Commerce. Then Technology is a important thing in the Educational system and the foundation and establishment made under UGC Union Grants Commission is important the laws that has been enforced by the government of India.

**Keywords-** Multidisciplinary Approach, Arts-Science-Commerce, Education-Learning-Research, PHD.

### **Methodologies-**

The use of different questionnaires, survey, graphs, pie-charts Research, Experiments, Models and Projects, Examinations, Mcqs and Quizzes.

### **Objectives-**

The introduction to Modern Technology of Learning. Today's modern techniques plays role of building the base through bookish language but also from Technology. Technology plays a major role in the foundation of the Teaching Career subject like B.Ed Bachelors in Education. The education that runs according to these three streams. In schools and Colleges the study of Arts. Science and Commerce is compulsory. For all age group students the studying of these streams is mandatory till class Ten then after that you can change your stream according to your academic score after giving secondary examination you are eligible for College. The education should be considered compulsory and the choice of the subject should be merely based on marks and grades. Any University Or Council Board should strictly check upon the performance and the eligibility. New syllabus should be introduced when it becomes backdated.

Then Internet should be used for Research Work. In the Classroom method of Teaching the classes should be interactive. There should be no unfair means, injustice or malpractices during any kind of examinations.

### **Introduction-**

Multidisciplinary Approach in Arts, Science and Commerce. Multidisciplinary which talks about the various streams of Education and Learning, Arts, Science and Commerce these are the different streams and the method of learning takes place is a question because there should be a proper functioning in the teaching of Arts, Commerce and Science. In these three streams without basic learning and Teaching Method these three departments are incomplete. What do you understand by Arts, Science and Commerce are these just streams of learning. No it is connected to real life and the study of these streams is

compulsory because it solves real life problem makes a person educated for not only Teaching but also for Challenges to know what is unfamiliar and to know what is unknown. Education makes a person fully established, personality wise, wisdom and knowledge and a better human being or say literate and a learned person in different fields and sectors of life. Arts Department for higher Education it is designated as Bachelors of Arts, Bachelors of Science and Bachelors of Commerce. The study materials are hectic but valuable. Arts stream consists of History Geography, Psychology, Political Science, Social Science and Sociology. Then Science streams consist of Mathematics, Physics, Chemistry, Biology, Geology, Engineering, Medical Science. The Commerce stream consists of Accounts, Finance, Business Studies, Economics and Maths. English, Computer Science, Environmental Education and Moral Science, 2nd Language and 3rd Language are compulsory subjects. Masters is for Highest achievement in the Educational Qualification System. The education is becoming more and more complex and hard due to the growth of advancement.

### **Advantages for The Multidisciplinary Approach-**

Today's modern techniques play a vast role in the career opportunities. The best way to make a student understand is through Technology demonstration. There are various short term and long term courses that are important and are being introduced to make a student thorough with the streams of Education which is Arts, Science and Commerce. Then use of Technology is not only important for the lectures but also for the use in the examinations especially for Competitive Examinations. Then mock tests, quizzes which makes the preparation for the examinations a lot more easier. The genuine platforms like Unacademy where all courses or for example various Online Universities which provides with free courses where the lecturers makes things easier for the students to understand and the students



become thorough with the syllabus. Along with study, practice is also compulsory.

### **Disadvantages For The Multidisciplinary Approach**

Then as you know that there are differences between the streams. In Arts department there is a lot of subjects to memorize, in Science where you need to use your intellect, practice and learn where as in Commerce you need to understand and practice a lot especially all mathematics problems which need to be solved. Not only in examination but also in the real life challenges in a job post. Computer which is a must and important subject there is a trend of having online classes. Online classes are beneficial but regular classes are important for Education. Like for example to give attention to each and every student during online classes. But if there is any kind of Research Work Or presentation or professional meetings then Online Classes are very good and helpful. But for juniors when there is the learning stage it becomes very difficult to manage every one in an online session. There are so many websites that are launching various educational platforms and facilities for the students of any stream but there are frauds as well investment should be checked upon. PHD is the final stage of an entire Education System there are so many drawbacks in pursuing it and there are no limitations and boundaries that you can research according to your chosen stream and Department. There are very few who cope up with the thesis part. The lengthy and long papers after paper is a part of Research work which are given to PHD students. The student faces a lot of problems like health problems, stress, tension, and waking up nights after nights to submit Research papers are so much burdensome. Have to complete Thesis writing otherwise your PHD will remain incomplete.

### **Suggestions-**

PHD is not that important you can continue later on when there is a lot of free time. Then you can apply for different posts like Assistant Professor and Senior Research Assistant. Then a lot of other posts like Civil Engineering and Mechanical Engineering. Then a lot of other opportunities are there for the Department you have chosen for. UGC has taken into consideration and other Government related Online Universities such as IGNOU, MOOC, SWAYAM to give education and also government jobs. There are also free online courses available. If you want to become a Researcher or you want to opt for any kind of job related courses or educational courses you will find here. There are too many courses listed in their website portals where you can apply for. The admission and examination are held all Nationally and is recognized globally and courses will be helpful in your competitive examinations.

### **Conclusions-**

The Multidisciplinary Approach in Arts, Science and Commerce can be done through seminars and webinars and also many ways as stated above. Syllabus of various subjects should be completed by the School and University Teachers but in Higher Education it becomes impossible so notes should be provided. Psychology which should be made compulsory subject for all streams and departments. And Degree Certificates and Award are given on Completion of various subjects after any Board Examinations And University Examinations. And not being able to complete any degree such as Graduations and Post Graduations which will result as an incomplete degree no Degree will be provided. Then there are various examination rules and regulations which are enforced by the State Government Or a National Government should be practiced sincerely regarding failing and passing, giving supplementary examinations and rechecking examination papers are given equal rights for every student.

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## Shakespeare's Portrayal Of The Melancholy Jaques In *As You Like It*: A Literary Study

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### Abstract

Fools and clowns in Shakespeare are multi-faced. Their presence in Shakespeare's comedies made a great contribution to the plays. The word 'Fool' was often used of a court-jester, quite an intelligent man who pretended to be half-witted or eccentric and under cover of his eccentricity shot the shafts of his acid wit on everybody, regardless of the rank or position of his victim ---- a role identical to that of Jaques in *As You Like It*. Melancholy is the permanent epithet for Jaques. But his melancholy deserves our censure rather than our admiration and our pity, because it leads to no useful action and because it is a self-indulgence to him. To Jaques, melancholy is a positive enjoyment and luxury. Whatever the cause of his melancholy, Jaques tells us that he is in love with it. It is true that Jaques' melancholy is a "pose" but it is wrong to hold that it is all a pose. It has a certain amount of reality in it. Jaques is a cynic to whom the world is no better than a great stage and all men and women merely players with their exits and entrances in an ephemeral pageant. It has been observed that Jaques' speech of the "Seven ages" must not be mistaken for a truthful description. Though the part by Jaques in the action seems to be quite insignificant his importance in the general scheme of *As You Like It* can hardly be over-estimated.

**Keywords:** Shakespeare, Jaques, comedy, fool and clown, seven ages.

### Objectives

The objectives of the present study are

1. to plunge into the unfathomable depth of Shakespeare.
2. to take a minute look on the character of Jaques in the *As you Like It*,
3. to elicit information about his character traits as described in the drama.
4. to relate his character with the character of ordinary human beings of our global village.

### Methodology

Love for literature is an evergreen technology to conserve environment. To build an understanding of various character traits of the melancholy Jaques in *Shakespeare's As you Like It* attempts have been made to collect available data both primary and secondary from various sources both living and non-living, online and offline like texts and various editions of *As you Like It*, research papers and journal articles published by the learned scholars on the topic of presentation and various websites. Paper has been prepared after careful analysis of those data accordingly.

### Full Paper

Fools and clowns in Shakespeare are multi-faced. The clown or the court-jester was a stock character in Elizabethan plays – more commonly in the comedies, but also quite in their elements in tragedies too. In fact, the clown or the clownish character is invariably an essential figure in Shakespeare's tragedies, and Shakespeare has made various uses of this figure in accordance with the themes he is dramatizing. The Shakespearean Fool –

either in comedies or in tragedies – does not appear to be a stereotype or a stock-in-trade figure, even despite his motley in some plays, because he is absorbed within the structural frame as well as the inner frame of the total sensibility. Their presence in Shakespeare's comedies made a great contribution to the plays. They are defined as humorous characters with the main purpose of making people laugh. But they are not as simple as they seem. They are clever and observant and have many other purposes than just making people laugh. However, we have to pay attention on them carefully in order to realize the purpose and the meanings of their words. If we look at the role of a fool closely, we notice how clever they are. Those who cannot see the cleverness of the fools, are fools themselves. Fools in Shakespeare comedies behave as a mask for Shakespeare to criticize aspects of their own society, because only fools are allowed to speak out when others must be silent. They are allowed to tell the truth, and therefore fools became the most influential characters in the play. The word 'Fool' was often used of a court-jester, quite an intelligent man who pretended to be half-witted or eccentric and under cover of his eccentricity shot the shafts of his acid wit on everybody, regardless of the rank or position of his victim ---- a role identical to that of Jaques in *As You Like It*.

Jaques is one of the nobility that had followed the Duke in exile; but differing from other nobles who also had done so, in this that he had been actuated less by personal attachment to the good Duke, than by general hatred of a bad world, at

its worst about courts and cities. A youth ill-spent was what had brought him into this frame of mind. His travels had done nothing better for him than to Italianate him. When in the disgust that follows satiety he withdrew from the world and retired into himself, he came to be a hater and dispraiser of all mankind. Unlike the Duke Senior who sees good in everything Jaques, the man of chronic melancholy: can suck melancholy out of a song, as a weasel sucks eggs. <sup>(As You Like It; II.v.11-2)</sup>

Melancholy is the permanent epithet for Jaques. But his melancholy deserves our censure rather than our admiration and our pity, because it leads to no useful action and because it is a self-indulgence to him. To Jaques, melancholy is a positive enjoyment and luxury. This man of a melancholy disposition seeks to feed his melancholy rather than overcome it. No doubt he cultivates his mood of misery, but the feeling itself is real. He is a man of great intellectual and imaginative power and even great sensibilities, but he has made nothing of life. He has not lived his life well and wisely. And so the world has become for him 'a miserable world', <sup>(As You Like It; II.vii.13)</sup> fit to rail at. He speaks to Amiens, the personification of amiability that he finds as much pleasure in indulging in melancholy while listening to a song as a weasel finds when sucking the meat of an egg.

Jaques appears for the first time in the fifth scene of the Second Act of *As You Like It*. But we have already known much of him from the First Lord in the First Scene of the Second Act of the play. From what we have heard of him there we are in a position to assert that he is of a morose nature and sees evil in everything. His contemplation of the weeping deer shows that tears are a great luxury to him. He is perpetually finding fault with everything and everybody and does not spare even the innocent life of the Duke and his companions in the forest: Thus most invectively he pierceth through the body of country, city court, <sup>(As You Like It; II.ii.58-9)</sup> Here Jaques appears as a thorough pessimist believing in no man's honesty. He calls compliment is like th'encounter of two dog-apes. <sup>(As You Like It; II.v.23-4)</sup>

Melancholy is certainly the keynote to his character as Contentment is the leading feature of the banished Duke's character. Jaques loves melancholy better than laughing. He can suck melancholy out of a song, as a weasel sucks eggs. <sup>(As You Like It; II.v.11-2)</sup>

The only compliment he returns to Amiens is a parody of the worst possible kind. He is the only discord that jars with the woodland harmony of Arden.

Jaques has followed the Duke in exile, actuated by general hatred of a bad world at its worst about courts and cities. A youth ill-spent was

what had brought him into this frame of mind. When in the disgust that follows satiety he withdrew from the world and retired into himself his reflections on the world gave birth only to contempt for the world. Thus came Jaques to be a hater and despiser of all mankind; and this is pessimism or cynicism. Through the coloured glasses of this cynicism he saw nothing but evil everywhere; and this had made him melancholy; and this is where his character affords a complete antithesis to the banished Duke who finds “

tongues in trees, books in the running brooks, sermons in stones and good in everything. <sup>(As You Like It; II.i.16-7)</sup>

Unlike the Duke Senior, he finds evil in everything. He turns from the vanities of the court to seek comfort and consolation in nature and solitude. But he is of such a nature that he is doomed to be dissatisfied in whatever condition of life he may be. His character proves to us that a life of retirement and pastoral simplicity will not content all people alike and that contentment can only come from within. So even in the Forest of Arden Jaques is out of his sphere.

Jaques's melancholy however differs from the melancholy of all lovers of mankind who attempt to make mankind better than it is and fail. In his melancholy there was a want of this love. Hence he indulges in sickly sentimentality over the wounded deer, as if it better deserved that sympathy which he had withdrawn from undeserving mankind. This is the meaning of his lament over the wounded deer. The unreality of this feeling is shown when he is in such haste to dine off their venison that he is not prepared to wait for Adam to be brought into share it. Jaques's melancholy therefore, is not grave and earnest but sentimental, a self-indulgent humour

a petted foible of character, melancholy prepense and cultivated. <sup>(Powden 77)</sup>

Of course, his wild youth has something to do with it.

Whatever the cause of his melancholy, Jaques tells us that he is in love with it. From the Duke Senior's remarks on his past life we may perhaps gather that something akin to remorse for a not very creditable career has soured a temperament never very healthy or well-balanced. As to the character of his melancholy, it is neither that of the scholar which is the outcome of a feeling of rivalry among scholars; nor of the musician which arises out of fastidious tastes and subtle differences; nor of the courtier which comes of pride; nor of the soldier which is another name for ambition; nor of the lawyer which it is politic for him to assume; nor of the lady which arises out of pride, rivalry etc. This is the indirect explanation of the nature of his melancholy. But Jaques does not stop there. He tells

us what melancholy is like. It is a melancholy of mine own, compounded of many samples, extracted from many objects; and indeed the Sunday contemplation of my travels, which by often rumination and wraps me in a most humourous sadness. From this it appears that the melancholy of Jaques is a self-indulgent humour, a foible of character which he cultivates because under its grab his ill humour may have free play. For if not actively malignant, his melancholy betrays itself chiefly in girdling at the order of things in general. The sufferings of the wounded deer are made the text for a homily on the heartlessness of mankind be they of whatever station or manner or life. Out of a song, however merry, he

can suck  
melancholy.....as a weasel sucks egg.<sup>(As You Like It; II.v.11-2)</sup>

He envies the fool's license of speech and would himself have life privilege to "blow on" whom he pleases. Meeting Orlando, he assumes his self-conferred role of general censor, but retires discomfited. Though offering to give away Audrey in marriage to Touchstone, he takes the opportunity of lecturing them on the sin meditated in an irregular ceremony. It is true that Jaques' melancholy is a "pose" but it is wrong to hold that it is all a pose. It has a certain amount of reality in it. As Verity justly comments:

His (Jaques') melancholy is in part that disgust with self and the world which is the nemesis of choosing the wrong path.<sup>(152)</sup>

So his melancholy is not all a sham and a pretense. The feeling, though consciously indulged is real.

Jaques is a cynic to whom the world is no better than a great stage and all men and women merely players with their exits and entrances in an ephemeral pageant. Man's life is only a comedy-play. Men and women strut and fret their hour upon the stage and then are heard no more. Each one has seven contemptible parts of play.

The First Act of the human drama reveals the infant mewling and puking in the nurse's arms.<sup>(As You Like It; II.vii.144)</sup>

The Second Act finds the infant the whining school boy;<sup>(As You Like It; II.vii.145)</sup> with his satchel and shining morning face, creeping like snail unwillingly to school.<sup>(As You Like It; II.vii.146-7)</sup>

In the Third Act the school boy appears as the lover Sighing like furnace;<sup>(As You Like It; II.vii.148)</sup> and composing tragic verses to the eye of his beloved.

In the Fourth Act the lover is transformed into the soldier; full of strange oaths, and bearded like the pard, quick in quarrel,<sup>(As You Like It; II.vii.151)</sup>

and ever ready to be in the thickest of the fight, even at the deadly cannon's threat in order to seek the bubble reputation.<sup>(As You Like It; II.vii.152)</sup>

In the Fifth Act the soldier is succeeded by the portly judge, fond of good living, with eyes severe and beard of formal cut.<sup>(As You Like It; II.vii.155)</sup>

His fair round belly is lived with good capon (accepted as bride),<sup>(As You Like It; II.vii.154)</sup> his talk 'full of wise saws and modern instances' .<sup>(As You Like It; II.vii.156)</sup>

The Sixth Act transforms the Justice of the Peace into the lean and slipper'd pantaloon,<sup>(As You Like It; II.vii.158)</sup>

his breeches much too big for his shrunk shank;<sup>(As You Like It; II.vii.161)</sup>

his big manly voice changed into childish treble;<sup>(As You Like It; II.vii.162)</sup>

his eyes wearing spectacles; his side dangling a pouch.

The Seventh act and Last Act of this strange eventful drama shows the man of age lapsing back into

second childishness,<sup>(As You Like It; II.vii.165)</sup>

and mere oblivion,

sans teeth, sans eyes, sans taste, sans everything.<sup>(As You Like It; II.vii.166)</sup>

It has been observed that Jaques' speech of the "Seven ages" must not be mistaken for a truthful description. It is a caricature of the life of man, as seen by his distorted vision, and as meant to illustrate his constant theme that man's life is a farce, not worth the living and acting. Jaques is a man of lively imagination and artistic temperament. The seven pictures are drawn with extraordinary clearness and vivid force, and their subjects appeal to universal experience. Jaques indeed is a maker of fine sentiments, a dresser forth in sweet language of the ordinary common-places or the common-place mishaps of life. Jaques is extremely sensitive and as is usual with morbid sensitive temperaments, cultivates his mood of misery. But the feeling itself, though consciously indulged, is real. It is in part that disgust with self and the world which is bound to result from his wild youth.

Beside Touchstone, Jaques is the figure that serves chiefly to blend and harmonise the masses of light and shade of the court and country life of which the play consists on which its great effectiveness depends. Perhaps Shakespeare introduced Jaques as an extra precaution against the play becoming pastoral convention. For Jaques is an extreme anti-romantic. He loves the life of the greenwood for what it is and not for its fancied prettiness. If the Duke finds the sweet and bracing influences of Nature in forest, Jaques sees the struggle of life repeating itself in folly, selfishness and misery, Jaques is a philosopher whose wit provides a commentary on life peculiarly derived

from his own temperament, while Touchstone has no particular self to express, but merely turns on the wit of professional clown to extract humour from the situation in which he finds himself. Jaques' removal from the plot of the comedy would entirely alter the composition of the whole. He is a foil to the Duke in his melancholy, to the lovers in his philosophy and to Touchstone in his humour.

Jaques is a bundle of inconsistencies, a mixture of witty sensibility and merry sadness, a child of folly and a professor of wisdom. At one moment he loves his melancholy better than laughing, at another he laughs 'sans intermission an hour by his dial',<sup>(As You Like It; II.vii.32-3)</sup> at one time he seeks society, at another solitude. If one reason of Jaques's failure in life is the squanderings in his wild youth; another is his sensibilities. He is perpetually finding fault, railing on Lady Fortune, censuring all mankind, aiming his sarcasms at persons of all conditions. Even the innocent life of the Duke and his companions in the forest does not escape his satire. He is a thorough pessimist, believing in no man's honesty. In his opinion, all are either fools or knaves. The world has become for him a miserable world, but fit to rail at and discover fresh matter of disgust in. He ridicules what average humanity holds most precious. Love to him is the worst fault, and complement the 'encounter of two dog-apes',<sup>(As You Like It; II.v.23-4)</sup> The high-born --- 'the first-born of Egypt',<sup>(As You Like It; II.v.58)</sup> --- and those who have succeeded in this world --- 'fat and greasy citizens',<sup>(As You Like It; II.i.55)</sup> --- are specially the marks of his satire. In his comparison of the world with a stage he seizes upon what is ridiculous to the exclusion of what is noble or blessed. He envies the state of the professed fool simply because it brings with it the privilege to 'blow on' whom he pleases.

Thus, the somber reflection of Jaques serves to heighten the effect of the gaiety of the other persons. His character is true to life in the Aristotelean sense, and has a strong sense of verisimilitude. Furthermore, while Jonson's characters are narrow, flat and monolithic in terms of capturing just one trait, Shakespeare's characters are complex, flexible, capable of accommodating changeability and psychologically deep. Not a single character of Jonson can match the depth and philosophical profundity of Jaques in *As You Like It*. Though the part by Jaques in the action seems to be quite insignificant his importance in the general scheme of *As You Like It* can hardly be over-estimated. There is no iota of doubt that he is of all the characters, the gravest, the most intellectual --- in a word, the strongest; and it is through him that the comedy approaches Shakespeare's later and more serious work.

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# **Politics of Demonetization in India and its Impact on Economy and Society: A Review**

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## **Abstract**

This research paper aims to analyze the politics of demonetization in India, focusing on its objectives, the research methodology employed, the findings derived, and the conclusions drawn. By examining the political dimensions of demonetization, this paper seeks to provide a comprehensive understanding of its impact on the Indian economy and society. The politics of demonetization in India has been a topic of significant interest and debate. Demonetization, implemented in November 2016, was a decision taken by the Indian government led by Prime Minister Narendra Modi, with the aim of addressing issues like black money, corruption, and counterfeit currency. The move had both political motives and consequences, leading to diverse opinions and reactions from different stakeholders.

**Key Words:** Politics of Demonetization, Impact on Economy and Society, India

## **Introduction**

The impact of demonetization on the Indian economy and society was multifaceted. On one hand, it led to the formalization of the economy by encouraging people to deposit unaccounted cash into the banking system, promoting transparency and financial inclusion. It also pushed for the adoption of digital payment methods, fostering digitalization and cashless transactions. However, demonetization caused short-term disruptions and hardships for the common people, including cash shortages, inconvenience, and slowdown in sectors like agriculture and small-scale industries. The long-term effects on the economy and common people are still a subject of debate. Demonetization was primarily driven by the need to address issues like black money, counterfeit currency, and illicit activities. The government intended to curb corruption, increase tax compliance, and disrupt funding for illegal activities. The move aimed to bring unaccounted cash into the formal banking system, enhance security features in currency notes, and promote a cashless economy. These measures were seen as remedies to combat corruption, promote transparency, and deter illicit activities. However, the effectiveness of demonetization in achieving these objectives has been a topic of contention. Critics argue that the implementation was flawed, causing hardships for the common people and impacting the economy. Supporters, on the other hand, view it as a bold and necessary step towards a corruption-free and digital economy. The politics of demonetization in India encompass various perspectives, including the government's intentions, opposition criticism, public perception, and electoral consequences. It remains a significant chapter in Indian politics, with ongoing discussions about its impact and long-term implications. The background and context of demonetization in India and its

significance of studying the politics of demonetization is the need of the times.

## **Objectives of the Paper:**

To analyze the political motives behind demonetization; To understand the intended remedies and outcomes; To examine the impact on different social groups; To evaluate the political divide and public perception and To assess the electoral consequences etc.,

## **Review of Literature**

Bhattacharya, A. (2017) article provides a critical analysis of demonetization in India, focusing on its political and economic implications. It examines the objectives, implementation, and consequences of the policy, discussing the impact on various sectors and social groups.

Chakravarty, S. (2017) study explores the political economy of demonetization in India, analyzing the underlying political motives and the impact on different stakeholders. It discusses the political implications of the policy and its alignment with populist economic reforms. Dey, S., & Banerjee, P. (2018) article examines the political dimensions of demonetization in India and its impact on society. It discusses the political motivations behind the policy, the response of political parties, and the social consequences, particularly on marginalized communities.

Kundu, A., & Kundu, D. (2019) work focuses on the rural economy, this study explores the impact of demonetization on rural areas and agricultural sectors. It analyzes the economic and social implications, including the challenges faced by farmers and the rural population.

Mohanty, B. K., & Mohanty, S. K. (2019) article investigates the impact of demonetization on the informal sector and marginalized communities. It highlights the challenges faced by vulnerable groups and discusses the policy implications for

their socio-economic well-being. Sharma, M. (2017) study provides a political economy analysis of demonetization in India. It examines the political motivations, policy implementation, and the impact on different social groups, discussing the political implications and public sentiment.

In nutshell, these literature sources offer valuable insights into the politics of demonetization in India and its impact on various aspects of society and the economy. They cover different dimensions such as political motives, implementation, sectoral impact, social consequences, and public perception, contributing to a comprehensive understanding of the topic. Researchers can further explore these works to gain a deeper understanding of the politics of demonetization and its implications for India.

#### **Research Methodology:**

Literature review helped to analyzing existing scholarly articles, books, and reports on demonetization and its political implications. Several case studies revealed realities by examining specific instances, events, and political responses related to demonetization. Data collection done. Of course, gathering data from official government sources, surveys, and interviews bit troublesome activity. The comparative analysis method was adopted while comparing the politics and impacts of demonetization in India with similar global initiatives

#### **The Discussion and Drawing inferences**

The politics surrounding demonetization in India has been a subject of significant discussion and debate. Here are some key aspects of the political dimension associated with demonetization. There were certain political motives behind this initiative. Demonetization was a decision taken by the Indian government, led by Prime Minister Narendra Modi of the Bharatiya Janata Party (BJP). It was seen as a bold move aimed at tackling issues like black money, corruption, and counterfeit currency. The government presented demonetization as a strong step towards achieving a corruption-free and digital economy. No doubt, there was popularity and support in initiation. Demonetization initially enjoyed widespread public support. Many people, frustrated with corruption and the prevalence of black money, saw it as a positive step to address these issues. The move was presented as a way to level the playing field and target the rich who possessed unaccounted wealth. Despite the opposition and criticism, the move was taken. However, demonetization also faced criticism from opposition parties. The implementation of demonetization was questioned, with critics arguing that it caused significant disruption to the economy and affected the common people disproportionately. Opposition parties accused the government of mishandling the process, leading to hardships for the

poor and a negative impact on sectors like agriculture and small businesses.

Difference of opinion due to political divide among the prominent political parties. Demonetization became a divisive issue in Indian politics, with supporters crediting it as a courageous step to curb corruption, while opponents viewed it as a poorly executed decision causing unnecessary hardships. The political divide on demonetization led to debates, protests, and political rhetoric between different parties and factions. It was observed that there has been Election Impact. Demonetization had both positive and negative electoral consequences. In the immediate aftermath of demonetization, the BJP claimed victories in certain state elections, attributing it to public support for their anti-corruption stance. However, the long-term electoral impact of demonetization remains a subject of debate, as it is just one factor among many influencing voter behavior. When we try to understand the public perception, the perceptions of demonetization among the general public varies. While some people praised the government's efforts to tackle corruption and promote digitalization, others criticized the implementation and questioned its effectiveness in achieving the stated objectives. The impact on the common people, particularly those who faced cash shortages and inconvenience, influenced public perception. It is important to note that demonetization's political implications are complex and multifaceted. Different political parties and individuals have diverse views on its success, impact, and motives, leading to ongoing debates and discussions in Indian politics.

#### **Demonetization in India: Causes and Remedies**

Demonetization in India, which occurred in November 2016, was primarily implemented to address certain issues and achieve specific objectives as mentioned already. The causes and intended remedies associated with demonetization are as follows. The causes primarily behind the initiative were identified and they are as follows. The major issue remains was Black money. One of the primary reasons for demonetization was to tackle the issue of black money, which refers to undisclosed income or wealth on which taxes have not been paid. The government aimed to curb the circulation of unaccounted cash and bring it into the formal banking system to promote transparency and increase tax compliance. Adding to it, the Counterfeit currency also main motive of the Government. Another significant concern was the circulation of counterfeit currency notes, particularly high-denomination ones. Demonetization aimed to invalidate the existing high-value currency notes and replace them with new ones featuring enhanced security features, making it harder for counterfeiters to replicate them. Third aspect is the terror financing

and illicit activities sensed by different agencies of the government. Demonetization also aimed to disrupt funding for illegal activities such as terrorism, smuggling, and corruption. By invalidating high-value currency notes, the government aimed to deter these activities, as the cash-intensive nature of such transactions would become more challenging.

#### **These were the intended remedies of Demonetization in India**

Formalization of the economy of the country was one of the remedies. Demonetization aimed to encourage people to deposit their unaccounted cash into the banking system, thereby promoting financial inclusion and formalization of the economy. By increasing the usage of formal banking channels, it was expected to reduce cash transactions and increase transparency. Digitalization and cashless transactions have become inevitable. The government intended to accelerate the adoption of digital payment methods by promoting cashless transactions. Demonetization was expected to encourage people to shift towards digital payment systems, such as mobile wallets, internet banking, and electronic transactions, thus reducing reliance on cash. Curbing corruption and addressing the tax evasion in the country. Demonetization was seen as a measure to deter corruption and increase tax compliance. By bringing unaccounted cash into the formal banking system, it aimed to identify potential tax evaders and discourage illicit activities that relied heavily on cash transactions. Enhancing security features were visualized by the government. The introduction of new currency notes with advanced security features was intended to combat the circulation of counterfeit currency. The government aimed to make it more difficult for counterfeiters to replicate the new currency, thus protecting the integrity of the monetary system. It is worth noting that the effectiveness of demonetization in achieving these intended remedies has been a subject of debate and analysis. While some argue that it had positive outcomes in certain areas, others highlight the challenges and adverse consequences faced by the common people and the economy as a whole. The politics of demonetization in India had different impacts on various social groups. It is pertinent to discuss the impact on different social groups. There is a glaring difference in between urban and rural users of banking system. The urban middle class effect. The urban middle class, which often had access to banking facilities and was more accustomed to digital transactions, generally adapted relatively well to demonetization. While they faced some inconvenience initially, they were able to make use of digital payment methods and alternative channels more easily. However, those with

significant cash holdings faced challenges in depositing their money and may have had to undergo scrutiny to prove the legality of their funds. Whereas the rural population factor is also important. The impact of demonetization on the rural population was more pronounced. Many rural areas had limited access to banking facilities, making it difficult for people to deposit or withdraw money. The agricultural sector, which largely operates on cash transactions, faced disruptions during the peak harvest season, affecting farmers' income and livelihoods. Daily wage laborers, who relied on cash payments, also suffered as their employment opportunities diminished.

The informal sector workers agonies were seen as miserable. The informal sector, comprising workers in small businesses, street vendors, and daily wage laborers, predominantly relies on cash transactions. Demonetization had a significant impact on this group, as their income and livelihoods were disrupted due to the shortage of cash. Many workers lost their jobs, and small businesses faced financial difficulties, leading to economic hardships for this vulnerable segment of society. The Low-income and Marginalized Communities situation was to miserable. The impact of demonetization on low-income and marginalized communities varied. Those who relied heavily on cash transactions for their daily needs faced immense hardships due to cash shortages. Access to banking facilities and digital payment infrastructure was limited in many areas where these communities reside, making it difficult for them to adapt to the sudden shift towards digital transactions. The economic slowdown resulting from demonetization further exacerbated the challenges faced by these communities.

Wealthy and Powerful Individuals had hardly any substantial impact. While demonetization aimed to target the wealthy and those with black money, the impact on this group was more complex. While some individuals may have faced inconveniences and scrutiny, they often had access to resources and connections to mitigate the effects. However, the exact impact on the wealthy and powerful, including their ability to convert their black money into legal tender, remains a subject of debate. It is important to note that the impact of demonetization varied within each social group based on factors such as access to banking facilities, digital literacy, and financial resources. The diverse impact on different social groups became a point of discussion and criticism in the political discourse surrounding demonetization

#### **Impact of Demonetization on Common people of India**

Demonetization, which took place in India in November 2016, had both positive and negative



impacts on the common people of India. It is necessary to discuss them in detail.

**The positive impacts of demonetization were as follows:**

Formalization of the economy was fine. Demonetization aimed to reduce the prevalence of black money in the Indian economy. By invalidating high-denomination currency notes, the government intended to encourage people to deposit their unaccounted cash into the banking system. This led to an increase in the number of people using formal banking channels, promoting financial inclusion and transparency. Digitalization and cashless transactions facilitate ease of life. Demonetization pushed people towards digital payment methods, such as mobile wallets, internet banking, and electronic transactions. This accelerated the adoption of digital payment systems in India and increased financial literacy among the population. It also created a conducive environment for the growth of fintech companies and innovation in the digital payments sector. Worked out in reduction in counterfeit currency. Demonetization aimed to curb the circulation of counterfeit currency notes, particularly high-value denominations. By introducing new currency notes with enhanced security features, it became harder for counterfeiters to replicate them. This helped in protecting the common people from falling victim to counterfeit currency scams.

**Negative impacts:**

The initial hiccups like cash shortage and inconvenience to people remained as major hurdle. Demonetization caused a temporary cash shortage as the older currency notes were withdrawn from circulation. This created difficulties for common people, particularly those who relied heavily on cash transactions for their daily needs. Long queues at banks and ATMs, limited cash availability, and restrictions on withdrawals led to inconvenience and hardships, especially for people in rural areas with limited access to banking facilities.

Disruption was found in informal sectors across the country. The informal sector, which largely operates on cash transactions, faced significant disruptions due to demonetization. Small businesses, daily wage laborers, and self-employed individuals, who relied on cash for their livelihoods, experienced a decline in income and employment opportunities. The informal economy took time to recover from the shock of demonetization. Economic slowdown and job losses took place. Demonetization had a short-term impact on the Indian economy, causing a slowdown in growth. The sectors most affected were agriculture, small-scale industries, and real estate. This slowdown resulted in job losses, particularly in the unorganized sector, leading to financial hardships for many individuals and their families.

It is important to note that the long-term effects of demonetization on the common people of India are subject to debate, as different studies and opinions present varying assessments of its overall impact on the economy and society. Curbing Black Money is a major challenge for any government in India. One of the primary objectives of demonetization was to tackle the issue of black money, which refers to undisclosed income or wealth on which taxes have not been paid. The government aimed to invalidate high-denomination currency notes to make it difficult for holders of black money to convert their unaccounted wealth into legal tender. By bringing unaccounted cash into the formal banking system, the government intended to identify potential tax evaders, promote tax compliance, and reduce the circulation of black money in the economy.

Promoting Digitalization and Cashless Transactions in both rural and urban bank customers. Another objective of demonetization was to accelerate the adoption of digital payment methods and promote a cashless economy. By restricting the availability of cash and encouraging digital transactions, the government aimed to reduce the reliance on cash, promote transparency, and curb illicit activities that thrive on unaccounted cash transactions. This objective aligned with the government's vision of a digital India and aimed to boost financial inclusion, enhance financial literacy, and encourage the use of formal banking channels.

**Impact on Common People:**

The impact of demonetization on common people in India was mixed and varied. While the long-term effects are still a subject of debate, the immediate impact included. Several instances of cash shortages and inconvenience to several people was a major obstacle. Demonetization led to a temporary shortage of cash as the high-denomination currency notes were invalidated. This resulted in long queues at banks and ATMs, limited availability of cash, and restrictions on withdrawals. Common people, particularly those who heavily relied on cash transactions for their daily needs, faced inconvenience and hardships in accessing their own money.

Huge impact on the disruption in daily lives of the people. The sudden demonetization created disruptions in various sectors and affected the livelihoods of common people. Small businesses, daily wage laborers, and self-employed individuals, who heavily relied on cash transactions, experienced a decline in income and employment opportunities. The informal sector, which predominantly operates on cash, faced significant challenges, impacting the lives of millions of people.

Digital Payment Adoption Process is done to a possible extent. On the positive side,

demonetization pushed people towards digital payment methods. It accelerated the adoption of mobile wallets, internet banking, and other electronic payment systems. This had a positive impact on financial literacy and encouraged common people to embrace digital transactions. Still, there was mixed economic impact. Demonetization had short-term repercussions on the Indian economy, with sectors like agriculture and small-scale industries experiencing a slowdown. This, in turn, affected the income and purchasing power of common people. However, the long-term impact on the economy and its direct correlation with demonetization remains a subject of debate.

It's important to note that the impact of demonetization varied across different sections of society and geographical regions. While some people may have benefited from the push towards digital payments, others faced hardships due to cash shortages and disruptions in their daily lives.

#### **Findings:**

Whatever might be the political motives behind the process. The above arguments and observations help to uncovering the primary objectives and motivations behind demonetization. Impact on the economy and society in assessing the short-term and long-term effects on various sectors and economic indicators pointed out that both positive and negative aspects. Social impact point of view in analysing the consequences on different social groups, including the urban middle class, rural population, informal sector workers, and marginalized communities both miserable instances and ease of life. Political divide was the matter of concern. The dream of government and people yet to achieve as far as the issue is concerned. These issues were examined from the debates, criticisms, and support from different political parties and factions. Public perceptions vary from the individual to individual. Some of the respondents felt that they had to face difficult situations on other hand some respondents felt that it was a necessary evil to streamline the economy of the country. Evaluating the general sentiment and public opinions surrounding demonetization. Electoral consequences need to be understood in assessing the impact on electoral outcomes and voter behavior during pre and post demonetization.

#### **Conclusion**

Summarizing the objectives and motivations of demonetization, discussing the impact on the Indian economy and society, analyzing the political divide and public perception, evaluating the electoral consequences support that the process has both positive and negative impacts on economy and society. Highlighting the limitations of demonetization as a policy tool, recommending potential policy adjustments and

improvements. It is an attempt to understand the process and mechanism to achieve the objectives of government initiative. Implications and future research is the also very much essential. Discussing the broader implications of the politics of demonetization in India, identifying areas for further research and analysis, such as long-term economic effects and policy implications. By examining the politics of demonetization, this research paper aims to contribute to the existing body of knowledge on this significant policy measure, its political motivations, and its impact on the Indian economy and society. It provides a comprehensive analysis that can inform policymakers, researchers, and the public in understanding the complexities and implications of demonetization in India.

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## Rural Settlement Pattern in Nanded District: A Geographical Review

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### Abstract

Such studies are necessary for determining various aspects and problems associated with the human beings. Settlement geography is recent branch of human geography. Settlement is an establishment way of life, an abode, a shelter or dwelling where man retires from his days work for relief. The study of habitat is relatively recent sprout from the venerable trunk of human geography. 'Settlement' term is derived from the word settle. The word 'settle' means to establish or become established in more or less permanent abode. It also means temporary residence at a place. Settlement is the basic need of human being. Settlement is divided into two parts that is urban and rural settlement.

**Key words** settlement, establish, place, human being, rural settlement

### Introduction

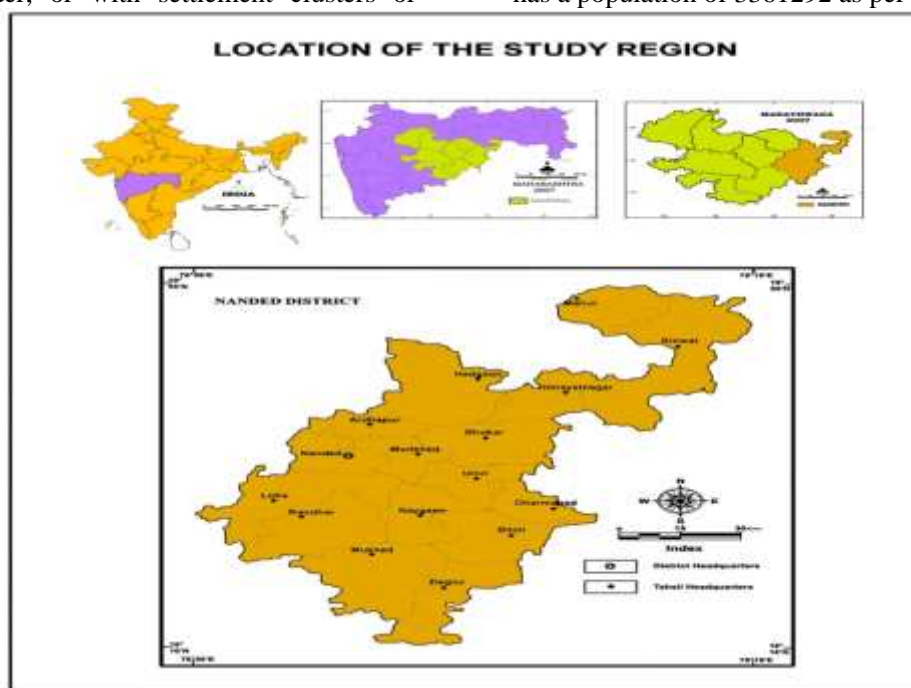
During human adaptation with the environment, man came in close contact to various environmental features and this adaptation brought fourth change in his physical landscape. These changes are identified as cultural landscape and present man's relation to man upon earth. 'Settlement' means the settlement units representing an organized colony of human beings together with the buildings in which they live or that they otherwise use and the paths and streets over which they travel. Settlement is concerned not only with buildings grouped around the permanent farm dwelling, but also with the temporary camp of the hunter or herder, or with settlement clusters or

agglomeration, running the scale from hamlet to village, to town, to city and to metropolis.

A definition incorporating both the themes in best possible way is that "rural settlement geography is concerned with the orderly description and interpretation of processes, patterning, functions and the spatial organization of human occupance within rural environment over the earth surface.

### Study Area

Nanded district is located in the eastern part of Marathawada. It lies in Godawari river basin. It extends from 18° 16' north latitude to 19° 55' north latitude and 76° 56' east longitude to 78° 19' East longitude. It covers an area of 10527.87 KM<sup>2</sup> and has a population of 3361292 as per the 2011 census.



This district is divided into 16 tahsils for administration. These are Nanded, Ardhapur, Mudkhed, Mahoor, Kinwat, Hadgaon,

Himayatnagar, Bhokar, Umri, Biloli, Naigaon, Dharmabad, Kandhar, Loha, Mukhed and Deglur

**Research Methodology**

The present study has been accomplished with the help of scientific methods both in the field and in the laboratory. Following statistical techniques are used to understand the pattern of settlement

1. Dispersal Index :  $\frac{\text{Average Population Size of Settlements}}{\text{Average Spacing of Settlements}}$ 
  - a. Average Population Size of Settlements :  $\frac{\text{Total Rural Population}}{\text{Number of Settlements}}$
  - b. Average spacing :  $\sqrt{\frac{\text{Total Rural Area}}{\text{Number of Settlements}}}$

**Settlement Classification**

A rural settlement is mainly an agricultural workshop and as such it cannot be separated from the land whose use it ensures. Its shape and arrangements are often in strict accord with the kind of work, the agricultural technique and the way the soil is used. According to Arousseau the arrangement of rural settlements as geographical entities express the grouping of dwellings and their inter-relationship, makes the different types of rural settlements.

Rural settlements are classified in different ways. Some geographers have considered site as important criteria for the classification of rural settlements. On the one hand the pattern has been guided by physical aspects such as nature of topography, source of water supply, drainage

pattern, soil condition, etc. On the other hand it is also related to the socio-economic conditions such as land use, land tenure, crop association, means of transportation and density of population.

Many geographers have studied settlement types but they have not given their clear explanation. Demangeon tried to explain why rural settlements are dispersed or agglomerated. According to him, villages are compact in plain areas whereas in rugged or broken area dispersed settlements are more common.

**Settlement Types**

For purpose of classification a statistical method of Mandal has been applied and the results have been presented through a table and a map. Considering size and spacing of rural settlements dispersal index is calculated as follows:

**Spacing, Size And Dispersal Index**

Sr. No.	Tahsil	Average Spacing	Average Population Size	Dispersal Index
	Nanded	2.18	1889	866.5
	Mudkhed	2.49	1540	618.4
	Ardhapur	2.35	1863	792.7
	Bhokar	2.71	1471	542.8
	Umri	2.50	1154	461.6
	Kandhar	2.53	1536	607.1
	Loha	2.57	1521	591.8
	Deglur	2.88	1439	499.6
	Mukhed	2.45	1437	586.5
	Biloli	2.62	1554	593.1
	Dharmabad	2.45	1084	442.4
	Nigaon	2.57	1873	728.7
	Kinwat	2.86	1020	356.6
	Mahoor	2.43	975	401.2
	Hadgaon	2.67	1358	508.6
	Himayatnagar	3.05	1288	422.2
	<b>District</b>	<b>2.58</b>	<b>1437.6</b>	<b>563.7</b>

Source : Compiled by the Author

**Settlement Formation:**

Values of Dispersal index have been grouped according to median and quartile values. The higher values indicate compact settlements whereas, lower values indicate sprinkled settlements. The dispersal values range from 356.6

to 866.5 The spatial distribution of settlements according to types is as follows :

**c. Compact Settlement:**

The table clearly shows that the compact settlements are found in fertile tracts of the Godavari and Manyad rivers. This includes

Nanded, Mudkhed, Ardhapur and Nigaon tahsils. Rainfall and irrigation are important factor affecting settlements types. In areas of poor rainfall in Balaghat and Mudkhed ranges, surface water accumulates in ponds therefore; compact settlements are built around these water-bodies. In areas where the ponds are frequent & deep wells and tube wells are constructed, the settlements are compact e.g. Betak Biloli, Sugaon, Pvedwadi, Punegaon, etc.

In this group of tahsils the average size of the rural settlements is comparatively large. And most of the settlements located in these tahsils have dense population and close spacing between the houses. This is the area where agriculture is highly developed. The dispersal values in this group range from 607.2 to 866.5.

**d. Semi Compact Settlement :**

The semi compact settlement is an intermediate type between the zones of compact and sprinkled settlements and is more common in the extensive fertile areas where the water table is high and wells can be sunk, easily. Such type of settlements is found in areas where the drainage texture is dense particularly in Loha, Kandhar and Mukhed tahsils. Wadi inhabited by low caste people surrounding the main settlement is a peculiarity of this type. The range of dispersal values of this group is from 564.3 to 607.1.

**e. Semi sprinkled settlement:**

Semi sprinkled settlements are found in the areas characterized by adverse physical conditions as rugged topography with low rainfall. A Wadi inhabited by workers and low caste people surrounding the main settlement is a peculiarity of this types e.g. settlements in Hadgaon, Bhokar, Umri and Deglur tahsils. These settlements are small in size and they are located near cultivable land. The dispersal values range from 442.5 to 564.21 for this group.

**f. Sprinkled Settlement:**

Sprinkled settlements are scattered in the areas of forest and hilly areas with drier climate and poor soils. Houses are largely made of materials gathered from forest e.g. settlements in Kinwat and Mahoor tahsil. Sprinkled settlements are also found in Himayatnagar and Dharmabad tahsils. The average population size in these tahsils is less than 1300. Most of the hamlet or wadi forms of rural settlement are dominant in these tahsils. The dispersal values of this group range from 442.4 to 356.6.

**Conclusion**

Dispersal index is calculated to analyze the types of rural habitats considering population size and average spacing of rural habitats in the region. This study reveals that compact settlements are more in

fertile areas of the Godavari and Manyad river basin and sprinkled and semi-sprinkled settlements are more in hilly and forested areas of Kinwat and Bhokar tahsil.

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## **Public Library and Tribal Society Development**

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### **Introduction**

A public library is generally understood as a library run by the people for the people. It is mostly true. According to the aspects of the various functions of public libraries that are important to the experts, they have described them in different ways and in different words. e.g. Some people think that public library is an information center, while some people think that public library is an institution that provides useful information in various fields of life. These are all the characteristics of a real public library. Because the public library is a democratic social institution providing education, culture and information the thoughts of man, his ideas and the literature created by his own talent are collected and preserved in such libraries and made available to the public.

### **Definition:**

It was defined by UNESCO in 1949 as broad enough to include all qualities and characteristics of public libraries. In the year 1962, it was revised chronologically and made accurate. He has announced it in his advertisement.

### **It is a public library as follows –**

1. A large part of the expenditure is collected from public funds.
2. The library is open door and provides free library services to readers of all castes and religions without any discrimination.
3. The nature of a library is like a voluntary educational institution. There is a performance of continuous education.
4. Readers are provided with maximum information on various subjects, without prejudice. For this, various educational information providing tools are integrated. Various social and cultural activities are undertaken. This definition includes certain basic guidelines.

### **Information center-**

Public library should not be only a place of entertainment but also an important center for obtaining information. In today's age of science where life is fast paced, readers need to get new information in various fields. That information should be true, absolute and objective. It should not be wrong, partial, outdated and biased. Collection, acquisition, preservation and free distribution of such money to the needy should be done without delay. Just as this process involves the flow of information,

so does its philosophy of democracy. Readers have the right to ask for information and it is the duty of public libraries to do so.

### **Centers of Self-Education-**

Educational institutes provide education in limited subjects during certain periods and accordingly their libraries provide knowledge materials to their readers. Man is an animal who cultivates many hobbies and takes interest in many subjects. Even after the completion of the student phase, he is still acquiring knowledge, taking the information he can get, reading and studying. Trying to master the

subject of interest. At such times public libraries are very useful and can fulfill a great educational responsibility. That is why the public library becomes the center of self-learning.

### **Center for cultural enrichment –**

Books work to develop human consciousness and provide knowledge and pleasure in his spare time. It includes poetry, drama, music composition, sculpture, dance, painting like Gandha literature. All these things refine the mind and intellect and bring a kind of cultural glory to man. Public libraries protect the local cultural heritage of the area. It is made available there according to the needs of the readers. is provided there. It is also a learning centre, information center and cultural centre. It is a very necessary organization in democracy and its nature is charitable and enlightening.

### **Tribal welfare programs:**

Under the British rule, the tribals and their oppression became severe. However, the policy of the British rulers towards the tribal community was negative. That is, the British policy was that no interference should be made in the affairs of the British until the tribal tribes did not become a hindrance in the administration of the British. Thus, despite the neglect of tribal development, the welfare program of Indian tribals was started during this period. Development of tribals is a welfare program for them

Many voluntary organizations and activists started trying for tribal welfare. Thus, the tribal welfare efforts which started in the pre-independence period gained more momentum in the post-independence period. A detailed overview of tribal welfare program can be taken as follows.

### **Tribal welfare programs in pre-independence period:**

We can distinguish two main types of tribal welfare programs namely tribal welfare programs at government level and tribal welfare programs at non-governmental level. While considering the tribal welfare program in the pre-independence era, one has to think only about the tribal program at the non-governmental level. Because the British never took a positive stance to solve the problems of the tribals. Despite realizing the complexity of tribal issues, the policy of the British rulers was negative. As a result, it has to be said that the tribal welfare program at the government level started in the post-independence era.

In the pre-independence era, the tribal issues were not given special attention as the main objective was to make the country independent. It has to be admitted that some Christian missionaries did remarkable work for tribal welfare during the pre-independence era. Also, taking inspiration from Mahatma Gandhi, many social reformers have contributed to solve the problems of tribals. E.g. A.D. In 1922 K. Thakkarvappa established the organization 'Bhill Seva' in Gujarat and 'Bhill Seva Mandal' was established in Khandesh. At the same time, the work done by Mrs. Godutai Parulekar to solve the problems of tribals is remarkable. Briefly, in the pre-independence era, sporadic attempts were made to solve tribal problems at the mortal level. Due to the lack of financial support from the government, it is natural that the tribal welfare efforts at the non-governmental level are very limited.

### **Constitutional Provisions for Protection of Tribals:**

Tribal Enterara to National Leaders During Freedom Movement

During the period before the establishment of the pass, the issue of tribals only: there were sporadic attempts at the kari level. Due to the lack of financial support from the government, it was natural that the tribal welfare efforts at the non-governmental level were very limited. Constitutional Provisions for the Protection of Tribals The national leaders of the time of the independence movement were certainly aware of the complexity of tribal issues. It was clear that without special efforts to protect the tribal tribes, it was not possible to stop the unknowing attack of the advanced society on them. Therefore, while framing the Constitution of India, some provisions were made for the protection of tribal tribes. The constitutional provisions for the protection of tribals are as follows.

1. Certain provisions of the Indian Constitution grant any tribal person equal status with ordinary Indian citizens. E.g. There shall be no

discrimination on the basis of religion, race, caste, gender, place of birth. This provision has been made in Article 15 of the Constitution. Also, according to Article 16 of the Constitution, there will be no discrimination in government jobs. ie the common Indian According to the principle of equal opportunity, the tribal person has been accorded independent rights equal to other Indian persons. According to the 19th article of the constitution, everyone has got freedom of conduct, thought, speech, business and communication anywhere in the country, disposal of wealth etc. Thus certain provisions of the Indian Constitution provide tribal persons with all manner of equality with other citizens. In other words, the Constitution guarantees equal treatment to all persons including tribals in India in all places like educational institutions, public parks, hospitals, hostels etc.

2. The Indian tribals were completely trapped in the financial exploitation by moneylenders, contractors and landlords to free them from the following special provisions in the constitution. According to Article 23 of the Constitution, forced labour, prostitution, unethical trade in persons etc. have been made illegal. It is because of these provisions that the government has been able to free many tribal persons and tribal families from the vagrancy.
3. There is a lot of diversity in terms of languages, festivals, customs and culture of tribal tribes. Tribals are very few in number. Despite this, according to the 25th and 22nd article of the constitution, individuals have got religious freedom. Also their educational and cultural rights have been protected. Thus, it is only because of these constitutional provisions that it is possible to protect the culture of the tribal tribes, which are small in number.
4. Development of these tribes is not possible unless tribals get proper representation in democratic governance. For this, some seats have been reserved for tribal representatives in the Lok Sabha and in the Legislative Assemblies of the constituent states on the basis of population. In other words, the provisions of reserved or protected constituencies have made it possible for the Adivasi representative to express the tribal people's opinion in the Constituent Assembly and the Lok Sabha.
5. The tribal population is very high in the three constituent states of Orissa, Bihar and Madhya Pradesh. Therefore, it has been provided in accordance with Article 165 of the Constitution that an independent Minister for Tribal Welfare and Development should be appointed in any cabinet in the three constituent states. In every

case, generally in the constituent states where the number of tribal tribes is large, one minister belongs to the tribal tribe in the cabinet of all such constituent states. Also, the Union Cabinet usually includes at least one tribal person. Thus the tribals in the government The system of representation shows that indirect transactions have been created in all the constituent states of India.

6. Under Article 338 of the Constitution of India, the President can appoint officers for the protection of Scheduled Tribes.
7. The number of tribal tribes is very high in Assam and the region around Assam i.e. North East India. Keeping in mind that the nature of the problems of these tribes is also complicated, the following special provision has been made in the constitution. The tribal area of Assam can be divided into two parts. One is an autonomous district and the other is an autonomous region. These autonomous districts will have 'Zilla Committees' and autonomous areas will have 'Area Committees'. These committees have been given the right to make laws regarding land, forest, agriculture, property, marriage and other social issues and the work of justice has also been entrusted to this committee. Whether or not ordinary Acts of Parliament apply to this area will also depend on the opinion of the committee. Thus, as per the 5th Schedule of Article 244, a separate arrangement has been made for the administration of tribal areas. A provision has been made to appoint a tribal advisory board to advise the governor for tribal welfare in the state having tribal tribes in Patne.
8. According to Article 335 of the Constitution of India, some seats have been reserved for the tribal candidates in the government service and the age limit condition has been relaxed for them to enter the job.
9. It is clear from the constitutional provisions for the welfare of the tribals that the constitution has entrusted the government with the responsibility of bringing about educational, economic and social reforms among the tribals. Special provisions have been made in the constitution so that the government can solve the serious problems of the tribals in the area of Madhya Pradesh and Assam in North East India. Due to the constitutional provisions it can be said that the role of the government in the tribal welfare program becomes the most important.

#### **Role of Government in Tribal Welfare Program**

**Constitutional Responsibility:-** The provisions of the Indian Constitution on tribal welfare make it the responsibility of the government to formulate and

implement the tribal welfare programme. No matter which political party the government is in power, every ruling government has to fulfill its constitutional responsibility. It can be said that tribal welfare programs are the responsibility of the government system at all three levels namely central government, unit state government and state institutions.

Some schemes for Adi Gali welfare are prepared by the central government while some schemes are prepared by the state governments. Governments at both levels have to allocate financial funds to implement tribal welfare programmes. Come to the administration system in local bodies Financial subsidy is also given for the implementation of the program. In short, due to the policies of the ruling political party, the prejudice towards tribals as weak, and the foresight of the leaders, tribal welfare programs are not being prepared; So they are created and implemented to fulfill the constitutional responsibility. Nature of tribal welfare program prepared by the government: Crores of rupees have been spent for tribal welfare program from the first five year plan to the tenth five year plan. The tribal welfare program implemented in the post-independence era can be explained as follows.

**1. Education:-** Many vested interests take advantage of the ignorance of tribals. Their extraordinary ignorance is the most important reason for their miserable life. That is why education has been given special importance and priority in their welfare program. It is the main duty of the welfare state organization to provide many educational benefits to the tribals. The concessions created for tribals can be described as follows.

With the aim of providing education to the new generation of tribals and at the same time creating facilities for their professional education, ashram schools were established in the tribal department. Apart from primary education, various professions like agriculture, spinning, weaving are also being taught in these schools. The cost of food, cloth etc. of the students in this school is paid by the government. In Maharashtra, ashram schools are run by private institutions. They are given subsidy by the government. Electrical and mechanical engineering education is given in ashram schools in Bihar, Manipur area. In Assam, Bihar, Orissa, Madhya Pradesh, technical education schools have also been opened for the tribals along with ashram schools. The number of orphanages and technical schools is being increased by making provisions in every five-year plan.

The government has planned to give scholarships to the tribal students so that they can meet the expenses of books, clothes, lunch etc. till the examination in the schools. This scheme is implemented in all the



constituent states. For this, the government is providing a large amount of money.

In order to provide higher education to the tribals, the government is implementing a scheme to provide scholarships to the tribal students who are pursuing lifelong education. The scholarship amount of tribal students is also increased from time to time. In order to prepare the tribal students for the competitive examination conducted by the Public Service Commission, the government has established special guidance institutions for the tribal candidates. In order to facilitate the admission of tribal students in various educational institutions, some reserved seats have been kept for them in the educational institutions.

1. In admissions for Asian students to be admitted to educational institutions

Multi-Disciplinary Research Journal / Vol 5 percent discount is also given to them if they meet the eligibility criteria.

**2. Tribal Welfare:-** From this discussion it is clear that special emphasis is being laid in the tribal welfare program to increase the level of education in the tribal society. Also due to this, the level of literacy in tribal society has increased than before. Due to scholarship, the literacy rate in the tribal society has increased more than before. The number of tribal students pursuing education has increased due to the scholarship scheme and the number of these students is increasing every year.

**3. Economic development:** Agriculture, cottage industries, cooperative societies, housing schemes etc. are included in the tribal welfare program for the economic upliftment of tribals. Agriculture has been given priority in tribal welfare programme. Because the occupation of majority of tribals is agriculture.

Agricultural land is being made available as a benefit of sustainable agriculture. The Maximum Retention of Agricultural Land Act means that tribals are given priority in allotment of agricultural land received by the government from the ceiling. The government has passed a law to prevent the transfer of tribal agricultural land. According to this law, transactions related to sale, donation, mortgage and contract of land owned by tribals cannot be done by non-tribals.

Many pilot schemes are being implemented by the central government to improve the farming practices of tribals. The result of this scheme is that more than 400 tribal families in Madhya Pradesh, Tripura, Bihar, Orissa have started farming. In short, through Panchayat Samiti, tribal farmers are being encouraged to practice modern farming. For this, chemical fertilizers, seeds, small implements required for agriculture are being made available to tribal farmers at low cost. Cottage industry is a complementary industry to agriculture. Therefore,

in the five-year plan, emphasis is being laid on the cottage industries of tribals. The government has made special provisions for tribals to know the modern techniques of cottage industries, to make the manufactured goods available in the market and to get financial assistance for the growth of trade. Weaving, sewing, basket making, rope twisting etc. are being taught. Loan facility is being provided for cottage industries. In every five-year plan, financial provision is being made on a regular basis for the development of tribal cottage industries. E.g. Tents were reserved for the second five-year Yoj Tol Kuti Yoga. Out of Rs.5.74 crores, Rs.2.56 crores would be reserved for Adi Gasi Chitirudyogy.

Animal Husbandry, Poultry Husbandry, Pig Husbandry are specially made by the government for tribals to do. Emphasis is being laid on creation of cooperative credit funds to provide financial support to tribal small scale industries. In various states of India, tribals have been waived on their loans till date. Loans with low interest rates are being made available to tribals for agriculture and small scale industries. From this discussion, it is clear that the government is making great efforts for the development of tribal cottage industries. A special emphasis has been laid in the tribal welfare program to create cooperative societies for the economic development of tribals. Due to various forms of exploitation of tribals, ignorance of the provisions of law and restrictions imposed on tribals by the Forest Act, the need for cooperative societies of tribals in the forest department became acutely felt. Co-operative societies of tribals have been formed in many states including Maharashtra. For this purpose, the government has provided 14 crore rupees and more than 1000 cooperative societies are working for tribals.

Garan started to feel intense. Co-operative societies of tribals have been formed in many states including Maharashtra. For this, the government has provided Rs. 14 crores and more than 1000 cooperative societies are working for tribals. Bibliography Balekar Rs. :

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## Fundamental and Technical Analysis of IT Companies Included NIFTY IT Index

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### Abstract

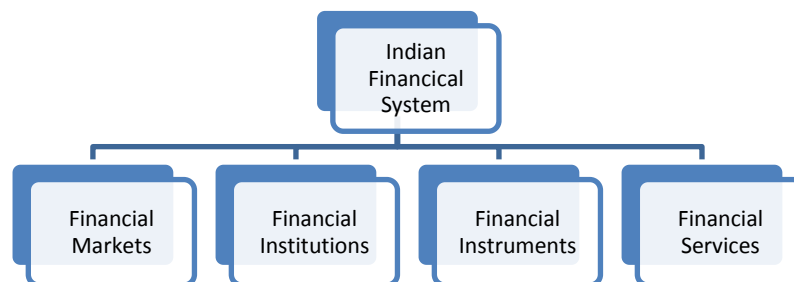
As it is evident that the mobility of people has hampered to a great extent by the pandemic. This leads to the need of digitalization. Digitalization is the mode which, despite of the lacuna inherent in it, helps the country in maintaining its pace. Now, in today's time the country has become the digitalization hub. It is inevitable in the functioning of financial market also. It helps in making the trading more convenient and paperless. This research work analyzes the work which has already been done regarding the fundamental and technical analysis of the companies. This work substantially focuses on the examination of effectiveness of the tools and techniques of aforementioned analysis that can be used by the investors in making their investment profitable.

### Introduction

This research is designed to examine the tools and techniques of fundamental analysis and technical analysis. Fundamental analysis helps determine the intrinsic value of a stock which takes into consideration the financial statements, events and industry trends. The tools and techniques of fundamental analysis are used to determine the key attributes and worth of a company. It includes economic analysis, industry analysis and company analysis. On the other hand, technical analysis is

concerned with the analysis of stock price and volume of trade to predict future price movement. Tools in technical analysis are used in such a manner that they examine how demand and supply for a stock influence its price and volume of trade. Both these analyses are useful for making investment decisions.

The present chapter discusses the concept of the Indian financial system, financial markets, secondary market, SEBI, stock exchanges i.e. BSE and NSE, and their indices.



**A financial system** is a system of financial markets, financial institutions, financial assets, and financial services. It involves the exchange of funds between those who invest funds and those who utilise funds. **Financial markets** are the markets where people trade in financial securities and derivatives. It includes the money market and capital market. **The money market** is the short-term market where short-term funds are traded whose maturity period is less than a year. The Reserve bank of India is responsible for the working of the money market which comprises government securities (t-bills, call money), and corporate securities (commercial papers, certificate of deposits). **The capital market** is the market for long-term securities in

which securities with a maturity period of more than a year are traded. The securities and exchange board of India is the controller of the capital market in India. Capital markets are further classified as primary and secondary markets. In **primary markets**, newly issued securities are offered for example initial public offer (IPO) and follow-up public offer (FPO) whereas in **the secondary market** already issued securities are traded publically. The secondary market is driven by market forces of demand and supply.

**Financial institutions** act as a connecting pin between lenders and borrowers. These institutions are the mediators who link the parties involved in a financial transaction. Financial intermediaries are

another name for **financial institutions**. These can be classified into two categories that are banking institutions and non-banking institutions.

**Banking institutions include:**

1. Commercial banks
2. Co-operative banks
3. Regional rural banks
4. Foreign banks

**Financial instruments** are the assets that represent a legal agreement involving some monetary value. It can be a real or virtual asset that can be traded in financial markets. For example equity, debentures, treasury bills, commercial papers, etc. **Financial services** are the services provided by the financial sector that includes banking, insurance, investment banking, foreign exchange services, etc.

**The securities and exchange board of India** is the regulator of the capital market in India. It was established on 12 April 1988 and was given statutory powers on 30 January 1992 through SEBI Act, 1992. It has its headquarters in Mumbai, India. It regulates both primary and secondary markets. Its objective is to protect the rights of investors and promote, regulate, and develop the secondary market. It regulates stock exchanges. Two major stock exchanges in India are the **Bombay stock exchange** popularly known as **BSE** and the **National stock exchange (NSE)**.

**Bombay stock exchange** is the oldest stock exchange in Asia which was established in 1875. It is situated in Mumbai, Maharashtra. It is the fastest stock exchange in the world with a speed of 6 microseconds. NSE's index is known as **S&P BSE SENSEX**. The other indexes are S&P BSE 50, S&P BSE Sensex next 50, S&P BSE 100, etc.

**The national stock exchange**, established in 1992 is the first dematerialized stock exchange in India that provides a fully automated screen-based electronic trading system. It is located in Mumbai, Maharashtra. In 2021 it is the world's largest derivatives exchange by the number of contracts. NSE's index is NIFTY 50 which consists of 50 stock indices. It is launched by NSE in 1996. NSE also has sectoral indices for example nifty bank index, Nifty auto index, nifty FMCG index, nifty IT index, nifty media index, etc.

**Investment**

The whole financial system talks about investments. When a person, who has extra money than required, invests his extra cash in securities or other assets this is called investment. Investment is of mechanism which is used for generating future profits, which can be in terms of future regular income or terms of capital appreciation.

**The investment could be done in**

1. Real assets
2. Financial assets
3. Commodity assets

**Investment process**

This investment requires a series of activities to be performed. Generally, it is a five-step process including investment policy, security analysis, valuation of securities, construction of portfolio and valuation of the portfolio.

**1. Investment policy:**

The first step in the process of the investment process is deciding the investment policy. It includes the determination of investible funds, the objective of investments and the knowledge regarding alternatives and markets.

**2. Security analysis:**

This step involves analysis of individual securities and overall market analysis. Security analysis involves:

1. Fundamental analysis
2. Technical analysis
3. Risk and return analysis
4. Efficient market hypothesis

**3. Valuation of securities:**

This step involves the calculation of the value of securities; the present worth of securities to the investor is considered and compared to the current market price.

**4. Construction of portfolio:**

A portfolio is a combination of various securities in such a way that it fulfils the investor's objective. A portfolio is constructed to reduce the risk to the minimum level and to maximize the profits of the investor.

**5. Valuation of portfolio:**

This is the last step of the investment process. In this step, the value of the portfolio is ascertained. The portfolio has to be managed efficiently. This process consists of regular management and evaluation of the portfolio.

**Security analysis**

Analysing the securities before investing is a very crucial step. This step helps in making decisions on whether to buy or sell securities by indicating possible market trends. Analysing securities involves fundamental analysis, technical analysis, risk and return analysis and efficient market hypothesis. A brief explanation of fundamental and technical analysis is as follows.

**Fundamental analysis** is the assessment of a business's financial statements which facilitates the investors in making investment decisions. It is used to determine the intrinsic value of the stock. Furthermore, it helps in analysing the company's health, profitability and liquidity. Again it is a useful source to form an opinion on the overall state of the economy and macroeconomic factors including interest rate, employment, GDP, manufacturing and management.

Fundamental analysis can be done with either a **top-down approach** or a **bottom-up approach**.

**When an** investor follows a top-down approach analysis starts with the analysis of the overall economy by analysing various macro-economic factors like gross domestic product, inflation, interest rates, etc. Followed by the analysis of the industry where the performance of the whole industry is taken into consideration. And at last, analyzing the company's financial performance by analyzing its earnings per share, dividend yield ratio, dividend payout ratio, and return on equity. Whereas in the bottom-up approach investor initially analyse companies followed by industry analysis and economic analysis.

#### **Phases of fundamental analysis:**

1. **Economic analysis:** In economic analysis, the overall health of the economy is analyzed. How the economy is performing directly impacts the performance of a company so it is very important to analyze the economic conditions. If the economy is growing then it will offer a positive environment for the company to grow. In the same way, if the economy is showing signs of recession it will be hard for a company to perform well.
2. **Industry analysis:** Industry analysis involves analysis of the performance of that industry by identifying of demand and supply gap, the competitiveness existing in the industry, government regulations, production factors, etc. The stage of growth of many industries can be classified into three stages i.e. pioneer stage, expansion stage and growth stage
3. **Company analysis:** Company analysis is an important part of fundamental analysis. It involved analyzing a company's balance sheet, cash flow statement, and financial ratios. Profitability ratios are calculated to calculate the intrinsic value of the stock.

#### **Tools used in company analysis:**

1. EARNINGS PER SHARE;
2. PRICE TO BOOK RATIO;
3. DIVIDEND YIELD RATIO;
4. DIVIDEND PAYOUT RATIO;
5. PRICE TO SALES RATIO;
6. RETURN ON EQUITY.

**Technical analysis**, in its scope, is used to forecast the price movement of different securities with the understanding of past market data, primary price and volume. It helps in analysing the market trend for availing the benefits of trading opportunities. Technical analysis includes the study of past prices and volume to find out trends and predict future price movements. Technical analysis uses various indicators which indicate possible fluctuations in the stock market. It uses historical data to predict future prices.

#### **Tools and techniques used in technical analysis:**

1. Trend lines
2. Support and resistance levels
3. Moving averages
4. Chart pattern
5. Candlestick chart
6. Trading volumes
7. Oscillators

#### **Literature Review**

**P. Prakash And S. Sundararajan. (2016)** in their paper titled "**An Analytical Research On Fundamental And Technical Analysis Of Icici Bank Stocks In India**" performed analytical research that deals with the facts and data related to the stock prices of ICICI bank. For the purpose of fundamental research, company analysis has been done with the help of ratio analysis. And for technical analysis, tools such as Beta analysis, Relative strength index (RSI), and rate of change (ROC) have been employed. The stock market is very volatile and is very important to have its knowledge for making a profit. The researchers concluded that the fundamental and technical analysis helps the investor in wisely investing their funds.

**Bulow, Staffan. (2017)** studied in their research headed "**The Effectiveness Of Fundamental Analysis On Value Stocks-An Analysis Of Piotroski's F-Score**" replicates Piotroski's f-score model of investment on the US market for a period of 9 years starting from 2003 to 2015. The results have shown that the portfolio with a higher f-score earns a return of 18.3% annually whereas the portfolio with a lower f-score earns a 4% of annual return. The significant mean difference in the return of the portfolios of 14.3% indicates that fundamental analysis is useful in determining the winner and loser stocks. The author also noticed that the best benefit of this investment strategy can be found in small and medium firms. Behavioural finance perception also acts as a supporting hand in the success of this strategy. Furthermore, value stocks were been abandoned by the investors due to cognitive biases and fundamental analysis can use this by finding financially strong firms in an unbiased manner.

**S, Shilpa K, J, Arya Mol And Ambily A.S (2017)** in their paper named "**The Study On Fundamental Analysis Of Selected It Companies Listed At Nse**" studied the performance of IT companies and fundamental analysis of selected five companies and found out the intrinsic value of their shares. Mainly secondary data has been used in the research. The fundamental analysis has been done in three stages namely, economic analysis, industry analysis and company analysis. The tools used in economic

analysis were GDP, inflation, fiscal deficit, current account deficit, etc whereas, for industry analysis, government preference, entry barriers and porter's five force model were used. For the company analysis, various ratios were used for example; dividend payout ratio, EPS, P/E ratio and debt to equity ratio were used to calculate the intrinsic value of the share and to find out whether the stocks are undervalued or overvalued. Five years of economic data i.e. from 2011-12 to 2015-2016 have been collected and the data of five companies (WIPRO, INFOSYS, TCS, MINDTREE and HCL TECH) were taken for company analysis. After the detailed analysis, the researcher found that the intrinsic value of shares of WIPRO, INFOSYS and TCS is more than their market price (i.e. shares are underpriced) so the authors recommend that investors should hold or buy the stocks of these companies as the market is expected to increase in future. On the other hand, the intrinsic value of shares is less than their market price (i.e. shares are overpriced) therefore, the market share prices of MINDTREE and HCL TECH are expected to fall in the future. So, the investors should sell the shares of these companies. The study recommends that investors should have IT sector companies in their portfolio as it is one of the most promising sectors of the economy. IT sector companies are expected to give significant returns on their investment.

**Uthami Wiwik, Nugroho Lucky, Farida. (2017).** has researched the topic **Fundamental Versus Technical Analysis Of Investment: Case Study Of Investors Decision In Indonesia Stock Exchange.** **Journal Of Internet Banking And Commerce** to know the preference of investors in the selection of the method for stock analysis and also to evaluate the factors affecting their choice. The research is mainly based on the primary data collected from 125 participants by way of a questionnaire. The researchers have used six independent variables (investor's education, investor's experience, information accessibility, investor's time horizon, frequency of trading activities, and investor's perception towards the disclosure) to know the choice of investors. The research has concluded that investors in Indonesia prefer technical analysis to forecast future stock prices. The research also found that the most influential factor in selecting methods are the investor's experience and the investor's time horizon. The other four factors have not been found significant in influencing the investor's choice namely, investor's education, information accessibility, frequency of trading activities and investor's perception towards disclosure.

The researchers have also given some recommendations that as an investor's experience is a significant factor in choosing the methods of analysis, inexperienced investors should not be

discouraged from investing. It has been found that the investor's time span for investing is generally less than a year but the investors should not rush in taking decisions for avoiding loss. However, other factors might not be significant but the investor should seek knowledge regarding investments. The researchers have also suggested that further research can be conducted by adding more variables.

**Jayaprakash, Rinu.(2017). An Analysis Of The Performance Of Nifty Infrastructure Index Stocks.** The study aimed to analyse the current pricing of stocks with respect to the NIFTY index, predict investor position, and develop and suggest a portfolio of profitable infrastructure stocks. The study concludes that in the current scenario undervalued stocks are the best-buying stocks. The technical analysis provides the rationale investor the right time to buy or sell the stocks.

**Soni Shriprakash And Chandak Govind in 2017** published a research paper on the **Fundamental Analysis Of Car Manufacturing Companies In India.** The research was based on the analysis of the profitability position of Indian car manufacturing companies and their comparative analysis. This research used secondary data in form of balance sheets and other data from websites. The top five car manufacturing companies were selected as samples namely, TATA Motors DVR, Maruti Suzuki India, Mahindra CIE Automotive, SML-Isuzu, and Force India by purposive sampling technique.

The variables which have been considered in the study are:

1. Operating Profit Margin(OPM)
2. Net Profit Margin (NPM)
3. Return On Equity (ROE)
4. Earnings Per Share(EPS)
5. Price-Earnings Ratio(PER)
6. Dividends Per Share(DPS)
7. Dividends Payout Ratio (DPR)

The study was conducted for the time period of 10 years i.e. from 2006-07 to 2015-16 10. Statistical tools used in the analysis of the data are arithmetic mean (average), standard deviation (SD), one-way analysis of variance (ANOVA), and compound annual growth rate (CAGR). The research concluded that each company is better than the other on different criteria. For example, Maruti Suzuki is better than other companies in parameters like DPM, ROC, and NPM, whereas Force Motors performed better in parameters like EPS. The researchers also found that there was a significant difference between the net profit margin and the dividend payout ratio in all five companies. After conducting the research, the researchers suggest that investors to invest in Force Motors as its Earning Per Share is the maximum among all five companies.

**J, Vinutha (2018). A Study On Technical Analysis Of Selected Stocks Of Nifty Fifty"**

Research with the objective of studying sample stocks using technical analysis by using techniques of moving average and rate of change and to forecast future trends. Five companies of NIFTY are selected as samples. Secondary data is collected for a period of 24 months. The study concluded that RSI charts are very helpful in predicting future price movement.

**Sharma, Varsha And Biyani, Sanjay (2019)** Have Researched The Topic “**A Study On Fundamental Analysis: Evidence From Selected Indian It Stocks**”. The objective of the study was to analyze the performance of the IT sector in India and to conduct a fundamental analysis of major IT companies. The study was purely based on the IT companies listed in NSE and BSE and based on their performance, revenue and market capitalization top five companies were selected as sample, namely, TCS, WIPRO, HCL, TECH Mahendra and INFOSYS. As fundamental analysis is done in three stages, factors used for economic analysis were GDP, inflation, current account, fiscal deficit and the unemployment rate for five years i.e. 2014-2018. For industry analysis, market size and government initiatives were taken into account. Lastly, for analyzing the performance of a particular company, their earning per share ratio, profitability ratio, net profit margin, return on capital employed, quick ratio etc were analyzed. The research concluded that the IT sector plays an important role in the growth of the economy and GDP. TCS was analyzed as the market leader whereas, HCL and INFOSYS were growing companies. The researchers concluded that information technology was the rising sector in the investment market.

**P. Devika. (2019).** **A Study On Fundamental Analysis Of Automobile Companies (Car Manufacturing Companies) In India** evaluated the profitability position and fundamentals of the car manufacturing companies in India.

**T Venkata Swapna, S. Subbalakshmi.(2020)** In Their Paper Headed “**A Study On Fundamental Analysis Of Selected Stocks Of It Sector**” have analyzed the performance and trends of the selected stocks of companies in IT sector. The researchers have also examined the risk and return of selected stocks. For the purpose of the sample, five companies were selected namely, Mastek, Mphasis, Mucleus, Zensartec and Sonatsoft. Secondary data was used for fundamental analysis from newspapers, the internet, and journals. Risk, Returns, Variance, Coefficient of variance, P/E ratio and I/E ratio are the statistical tools used in the research. The researchers concluded that fundamental analysis helps in calculating the intrinsic value of the stocks. The dividend discount model is a widely used model for determining the intrinsic value of stocks. Indian IT industry is the most frequently growing sector

and showing growth. It is difficult to understand whether the return prediction is reflecting risk or is mispriced. This can be simplified by analyzing the consistency of return prediction with a reasonable risk model.

**Detzel Andrew, Liu Hong, Strauss Jack, Zhou Guoth, Zhu Yinhzi. (2020)** In Their Paper Titled “**Learning And Predictability Via Technical Analysis: Evidence From Bitcoin And Stocks With Hard To Value Fundamentals**” studied how technical analysis is helpful in predicting the future price movements of assets with hard to value fundamentals, for example, Bitcoin, Cryptocurrencies and stocks of a new company with a limited fundamental available. They also used price to moving average ratio of daily Bitcoin prices to analyze bitcoin returns. For conducting research the researchers have taken daily Bitcoin prices in different stock exchanges in the world as data and analyzed them. The researchers concluded that the future price movements and trade volume is predictable by using the moving average of price. Simple real-time strategies can be adopted to make buy and sell decisions based on the prediction. Price to moving average ratio is also helpful in forecasting the return on the stocks. The researchers also stated that similar results can be concluded for small-cap, young firms and low-analyst coverage stocks.

**Singh, Shalini & Chakraborty, Anindita (2022).** **Stock Price Movement Through Technical Analysis: Empirical Evidence From The Information Technology (It) Sector.** The research was conducted to analyze the trends in price movement in IT companies and analyze it using technical analysis. The researcher used secondary data to reach the conclusion that fundamental analysis should also be suggested along with technical analysis to reach to investing decision. The risk and return ratio should also be calculated before performing technical analysis.

**Conclusion:**

1. From the study of the literature review it is concluded that fundamental analysis is used to calculate the intrinsic value of the share. The dividend discount model is extensively used for fundamental analysis. The investor should invest in the company with higher EPS. Investor should buy undervalued stocks which have intrinsic value more than its market price. Technical analysis is very effective in securities analysis.
2. Price and trading volume can be predicted using moving average of price. Price to moving average ratio helps in forecasting the returns on the securities. Technical analysis helps to predict the future price movement efficiently.



3. Both the analysis help investors in stock analysis and works best when used simultaneously.

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## **Teachers Role in Nep2020 Implementation :Recommendations , Challenges And Suggestions**

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### **Abstract:-**

Teachers role is very important to shape the minds of students. Teachers are responsible for the all round and holistic development of students. Teachers need to update themselves with the changing needs of the education world. For quality education knowledge, dedication, passion, quality, skill, professional commitment and motivation of teachers, are the main factors. In the light of NEP 2020, new psychological and pedagogical theories, philosophy, sociology, reformed and reoriented Teacher Education program are required. The present paper discusses in detail about the role of teacher in view of NEP 2020. It also highlights the recommendations given in NEP 2020 for role of teachers, various challenges to be faced in the road of implementations of NEP 2020. Suggestions to overcome these challenges are also given.

### **Introduction:**

The National Education Policy of India's (NEP 2020) main aim is to transform the nation by making improvements in the previous education policy. To make our country's education more inclusive and flexible for future world's needs, NEP 2020 seeks to inculcate 21<sup>st</sup> century skills like- communication, collaboration, innovation, creative and critical thinking in children. To achieve these goals teachers can play the most important and crucial role. So there is dire need to have impactful teachers who can teach in an effective manner for improving the quality of education in India. The National Education Policy 2020 recommends various changes and modifications in the preparation and role of teachers. There are indeed many challenges to implement the recommendations given in NEP 2020. However the success of the policy depends on the competence of the teachers as they are the ones who will be taking the reforms forward. Further main recommendations of NEP 2020 for teacher's role competence, challenges to be overcome in their implementations and suggestions are as under.

### **NEP -2020 Recommendations : Use of ICT \***

**Challenges –** Teacher Educators and prospective teachers-

1. To be skilled in both online and offline mode of teaching.
2. To be more technology friendly.
3. Use of Smart Boards and flipped classrooms (blended learning).
4. To use virtual reality and cloud computing for teaching.
5. Use of resource available (online open and resources)

### **Suggestions –**

1. Orient, train and equip Teacher Educators & pupil teachers with competence to use ICT.

2. Train TE & PTs to use smart boards, various tools of technology, use of 3 D technology, cloud computing, find information and instructional material available online ( nroer).
3. Workshop to learn the use of ICT (in teaching, learning and evaluation) , preparation of lesson plan for online mode , learn different virtual teaching aids, preparation of online tests etc.

### **NEP -2020 Recommendations : 2- Communication Skills (Listening, speaking, reading and writing)**

#### **Challenges –**

1. How to enrich the vocabulary and language proficiency of prospective teachers?
2. How to enhance verbal, non-verbal communication skill and dynamic interaction in prospective teachers?

#### **Suggestions –**

1. Language proficiency (written and speaking) courses in B.Ed.
2. 2-Organize discussion, debate, seminar, sharing of experiences, reflective thinking, writing reflection, Field note etc.
3. 3-Train students / teachers in each of the four (physical, linguistic, cognitive, social and emotional) communication skills by explicit teaching model and praise.

### **NEP -2020 Recommendations : 3- Multidisciplinary and integrated approach\***

#### **Challenges –**

1. Categories of teachers- We have Music, Dance, Art, Craft, Activity teachers in one group, Hindi Sanskrit another, Physical Education a third, Physics Chemistry Maths, a fourth, Social science and General Science yet another without adequate vertical and horizontal integration.
2. It is typical for a Physical education teacher or an art craft or Sanskrit teacher to say that there

is no need for IT or ICT for her/him. All these must change.

**Suggestions –**

1. Every Teacher must be brought on a standardized platform as far as certain common skills are concerned irrespective of their teaching subjects and levels of teaching.
2. There is a need to equip teachers to overcome their biases in these regards and positively handle these challenges.

**NEP -2020 Recommendations: 4-Positive Learning Environment in school (Safe, inclusive, Effective Teaching Environment)\***

**Challenges –**

- a)- How to train teachers to be part of an inclusive community with a common goal to achieve that all children are learning.
- b)-Constructing a sensitive and inclusive culture for effective learning.
- c)-To develop human & social sensitivity and consciousness in prospective teachers for believing and practicing equity, equality and inclusiveness.

**Suggestions –**

1. Train prospective teachers to understand the socio –cultural needs of
2. Students and to deal with contemporary issues of diverse learners.
3. Need to train and equip prospective teachers to handle classroom with diverse, socio-economic, intelligence, special children, multilingual and multicultural students.

**NEP -2020 Recommendations : 5-Medium of instruction\***

The policy encourages local languages to be the medium of instruction at least up to Grade 5, promotes bi-lingual education and textbooks for learning; as well as multiple languages at middle and secondary levels.

**Challenges –**

There is no definitive decision or guideline around the language of instruction. For example, the policy says to use local languages '*wherever possible*', which leaves a lot of room for the status quo— which is the existing three language formula -to continue, especially in the case of the high-performing government run school systems such as (KVs).

**Suggestions –**

According to the NEP-2020, students of the private schools will be introduced with English at a much earlier age than the students of the Government schools. The academic syllabus will be taught in the respective regional languages of the Government school students. This is one of the major new education policy drawbacks as this will increase the number of students uncomfortable in communicating in English thus widening the gap between sections of the societies.

**NEP -2020 Recommendations : 6-More Autonomy for teachers to Choose curriculum and teaching methods\***

**Challenges –**

1. As there is prescribed syllabus and text book for each class. How do prospective teachers learn to choose curriculum, No training is provided for that.
2. Demo lessons (given by the TE) and simulated teaching (by PTs) are given very less time during B.Ed. course.
3. Only lecture and demonstration methods are taught and practiced by prospective teachers during the training.

**Suggestions –**

1. 1-Training to prospective teachers related to curriculum construction and concept mapping.
2. 2-Prospective teachers to be trained to freely experiment with various teaching methods and share feedback (success as well as failures)
3. 3-More Demo lessons by TE using different methods and simulated teaching by PTs using different teaching skills should be practiced in pre-internship phase.

**NEP -2020 Recommendations : 7-Respecting individual differences in pupil teachers \***

**Challenges –**

Respecting individual differences in pupil teachers as well as within teacher educators -Teachers too like students have individual differences, like and dislikes.

**Suggestions –**

It is important to consider these differences in both the cases and provide teachers with more autonomy to choose a programme beneficial to them.

**NEP -2020 Recommendations : 8-Formation of school complex**

**(Participation of school/ teachers in community service, adult and vocational education)\***

**Challenges –**

1. a)- Building a lively teacher community relationship.
2. b)-Designing a curriculum connected to real world experience.
3. c-)Cross generation learning
4. d)-Local community involvement in designing solutions to local problems.
5. e)- Reaching all stake holders.

**Suggestions –**

1. Train prospective teachers for experiential learning.
2. Training to prospective teachers to communicate and encourage to ask for mentoring ( through field visit, street plays, awareness programme ,survey, report writing ,project based learning etc.) and seek support from society.

3. Train prospective teachers to work with local business, subject expert to connect core curriculum to outside world and given action research project to design engaging learning experience in and out of the CR.

**NEP -2020 Recommendations : 9- Training and Internship \***

**Challenges –**

1. To manage 120 days internship in one year B.Ed. (after PG) is a great challenge. How to manage it in 4 years B.Ed. Program?
2. Finding the schools for Internship.
3. Support from school principal and subject teacher (mentor).

**Suggestions –**

1. Duration of microteaching to be increased in first year.
2. All microteaching skills to be practiced by pupil teacher upto perfection.
3. Simulated teaching to be essential part of pre internship.
4. Teaching internship /apprentice to be scheduled in last semester so that student get placement and earn stipend. It will motivate them to learn and perform better .
5. Internship at hometown to be allowed so that student learns to teach through their own language, local art and cultural heritage.
6. 6-State Govt. education dept. should allot school for internship to each TEIs.

**NEP -2020 Recommendations : 10 -Role of National Testing Agency \***

**Challenges**

- 1-How to set criteria for selection in B.Ed. course?
  - 2-Criteria for recruitment of teachers.
- How to select efficient, passionate and instructional leader, who is empathetic, feels invested in the community and can act as curriculum designer too?

**Suggestions –**

- 1-Students need to be tested on their teaching aptitude, good communication skills, organizational skills, innovating skills, enthusiastic and empathetic nature.
- 2-For selection of teacher the process needs to be conducted in different phases –
  1. written test
  2. teaching proficiency
  3. interview
- 3-Interview needs to be an integral part of teacher selection process to assess passion, comfort and proficiency in teaching in English /Hindi as well as in the local language.
- 4-Teachers to be tested on the following criteria -
  1. leadership qualities
  2. technology savy
  3. innovative
  4. entrepreneurial skills and
  5. problem solving skills.

**NEP -2020 Recommendations : 11-In-service continuous professional**

**Development (Strengthening Teachers\* Challenges**

- 1- Organising training, Orientation and Refresher Courses.
- 2-Time & Resource Management
- 3- Availability / hiring Experts & Resource Persons

**Suggestions –**

1. 1-Teacher should be encouraged to join courses related to education teaching skills & professional development (i.e. PGDSL, PGDEMA, Certificate in English language, Guidance and counseling, use of ICT etc.)offered by IGNOU SWAYAM, MOOC, Deeksha etc. along with regular teaching.
2. 2-Work shop for teachers strengthening communication skills, ICT skills, visual presentation skills (use of visual tools like graphic organizer, flow charts, venn diagrams and concept maps ).
3. 3-Training programmers on personality development & behaviour management.
4. 4-Training on use of ICT for record keeping, proper follow up and feedback of students and peers by using e-mails, whatsapp, twitter, facebook, blog etc.

**Conclusion:**

Education and teachers should be the key players in the successful implementation of NEP 2020.If not implemented in an effective and well planned manner ,the policy recommendations and dialogues will just remain on paper and in the workshops and discussion rooms.Now teachers have to prepare themselves to play the role of being facilitators of NEP 2020. To ensure that the developmental goals of policy are met ,teachers have to adopt innovative strategies in class rooms .Teachers have to prepare themselves to promote and create environment where students can think with a creative, critical ,logical and innovative mindsets. Teachers have to receive training to identify the development needs of each individual student in their class rooms.

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## **A study on major effects of physical education on academic achievement in present context**

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### **Abstract:**

A child's health has an important moderating role on their capacity to learn. Empirically proven and widely recognised is the notion that healthy kids learn more effectively (Basch, 2010). The academic success of a child is influenced by numerous things. Socioeconomic status (Sirin, 2005), parental participation (Fan and Chen, 2001), and a variety of other demographic characteristics are a few of them. Numerous researches have established the links between physical activity and improved mental and cognitive functioning, bone health, cardiovascular and muscular fitness, and psychosocial effects (Strong et al., 2005). Since the brain controls both mental and physical functions in the body, brain health is crucial throughout life. Adult brain health is defined as the absence of disease, optimal anatomy, and function. This is measured in terms of everyday functioning and quality of life. The healthy development of attention, on-task behaviour, memory, and academic performance in a learning environment are indicators of a child's brain health. Fitness and physical activity are essential for a child's brain development. After engaging in a physical activity session, kids answer to a number of cognitive tasks more quickly and accurately. A study demonstrated that engaging in moderate physical activity increased the brain and behavioural correlates related to the allocation of attention to a particular cognitive task. Youngsters who engaged in aerobic exercise for 30 minutes did better in an experiment than youngsters who watched television for the same length of time. Physical exercise, which is typically done as a break from academic study, has positive post-engagement impacts on attention, on-task behaviour, and academic achievement. Teachers might incorporate physical exercise breaks into their regular lessons or simply use them to refocus students' attention. An increase in aerobic fitness has been shown to mediate improvements in academic performance as well as the allocation of neural resources supporting performance on a working memory task. After-school physical activity programmes have shown their ability to improve cardiovascular endurance.

**Keywords:** Physical education, academic achievement, supporting performance, cardiovascular endurance, cognitive tasks

### **Introduction:**

The proverb "health is wealth" emphasizes the importance of maintaining good health for the general well of both individuals and societies. A common adage is "All work and no play makes Jack a dull kid." The necessity of engaging in regular physical activity is actually the focus of this. We prefer to choose nutritious foods over stringent workout routines and healthy eating habits because our conception of health is so flawed. It's understandable why some people get obese in their mid-twenties. The English version of a Latin proverb often used in academic settings is "A sound mind in a sound body." Our ancestors regularly engaged in physical activity and were conscious of the qualities of good health. So it makes perfect sense to delve deeply into how college students generally feel about physical activity. Humans can use sports to achieve a variety of developmental objectives that secure their overall well-being. Sport encourages academic pursuits, social growth, and, most importantly, community life while also enhancing public health. We are all aware of how important physical activity is to both our health and survival. Physical activity reduces the chance of

developing Type 2 diabetes, cardiovascular disease, and other chronic diseases and helps prevent obesity (White House Let's Move campaign, 2015). According to criteria for health-related outcomes, kids today do not engage in the appropriate quantity of physical exercise, according to recent studies (Salmon & Timperio, 2007). Children should engage in at least 60 minutes of physical activity each day, according to recommendations (Janssen & LeBlanc, 2010; US Department of Health and Human Services, 2008). Due to reduced or, in some cases, eliminated physical education lessons from the school day, children are failing to achieve this requirement. Nearly 50% of American adolescents do not participate in any form of physical education throughout the school week, compared to 30% of youth who receive physical education instruction everyday (Centres for Disease Control and Prevention, 2012). One factor contributing to the reduction in youth physical activity levels is a lack of funding for programmes. Another justification for reducing and abolishing physical education programmes in our schools is to give kids more time in the classroom (Wójcicki & McCauley, 2014). This justification is to improve accomplishment and

performance on standardized tests. Our youth's lack of physical activity increases their chance of becoming obese, but it can also affect their academic performance. After all, children who engage in physical activity tend to pay attention better and learn more effectively (Wójcicki & McAuley, 2014). These factors led our team to decide to look at whether a lack of physical education in high school had an impact on students' academic performance in low-income communities. Because scholastic success is consistently lower in metropolitan areas, we chose these areas because of this. According to Ahram, Stembridge, Fergus, and Noguera (2015), this issue has been explained by the large number of pupils who perform badly on standardized tests and do not perform at grade level, as well as by high rates of high school dropouts and special education designation. If physical education time affects high school students' academic performance in low-income communities is what we want to know about this subject but do not know. As a result of failing to consider how reducing physical education time actually lowers academic performance, the lack of knowledge of this information may have a negative impact on students' academic progress. This study is important because it has the potential to reduce obesity rates, boost academic performance, and address problems that low-income adolescents already encounter that have an impact on their future development.

#### **Review of Literature:**

According to Joseph (2011), it is crucial to understand the predictors and antecedents of physical activity because, if practised into adulthood, learned childhood behaviours can have a positive impact on health. This is in addition to the age-related decline in physical activity from childhood to adolescence. It is possible to accurately identify a child or group of children as a target for intervention. Zeng & Raymond (2011) looked at the high school students' views on physical education and their preferred sports. According to the researchers, encouraging youngsters to participate in physical activity now and throughout their lives requires identifying and understanding the correlates of their engagement in physical education. Children's attitudes are among the main elements that affect how much they engage in physical activity. According to studies, kids with more favourable attitudes towards physical exercise are more likely to engage in physical activity outside of school and engage in higher levels of physical activity than kids with less positive attitudes. The development of children's present and lifelong participation in physical exercise might benefit from fostering their favourable attitudes towards physical activity.

According to recent studies cited by Broman (2005), stress among college students is unique and is associated with substance addiction, decreased self-esteem, difficulty in the classroom, depression, and a host of other conditions. Additionally, a transition from parental control to a more independent way of life takes place during the college years. Students frequently struggle to manage their time, deal with work-related challenges, and learn how to handle a variety of social role shifts as they form new friendships and relationships. Many people face new difficulties as they get their first chance to create their own sleeping and everyday routines. New financial developments and demand for academic performance are also present. These particular pressures have been linked to anxiety and may ultimately have a detrimental effect on a student's capacity for learning.

A cross section of pupils was the subject of a study by Carlson (1995), and the results of that study are now publicly available. According to the report, most students did not value physical education the same way they did other disciplines like math or geography. There are, however, very few studies on teenagers who have unfavourable attitudes towards physical education.

Carlson (1995), Portman (1995), and Smith (1995) concentrated on certain student demographics, such as low-ability or socially isolated or alienated students. However, there hasn't been any in-depth research on the attitudes of capable pupils towards physical education. Teachers frequently identify talented pupils and work to motivate and inspire them to realize their full potential. Most educators make the supposition that capable pupils like and value physical education. However, Bain (1980) discovered that for pupils to have a positive attitude towards physical education, they needed to be favourable socialized into it. According to Onifade (1985), early involvement on the part of the government is essential given the numerous advantages of engaging in vigorous physical exercise and the subsequent improvement in the general health of the populace. The needs of each trainee should be considered while creating a fitness programme. 30 minutes a day of moderate-intensity physical activity is the typical recommendation for improving physical fitness. Since they improve energy, strength, endurance, bone mass, and the capacity to participate in sports, the physiological advantages of physical activity and fitness training are crucial.

Pathan & Iqbal (2010) investigated the connection between high school students in Sindh's participation in sports, academic success, and personality traits. The study examines the connection between a person's academic success and

social development, particularly at the early levels of schooling, through participation in sports. Sports participation during the early years of school has a substantial impact on an individual's personality qualities in their later professional lives, according to certain legitimate inferences. Numerous countries have conducted thorough investigations to determine the link between academic success at various levels and attitude towards physical activity. Physical activity is known to improve health and can lessen the negative impacts of a number of diseases. These beneficial outcomes showed an improvement in other areas as well. Physical activity can enhance cognitive functioning, particularly academic or learning processes, according to recent studies in youngsters. Studies over the last few decades have shown that physical activity can boost academic achievement. A few research have looked at the connection between physical exercise and academic achievement in children, despite the fact that the majority of these studies have focused on children and youth. Improvement in academic performance is the end result of these impacts, regardless of whether they result from physiological or psychological changes. Numerous studies have looked at children's academic achievement, stress, and physical exercise. Exercise might be a cheap approach to encourage stress alleviation and improve academic achievement. Students may perform better academically if they may benefit physiologically and mentally from physical activity.

#### **Major objectives of the study:**

1. To study the Importance of Addressing Opportunities for Physical Education in the Present Moment
2. To understand the significance of health and academic achievement
3. To study the importance of physical education minutes and academic achievement
4. To ascertain the relationship between physical fitness and its impact on academic performance on children
5. To suggest major measures to strengthen the concept of including physical education as part of curriculum at school level

#### **Importance of Addressing Opportunities for Physical Education in the Present Moment**

Students in California's elementary schools took part in the school-based Playworks programme as part of a research project by Madsen, Hicks, and Thompson from 2011. The goal of the Playworks programme is to encourage healthy adolescent growth. The study's findings showed that children in low-income communities have health and immediate dangers, and that there may be a higher need for more encouraging physical programmes to reduce these risk factors. Further, physical activity

has the extra benefit of lowering cardiovascular risk and obesity, according to Madsen et al. (2011). Such health hazards have been found to be reduced by exercise, which also increases opportunities for social connection. Madsen et al.'s (2011) paper addresses how children living in low income neighborhoods have worse educational outcomes, in addition to serious concerns about health risk. Less time is available for youngsters to engage in physical activity as a result of the steady increase in testing-related pressure. Furthermore, Madsen et al. (2011) assert that the No Child Left behind Act of 2001, which required schools to pay less attention to students in underperforming schools' need for physical education, may be a possible reason for these detrimental consequences. Playtime, physical education, art and music time allotments in elementary school districts have decreased by 32% since NCLB, according to Madsen et al. (2011) (p. 467). In order to increase students' time in the classroom, schools are currently lowering physical education programmes and/or PE class times. The requirement that children complete standardized tests in order to meet academic achievement testing benchmarks puts extra pressure on schools. This is a key factor in the PE budget cuts (Chomitz et al., 2009). The percentage of children who participated in daily physical education decreased from 42% to 28% between 1991 and 2003, according to the National Association for Sport and Physical Education (Van, Kelder, Kohl, Ranjit & Perry, 2011).

#### **Health and Academic achievement:**

At this time, there are growing health and academic achievement gaps among American urban adolescents. These disparities may have severe personal, societal, and financial repercussions. Unfortunately, those who come from urban homes must struggle with the harsh effects of poverty. People with lower socioeconomic level, less education, and those who are people of color have a higher risk of developing illnesses earlier in life from almost all sources. This may have an impact on their quality of life and their capacity to support the financial security of their families and communities. As prior studies only looked at one health issue, such as obesity, on academic achievement among urban kids in the United States, the researchers set out to investigate the effects of other health assets in this study (Ickovics et al., 2014). In order to conduct their research, they gathered information from questionnaires, physical examinations, fitness tests, and school district records. They used the results of standardized tests to gauge academic performance. Physical health, healthy behaviours, family environment, and psychological well-being are among the 14 health assets that make up the health index. 940 fifth- and



sixth-graders from 12 randomly chosen schools in an urban district made up the sample (Ickovics et al., 2014). According to Ickovics et al. (2014), there is a significant link between students' health and academic success. Researchers discovered that kids with nine or more health assets were 2.2 times more likely to perform better or even above standards on standardized examinations in subjects like reading, writing, and arithmetic than students with six or less health assets. After six, the likelihood of reaching academic achievement goals increased by 18% for each additional health asset. Additionally, the most significant predictors of academic achievement appeared to be not having a television in the bedroom, being physically fit, at a healthy weight, being food secure, and eating at fast food restaurants once or less per week. This was when examining the odds of achieving "goal" or higher on all 3 standardized tests. The findings of this study show that several health factors, including physical health, do have an impact on academic achievement. These results are significant because they show that having good physical health is one health advantage that can help students' academic performance, among other things. Because of this, the authors of this study contend that include health-promoting practises in urban school systems could boost students' intellectual and physical well-being. Additionally, it may be able to reduce the gaps in academic achievement and health that our urban adolescents encounter (Ickovics et al., 2014)

#### **Physical Education Minutes and Academic Achievement:**

Researchers have examined adding the number of minutes that kids spend in physical education classes in addition to standardized fitness tests when calculating physical activity. Researchers Snelling et al. (2015) wanted to know how much time students spent exercising compared to how well they could do arithmetic in primary school. They used information from 120 elementary schools that completed School Health Profiles (SHP) for their study. Among other things specified by the Healthy Schools Act (HSA), the SHP provides statistics on the number of minutes schools set aside for physical and health education. They calculated a composite score to determine the extent of HSA implementation while utilizing a math standard test to gauge academic progress. The efficacy of the school's implementation of the policy was what went into calculating the composite score. Researchers discovered that while schools with the highest composite scores had higher average math proficiency rates, schools with the lowest composite scores typically had lower math accomplishment rates. These results show how physical activity, and more especially the time spent exercising, may enhance academic performance (in math's).

Additionally, studies have shown that physical activity improves children's academic performance, which is another justification for keeping PE lessons in place. Giving kids the chance to be physically active benefits them in more ways than only their academic achievement (Snelling et al., 2015). It also benefits their lives and future. Following a study of the literature, it is evident that physical education and exercise have a positive impact on students' academic performance. Students can be active during the school day by participating in physical education sessions, which also support healthy youth development. Additionally, physical education promotes peer socialization and instills key abilities like teamwork. As kids who are healthier typically score better on standardized tests, researchers have discovered that physical health, one health asset among many, does have an impact on academic achievement. Others have studied physical education in schools and discovered a link between increased academic achievement and time spent exercising. The aforementioned research especially looked for a connection between physical activity/fitness and academic performance at the primary to middle school levels in metropolitan environments. In light of this, the literature has provided us with an answer to our question about the connection between physical education and its effects on academic achievement in low-income communities, but it does so by primarily focusing on elementary and middle school pupils. More details on the relationship between high school academic achievement and physical education are lacking in the research. Due to this, our study team chose to address the subject of how physical education at the high school level affects students' academic ability in low-income communities in order to close this gap in the literature. We predict that high school students will perform better on math and reading standardized examinations if they participate in more physical education time.

#### **Research methodology adopted for the purpose of study:**

1. Type of research: The study adopted is descriptive in nature
2. Sample size: 500 respondents
3. Respondents selected for study: School children studying in various schools of North Karnataka region of Karnataka State
4. Type of data: Primary data has been collected using well designed questionnaire, direct personal interview and also observational methods
5. By consulting articles and research papers that have been published in several national and international journals, periodicals, reports, etc., secondary data has been gathered.



6. Data Analysis: The acquired data was examined using the SPSS programme, and analysis of variance was done to determine how closely the dependent and independent variables were related.

**Findings of the study:**

1. Physical activity improves classroom attitudes and behaviours as well as cognitive abilities like concentration and attention, all of which are crucial elements of better academic performance.
2. Children who are physically healthy are more likely to do better in school and earn higher grades, according to a University of Illinois study. Electroencephalograms (EEGs) were administered to research participants' children to track brain activity and how quickly the brain reacts to various stimuli. Researchers discovered that youngsters who were physically fit had stronger and faster firing brain synapses, which improved their linguistic skills.
3. Not only were the physically fitter kids better readers, but they were also better readers of sections with numerous grammatical faults. The ability to recognize grammatical faults and the brainwave patterns associated with language were examined by the researchers. The fit kids performed well in both brain wave groups and had a superior comprehension of illogical or mistake-filled words.
4. Additionally, the study discovered links between academic success, fitness, and physical activity. The data suggested a link between physical activity and the brain regions that enable complicated cognitive functions during laboratory tasks. It also demonstrated the significance of physical activity for overall health, development, and growth.
5. Kids' scholastic performance, brain function, and cognition are all immediately improved after only one session of modest physical activity.
6. Learning fundamental movement techniques improves cognitive function and academic success. It is not necessary to sacrifice academic success to take time away from the classroom for physical activity.
7. According to research, adolescents who engage in enough physical activity during the school day not only avoid obesity and its complications but also perform better academically.
8. The effects of exercise on the brain's growth and behaviour are direct. According to a 2010 post by Columbia University's Charles Basch, "It is conceivable that the impacts of physical activity on cognition would be particularly important in the growing brains of adolescents."

9. Youth who regularly engaged in interscholastic sports had reduced dropout rates. Sports may just build a connected environment that could keep at-risk pupils in school, even while they won't alleviate the dropout problem that plagues many inner city schools.

**Major suggestions of the study:**

1. All students will receive physical education, making it the only sure way for nearly all school-age children to participate in physical activities that improve their health. On days when they have physical education, students are more physically active. As a result, there has to be a bigger emphasis on including physical education in the curriculum.
2. Both parents and organisations that work in the field of children's health strongly support high-quality physical education. Therefore, steps must be taken to ensure that it is enforced without exception.
3. Numerous instances and models show that daily scheduling of physical education within the school day is possible. As a result, there is a need to consider include it in the curriculum.
4. The relevant authorities should offer high-quality physical education as part of the curriculum, with pupils engaging in vigorous- or moderate-intensity physical exercise for at least half (>50%) of the class period. Every elementary school student should spend 30 minutes a day in physical education class, and every middle and high school student should spend 45 minutes a day in physical education.
5. To provide flexibility in the scheduling of the curriculum, with at least 150 minutes per week for students in elementary school and 225 minutes per week for those in middle and high school.
6. Through playtime, designated classroom physical activity time, and other opportunities, students should participate in additional vigorous or moderate-intensity physical exercise throughout the school day. Physical activity should be a priority for all schools, especially if there is a chance to increase academic attainment, because it enhances both health and learning.
7. Schools are not making full use of their potential to offer kids and teenagers opportunities for physical activity. In order to boost physical activity among kids and teenagers, a whole-school strategy is required. In such a strategy, all of a school's resources and parts work in concert and dynamically to provide programmes, access, and encouragement that allow all students to engage in vigorous- or moderate-intensity physical activity for at least 60 minutes each day.

## **Conclusion:**

In order to establish a suitable classroom environment that permits the completion of scheduled activities, effective teaching tactics are needed. In fact, according to Noltemeyer et al. (2019); Nunez and León (2019), teachers that encourage a learning environment where students participate in its development will succeed in meeting the learning objectives. On the other hand, teachers who do not support an environment in the classroom where students are engaged, independent, and interactive will find it harder to accomplish the intended learning objectives (Granero-Gallegos et al., 2020a). In terms of the teacher's role in promoting disciplined behaviour, effective teaching techniques and attitudes lessen disciplinary issues. Teaching PE skills improves group control, gives teachers more time to correct mistakes and provide students feedback, and raises student engagement, autonomy, and effectiveness in the classroom—all of which have a positive impact on academic performance (Gutiérrez et al., 2009; Wade et al., 2020). Taylor et al. (2014) conducted a thorough study on the connection between teachers' abilities and students' academic performance. Positive outcomes, such as disciplined behaviors (Gutiérrez et al., 2010) and academic performance in PE (Cid et al., 2019), are associated with participatory methodologies that center the teaching-learning process on the student, positive corrections, and giving students autonomy (Gil-Arias et al., 2020). However, due to the extremely complex nature of PE courses in secondary education, it is occasionally necessary for the teacher to divert attention from the students' academic progress in order to prioritize more regulated educational techniques and prevent disruptive behaviors (Granero-Gallegos et al., 2020a).

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## Topological indices of Derived graphs of Bull Graph

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**Abstract:** A topological index is a numeric number that helps to find the characteristics of compounds. There are many applications of graph theory. In this paper we compute first and second Zagreb indices, Randić index, sum-connectivity index, harmonic index, inverse sum index, modified first and second Zagreb indices and first and second hyper Zagreb indices of the Splitting graph of Bull graph.

**2020 Mathematics Subject Classifications:** 05C50, 05C09

**Keywords:** Molecular graph, topological indices, Bull Graph

### Introduction

Mathematical objects have been used to represent the structure of a chemical compound. One such representation is that each atom is described by vertices and the bond between atoms is described by an edge. With this, mathematical tools can now be used to analyze the properties of chemical compounds that may be related to its structure. A mathematical formula that represents chemical species which have made a variety of methods of chemical structure is called the topological indices [11]. Topological indices are helpful when interpreting chemical constitution into numerical values which can be used for correlation with physical properties in quantitative structure property/activity relationship (QSPR/QSAR) studies. Quantitative structure-property relationship (QSPR) mathematical modeling method connects physical or chemical properties with a structure of a molecule [1]. Meanwhile, Quantitative structure-activity relationship (QSAR) is a mathematical modeling method that show relationships between biological activities and the structural properties of chemical compounds [8]. We have here some studies of topological indices in QSPR/QSAR. Shanmukha, et. al used 13 degree based topological indices to study anticancer drugs in terms of QSPR [12]. Hosamani studied the QSPR of phytochemicals screened against SARS-CoV-2 3CLpro with the help of several topological indices [5]. In general, a topological index, also known as a graph-theoretic index, is a numerical invariant of a chemical graph. Harary index, Balaban index, molecular topological index, Wiener index, Hyper-Wiener index, and Zagreb indices are some of the well-studied topological indices. Topological indices are used to represent each chemical structure with a numerical value. These values are used to model different physicochemical properties and biological activities of chemical compounds [10]. The first topological index was introduced by Harry Wiener in 1947. He computed the sum of the distances of the shortest path between all pairs of vertices of a graph called Wiener index [13]. The

concept of the Wiener index was generalized by Milan Randić in 1993. It was the extension for all connected graphs and called it Hyper-Wiener index [9]. A variety of topological indices have been studied. In particular, the Balaban index, also called J index was developed by Balaban [2]. De first derived explicit expression of reformulated first Zagreb index of generalized hierarchical product of two connected graphs [3]. Gao et. al developed some degree-based topological indices of networks derived from Honey comb networks [4]. Recently, Mondal et. al obtained some of the topological properties of some chemical structures used to inhibit the outbreak and transmission of COVID-19 in terms of some degree-based and some neighborhood degree sum-based indices [10].

### 2. Preliminary concepts

Let  $G$  be a simple graph, with vertex set  $V(G)$  and edge set  $E(G)$ . The degree  $d_g(u)$  of a vertex  $u$  is the number of edges that are incident to it. Since 1947 many number of topological indices have been found. One of the oldest and well known topological indices is the first and second Zagreb indices, was first introduced by Gutman et al. in 1972 [3], and it is defined as

$$M_1(G) = \sum_{uv \in E(G)} d_g(u) + d_g(v)$$
$$M_2(G) = \sum_{uv \in E(G)} d_g(u)d_g(v)$$

and The connectivity index introduced in 1975 by Milan Randić [4], is defined as

$$R(G) = \sum_{uv \in E(G)} \frac{1}{\sqrt{d_g(u)d_g(v)}}$$

Recently, another variant of the Randić connectivity index called the sum-connectivity index  $\chi(G)$  was introduced by B. Zhou and N. Trinajstić [5] in 2008. It is defined as

$$\chi(G) = \sum_{uv \in E(G)} \frac{1}{d_g(u) + d_g(v)}$$

In 2014 Jianxi Li and Chee Shiu introduced a new variant of the Randić index named the Harmonic

index which first appeared in [6] called the harmonic index  $H(G)$  is defined as

$$H(G) = \sum_{uv \in E(G)} \frac{2}{d_g(u) + d_g(v)}$$

Discrete Adriatic indices have been defined by Vukičević and Gašperov in 2010. One among such indices is the inverse sum indeg index, [7] and is defined as

$$ISI(G) = \sum_{uv \in E(G)} \frac{d_g(u)d_g(v)}{d_g(u) + d_g(v)}$$

A. Milicevi, S. Nikoli, N. Trinajstić, introduced in 2004 the modified first and second Zagreb indices [8], and are respectively defined as

$$mM_1(G) = \sum_{u \in V(G)} \frac{1}{(d_g(u))^2}$$

$$mM_2(G) = \sum_{uv \in E(G)} \frac{1}{d_g(u)d_g(v)}$$

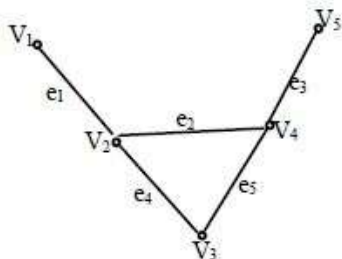
In 2013, Shirdel et al. introduced the first hyperZagreb index of a graph  $G$ , which is defined as

$$H_{M1}(G) = \sum_{uv \in E(G)} (d_g(u) + d_g(v))^2$$

The second hyper-Zagreb index of a graph  $G$  is defined as

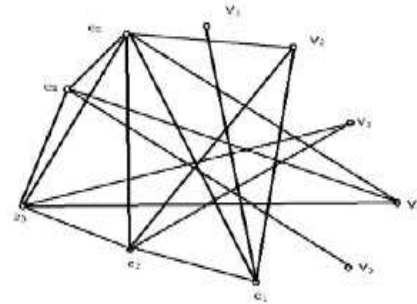
$$H_{M2}(G) = \sum_{uv \in E(G)} (d_g(u)d_g(v))^2$$

**Definition 2.1:** The Bull Graph is a planar undirected graph with 5 vertices and 5 edges, in the form of a triangle with two disjoint pendant edges (see Figure 1).



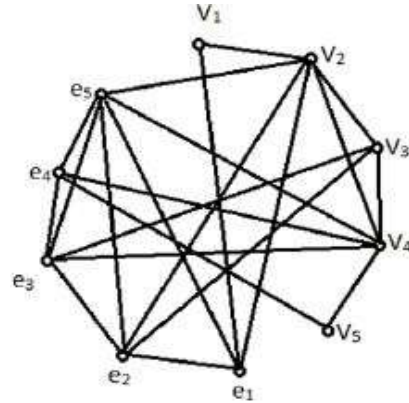
**Figure 1:** Bull graph

**Definition 2.2:** The middle graph  $M(G)$  of a graph  $G$  is the graph whose vertex set is  $V(G) \cup E(G)$  and in which two vertices are adjacent if and only if either they are adjacent edges of  $G$  or one is a vertex of  $G$  and other is an edge incident on it.



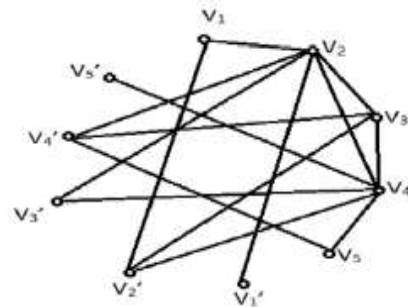
**Figure 2:** Middle graph of Bull graph

**Definition 2.3:** The total graph  $T(G)$  of a graph  $G$  is the graph whose vertex set is  $V(G) \cup E(G)$  and two vertices are adjacent whenever they are either adjacent or incident in  $G$ .



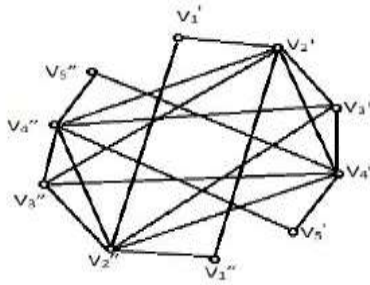
**Figure 3 –**Total graph of Bull graph

**Definition 2.3:** The Splitting graph  $S(G)$  of graph  $G$  is the graph where for each vertex  $v$  of a graph  $G$ , take a new vertex  $v'$  and join  $v'$  to all points of  $G$  adjacent to  $v$ .



**Figure 4 –**splitting graph of Bull graph

**Definition 2.4:** The Shadow Graph  $D_2(G)$  of a connected graph  $G$  is constructed by taking two copies of  $G$ , say  $G'$  and  $G$ . Join each vertex  $u'$  in  $G'$  to the neighbors of the corresponding vertex  $u''$  in  $G''$ .



**Figure 5 –shadow graph of Bull graph**

**3.Main Results**

In this paper we compute topological indices of some derived graphs of bull graph.

**Theorem 3.1:** If  $S(B)$  is the splitting graph of Bull graph, then

- (i).  $M_1(S(B)) = 115$ . (ii).  $M_2(S(B)) = 186$ .
- (iii).  $mM_1(S(B)) = 115$ .
- (iv).  $mM_2(S(B)) = 115$ . (v).  $HM_1(S(B)) = 983$ .
- (vi).  $HM_2(S(B)) = 115$ .
- (vii).  $R(S(B)) = 4.00311$  (viii).  $\chi(S(B)) = 1.776$
- (ix)  $ISI(S(B)) = 22.9428$ .
- (X).  $ABC(S(B)) = 2.84072$  (iX)  $GAI(S(G)) = 6.33415$
- (X)  $SO(S(B)) = 73.976$ .

**Proof:** In  $S(B)$ , there are four pairs of edges with degrees 2,6 ; two pairs of edges with degrees 6,3 and one pair of edge with degrees 2,3 and 6,6.

With these degree sequences, we have

$$(i). M_1(S(B)) = \sum_{uv \in E(g)} d(u) + d(v) = 4(2+6)+2(6+4)+2(6+1)+2(4+3)+2(6+3)+(2+3)+6+4 = 115$$

$$(ii). M_2(S(B)) = \sum_{uv \in E(g)} d(u)d(v) = 4(2 \times 6)+2(6 \times 4)+2(6 \times 1)+2(4 \times 3)+2(6 \times 3)+(2 \times 3)+6 \times 4 = 186$$

$$(iii). mM_1(S(B)) = \sum_{u \in V(G)} \frac{1}{d(u)^2}$$

Here there are three vertices of degree 2, two vertices of degree 4, two vertices of degree 1,3 and one vertex of degree 4. Thus

$$mM_1(S(B)) = 3.1597$$

$$(iv). mM_2(S(B)) = \sum_{uv \in E(G)} \frac{1}{d(u)d(v)} = \frac{4}{2.6} + \frac{2}{6.4} + \frac{2}{1.6} + \frac{2}{4.3} + \frac{2}{6.1} +$$

$$\frac{1}{2.3} + \frac{1}{6.6} = 1.414$$

$$(v). HM_1(S(B)) = \sum_{uv \in E(g)} (d(u) + d(v))^2$$

$$= 4.(2+6)^2 + 2(6+4)^2 + 2(6+1)^2 + 2(4+3)^2 + 2(6+3)^2 + (2+3)^2 + (6+6)^2 = 983$$

$$(vi). HM_2(S(B)) = \sum_{uv \in E(g)} (d(u)d(v))^2 = 4.(2.6)^2 + 2(6.4)^2 + 2(6.1)^2 + 2(4.3)^2 + 2(6.3)^2 + (2.3)^2 + (6.6)^2 = 3808$$

$$(vii). R(S(B)) = \sum_{uv \in E(g)} \frac{1}{\sqrt{d(u)d(v)}} = \frac{4}{\sqrt{2.6}} + \frac{2}{\sqrt{4.6}} + \frac{2}{\sqrt{1.6}} + \frac{2}{\sqrt{4.3}} + \frac{2}{\sqrt{3.6}} + \frac{1}{\sqrt{2.3}} + \frac{1}{\sqrt{6.6}} = 4.00311$$

$$(viii). \chi(S(B)) = \sum_{uv \in E(g)} \frac{1}{d(u)+d(v)} = 4.00311$$

$$(ix). ISI(S(B)) = \sum_{uv \in E(g)} \frac{d(u)d(v)}{d(u)+d(v)} = 22.9428$$

$$(x). ABC(S(B)) = \sum_{uv \in E(g)} \frac{\sqrt{d(u)d(v)-2}}{d(u)d(v)} = 2.84072$$

$$(xi). GAI(S(B)) = \sum_{uv \in E(g)} \frac{\sqrt{d(u)d(v)}}{d(u)+d(v)} = 6.33415$$

$$(xii). SO(S(B)) = \sum_{uv \in E(g)} \sqrt{d(u)^2 + d(v)^2} = 3.976$$

**Theorem 3.2:** If  $M(B)$  is the middle graph of Bull graph, then

- (i).  $M_1(M(B)) = 130$ . (ii).  $M_2(M(B)) = 200$ .
- (iii).  $mM_1(M(B)) = 1.58$ .
- (iv).  $mM_2(M(B)) = 1.378$ . (v).  $HM_1(M(B)) = 202$ .
- (vi).  $HM_2(M(B)) = 3085$ .
- (vii).  $R(M(B)) = 4.4592$  (viii).  $\chi(M(B)) = 2.0678$
- (ix)  $ISI(M(B)) = 46.1828$ .
- (X).  $ABC(M(B)) = 16.1203$  (iX)  $GAI(M(B)) = 4.9049$
- (X)  $SO(M(B)) = 95.876$ .

**Proof:** In  $M(B)$ , there are two pairs of edges with degrees of end vertices as 1,4 ; 3,4;3,5;3,6;2,5;4,5;4,6 and one edge with degrees of end vertices as 5,4 and 5,6.

With these degree sequences, we can easily get the values.

**Theorem 3.3:** If  $T(B)$  is the Total graph of Bull graph, then

- (i).  $M_1(T(B)) = 217$ . (ii).  $M_2(T(B)) = 425$ .
- (iii).  $mM_1(T(B)) = 0.85083$ .
- (iv).  $mM_2(T(B)) = 1.0456$ . (v).  $HM_1(T(B)) = 13720$ .
- (vi)  $HM_2(T(B)) = 10881$ .
- (vii).  $R(T(B)) = 4.324$  (viii).  $\chi(T(B)) = 2.0719$
- (ix)  $ISI(T(B)) = 150.93$
- (X).  $ABC(T(B)) = 18.217$  (iX)  $GAI(T(B)) = 9.1821$
- (X)  $SO(T(B)) = 122.7$ .

**Proof:** In  $M(B)$ , there are two pairs of edges with degrees of end vertices as 2,6 ; 2,4; 6,6 and four pairs of edges with degrees of end vertices as 4,6 and 5,6, three pairs of edges with degrees of end vertices as 4,5 and one edge pair with degrees of end vertices as 2,6 and 5,5.

With these degree sequences, we can easily get the values.

Theorem 3.4: If  $SD(B)$  is the Total graph of Bull graph, then

$$(i). M_1(SD(B)) = 192. \quad (ii). M_2(SD(B)) = 432.$$

$$(iii). mM_1(SD(B)) = 9.336.$$

$$(iv). mM_2(SD(B)) = 10. \quad (v). HM_1(SD(B))$$

$$= 1.888. \quad (vi) HM_2(SD(B))$$

$$= 6624.$$

$$(vii). R(SD(B)) = 4.386 \quad (viii). \chi(SD(B))$$

$$= 2.133 \quad (ix) ISI(SD(B)) = 43.2$$

$$(X). ABC(SD(B)) = 18.217 \quad (iX) GAI(SD(B))$$

$$= 18.726 \quad (X) SO(SD(B))$$

$$= 142.22.$$

**Proof:** In shadow graph  $SD(B)$ , there are eight pairs of edges with degrees of end vertices as 2,6 ; 6,4 and four pairs of edges with degrees of end vertices as 6,6 With these degree sequences, we can easily get the required values.

#### Conclusion

In this paper we computed first and second Zagreb indices, Randić index, sum-connectivity index, harmonic index, inverse sum indeg index, modified first and second Zagreb indices and first and second hyper Zagreb indices of the Splitting graph of Bull graph.

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## **Life Skills for Leadership Training Among Students.**

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**Abstract:** Leadership is considered one of the important life skills and is trainable like any other skill. Leadership is the process through which one member of a group influences other group members towards attainment of shared group goals. Youth should learn leadership in their development, working well with people by developing them, motivating and empowering the group members. Leadership skills are a set of human skills acquired via learning or direct experiences that are used to handle problems and questions commonly faced in day to day personal and professional life. This paper discusses the concept, importance and strategies of developing leadership training as a life skill among students.

**Key Words:** Life skill, Leadership training, Student community.

### **Introduction**

Leadership is considered one of the important life skills and is trainable like any other skill. Leadership is the process through which one member of a group influences other group members towards attainment of shared group goals. Youth should learn leadership in their development, working well with people by developing them, motivating and empowering the group members. Some of the leadership skills students can learn include: self confidence, communicating effectively including learning to listen, giving and receiving feedback, working well with people by involving them in meaningful ways; motivating and empowering others and sharing leadership which includes the ability to plan, organize, delegate and assess, accepting differences in people and in their opinions, managing conflict and flexibility etc.

The University Grants Commission (UGC) defines life skills as behaviours used appropriately and responsibly in the management of personal and professional affairs. Leadership skills are a set of human skills acquired via learning or direct experiences that are used to handle problems and questions commonly faced in day to day personal and professional life. Skills stated by the UGC include communication skills, interpersonal skills, time management, teamwork, flexibility, problem solving, professional skills, decision making, leadership abilities and general values. Leadership abilities include leadership skills, managerial skills, entrepreneurial skills, innovative strategies and thinking skills, ethics and solidarity. Leadership skills will help students to examine different types of leadership ideals and judge their own leadership style based on them and on their own strengths and abilities. Training helps students develop multiple skills like time management, self-control, conflict management, team leadership, etc.

### **The concept of leadership training**

Leadership training refers to mastering leadership qualities by demonstrating what a leader's behaviour might look like, modelling that behaviour and practicing it. The greatest lesson in leadership is how competent he is in a crisis situation. Leadership training is an overall effort to develop in a person those qualities that will help him become effective as a leader. When there are competitions, seminars or workshops in educational institutions, then students are allotted certain duties, which help the development of leadership skills.

### **Leadership Skills**

There are basic ten skills identified as essential leadership skills. Firstly, a leader should have the ability to think about or plan the future with imagination or wisdom. He should have fluency, flexibility, originality and clear and detailed thinking for achieving the stipulated goals. Secondly, a leader should be courageous and motivated. Courage means the mental or moral strength to undertake, keep trying, and withstand danger, fear, or difficulty. A skilled leader has a high desire for success and therefore the courage to take risks. Self-motivated leaders motivate others to adopt their style of leadership for attaining goals more consistently. Thirdly, a leader should have internal integrity and sense of responsibility. Internal integrity and sense of responsibility is a state of mind that maintains a harmonious balance between a person's thoughts, emotions, intelligence, etc. As a result there is a kind of consistency in his behaviour which helps him to maintain a strong and steady unity in work, in decision-making, in expressing positive attitude towards others. Fourthly a leader should be humane, compassionate, sympathetic, or generous behaviour or disposition. Fifthly, a leader should be able to do strategic planning. Strategic planning is a process in which an organization's leaders define their vision for the future and identify their organization's goals and objectives. The process includes establishing the

sequence in which those goals should be realized so that the organization can reach its stated vision.

Sixthly, a leader should be focussed. A primary task of leadership is to direct attention. To do so, leaders must learn to focus their own attention. When we speak about being focused, we commonly mean thinking about one thing while filtering out distractions. The leader's focus is transmitted to the followers. Seventhly, a leader should effectively communicate, cooperate and delegate task to his team members, the ability to send and receive correct messages using various media such as oral speech, written speech, gestures, charts, diagrams, etc. Verbal communication like use of orders, suggestions, discussions, etc., keeps the communication process going in workplaces. The leader and the employees work closely together. The success of any team work depends on the ability of the leader to distribute or delegate responsibilities among members which leads to effective completion of task. Eighthly, a leader should have a positive attitude. This means being optimistic about situations and outcomes. People with positive attitudes remain hopeful and see the best even in difficult situations. A leader should not be pessimistic but optimistic. Ninthly, a leader should be trustworthy. Gaining the trust and credibility is important for becoming a leader. If the leader is restless, incompetent in decision-making, confused in solving problems, then he has no acceptance. Frequent changes of decisions, different behaviour at different times in the same situation, are opposite qualities of leader's credibility. Hence in leadership training, leaders are trained to establish himself as a trusted team confidant. Finally, a leader should be able to take feedback from his team after the completion of the task. Feedback is information about how one is doing in effort to reach a goal. Feedback improves learner confidence, motivation to learn and ultimately attain goals. Using positive feedback helps individuals recognize and sharpen their skills, develop their areas of improvement and create a general sense of positivity in the workplace.

### **Importance of Developing Leadership Skills among Students**

In the present day, the job market demands the individuals to possess leadership skills to acquire employment opportunities in positions of technology executive, communication specialist and leadership training and development specialist. For this purpose, it is necessary to train students in leadership skills as it will help them to achieve the desired academic goals, but enhance their professional skills and sustain their living in an appropriate manner. Firstly, to achieve academic goals it is necessary for students to develop leadership skills. These skills will enable them to

make appropriate decisions, implement their tasks genuinely and meticulously and form good relationships with other members in the educational institutions. Secondly, students should have inner desire for self-development. Self-development refers to effective communication skills, inculcating the traits of morality and ethics, generating awareness regarding various aspects, forming constructive viewpoints, enhancing one's personality traits, implementing honesty and truthfulness, recognising ones responsibilities, forming effective terms and relationships with others, making wise decisions and enriching one's overall quality of lives. Putting these traits into practice will lead to effective self-development in a student. Thirdly it is essential for students to be creative. Particularly, when they are working on assignments, reports or projects, then creativity is usually depicted in stating ideas and in the overall presentation. When the students are creative, they can increase their leadership skills by giving ideas and suggestions. Fourthly, Teachers generally encourage team work. The team members are different from each other in terms of natures, skills, capabilities and behavioural traits. In some cases, they carry out their job duties with wholeheartedly whereas, in other cases, they procrastinate. Student leaders are required to inspire and stimulate the mind-sets of other team members towards completion of tasks and functions. Fifthly the student leader should have the Ability to Predict and Make Decisions. Predicting is referred to forecasting, envisaging and calculating. When the leaders are able to predict the future or the behavioural traits of other individuals, they are able to determine the procedures, which would be most effectual in the implementation of tasks. Making decisions is an integral part of the functioning of classroom activities and educational institutions. The student leaders are vested with the authority to make decisions. It is also important for leaders to allow team members to participate in the decision making processes. Decisions made, should be beneficial to all members.

Sixthly, students face certain problems like preparation of assignments, or projects or in acquiring a proper understanding of the academic concepts. Here students need to remain calm, conduct an analysis of the alternatives available and put into practice the alternative that would be most suitable. Student leaders should possess abilities to cope with challenges and guide the other team members too. Seventhly, the implementation of tasks and activities need to be in accordance to the situations. For instance, in educational institutions, when seminars and workshops are organized the teachers give/allot duties to the students. The students are required to implement tasks in accordance to the situations. Students implementing



tasks for the first time should seek assistance and support from teachers or fellow students are not confident. Eighthly, development of professionalism among student leaders are vital if they enable them to achieve personal and professional goals. Professional traits like communicating with other individuals with respect and courtesy, implementing honesty and truthfulness, inculcating the traits of morality and ethics, realizing one's responsibilities, possessing adequate knowledge and information in terms of various tasks, inculcating the traits of diligence, resourcefulness and conscientiousness, adopting the feeling of patriotism, curbing negative viewpoints, forming constructive viewpoints and perspectives regarding the educational institutions etc, ensure that learning methods are put into practice in an appropriate manner. Ninthly, the development of knowledge and skills are regarded as essential, particularly in the case of lesson plans and academic concepts. In order to achieve academic goals, students should have knowledge in preparation of one's assignments, projects, tests and competitions as an integral part of learning. It is also important to encourage students to participate in extra-curricular and creative activities. These include, sports, physical activities, music, singing, dancing, artworks, handicrafts, role playing and so forth. Participation in extra-curricular and creative activities stimulates their mind towards learning. Finally, in some cases, student leaders participate in making provision of literacy skills among students, belonging to deprived and socio-economically backward sections of the society. Whereas, in other cases, students are given the responsibility of collecting various things, such as, food items, clothing, medicines, and other items for the victims of natural calamities and disasters. Thus, the adoption of social responsibility enables the students to effectively contribute towards community well-being.

#### **Strategies for Developing Leadership Skills**

As mentioned earlier, Leadership is considered one of the important life skills and is trainable like any other skill. There are various ways to inculcate or train in leadership skills among students. Firstly, student leaders should be taught effective communication skills like speaking, listening and responding. When one is speaking, it is vital for them to communicate factual information and make use of decent language. One should possess effective listening skills and pay attention to the speakers. Also, it is vital for the listeners to respond and give proper feedback. While practicing leadership skills, student leaders should direct, guide and lead individuals in the right direction to achieve goals by using effective communication skills. Secondly, student leaders should be trained to be enthusiastic about the task they are assigned. When

student leaders show enthusiasm and interest, the team members feel comfortable in approaching them with their problems and concerns. It is vital for the leaders to make provision of equal opportunities and not discriminate against others on the basis of caste, creed, race, religion, ethnicity, gender, age, and socio-economic background. Within the classroom settings, there are differences among students but the leader should treat all fellow students with respect and courtesy. Thirdly, student leaders should be trained to be focused towards attaining goals. Student leaders should be disciplined by meeting deadlines in completion of a task and avoiding procrastination. Student leadership needs to focus upon their personal and professional goals. For instance, when one student is helping another in acquiring a better understanding of the lesson plans, he has the major objective of ensuring that his fellow student is able to adequately understand the concepts. In absence of teachers, student leaders need to ensure that discipline is maintained, students are concentrating on their studies and the environmental conditions within the classroom is under control. Fourthly, student leaders should be taught to be familiar with other students within the classroom setting. They need to note their qualities and characteristics. This will help the student leaders to effectively monitor and lead other students and they can perform their job satisfactorily. Student leader should understand the fact that a good leader happens only when there is good team participation. Student leader should keep his team's best interest in mind rather than his own interest. Student leader should be a people's person. Student leader should be approachable, open-minded and friendly. Then only other students will listen to him and follow his instructions. Fifthly, it is vital for the leaders to make use of one's knowledge and understanding and carry out their responsibilities in a well-organized manner. Student leaders should be trained to enable each group member to identify their duties and responsibilities, particularly in the achievement of their academic goals. Sixthly, the student leader should be taught to establish appropriate relation with the teachers, take initiative, offer help and information, obtain guidance and assistance, when needed etc. When the students due to some valid causes are unable to accept responsibilities, they need to communicate valid reasons in a polite and decent manner. But when they feel that accepting responsibilities would prove to be beneficial to them, they should give foremost priority to their work and accept responsibilities. Student leaders should engage in volunteering activities like student-run fundraisers or annual events of their institution. This will help students develop their leadership skills. Seventhly, student leaders should be trained to inspire and motivate others if a team member

needs reassurance or assistance. It is an integral duty of student leaders to adequately counsel and guide the other individuals in providing solutions to their problems by providing satisfactory ideas and suggestions that would be suitable to them. Student leaders need to counsel and guide, particularly in case of students, who experience setbacks in their academic performance or the ones, who experience any personal problems. Eighthly, student leaders should be trained to develop situational awareness and pro-activeness because that will help students see the bigger picture. They should foresee any problems before they occur and allow them time to make alternative plans. Here the student leaders are required to follow a step-by-step approach. These are, stating the problem as simply and clearly as possible, gathering all the relevant information and pertinent resources, brainstorming as many ideas and solutions as one can think of, when there are number of alternatives available, the individuals need to conduct an analysis of all the alternatives and make selection of the most suitable ones, plans need to be designed for utilizing ideas and solutions and following up on the plan is to determine whether the methods used have been suitable or not. Ninthly, student leaders should be trained to keep trying to learn new things as it better their skills and enriches their mind. In order to enhance the system of education, it is necessary to include modern and innovative methods and strategies. It is necessary for student leaders to identify the areas need improvement. After identifying the areas for improvement, it is necessary for the student leaders to put them into practice to enrich the system of education and facilitate the achievement of academic goals. Finally, during the course of implementation of one's goals, student leaders may feel stressed or anxious or frustrated especially when one is overwhelmed by number of responsibilities. Even when leaders have responsibilities, they need to have the appropriate skills and abilities to overcome these negative feelings. The student leaders need to be trained to develop good terms and relationships with all fellow students by behaving in a polite manner with others and put into practice the traits of morality and ethics.

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### **Conclusion**

Leadership is a necessary quality required for students today. In a competitive world, standing out in the crowd is very important. Every student has what it takes to be a leader. Leadership skill enhances the time management skills of the students. Students can plan their schedule accordingly. Students are able to achieve their goals in a better way through leadership skills. Students who possess leadership skills are aware of their rights and duties. They know how to get things done. Those possessing leadership skills are team players. They know how to lead others. Leadership skill makes students more confident and they never hesitate in accepting challenges of life. Leadership skills help students to enhance their social skills. Students also learn how to communicate effectively. Leadership skills help students to make better connections with others. Students possessing leadership skills are society-people. They have the ability to lead and find the solutions for problems like pollution, corruption, unemployment and social conflicts.

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## **COVID-19: A makeover among student teachers to be the 'new normal'**

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### **Abstract**

In the higher education sector, the Covid-19 epidemic has posed problems and caused interferences. University campuses and institutions were shut down, and face-to-face instruction and evaluation moved to an online environment. The obstacles brought on by the pandemic in the day-to-day activities of teaching and learning persisted even in teacher education. We will be able to better shape future hybrid delivery by using the experiences of the student instructors during this time to make it best fit the teaching and learning process in the future. The study looked at the experiences of the student teachers who were learning from home as well as how the lockout affected their quality of life and mental health. In an online survey with both open-ended and closed-ended questions, 200 student instructors participated. The data analysis showed that most student teachers had positive experiences with online learning and assessments, social media use, environmentally friendly practices, online shopping, dietary practices, and the use of electronic devices for health and fitness, and most of them wished to continue these practices in the future. The majority of students reported having no technical problems and having decent internet connectivity. While seeking more interactive lectures, only half of the students felt comfortable interacting with video cameras, which was shown when the focus shifted to the continuous hours of online sessions. Open-ended comments gave us a glimpse into how some students felt their home workspaces were insufficient, that using ICT was unhealthy, that it affected their concentration, that it made it hard to sleep, and that their mental health had declined.

**KeyWords:** Covid-19 pandemic, Teacher Education, Challenges, Lockdown, Online learning

### **Introduction**

The pandemic has created substantial difficulties in the routine tasks of education. Lockdowns and the forced closure of schools, colleges, and universities during the past year have been the direct effects. However, this has not resulted in a stop to learning, teaching, or assessment; rather, online platforms were created to carry on teaching and evaluation through a digital interface so students can advance in their academic careers. Many universities had already developed procedures to adapt their methods of delivering education to student requirements. However, all students must participate in both modalities. While blended learning incorporates some components of course delivery online, other strategies use the hybrid model, which combines online course delivery with in-person meetings. It has undoubtedly been difficult for academics and students alike to deal with the first global pandemic to affect higher education institutions in recent memory. To better prepare for future disruptions to higher education levels and to comprehend how COVID-19 has shaped our students, it is crucial to learn about student teachers' experiences during this time. This is especially true given that research has shown that COVID-19 has a significant negative impact on the general public's mental health and wellbeing. It has undoubtedly been difficult for academics and students alike to deal with the first global pandemic to affect higher education institutions in recent memory. To better prepare for future disruptions to

higher education levels and to comprehend how COVID-19 has shaped our students, it is crucial to learn about student teachers' experiences during this time. This is especially true given that research has shown that COVID-19 has a significant negative impact on the general public's mental health and wellbeing. The student teachers underwent noticeable change as a result of college closures, the rise of digital education, and time spent at home. The student teachers underwent noticeable change as a result of college closures, the rise of digital education, and time spent at home. As a result the effect of pandemic reflected upon every aspects of life. These pandemic induced habits among student teachers are observable when they set back to the normal life. As a teacher educator it has been observed that there is a drastic change in the behaviour and lifestyle of student teachers. While interacting with them it was realised that their attitude towards life, their hobbies, learning style, approach towards nature and society, practical knowledge regarding the use of electronic gadgets everything was undergone a rapid change. So it is very important to study about the impact of pandemic on various habits among student teachers

### **Research questions**

The present study was designed to answer the following research questions.

1. Does the pandemic induce any change in the habits and life styles of student teachers?
2. Whether all the pandemic induced aspects are to be sustained for the future?

**Objectives of the study**

The major objectives of the present study are;

1. To study about the major pandemic induced habits among student teachers
2. To analyze the extent to which the pandemic influenced on aspects like the pattern of using of social media, learning habits, online shopping, eco-friendly habits, outlook towards nature, dietary habits ,health & fitness and usage of different gadgets
3. To analyze the major challenges faced in online learning by the student teachers
4. To look over, the reaction of the student teachers whether the pandemic induced aspects are to be sustained for the future.

**Hypothesis of the study**

1. COVID-19 pandemic has induced several habitual changes among student teachers

**Methodology in brief**

In this study, the investigator adopted normative survey method to collect the data required. In order to collect the data required to study the pandemic induced habits among the student teachers, a

questionnaire was prepared by the investigator. It includes both open ended and closed ended questions. The questionnaire in Google form was shared on whatsapp and the responses were collected .The sample for the present study consists of 200 student teachers from three teacher education institutions in Kollam district. Computation of percentages was done to decide the proportion of responses made by the subjects under study

**Analysis and Interpretation of the data**

Analysis and interpretation of data regarding the pandemic induced habits among student teachers were done under the following sections.

**I) Analysis with respect to the various pandemic induced habits identified among student teachers**

**a) Usage of social media**

The student teachers of the present day are living in a knowledge driven era. They use many social platforms for various purposes without any age barriers. In this section the responses of the student teachers regarding usage of social media after COVID-19 pandemic were analyzed and interpreted as below.

**Table 1(a):Extent of usage of social media after COVID-19pandemic among student teachers**

Extent of use of social media	Number of student teachers	Percentage (%)
Great extent	183	91.6%
Some extent	17	8.4%
Not a tall	0	0%

Among the 200 student teachers selected for the study183(91.6%)students responded that the extent of social media usage rate increased due to the digital rush aroused during and after corona

pandemic. The table 1(b) describes the responses of student teachers with respect to the various purposes of using social media.

**Table 1 (b): Responses of student teachers with regard to the various purposes of using social media.**

Responses of using social media	Number of student teachers	Percentage (%)
Learning	67	33.3%
Entertainment	90	45%
Communication	13	6.7%
Others	30	15%

The table 1(b), reveals that 67 (45%) student teachers used social media for the purpose of entertainment. About 90 (33.3%) student teachers used social media for the purpose of learning and 13 (6.7%) using various social platforms for communication. From this it can be concluded that, they may have developed the habit of use of social media mainly for entertainment and learning due to non-functioning of the college.

**b) Learning habits**

The pandemic influenced student teachers' life a lot. Closure of colleges and shifting the learning into online platform affected the learning pattern of student teachers. In this section the responses of student teachers towards their learning habits were analyzed and the data was interpreted as given below.

**Table2: Responses of student teachers with respect to their learning habits**

Learning habits	Number of student teachers	Percentage (%)
Learning by using different gadgets	57	28.3%
Reading habit	33	16.7%
Self-learning	50	25%
Learning by discovering facts	20	10%
Others	40	20%

From the table2, it is revealed that among the sample collected 57(28.3%) student teachers carry out learning by using different gadgets. The learning and teaching through Google meet may have helped them in continuing the course. This means about 50(25%) student teachers developed a habit towards self-learning by exploring different information rich platforms available on internet. There were only about 33(16.7%) student teachers developed a habit of learning through reading. Also, the tendency of

**Table3: Responses of student teachers with regard to online shopping**

Online shopping	Number of student teachers	Percentage(%)
YES	113	56.7%
NO	87	43.3%

The table 3 reveals that among the sample studied 113 (56.7%) student teachers carry out online shopping whereas only 87(43.3%) student teachers not use any means for online shopping. From this, it can be concluded that pandemic may have developed a habit of online shopping by using various digital platforms due to COVID-19 pandemic.

**Table 4: Development of eco-friendly habits among student teachers**

Eco-friendly habits	Number of student teachers	Percentage (%)
Gardening	39	19.5%
Aspects of conservation	20	10%
Observing nature	20	10%
Aspects of cleanliness	27	13.5%
Pet rearing	44	22%
Farming	50	25%

The table 4 indicates that the student teachers have done different activities to enjoy their leisure time as well as the students got more attached with nature during the period of pandemic. From the responses of the student teachers most of them have developed habits like farming 50(25%), pet rearing 44 (22%) and gardening 39 (19.5%)From this, it can be concluded that the student teachers may have

**Table 5: Responses of student teachers with respect to their change in dietary intake during COVID-19**

Dietary habits	Number of student teachers	Percentage(%)
YES	153	76.7%
NO	13	6.6%
No change	34	16.7%

From the table 5, it is revealed that among the responses collected, 153(76.7%) student teachers had changed their dietary habits by getting back to natural food resources available in our surroundings.

Where only 13(6.6%) student teachers responded that they had no interest in the natural dietary resources. And 34 (16.7%) opined that pandemic did not change their diet. From this, it can be concluded that the student teachers may have developed a new dietary habit. They started to follow a new diet

discovery learning developed only in 20 (10%) student teachers. From this, it can be concluded that they may have developed a new habit of learning due to the spread of COVID -19 pandemic.

**c. Online shopping**

COVID-19 pandemic made people to be digital in all aspects. In this section the responses of student teachers on their habit of online shopping were analyzed and the data was interpreted as given below.

**d) Eco friendly Habit**

The COVID-19 pandemic set back people towards nature. The table 4 shows the development of various eco-friendly approaches of student teachers and the eco-friendly habits developed in them.

developed a habit of getting attached with the Mother Nature more than before.

**e. Dietary habits**

In this section the responses of student teachers on their dietary habits were analyzed and the data was interpreted as given below. The table 5 describes the responses of student teachers with respect to their dietary intake during COVID-19

containing natural food items like jackfruit, papaya, elephant yam etc., which is available in our surroundings.

**f) Health and fitness**

During the COVID-19 pandemic the people became more conscious about their health and fitness.COVID-19 pandemic has become a cause for maintaining good health. In this section the responses of student teachers on their habits developed with regard to health and fitness were

analyzed and the data was interpreted as given below.

**Table 6: Responses of student teachers with respect to the habit of developing health and fitness.**

Health and fitness	Number of student teachers	Percentage(%)
Exercising daily	67	33.4%
Reduced use of junk food	40	20%
Included nutrient rich food supplements in diet	60	30%
others	33	16.6%

From the Table 6, it is revealed that among the responses, 67(33.4%) student teachers exercise daily. About 60(30%) student teachers started to follow nutrient rich diet and 40(20%) student teachers reduced the use of junk food. From this, it can be concluded that pandemic may have developed a positive habit towards health and fitness.

**g) Use of different gadgets**

Pandemic has directed people to the use of many gadgets like mobile phone, PCs, laptops, Tablets etc. for exploring the digital world. The technological competencies were changed. COVID-19 pandemic also developed a habit of being digital in many aspects. In this section the responses of secondary school students on their habit and competencies of use of various gadgets were analyzed and the data was interpreted as given below.

**Table7: Responses of student teachers with regard to the habit of using various electronic gadgets**

Use of electronic gadgets	Number of student teachers	Percentage(%)
YES	180	90%
NO	20	10%

From the table7, it is revealed that among the sample collected 180(90%) student teachers have developed a technical skill in the use of various electronic gadgets. Only 20(10%) student teachers have given negative responses with regard to the competencies developed for using gadgets. From this, it can be concluded that pandemic may have increased the use of different gadgets.

**h) Challenges reported by student teachers during online learning-Thematic analysis**

What were the main difficulties that student teachers had with online learning during the COVID-19 Pandemic? A thematic analysis of the responses was done. Is there anything that could be done to enhance the way that learning and teaching happens online? The free-text questions and responses were chosen by the student teachers. Following are the major themes. While seeking more interactive lectures, only half of the students felt comfortable interacting with video cameras, which was shown when the focus shifted to the continuous hours of online sessions. Open ended responses revealed how several students felt their home workspaces were insufficient and that utilising ICT poses health risks. The constant usage of ICT equipment caused various health problems among the student instructors. Headaches, neck discomfort, watery eyes, joint pain, decreased concentration, trouble sleeping, back pain, and a decline in mental wellbeing are among the main health risks mentioned by the student instructors. They also

reported headaches, neck pain, difficulty sleeping, and back pain.

II) Analysis with respect to the pandemic induced aspects that are to be sustained for the future.

From the open ended responses of the student teachers, the following suggestions were developed with respect to the pandemic induced aspects that are to be sustained for the future.

1. The learning through online platforms influenced the student teachers and it is good to sustain the habit of online learning/teaching or developing a style of education in which students learn via electronic and online media as well as traditional face to face teaching. In short, the student teachers prefer greatly for a blended mode of learning.
2. Due to the influence of pandemic , the student teachers have developed a Habit of getting attached with the Mother Nature more than before. This should be sustained for the future. By developing an eco-friendly attitude, the student teachers get more involved in nurturing and conserving nature and natural resources moving towards the concept of sustainable development.
3. From the opinion of the student teachers the adoption of new dietary habits during the time of pandemic should be sustained for future. Because it reduces the use
4. of junk foods and people started to use the items available in their locality, like raw papaya, jack fruit, tapioca, elephant yam etc. it is good for



health and this food habits should be sustained for future.

5. COVID-19 pandemic has become a cause for maintaining good health. Pandemic has developed a positive habit towards health and fitness like daily exercise, reduced use of junk foods, including nutrient rich food supplements in diet etc and these habits should be sustained for better future.

### Conclusion

The pandemic has demonstrated how flexible academics and students are in the higher education environment, allowing for the continuation of online study and evaluation.. Corona virus disease affected all type of individuals and their life style; it influenced the student teachers and their living pattern. Institutional life provides structure and routine to the lives of students. But, closure of colleges and emergence of digital education and the time spent at home made an observable changes among student teachers. As a result the effect of pandemic induced several changes in their habits. Also, it developed new habits among student teachers in various aspects like Usage of social media, Online shopping, Eco-friendly habits, Dietary habits, Health and fitness, Usage of different gadgets, Interest in sports, Interest in arts, Sleeping habits etc. These pandemic induced habits among student teachers are observable when they set back to the normal life and some pandemic induced habits have a positive impact on life and these aspects are to be sustained for the future touching student wellbeing.

Students are better equipped to work remotely thanks to the pandemic, which is a necessary component of offering a successful hybrid model and represents the widespread adjustments made by many organisations to respond to changing laws, regulations, and guidelines. There are undeniable benefits to online education, as well as potential for colleges to gain from rising social media usage. However, our study has clearly revealed a problem of online learning: making sure our students feel at ease interacting and participating online. Universities might utilize video cameras to duplicate classroom interactions online, but teachers need to be aware of how much privacy their students demand. The use of a hybrid teaching, learning, and evaluation strategy must be encouraged by educational institutions, who must also embrace the lessons acquired through online instruction.

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## Implementation of Common Soft Fixed Point with Intuitionistic Soft Fuzzy Metric Space

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**Abstract:** In this article, we define compatible mappings of type (K) in intuitionistic fuzzy metric space and prove a general Soft fixed point theorem with an application to self mappings on a full intuitionistic fuzzy metric space. Our conclusion broadens and enhances earlier, related findings in the literature.

**Keywords:** Intuitionistic fuzzy metric space, weakly compatible, compatible mappings of type (K), Soft set, soft fixed point

### Introduction

Functional analysis must include the examination of soft fixed points. Studying frequently occurring soft fixed points of mappings that satisfy contractive type constraints has proven to be a very fruitful field of research. The idea of a fuzzy set was created in 1965 by L.A. Zade[11]. Following that, fuzzy metric spaces were introduced by Kramosil and Michalek [13]. George and Veeramani [1] used continuous t-norms to create the idea of fuzzy metric spaces. In 1986, G. Jungck [5] was the first to put forth the concept of compatible mappings. By G. Jungck, P. P. Murthy, and Y. J. Cho in 1993 [6]. Compatible mappings of type (P) were introduced by M. Kang

[7] and contrasted with compatible mappings of type (A) and compatible mappings. In 1998,. The idea of compatible mappings of type (K) in metric space was recently proposed by Jha et al. [10], who also demonstrated that each compatible mapping of type (K) is independent of the others. A

### Preliminaries

**Definition 2.1.** [12] Any non empty set Y and B is a fuzzy set in Y is a mapping with domain Y and [0,1].

**Definition 2.2.** [1] A binary operation  $\diamond : [0, 1] \times [0, 1] \rightarrow [0, 1]$  is a continuous t-norm if  $\diamond$  is satisfying the following conditions:

1.  $\diamond$  is commutative and associative;
2.  $\diamond$  is continuous;
3.  $p \diamond 1 = p$  for all  $a \in [0, 1]$ ;
4.  $p \diamond q \leq r \diamond s$  whenever  $p \leq r$  and  $q \leq s$ , and  $p, q, r, s \in [0, 1]$ .

**Definition 2.3.** [2] A binary operation  $*$  :  $[0, 1] \times [0, 1] \rightarrow [0, 1]$  is a continuous t-conorm if it satisfies the following conditions:

1. is commutative and associative;
2.  $*$  is continuous;
3.  $p * 0 = p$  for all  $p \in [0, 1]$ ;
4.  $p * q \leq r * s$  whenever  $p \leq r$  and  $q \leq s$ , for each  $p, q, r, s \in [0, 1]$ .

**Definition 2.4.** [3] Let  $(Y, P, Q, *, \diamond)$  be an intuitionistic fuzzy metric space.

1. A sequence  $\{x_n\}$  in Y is called Cauchy sequence if for each  $t > 0$  and  $P > 0$ ,  $\lim_{\omega \rightarrow \infty} P(y_{\omega+p}, t) = 1$  and  $\lim_{\omega \rightarrow \infty} Q(y_{\omega+p}, t) = 0$ .
2. A sequence  $\{y_n\}$  in Y is convergent to  $y \in Y$  if  $\lim_{\omega \rightarrow \infty} P(y_{\omega+p}, t) = 1$  and  $\lim_{\omega \rightarrow \infty} Q(y_{\omega+p}, t) = 0$ .
3. for each  $t > 0$ .
4. An intuitionistic fuzzy metric space is said to be complete if every Cauchy sequence is convergent.

**Definition 2.5.**[10] The self mappings B and R of a fuzzy metric space  $(Y, P, *)$  are said to be compatible of type (E) iff  $\lim_{\omega \rightarrow \infty} P(BBy_{\omega}, BRy_{\omega}, t) = 1$ ,  $\lim_{\omega \rightarrow \infty} P(BBy_{\omega}, Ry, t) = 1$ ,

$\lim_{\omega \rightarrow \infty} P(BRy_{\omega}, Ry, t) = 1$  and  $\lim_{\omega \rightarrow \infty} P(RRy_{\omega}, RBy_{\omega}, t) = 1$ ,  $\lim_{\omega \rightarrow \infty} P(RRy_{\omega}, By, t) = 1$ ,

$\lim_{\omega \rightarrow \infty} P(RRy_{\omega}, By, t) = 1$ .

common soft fixed point theorem for compatible mappings of type (K) in intuitionistic fuzzy metric spaces is established in this study with an accompanying illustration. Molodtsov [18] introduced the idea of soft sets as a novel mathematical approach for problem-solving. A parameterized family of subsets of the full set is what Molodtsov[1] refers to as a soft set. Each element of the soft set is thought of as a collection of nearby items, and the soft set is a parameterized family of subsets of the full set. Numerous scholars have been studying the foundations of soft set theory during the past few years. A OR was presented by Maji et al. [19]. They conducted study and discussed the fundamental characteristics of their methods. Pei and Miao [20] examined the connection between information systems and soft sets and redefined the terms intersection and subset of soft sets. [21] with a focus on their fundamental features. Soft matrix theory was introduced by Cagman and Enginoglu [22]

**Definition 2.6.**[10] The self mappings B and R of a metric space (Y, d) are said to be compatible of type (K) iff  $\lim_{\omega \rightarrow \infty} BBy_{\omega} = Ry_{\omega}$  and  $\lim_{\omega \rightarrow \infty} RBy_{\omega} = By_{\omega}$ , whenever  $\{y_{\omega}\}$  is a sequence in Y such that  $\lim_{\omega \rightarrow \infty} By_{\omega} = \lim_{\omega \rightarrow \infty} Ry_{\omega} = y$  for some y in Y.

**Definition 2.7** The self mappings B and R of an intuitionistic fuzzy metric space (Y, P, Q, \*,  $\diamond$ ) are said to be compatible of type (K) iff  $\lim_{\omega \rightarrow \infty} P(BBy_{\omega}, Ry_{\omega}, t) = 1$  and  $\lim_{\omega \rightarrow \infty} P(RBy_{\omega}, By_{\omega}, t) = 1$ , whenever  $\{y_{\omega}\}$  is a sequence in Y such that  $\lim_{\omega \rightarrow \infty} By_{\omega} = \lim_{\omega \rightarrow \infty} Ry_{\omega} = y$  for some x in Y and  $t > 0$ .

**Definition 2.10.**[18] Let (Y, d) is a metric space and the set (F, B) is a soft set of Y is called null soft set and it is denoted by  $\phi$ . iff for all  $\epsilon \in B$ ,  $F(\epsilon) = \phi$ . (empty set)

**Definition 2.11.**[19] Let (Y, d) is a metric space and suppose that the set (F, B) is a soft set over (Y, d) is called absolute soft set. If for all  $\epsilon \in B$ ,  $F(\epsilon) = Y$ .

**Definition 2.12.**[20] Let (Y, d) is a metric space and if the difference (F, A) of two soft sets (F, A) and (F, A) over Y is denoted by (F, A) \ (F, A) and is defined as

$F(e) = H(e) \setminus G(e)$  for all  $e \in A$ .

**Lemma 2.14.** [16] Let (Y, P, Q, \*,  $\diamond$ ) be an intuitionistic fuzzy metric space. If there exists a constant  $k \in (0, 1)$  such that,  $P(y_{\omega+2}, y_{\omega+1}, kt) \geq P(y_{\omega+1}, y_{\omega}, t)$ ,  $Q(y_{\omega+1}, y_{\omega+1}, kt) \leq Q(y_{\omega+1}, y_{\omega}, t)$  for every  $t > 0$  and  $n=1, 2, \dots$  then  $\{y_{\omega}\}$  is a Cauchy sequence in Y.

**Definition 2.13.**[21] For any two soft real numbers

1.  $\tilde{p} \leq \tilde{q}$ , if  $\tilde{p}(e) \leq \tilde{q}(e)$ , for all  $e \in A$ .
2.  $\tilde{p} \geq \tilde{q}$  if  $\tilde{p}(e) \geq \tilde{q}(e)$ , for all  $e \in A$ .
3.  $\tilde{p} < \tilde{q}$  if  $\tilde{p}(e) < \tilde{q}(e)$ , for all  $e \in A$ .
4.  $\tilde{p} > \tilde{q}$ , if  $\tilde{p}(e) > \tilde{q}(e)$ , for all  $e \in A$ .

**Definition 2.14.**[22] The complement of a soft set (P, B) is denoted by  $(P, B)^c$  and is defined by  $(P, B)^c = (P^c, B)$  where  $F: B \rightarrow Q(Y)$  is mapping given by  $(\beta) = Y - P(\beta)$ ,  $\forall \beta \in B$ .

**Definition 2.15.**[23] Let R be the set of real numbers and C(R) be the collection of all nonempty Bounded subsets of R and C taken as a set of parameters. Then a mapping

$A: H \rightarrow B(R)$  is said to be a soft real set. It is denoted by (A, H). If specifically (A, H) is a singleton soft set, then identifying (A, H) with the corresponding soft element, it will be said to a soft real number and denoted  $\tilde{a}$ , betc.

Let 0, 1 are any two soft real numbers where  $0(e) = 0, 1(e) = 1$  for all  $e \in H$ , respectively

Main Results

If the following requirements are met and B, K, L, and T are self mapping on a full intuitionistic soft fuzzy metric space (Y, P, Q, \*,  $\diamond$ ),

(i)  $C(Y) \subseteq T(Y), K(Y) \subseteq L(Y)$ .

There exists  $k \in (0, 1)$  such that for every  $\tilde{x}, \tilde{y} \in \tilde{Y}$  and  $t > 0$ ,

$P(C\tilde{x}, K\tilde{y}, kt) \geq \min \{P(L\tilde{x}, T\tilde{y}, t), P(C\tilde{x}, L\tilde{x}, t), P(K\tilde{y}, T\tilde{y}, t), P(C\tilde{x}, T\tilde{y}, t), P(C\tilde{x}, K\tilde{y}, t), P(L\tilde{x}, K\tilde{y}, t)\}$ ,

and  $Q(C\tilde{x}, K\tilde{y}, kt) \leq \max \{Q(L\tilde{x}, T\tilde{y}, t), Q(C\tilde{x}, L\tilde{x}, t), Q(K\tilde{y}, T\tilde{y}, t), Q(C\tilde{x}, T\tilde{y}, t), Q(C\tilde{x}, K\tilde{y}, t), Q(L\tilde{x}, K\tilde{y}, t)\}$ .

K and T weakly compatible mappings.

Then C, K, L, and T all have a single common soft fixed point in  $\tilde{Y}$  if the pair of mappings (C, L) is compatible of type (K) and one of the mappings is continuous.

**Theorem 3.1:** If the following requirements are met and B, K, L, and T are self mapping on a full intuitionistic soft fuzzy metric space (Y, P, Q, \*,  $\diamond$ ),

(i)  $C(Y) \subseteq T(Y), K(Y) \subseteq L(Y)$ .

There exists  $k \in (0, 1)$  such that for every  $\tilde{y}, \tilde{z} \in \tilde{Y}$  and  $t > 0$ ,

$P(C_{\tilde{y}}, K_{\tilde{z}}, kt) \geq \min \{P(L_{\tilde{y}}, T_{\tilde{z}}, t), P(C_{\tilde{y}}, L_{\tilde{y}}, t), P(K_{\tilde{z}}, T_{\tilde{z}}, t), P(C_{\tilde{y}}, T_{\tilde{z}}, t), P(C_{\tilde{y}}, K_{\tilde{z}}, t), P(L_{\tilde{y}}, K_{\tilde{z}}, t)\}$ ,  
 and  $Q(C_{\tilde{y}}, K_{\tilde{z}}, kt) \leq \max \{Q(L_{\tilde{y}}, T_{\tilde{z}}, t), Q(C_{\tilde{y}}, L_{\tilde{y}}, t), Q(K_{\tilde{z}}, T_{\tilde{z}}, t), Q(C_{\tilde{y}}, T_{\tilde{z}}, t), Q(C_{\tilde{y}}, K_{\tilde{z}}, t), Q(L_{\tilde{y}}, K_{\tilde{z}}, t)\}$ .

$$P(C_{\tilde{y}}, K_{\tilde{z}}, kt) \leq \frac{P(L\tilde{y}, K\tilde{z}, t)}{1 + P(L\tilde{y}, K\tilde{z}, t)} \quad \text{and}$$

$$Q(C_{\tilde{y}}, K_{\tilde{z}}, kt) \leq \max\{Q(L_{\tilde{y}}, T_{\tilde{z}}, t), Q(C_{\tilde{y}}, L_{\tilde{z}}, t), Q(K_{\tilde{z}}, T_{\tilde{z}}, t), Q(C_{\tilde{y}}, T_{\tilde{z}}, t), Q(C, K, kt), Q(L\tilde{y}, K\tilde{z}, t)\}$$

$$\frac{1 + Q(C_{\tilde{y}}, T_{\tilde{z}}, t)}{1 + Q(L\tilde{y}, K\tilde{z}, t)}$$

K and T weakly compatible mappings.

Then C, K, L, and T all have a single common soft fixed point in  $\tilde{Y}$  if the pair of mappings (C, L) is compatible of type (K) and one of the mappings is continuous

**Proof:** Suppose  $\tilde{y}_0$  be any random point in  $\tilde{Y}$ , construct a  $\{\tilde{z}_n\}$  in  $\tilde{Y}$  as a means to  $\tilde{z}_{2\omega-1} = T\tilde{y}_{2\omega-1}$

$$= C\tilde{y}_{2\omega-2} \ \& \ \tilde{z}_{2\omega} = L\tilde{y}_{2\omega} = K\tilde{y}_{2\omega+1}, \ \omega = 1, 2, 3, 4 \quad \text{this can be done by (1),}$$

By using contractive condition, we obtain

$$P(\tilde{z}_{2\omega+1}, \tilde{z}_{2\omega+2}, kt) = P(C\tilde{y}_{2\omega}, K\tilde{y}_{2\omega+1}, kt)$$

$$P(\tilde{z}_{2\omega+1}, \tilde{z}_{2\omega+2}, kt) \geq \min\{P(L\tilde{y}_{2\omega}, T\tilde{y}_{2\omega+1}, t), P(C\tilde{y}_{2\omega}, L\tilde{y}_{2\omega+1}, t), P(K\tilde{y}_{2\omega+1}, T\tilde{y}_{2\omega+1}, t), P(L\tilde{y}_{2\omega}, K\tilde{y}_{2\omega+1}, t)\}$$

$$\geq \frac{P(L\tilde{y}_{2\omega}, K\tilde{y}_{2\omega+1}, t)}{1 + P(L\tilde{y}_{2\omega}, K\tilde{y}_{2\omega+1}, t)} \cdot \frac{P(C\tilde{y}_{2\omega}, T\tilde{y}_{2\omega+1}, t)}{1 + P(C\tilde{y}_{2\omega}, T\tilde{y}_{2\omega+1}, t)}$$

$$\geq \min\{P(\tilde{z}_{2\omega}, \tilde{z}_{2\omega+1}, t), P(\tilde{z}_{2\omega+1}, \tilde{z}_{2\omega+1}, t), P(\tilde{z}_{2\omega+1}, z_{2\omega+1}, t), P(\tilde{z}_{2\omega}, \tilde{z}_{2\omega+1}, t)\}$$

$$\frac{P(z_{2\omega+1}, \tilde{z}_{2\omega+1}, t)}{1 + P(z_{2\omega+1}, \tilde{z}_{2\omega+1}, t)} \cdot \frac{P(\tilde{z}_{2\omega}, \tilde{z}_{2\omega}, t)}{1 + P(\tilde{z}_{2\omega}, z_{2\omega}, t)}$$

$$P(\tilde{z}_{2\omega+1}, \tilde{z}_{2\omega+2}, kt) \geq \min\{P(\tilde{z}_{2\omega}, \tilde{z}_{2\omega+1}, t), P(\tilde{z}_{2\omega+1}, \tilde{z}_{2\omega+1}, t), P(\tilde{z}_{2\omega+1}, z_{2\omega+1}, t), P(\tilde{z}_{2\omega}, \tilde{z}_{2\omega+1}, t)\}$$

$$\frac{P(\tilde{z}_{2\omega}, \tilde{z}_{2\omega}, t)}{1 + P(\tilde{z}_{2\omega}, z_{2\omega}, t)}$$

$$P(\tilde{z}_{2\omega+1}, \tilde{z}_{2\omega+2}, kt) \geq \min\{P(\tilde{z}_{2\omega}, \tilde{z}_{2\omega+1}, t), 1, 1, P(\tilde{z}_{2\omega}, \tilde{z}_{2\omega+1}, t), 1, 1\}$$

$$P(\tilde{z}_{2\omega+1}, \tilde{z}_{2\omega+2}, kt) \geq P(\tilde{z}_{2\omega}, \tilde{z}_{2\omega+1}, t)$$

Similarly, we have  $P(\tilde{z}_{2\omega}, \tilde{z}_{2\omega+1}, t) \geq P(\tilde{z}_{2\omega-1}, \tilde{z}_{2\omega}, t)$  (1) So we get  $P(\tilde{z}_{2\omega+2}, \tilde{z}_{2\omega+1}, t) \geq P(\tilde{z}_{2\omega+1}, \tilde{z}_{2\omega}, t)$

Also, we get

$$Q(\tilde{z}_{2\omega+1}, \tilde{z}_{2\omega+2}, kt) = Q(C\tilde{z}_{2\omega}, K\tilde{z}_{2\omega+1}, kt)$$

$$Q(\tilde{z}_{2\omega+1}, \tilde{z}_{2\omega+2}, kt) \leq \max\{Q(L\tilde{y}_{2\omega}, T\tilde{y}_{2\omega+1}, t), Q(C\tilde{y}_{2\omega}, L\tilde{y}_{2\omega+1}, t), Q(K\tilde{y}_{2\omega+1}, T\tilde{y}_{2\omega+1}, t), Q(L\tilde{y}_{2\omega}, K\tilde{y}_{2\omega+1}, t)\}$$

$$Q(L\tilde{y}_{2\omega}, K\tilde{y}_{2\omega+1}, t)$$

$$Q(L\tilde{y}_{2\omega}, K\tilde{y}_{2\omega+1}, t)$$

$$Q(L\tilde{y}_{2\omega}, K\tilde{y}_{2\omega+1}, t)$$

$$\frac{Q(L\tilde{y}_{2\omega}, K\tilde{y}_{2\omega+1}, t)}{1 + Q(L\tilde{y}_{2\omega}, K\tilde{y}_{2\omega+1}, t)} \cdot \frac{Q(C\tilde{y}_{2\omega}, T\tilde{y}_{2\omega+1}, t)}{1 + Q(C\tilde{y}_{2\omega}, T\tilde{y}_{2\omega+1}, t)}$$

$$\frac{Q(C\tilde{y}_{2\omega}, T\tilde{y}_{2\omega+1}, t)}{1 + Q(C\tilde{y}_{2\omega}, T\tilde{y}_{2\omega+1}, t)}$$

$$($$

$$C\tilde{y}_{2\omega}, T\tilde{y}_{2\omega+1}$$

$$, t)$$

$$\leq \max \{Q(\tilde{z}_{2\omega}, \tilde{z}_{2\omega+1}, t), Q(\tilde{z}_{2\omega+1}, \tilde{z}_{2\omega+1}, t), Q(\tilde{z}_{2\omega+1}, z_{2\omega+1}, t), Q(\tilde{z}_{2\omega}, \tilde{z}_{2\omega+1}, t),$$

$$\frac{Q(z_{2\omega+1}, \tilde{z}_{2\omega+1}, t)}{1+Q(\tilde{z}_{2\omega}, \tilde{z}_{2\omega+1}, t)} + \frac{Q(z_{2\omega+1}, \tilde{z}_{2\omega+1}, t)}{1+Q(\tilde{z}_{2\omega}, \tilde{z}_{2\omega+1}, t)} \}$$

$$Q(\tilde{z}_{2\omega+1}, \tilde{z}_{2\omega+2}, kt) \leq \max \{Q(\tilde{z}_{2\omega}, \tilde{z}_{2\omega+1}, t), Q(\tilde{z}_{2\omega+1}, \tilde{z}_{2\omega+1}, t), Q(\tilde{z}_{2\omega+1}, z_{2\omega+1}, t),$$

$$Q(\tilde{z}_{2\omega}, \tilde{z}_{2\omega+1}, t), \frac{Q(z_{2\omega+1}, \tilde{z}_{2\omega+1}, t)}{1+Q(\tilde{z}_{2\omega}, \tilde{z}_{2\omega+1}, t)} \}$$

$$Q(\tilde{z}_{2\omega+1}, \tilde{z}_{2\omega+2}, kt) \leq \{Q(\tilde{z}_{2\omega}, \tilde{z}_{2\omega+1}, t), 0, 0, Q(\tilde{z}_{2\omega}, \tilde{z}_{2\omega+1}, t), 0, 0\} Q(\tilde{z}_{2\omega+1}, \tilde{z}_{2\omega+2}, kt) \leq Q(\tilde{z}_{2\omega}, \tilde{z}_{2\omega+1}, t)$$

Similarly we have

$$Q(\tilde{z}_{2\omega}, \tilde{z}_{2\omega+1}, t) \leq Q(\tilde{z}_{2\omega-1}, \tilde{z}_{2\omega}, t) \quad (2) \text{ So we get } Q(\tilde{z}_{2\omega+2}, \tilde{z}_{2\omega+1}, t) \leq Q(\tilde{z}_{2\omega+1}, \tilde{z}_{2\omega}, t)$$

From (1),(2) and (2.13), We comprehend that  $\{z\}$  is a Cauchy sequence in  $Y$ .

But  $(Y, \tilde{P}, \tilde{Q}, *, \diamond)$  is complete, So there are a soft point  $\tilde{z}$  in  $\tilde{Y}$ . Such that  $\{\tilde{z}_\omega\} \rightarrow \tilde{q}$ . Also we have  $\{C\tilde{y}_{2\omega-2}\}, \{T\tilde{y}_{2\omega-1}\}, \{L\tilde{y}_{2\omega}\}, \{K\tilde{y}_{2\omega-1}\} \rightarrow \tilde{q}$ .

Since  $(C, L)$  is compatible of type  $(K)$  and one of the mapping is continuous. So using (2.15), We obtain  $C\tilde{q} = L\tilde{q}$ .

(3)

Since  $C(\tilde{Y}) \subseteq T(\tilde{Y})$ , Then one can find a point  $\tilde{v}$  in  $\tilde{Y}$ , as a means to  $C\tilde{q} = T\tilde{v}$ .

Now by contractive condition, we obtain

$$P(C\tilde{q}, K\tilde{v}, kt) \geq \min \{P(L\tilde{q}, T\tilde{v}, t), P(C\tilde{q}, L\tilde{v}, t), P(K\tilde{v}, T\tilde{v}, t), \frac{P(L\tilde{q}, K\tilde{v}, t)}{1+(L\tilde{q}, \tilde{v}, t)} \}$$

$$, \frac{P(C\tilde{q}, K\tilde{v}, t)}{1+(C\tilde{q}, \tilde{v}, t)} \}$$

$$= \min \{ P(C\tilde{q}, C\tilde{q}, t), P(C\tilde{q}, C\tilde{q}, t), P(K\tilde{v}, C\tilde{q}, t), \frac{P(C\tilde{q}, K\tilde{v}, t)}{1+(C\tilde{q}, \tilde{v}, t)} \}$$

$$, \frac{P(C\tilde{q}, C\tilde{q}, t)}{1+(C\tilde{q}, \tilde{v}, t)} \}$$

$$= \min \{ P(C\tilde{q}, C\tilde{q}, t), P(C\tilde{q}, C\tilde{q}, t), P(K\tilde{v}, C\tilde{q}, t), P(K\tilde{v}, C\tilde{q}, t), P(C\tilde{q}, C\tilde{q}, t), P(K\tilde{v}, C\tilde{q}, t) \}$$

$$P(C\tilde{q}, K\tilde{v}, kt) \geq P(C\tilde{q}, K\tilde{v}, t) \quad (4)$$

Also, we obtain

$$Q(C\tilde{q}, K\tilde{v}, kt) \leq \max \{Q(L\tilde{q}, T\tilde{v}, t), Q(C\tilde{q}, L\tilde{v}, t), Q(K\tilde{v}, T\tilde{v}, t), \frac{Q(L\tilde{q}, K\tilde{v}, t)}{1+Q(L\tilde{q}, \tilde{v}, t)} \}$$

$$, \frac{Q(C\tilde{q}, K\tilde{v}, t)}{1+Q(C\tilde{q}, T\tilde{v}, t)} \}$$

$$= \max \{ Q(C\tilde{q}, C\tilde{q}, t), Q(C\tilde{q}, C\tilde{q}, t), Q(K\tilde{v}, C\tilde{q}, t), \frac{Q(C\tilde{q}, K\tilde{v}, t)}{1+Q(C\tilde{q}, K\tilde{v}, t)} \}$$

$$, \frac{Q(C\tilde{q}, C\tilde{q}, t)}{1+Q(C\tilde{q}, K\tilde{v}, t)} \}$$

$$= \max \{ Q(C\tilde{q}, C\tilde{q}, t), Q(C\tilde{q}, C\tilde{q}, t), Q(K\tilde{v}, C\tilde{q}, t), Q(K\tilde{v}, C\tilde{q}, t), Q(C\tilde{q}, C\tilde{q}, t), Q(K\tilde{v}, C\tilde{q}, t) \}$$

$$Q(C\tilde{q}, K\tilde{v}, kt) \leq Q(C\tilde{q}, K\tilde{v}, t) \quad (5)$$

Now from (4) and (5) and Lemma (2.14), We obtain  $C\tilde{q} = K\tilde{v}$

$$\text{Thus we obtain } C\tilde{q} = L\tilde{q} = K\tilde{q} = T\tilde{q} \quad (6)$$

To prove  $R\tilde{q} = \tilde{q}$

$$P(C\tilde{q}, Kz_{2\omega+1}, kt) \geq \min \{ P(L\tilde{q}, Tz_{2\omega+1}, t), P(C\tilde{q}, Lz_{2\omega+1}, t), P(Kz_{2\omega+1}, Tz_{2\omega+1}, t) \},$$

$$\frac{P(L\tilde{q}, Tz_{2\omega+1}, t)}{1 + P(L\tilde{q}, Tz_{2\omega+1}, t)} + P(L\tilde{q}, Tz_{2\omega+1}, t),$$

$$P(C\tilde{q}, Kz_{2\omega+1}, t),$$

$$P(C\tilde{q}, Tz_{2\omega+1}, t) \}$$

let as  $n \rightarrow \infty$ , we obtain

$$P(C\tilde{q}, \tilde{q}, kt) \geq \min \{ P(L\tilde{q}, \tilde{q}, t), P(C\tilde{q}, \tilde{q}, t), P(\tilde{q}, \tilde{q}, t), \frac{P(L\tilde{q}, \tilde{q}, t)}{1 + P(L\tilde{q}, \tilde{q}, t)} \}$$

$$P(C\tilde{q}, \tilde{q}, t), \frac{P(C\tilde{q}, \tilde{q}, t)}{1 + P(C\tilde{q}, \tilde{q}, t)} \}$$

$$P(C\tilde{q}, \tilde{q}, kt) = \min \{ P(L\tilde{q}, \tilde{q}, t), P(C\tilde{q}, \tilde{q}, t), 1, \frac{P(C\tilde{q}, \tilde{q}, t)}{1 + P(C\tilde{q}, \tilde{q}, t)} \}$$

$$P(C\tilde{q}, \tilde{q}, t), \frac{P(C\tilde{q}, \tilde{q}, t)}{1 + P(C\tilde{q}, \tilde{q}, t)} \}$$

$$P(C\tilde{q}, \tilde{q}, kt) = \min \{ P(C\tilde{q}, \tilde{q}, t), P(C\tilde{q}, \tilde{q}, t), 1, \frac{P(C\tilde{q}, \tilde{q}, t)}{1 + P(C\tilde{q}, \tilde{q}, t)} \}$$

$$P(C\tilde{q}, \tilde{q}, t), \frac{P(C\tilde{q}, \tilde{q}, t)}{1 + P(C\tilde{q}, \tilde{q}, t)} \}$$

$$P(C\tilde{q}, \tilde{q}, kt) = \min \{ P(C\tilde{q}, \tilde{q}, t), P(C\tilde{q}, \tilde{q}, t), 1, 1, P(C\tilde{q}, \tilde{q}, t), 1 \}$$

$$P(C\tilde{q}, \tilde{q}, kt) \geq P(C\tilde{q}, \tilde{q}, t) \quad (7)$$

$$Q(C\tilde{q}, Kz_{2\omega+1}, kt) \leq \max \{ Q(L\tilde{q}, Tz_{2\omega+1}, t), Q(C\tilde{q}, Lz_{2\omega+1}, t), Q(Kz_{2\omega+1}, Tz_{2\omega+1}, t) \},$$

$$\frac{Q(L\tilde{q}, Tz_{2\omega+1}, t)}{1 + Q(L\tilde{q}, Tz_{2\omega+1}, t)}, Q(C\tilde{q}, Kz_{2\omega+1}, t)$$

let as  $n \rightarrow \infty$ , we obtain

$$\frac{Q(C\tilde{q}, Tz_{2\omega+1}, t)}{1 + Q(C\tilde{q}, Tz_{2\omega+1}, t)}$$

$$Q(C\tilde{q}, \tilde{q}, kt) \leq \max \{ Q(L\tilde{q}, \tilde{q}, t), Q(C\tilde{q}, \tilde{q}, t), Q(\tilde{q}, \tilde{q}, t), \frac{Q(L\tilde{q}, \tilde{q}, t)}{1 + Q(L\tilde{q}, \tilde{q}, t)}, Q(C\tilde{q}, \tilde{q}, t), \frac{Q(C\tilde{q}, \tilde{q}, t)}{1 + Q(C\tilde{q}, \tilde{q}, t)} \}$$

$$Q(C\tilde{q}, \tilde{q}, kt) = \max \left\{ \frac{Q(L\tilde{q}, \tilde{q}, t)}{1+Q(C\tilde{q}, \tilde{q}, t)}, \frac{Q(C\tilde{q}, \tilde{q}, t)}{1+Q(C\tilde{q}, \tilde{q}, t)}, 0, \frac{Q(C\tilde{q}, \tilde{q}, t)}{1+Q(C\tilde{q}, \tilde{q}, t)}, \frac{Q(C\tilde{q}, \tilde{q}, t)}{1+Q(C\tilde{q}, \tilde{q}, t)} \right\}$$

$$Q(C\tilde{q}, \tilde{q}, kt) = \max \left\{ Q(C\tilde{q}, \tilde{q}, t), Q(C\tilde{q}, \tilde{q}, t), 0, \frac{Q(C\tilde{q}, \tilde{q}, t)}{1+Q(C\tilde{q}, \tilde{q}, t)}, Q(C\tilde{q}, \tilde{q}, t), \frac{Q(C\tilde{q}, \tilde{q}, t)}{1+Q(C\tilde{q}, \tilde{q}, t)} \right\}$$

$$Q(C\tilde{q}, \tilde{q}, kt) = \max \left\{ \frac{Q(C\tilde{q}, \tilde{q}, t)}{1+Q(C\tilde{q}, \tilde{q}, t)}, Q(C\tilde{q}, \tilde{q}, t), 0, 0, Q(C\tilde{q}, \tilde{q}, t), 0 \right\}$$

$$Q(C\tilde{q}, \tilde{q}, kt) \leq \max Q(C\tilde{q}, \tilde{q}, t) \quad (8)$$

Now from (7) and (8) & lemma 2.14, we obtain

$$C\tilde{q} = \tilde{q}$$

That being the case, we obtain  $C\tilde{q} = L\tilde{q} = \tilde{q}$  So  $\tilde{q}$  is a common soft point of C and L. (9)

$$\text{As well we obtain } K\tilde{v} = T\tilde{v} = \tilde{q} \quad (10)$$

Since K and T are weakly compatible, we have  $T K\tilde{v} = K T\tilde{v}$ .

$$\text{So from (6), we obtain } T\tilde{q} = K\tilde{q} \text{ Again, we obtain} \quad (11)$$

$$P(C\tilde{z}, K\tilde{q}, kt) \geq \min \left\{ \frac{P(L\tilde{z}, T\tilde{q}, t)}{1+P(C\tilde{z}, T\tilde{q}, t)}, \frac{P(C\tilde{z}, T\tilde{q}, t)}{1+P(C\tilde{z}, T\tilde{q}, t)}, \frac{P(C\tilde{z}, T\tilde{q}, t)}{1+P(C\tilde{z}, T\tilde{q}, t)}, \frac{P(C\tilde{z}, T\tilde{q}, t)}{1+P(C\tilde{z}, T\tilde{q}, t)}, \frac{P(C\tilde{z}, T\tilde{q}, t)}{1+P(C\tilde{z}, T\tilde{q}, t)} \right\}$$

$$P(C\tilde{z}, L\tilde{q}, t), \frac{P(C\tilde{z}, T\tilde{q}, t)}{1+P(C\tilde{z}, T\tilde{q}, t)} \left\}$$

Taking limit  $n \rightarrow \infty$ , We have

$$P(\tilde{q}, K\tilde{q}, kt) \geq \min \left\{ P(\tilde{q}, T\tilde{q}, t), P(\tilde{q}, L\tilde{q}, t), P(K\tilde{q}, T\tilde{q}, t), \frac{P(\tilde{q}, T\tilde{q}, t)}{1+P(\tilde{q}, T\tilde{q}, t)} \right\}$$

$$P(\tilde{q}, K\tilde{q}, kt) \geq \min \left\{ P(\tilde{q}, T\tilde{q}, t), P(\tilde{q}, T\tilde{q}, t), P(T\tilde{q}, T\tilde{q}, t), \frac{P(\tilde{q}, T\tilde{q}, t)}{1+P(\tilde{q}, T\tilde{q}, t)} \right\}$$

$$P(T\tilde{q}, T\tilde{q}, t), \frac{P(\tilde{q}, T\tilde{q}, t)}{1+P(\tilde{q}, T\tilde{q}, t)} \left\}$$

$$1+P(\tilde{q}, T\tilde{q}, t) \quad 1+P(\tilde{q}, T\tilde{q}, t)$$

$$P(\tilde{q}, K\tilde{q}, kt) \geq \min \left\{ P(\tilde{q}, T\tilde{q}, t), P(\tilde{q}, T\tilde{q}, t), 1, P(\tilde{q}, T\tilde{q}, t), 1, P(\tilde{q}, T\tilde{q}, t) \right\}$$

$$P(\tilde{q}, K\tilde{q}, kt) \geq P(\tilde{q}, T\tilde{q}, t) \quad (12)$$

As well, we obtain

$$Q(C\tilde{z}) Q(C\tilde{z})$$

$2\omega-2$

$2\omega-2$

$$, K\tilde{q}, kt) \leq \max \{ Q(L\tilde{z}, L\tilde{q}, t), \frac{Q(C\tilde{z}^{2\omega-2}, T\tilde{q}, t)}{1+Q(C\tilde{z}^{2\omega-2}, T\tilde{q}, t)} \}$$

$$, T\tilde{q}, t), Q(C\tilde{z}^{2\omega-2}, T\tilde{q}, t), \frac{Q(C\tilde{z}^{2\omega-2}, T\tilde{q}, t)}{1+Q(C\tilde{z}^{2\omega-2}, T\tilde{q}, t)} \}$$

Taking limit  $n \rightarrow \infty$ , We have

$$Q(\tilde{q}, K\tilde{q}, kt) \leq \max \{ Q(\tilde{q}, T\tilde{q}, t), P(\tilde{q}, L\tilde{q}, t), Q(K\tilde{q}, T\tilde{q}, t), \frac{Q(\tilde{q}, T\tilde{q}, t)}{1+Q(\tilde{q}, T\tilde{q}, t)} \}$$

$$Q(\tilde{q}, K\tilde{q}, kt) \leq \max \{ Q(\tilde{q}, T\tilde{q}, t), Q(\tilde{q}, T\tilde{q}, t), Q(T\tilde{q}, T\tilde{q}, t), \frac{Q(\tilde{q}, T\tilde{q}, t)}{1+Q(\tilde{q}, T\tilde{q}, t)} \}$$

$$, Q(T\tilde{q}, T\tilde{q}, t), \frac{Q(\tilde{q}, T\tilde{q}, t)}{1+Q(\tilde{q}, T\tilde{q}, t)} \}$$

$$Q(\tilde{q}, K\tilde{q}, kt) \leq \max \{ Q(\tilde{q}, T\tilde{q}, t), Q(\tilde{q}, T\tilde{q}, t), 1, Q(\tilde{q}, T\tilde{q}, t), 1, Q(\tilde{q}, T\tilde{q}, t) \}$$

$$Q(\tilde{q}, K\tilde{q}, kt) \leq Q(\tilde{q}, T\tilde{q}, t) \quad (13)$$

Now from (12) and (13) and Lemma( 2.14)

$$\text{Since we have } T\tilde{q} = K\tilde{q} = \tilde{q} \quad (14)$$

That being the case, we obtain  $\tilde{q}$  is a ordinary soft fixed point of C,K,L and T. For Uniqueness

Suppose  $\tilde{r}$  be the another ordinary soft fixed point then  $C\tilde{r} = L\tilde{r} = K\tilde{r} \quad R\tilde{r} = \tilde{r}$

$$P(C\tilde{q}, \tilde{K}\tilde{r}, kt) \geq \min \{ P((L\tilde{q}, T\tilde{r}, t), P(C\tilde{q}, L\tilde{r}, t), P(\tilde{K}\tilde{r}, T\tilde{r}, t), \frac{P(C\tilde{q}, T\tilde{r}, t)}{1+P(C\tilde{q}, T\tilde{r}, t)} \}$$

$$P(C\tilde{q}, \tilde{K}\tilde{r}, kt) \geq \min \{ P((C\tilde{q}, K\tilde{r}, t), P(C\tilde{q}, \tilde{C}\tilde{r}, t), P(\tilde{K}\tilde{r}, K\tilde{r}, t), \frac{P(C\tilde{q}, K\tilde{r}, t)}{1+P(C\tilde{q}, K\tilde{r}, t)} \}$$

$$P(C\tilde{q}, \tilde{K}\tilde{r}, kt) = \min \{ P((C\tilde{q}, \tilde{K}\tilde{r}, t), P(C\tilde{q}, C\tilde{r}, t), 1, P(C\tilde{q}, K\tilde{r}, t), P(C\tilde{q}, \tilde{K}\tilde{r}, t), P(C\tilde{q}, K\tilde{r}, t) \}$$

$$(C\tilde{q}, K\tilde{r}, kt) \geq P((C\tilde{q}, \tilde{K}\tilde{r}, t) \quad (15)$$

As well we obtain

$$Q(C\tilde{q}, K\tilde{r}, kt) \leq \max \{ Q((L\tilde{q}, T\tilde{r}, t), Q(C\tilde{q}, L\tilde{r}, t), Q(K\tilde{r}, T\tilde{r}, t), \frac{Q(C\tilde{q}, T\tilde{r}, t)}{1+Q(C\tilde{q}, T\tilde{r}, t)} \}$$

$$Q(C\tilde{q}, K\tilde{r}, kt) \leq \max \{ Q((C\tilde{q}, K\tilde{r}, t), Q(C\tilde{q}, \tilde{C}\tilde{r}, t), Q(K\tilde{r}, \tilde{K}\tilde{r}, t), \frac{Q(C\tilde{q}, K\tilde{r}, t)}{1+Q(C\tilde{q}, K\tilde{r}, t)} \}$$

$$Q(C\tilde{q}, K\tilde{r}, t), \quad Q(C\tilde{q}, K\tilde{r}, t)$$

$$1+ Q(L\tilde{q}, K\tilde{r}, t)$$

$$Q(C\tilde{q}, K\tilde{r}, kt) \leq \max \{ Q((C\tilde{q}, K\tilde{r}, t), Q(C\tilde{q}, C\tilde{r}, t), 0, Q(C\tilde{q}, K\tilde{r}, t), Q(C\tilde{q}, K\tilde{r}, t), Q(C\tilde{q}, K\tilde{r}, t) \}$$

$$Q(C\tilde{q}, K\tilde{r}, kt) \leq Q((C\tilde{q}, K\tilde{r}, t) \quad (16)$$

From (15),(16) and Lemma( 2.14)

We obtain  $C\tilde{q} = K\tilde{q}$  , This implies  $C\tilde{q} = C\tilde{r}$  , and  $\tilde{q}$  is a unique soft fixed point.

**Remarks:** Our result is also true for the pair of mappings (A, S) is compatible of type (E) in place of compatible mapping of type (K). Our result extends and generalizes the results of M. Verma and R.S. Chandel [13], Jha *et al.*[11] Manandhar *et al.* and improve the result of Manandhar *et al.* [10]. Also, our result improves other similar results in literature.

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## **Geographical Study Levels of Agricultural Performance in Vidarbha Region (2001-2006)**

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### **Introduction:-**

In the major challenge of the world in general underdeveloped and developing countries in particular area vast increase in population and corresponding upsurge in food demands. Food shortage is the severe problem in over populated country like India is mainly due to insufficient production of food grains despite best efforts in the form of green revolution has done. The causes for this are unfavorable weather condition, Socio-economic constraints and age old methods of farming which together prohibited the way of successful application of new farm technology which all accelerate farm production. Such constraints inevitable create imbalances in levels of food productivity. The level of agricultural performance as a concept means the degree to which the economic, cultural, technological and organization variables are able to exploit the abiotic resources of the area for agricultural production (Jasbir Singh 1997). The regional differences in yields per unit area indicate the impact of physical and non physical factors working in the area. Furthermore the level of agricultural performance is a dynamic concept and any sort of change in these factors affect agricultural productivity.

### **Objectives:-**

Spatio characteristics of the level of agricultural performance provides a rational base for future orientation in agricultural planning. Keep this in view the major aims and objectives of the present paper is to delimit the area where agrarian development could not bring about significant changes in the crop structure and locate the weaker areas in terms of agricultural performance.

### **Hypothesis:-**

Due to variations in physio co cultural set up level of performance of agriculture is diversified in the Nagpur division.

### **Methodology:-**

Several techniques have been suggested by different scholar of agricultural Geography to work out the levels of agricultural productivity and performance. In this paper Jasbir Singh base of 1976 computing the Crop Yield and proportion of these crops in the total cropped area have been used. For objective measurement the relative yield and concentration indices arranged in ranking order and

computed into average ranking co-efficient. The formula is as fallows-

$$Y_i = \frac{Y_{ae}}{Y_{ar}} \times 100$$

Where,

$Y_i$  – Crop Yield Index

$Y_{ae}$  - the average yield per hectare of crop a in the cropped area in a unit

$Y_{ar}$  – average yield of crop a in the entire region

$$C_i = \frac{P_{ae}}{P_{ar}} \times 100$$

Where,

$Y_i$  – Crop concentration Index

$Y_{ae}$  – percentage strength of crop a in cropped area of a unit

$Y_{ar}$  – percentage strength of crop a in the entire region

Yield and concentration ranks for all crops are added and divided by 2. The equation according to Jasbir Singh crop yield and concentration-

$$\left[ \begin{array}{c} \text{crop yield index} \\ \text{ranking of crop 'a'} \end{array} \right] + \left[ \begin{array}{c} \text{crop concentration index} \\ \text{ranking of crop 'a'} \end{array} \right]$$

Indices ranking co - efficient for crop 'a' =  $\frac{\text{[crop yield index ranking of crop 'a'] + \text{[crop concentration index ranking of crop 'a']}}{2} \times 100$

The result thus gives idea of level of agricultural performance the lower the ranking co-efficient, the higher the level of agricultural performance.

For the present study secondary data has been collected from Statistical Abstract 2005-06. In

the Vidarbha region number of crops cultivated; therefore only the table of Wheat crop is included for ready reference and results of all other crops included in the average ranking co-efficient table.

### About the region:-

Vidarbha is a large political and socio region. This is the eastern part of Maharashtra State divided in two division Amravati and Nagpur. Till

1980-81 there were eight district. In the year 1992 Gadchiroli separated from Chandrapur and in may 1999 Gondia separated from Bhandara District. At present it comprise of 11 districts



The region is located between 17°51' N to 21°46' N and 75°57' E to 80°59' E. at the western border Buldhana and Gondia at the eastern corner. At the northern boundary of Vidarbha Satpuda range is extended. The total Geographical area of the region is 96536 Sq.Km.

The region is predominantly plateau in nature which is formed by ancient igneous rocks and basalt rocks. Average height from sea level is 300M. in Amravati, Buldhana and Akola west to east hills of Ajanta pre expended. In the region Wainganga, Purna, Painganga, Gadvi, Kanhan, Wardha, Tapi, Indravati, etc. are the main flowing rivers. In the region in summer temperature rages from 35 to 48°C. Chandrapur is the hottest while in winter it ranges from 11 to 30°C. the rainfall distribution in the region is very uneven. The rainfall increases from west to east. The black soil is available mainly in Nagpur, Amravati, Wardha, Yavatmal, Buldhana and Akola district; which is good for cotton cultivation. In the combination with this Gram, Rice, Wheat, Bajri, Jawar and Oilseeds are grown. In Bhandara and Gondia district Soil is rich in fermium elements; soil is suitable for rice cultivation here.

Irrigation is one of the major source for growing crops other than rainfall. For the development of agriculture canals, tanks, lakes and wells are important source of irrigation. In Vidarbha in the valley of Purna and Wardha oil seeds are grown in a large scale. In Buldhana and Yavatmal district cotton in combination with Rabi Jowar are grown. Other than in eastern Vidarbha Jowar,

wheat, oilseeds and other crops are grown o the basis of irrigation.

### Crop yield and concentration of Rice in Vidarbha:-

Rice is the main crop of eastern Vidarbha particularly I Gondia, Chandrapur, Bhandara, Gadchiroli district. The highest yield of rice in the region is in chandrapur 1.88, then Wardha 1.67 and Nagpur 1.37, Gondia 0.83 and in Bhandara 0.73 while the regional average is 0.98 tonnes. Though area of the rice is maximum in Gondia district but on the basis of ratio with the regional average district is on the 6<sup>th</sup> rank and Wardha and Nagpur are on the first and second rank due to higher percentage of irrigated land. Of the total cropped area of Vidarbha region Rice share 11.4% and concentration of Rice is mainly in Gondia 76.3%, Gadchiroli 67.2% and Bhandara 56.9%. on the basis of crop yield and concentration indices. The result showed that Rice can be considered important from the point of agricultural performance in Wardha, Gondia, Chandrapur, Gadchiroli and Nagpur. While the crop in negligible in Wasim, Amravati, Akola and Buldhana district where ranking co-efficient is above 8. Thefore this area should be utilized for other crops.

### Crop yield and concentration indices of Jowar:-

Yield of Jowar in the region is 0.20 tones per hector. Only Wardha district 0.18 and Gadchiroli 0.04 are below regional average. The maximum yield is in Amravati 1.12, Yavatmal 1.32 Buldhana 1.50 and Wasim 1.15 tones. On the basis of the yield indices in comparison to the region

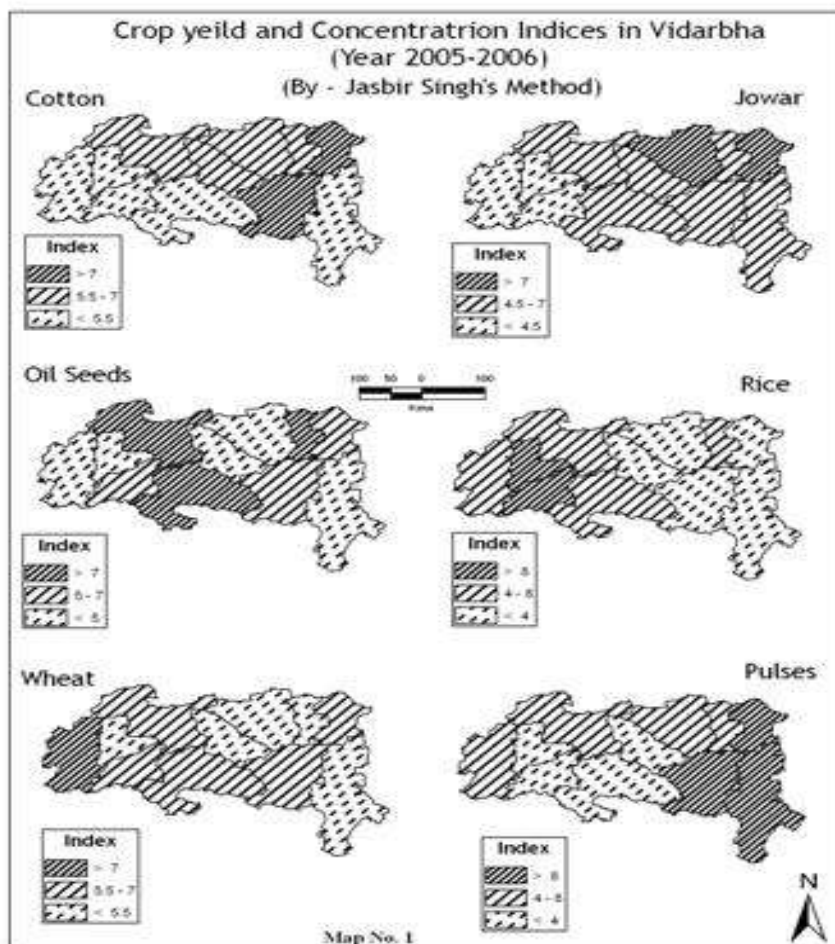
whole Wasim ranks first, Buldhana second, Yavatmal third and Amravati fourth; while in the eastern Vidarbha yield ranks are on higher. On the basis of concentration indices of Jowar in the region is mainly in the western part of Vidarbha region.

**Crop yield and concentration indices of Wheat:-**

Wheat is not the important crop of the region where only 171800 hector area; where only 6% of the cropped area occupied by Wheat. The result of Wheat yield ranking shows that above the regional average Akola 146.39, Amravati 130.93, Wardha 119.59, Buldhana 110.31 and Nagpur 106%; while remaining districts are not important for the crop. The combined ranking co-efficient depict that from performance point of view Akola, Buldhana, Yavatmal and Nagpur, Wardha district are important district.

**Table 1**  
**Crop Yield and Concentration Indices of Wheat in Vidharbha 2005-06**

S N	District	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV
		Pro. of Wheat	Area Under Wheat	Total Cropped Area	Yae I/II	Yar ΣI/ΣII	IV/V	VI x 100	Rank of Col VIII	Pae II/III	Par ΣII/ΣII I	Pae/Par IX/X	XI x 100	Rank of Col XII	VIII+ XIII	XIV/ 2
1	Buldhana	243	220	837	1.10	0.11	1.00	100	8	0.26	11.25	0.02	2	9.5	17.5	8.75
2	Akola	1980.2	9769	528	0.20	0.11	1.82	182	6	18.50	11.25	1.64	164	4	10	5
3	Washim	130	129	549	1.01	0.11	9.18	918	4	0.23	11.25	0.02	2	9.5	13.5	6.75
4	Amravati	172	140	1080	1.23	0.11	11.18	1118	1	0.18	11.25	0.02	2	9.5	10.5	5.25
5	Yavatmal	187	173	976	1.08	0.11	9.82	982	2	0.18	11.25	0.02	2	9.5	11.5	5.75
6	Wardha	1262	19396	387	0.06	0.11	0.54	54	10	50.12	11.25	4.45	445	1	11	5.5
7	Nagpur	336	326	597	1.03	0.11	9.36	936	3	0.55	11.25	0.05	5	7	10	5
8	Bhandara	916	10927	219	0.08	0.11	0.73	73	9	49.89	11.25	4.43	443	2	11	5.5
9	Gondia	674	3780	211	0.18	0.11	1.64	164	7	17.91	11.25	1.59	159	5	12	6
10	Chandrapur	749	22968	550	0.03	0.11	0.27	27	11	41.76	11.25	3.71	371	3	14	7
11	Gadchiroli	785	997	184	0.79	0.11	7.18	718	5	5.42	11.25	0.48	48	6	11	5.5
	Total	7434.2	68825	6118												



**Crop yield and concentration indices of Pulses:-**

The major Pulses growing in the region are Tur, Gram, Udad. Average yield of Pulses in the region is 0.57 tones. The districts Wardha 150.88, Yavatmal 121.05, Nagpur 110.53 and Wasim 101.75; while the yield is lowest in Gadchiroli 52.83. the combined yield and concentration indices shows that Yavatmal, Wardha, Wasim, Akola are the district where pulses are important crop in Agricultural performance point while in the eastern corner mainly in Gondia, Chandrapur and Gadchiroli the crop are not significant in the district economy.

**Crop yield and concentration indices of Oilseeds:-**

The average yield of Oilseeds in the region is 0.08 that indicated the relative insignificance of crop in the region. Though in some of the district yield is very high above the regional average i.e. highest in Buldhana 1.62 and in Gondia and Chandrapur 1.5. But the percentage share of the crop in these two districts are very meager. The combine performance of Oilseeds in the region is maximum in Buldhana and second Wasim then Chandrapur. Average crop

yield and concentration indices regional imbalance in overall agricultural performance.

On the basis of crop yield and concentration indices ranking co-efficient of the Rice, Wheat, Jowar, Cotton the total ranking co-efficient has been computed and for getting the average ranking co-efficient the result is divided by number of crops considered. The average ranking co-efficient for the Vidarbha is 5.99 and standard deviation is 0.70. the composite indices shows that spatio variations in the whole region are not very significant as it ranges from maximum 4.71 in Wardha to 6.96 in Gondia district. As it is stated at the beginning that lower the ranking co-efficient the higher the level of agricultural performance or productivity and vice versa.

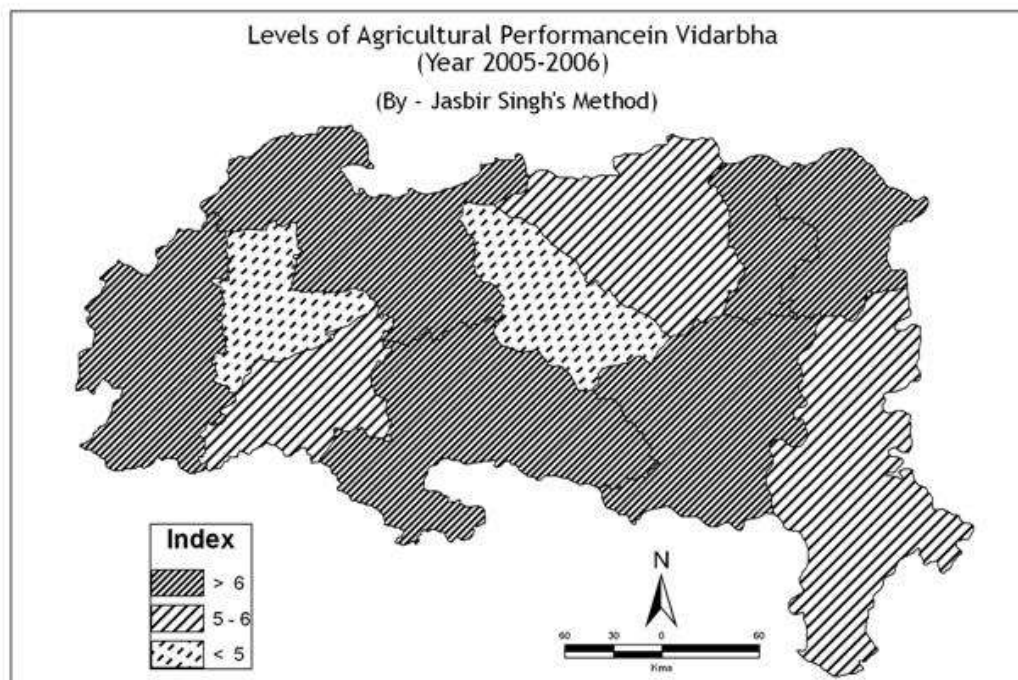
In this context the whole Vidarbha is divided in three zones; they are-

**Higher performance or Productivity level 4 to 5:-**

Under this two districts are there i.e. Wardha and Akola. The region for higher productivity may be sighted due to rich black soil and means of well irrigation available here.

**Table 2 Average Crop Yield and Concentration Indices in Vidharbha 2005-06**

S N	District	Crop yield and concentration indices Ranking co-efficient of Rice	Crop yield and concentration indices Ranking co-efficient of Wheat	Crop yield and concentration indices Ranking co-efficient of Pulses	Crop yield and concentration indices Ranking co-efficient of Jowar	Crop yield and concentration indices Ranking co-efficient of Oilseeds	Crop yield and concentration indices Ranking co-efficient of Cotton	Total	Average Ranking of Co-efficient
1	Buldhana	7.75	8.75	6.5	4	5	4.5	36.5	6.08
2	Akola	9	5	3.5	4.5	4	3.5	29.5	4.92
3	Washim	10.5	6.75	3.5	4	5.5	3.5	33.75	5.62
4	Amravati	8	5.25	4.25	7	7.5	6.5	38.5	6.42
5	Yavatmal	8	5.75	3	5.5	10.5	5.5	38.25	6.37
6	Wardha	3	5.5	3.25	6.5	3.5	6.5	28.25	4.71
7	Nagpur	4	5	5.5	7.5	4.5	6.5	33	5.5
8	Bhandara	5.5	5.5	8	6.5	7.5	6.75	39.75	6.62
9	Gondia	3.5	6	9.5	8	6.5	8.25	41.75	6.96
10	Chandrapur	3.5	7	8.5	6.5	6.5	9	41	6.83
11	Gadchiroli	3.25	5.5	10.5	6	5	5	35.25	5.87



Map No. 2

**Moderate performance or Productivity level 5 to 6:-**

This region comprises 4 districts Nagpur 5.5, Wasim 5.62, Gadchiroli 5.87 and Buldhana 6.08. In this region in Nagpur oilseeds, rice, wheat and pulses are important crops. In Gadchiroli this average ranking mainly comprising Rice followed by Jowar and oilseeds have shown better performance. In

Buldhana too Jowar followed by Cotton and oilseeds. This is the zone where cash crops or remunerative crops are playing vital role in agricultural economy.

**Lower performance or Productivity level 6 to 7:-**

The region is having lowest number of districts i.e. 5 out of 11; Yavatmal, Amravati, Bhandara, Gondia and Chnadrapur districts are

under this category. The lowest average productivity is in Gondia district. The reason for this is due to monoculture predominantly in maximum part and i.e. Rice. In Chandrapur due to increasing industrialization attention has not paid much to the development of the agriculture. In Yavatmal and Amravati due to overall performanve of various crops this co-efficient is higher.

**Conclusion:-**

In the Vidarbha region Agricultural performance or productivity is varying in nature though variations are not very high. On the basis of crop yield and concentration indices average ranking co-efficient three region have been demarcated high, moderate and low productivity region. Efforts has been made to co-relate ranking co-efficient score with rainfall amount and irrigated area district wise. The results of correlation between rainfall and productivity show moderate +0.53 correlation and with irrigation +0.66. it may be concluded that with the increase in irrigation and other Socio-economic factors level of productivity can be increased. So there is a need to focus on the development of few specific crops which are performing better in the district inspite of raising so many insignificant crops in the region. So that agricultural economy of the region may be strengthen.

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## **A Study on Prevalence of Post-Partum Depression among Women**

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### **Abstract**

Postpartum depression (PPD) is a mixture of physical, emotional and behavioral changes that happen in some women after given birth. PPD is linked to chemical, Social and psychological changes that happen when having the baby. New mothers experience both emotional and physical changes. Hormonal changes, Lack of Sleep, Anxiety and self- image act as the main contributors for depression. Our body and mind go through many changes during and after pregnancy. PPD cannot be prevented or avoided. Every women faces these kind of issues but in some cases it's carried over time. Though there are many forms of illness the three common forms of postpartum affective illness are the blues (commonly called baby blues, maternity blues), postpartum (or postnatal) depression and puerperal (postpartum or postnatal) psychosis. For some women adjusting to the motherhood can be of postpartum depression, which is a type of depression that both parents can experience after the birth of their baby, but it is very common in women.

**Key words:** PPD, Social, Emotional, Behavioral, Hormonal changes

### **Introduction**

'Mental health is the capacity of the individual, the group and the environment to interact with one another in ways that promote subjective well- being, the optimal development and use of mental abilities (cognitive, affective and relational), the achievement of individual and collective goals consistent with justice and the attainment and preservation of conditions of fundamental equality.'- 1981 WHO.

Maternal Depression is a type of depression that affects many women after or before the birth of the child. There are different categories of maternal depression which include prenatal depression, postnatal depression and postpartum psychosis. In a study conducted by Ertel, Koenen, & Rich-Edwards (2011), researchers estimated one in seven women are diagnosed with postpartum depression within a year of having baby. Postpartum depression is seen in both men and women. From sleepless nights to dilemmas with breast feeding, being a new mum has a number of challenges that most women approach with anticipation. This period is very much prone to the risk for the development of serious mood disorders. All these mood disorders come under the postpartum affective illnesses. According to NHS, Postpartum Depression affects more than 1 in every 10 women within a year after giving birth to their baby. Its symptoms can include the feelings of sadness and anxiety even at an extreme level which can interfere with a woman's ability to care for herself or her family. The present study is designed to find the prevalence rate of postpartum depression among women in Pathanamthitta district

### **Research Methodology**

Research methodology is the specific procedure or

technique used to identify, select, process and analyse information about the topic. Research methodology explains how the entire research is been done such as data collection, sampling and how analyses has been made

### **Title Of The Study**

"A study on prevalence of post-partum depression among women in Pathanamthitta district, Kerala."

### **Objectives Of The Study**

1. To study the demographic details of people with postpartum depression
2. To study on prevalence of postpartum depression among women
3. Estimate the prevalence of depressive symptoms in women after delivery.
4. To identify the risk factors of postpartum depression.

### **Statement Of The Problem**

Postpartum non-psychotic depression is the most common complication of childbearing affecting approximately 10-15% of women and as such represents a considerable public health problem affecting women and families. Studies on postpartum depression had been conducted in rural and urban areas of India, but still the problem exists as it is, prevalence rate is also increasing. Women of India are the main bread earners in the society but are found to be socially and economically deprived and have high rate of literacy, unemployment and social insecurity, which cause high rate of mental problem among these women. Studies had found that women have high level of depression and then other people. According to the culture a women who gave birth to a boy child will have a status in the society, while the women who gave birth to a girl child is considered as inferior. In



postpartum period the emotional instabilities of a mother is mostly seen only as a physical condition rather than a mental state and is ignored. The age of marriage, the gender of the child, stressful life events, lack of social support all these makes women more vulnerable to postpartum depression. Ignoring postpartum depression may lead to postpartum psychosis. Hence the study focus the to estimate the prevalence of depressive symptoms among women and to assess the various factors like education , socio economic status, maternal age, gender of the child and their in causing postpartum depression.

**Research Design**

A research design is the set of methods and procedures used in collecting and analyzing measures of the variables specified in the research problem. The researcher used descriptive research design to find out prevalence of postpartum depression among and to know the risk factors associated with it.

**Universe and Sampling Method**

The universe of this study was women after delivery, mostly from those within 1year of delivery and respondents were taken from Pathanamthitta district. The sample size of this study was 60 women after delivery in Pathanamthitta district, Kerala and the researcher has made use of Convenience sampling method as the technique.

**Tools of Data Collection**

The researcher had chosen to use Questionnaire Schedule as a tool to data collection from the samples. The questionnaire includes socio-demographic details Edinburg postpartum depression rating scale and WHOQOL Bref scale( for quality of life) to assess the associated factors. The data was collected and analyzed with the help of SPSS package.

**Table No. 1 Distribution of age of respondents**

Age	No. of respondents	Percentage
Less than 18 years	2	3
18-20 years	8	13
20- 30 years	33	55
Above 30 years	17	29
Total	60	100

Above table shows the age of the respondents. It interfered that out of the total 60 respondents 55% of them were under the age group of 20 – 30 years,

**Review Of Literature**

**Sara M. Sylvén, May 2011** in a study “Seasonality patterns in postpartum depression”. The main objective of the study was to investigate the possible association between postpartum depressive symptoms and season of delivery. Women delivering in the last 3 months of the year had a significantly higher risk of self-reported depressive symptomatology both at 6 weeks and at 6 months after delivery in comparison to those delivering April-June, both before and after adjustment for possible confounders. The author points out that Women delivering during the last quartile of the year had a significantly higher risk for depressive symptoms 6 weeks and 6 months postpartum and would thus benefit from a closer support and follow-up after delivery.

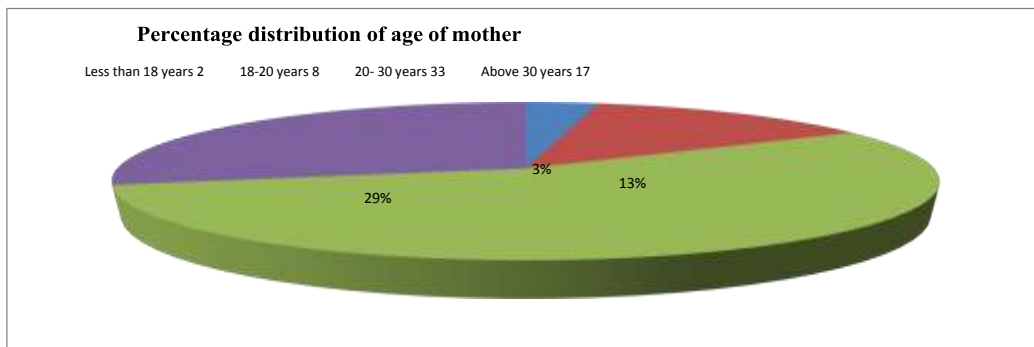
**Sahابه Etebary, 2010** in the” study on Postpartum Depression and Role of Serum Trace Elements” The study aims to assess the role of trace elements including zinc, magnesium, iron andcopper in Postpartum Depression. Zinc as a trace element has the second highest concentration of all transition metals in the brain, and its deficiency is associated with behavioral disturbances. The study points out that Lower zinc blood concentration was found in women with postpartum depression. Other trace element like magnesium also influences the nervous system via its actions on the release and metabolism of neurotransmitters. Antidepressant -like effects of magnesium and its deficiency has been reported in depression.

**Data Analysis And Interpretation**

After collecting the data according to the purpose and objectives of the study, the data collected were organized, classified, coded, tabulated and analyzed and interpreted.

other 28% of the respondents were in the age group of above 30years, 13.3% are in between 18 – 20 years and remaining 3% are less than 18 years.

**Figure No.1 Age of respondents**



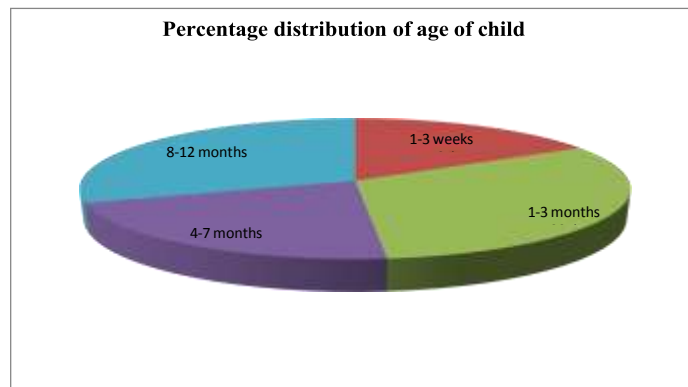
**Table No.2 Distribution of age of the infant**

Age of the infant	No. of respondents	Percentage
1-3 weeks	10	17
1-3 months	19	32
4-7 months	13	21
8-12 months	18	30
Total	60	100

It shows that out of the total 60 respondents 32% of them were under the age group of 1– 3months, other 30% of the respondents were in the age of 8 –

12 months, 21% are in between 1– 3 months and reaming 17% are in 1-3 weeks

**Figure 2 Age of the infant**



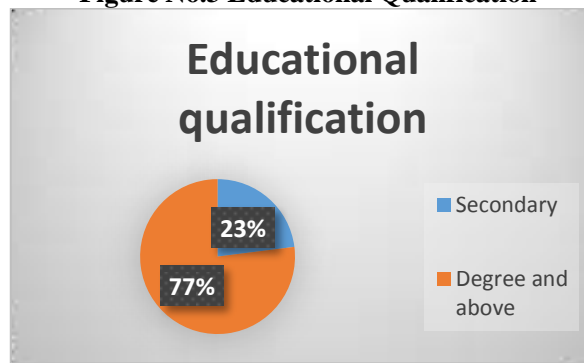
**Table No.3 Distribution of education of the respondents**

Qualification	No. of respondents	Percentage
Secondary	14	23
Degree and above	46	77
Total	60	100

The above diagram shows the Educational Qualification of the respondents. It shows that out of the 60 respondents 77% of them are found to be

completed degree and above, and only 23% of them had secondary education.

**Figure No.3 Educational Qualification**

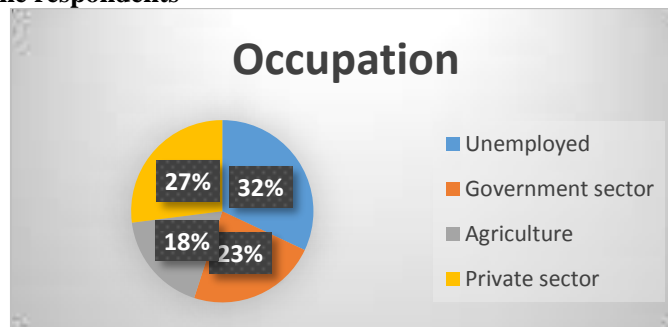


**Table No. 4 Distribution of occupation of the respondents**

Occupation	No. of respondent	Percentage
Unemployed	19	32
Government sector	14	23
Agriculture	11	18
Private sector	16	27
Total	60	100

As the above table shows the occupation of the respondents, 32% are unemployed, 27% are working in private sector, 23% are employed in government sector and 18% is doing agricultural works.

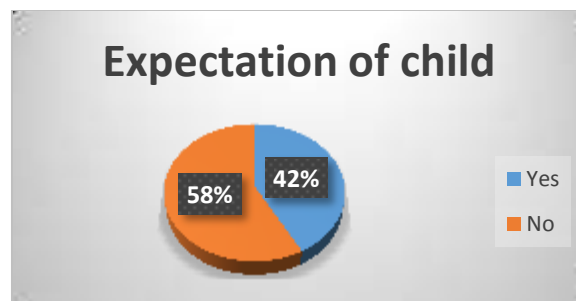
**Figure 4 Occupation of the respondents**



**Table No. 5 Distribution of expectation of the child**

Expected child	No. of respondents	Percentage
Yes	25	42
No	35	58
Total	60	100

As the above table shows expectation of the child, 58% were not expecting the child now and 42% were expected the child.



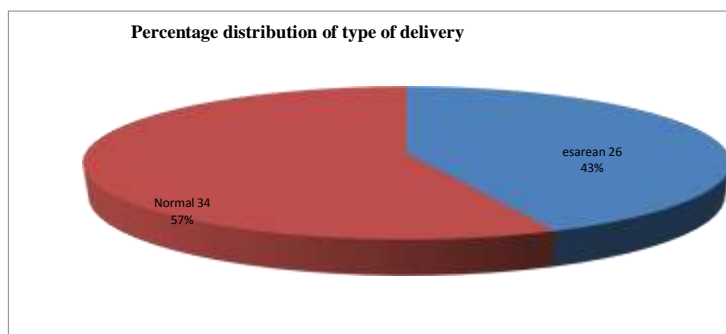
**Figure 5 Expectation of child**

**Table No .6 Distribution of type of delivery**

Type of delivery	No. of respondents	Percentage
Caesarean	26	43
Normal	34	57

Total	60	100
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As the above table shows the type of delivery, 57% are normal delivery, while 43% are caesarean.  
**Figure No.6 Type of delivery**

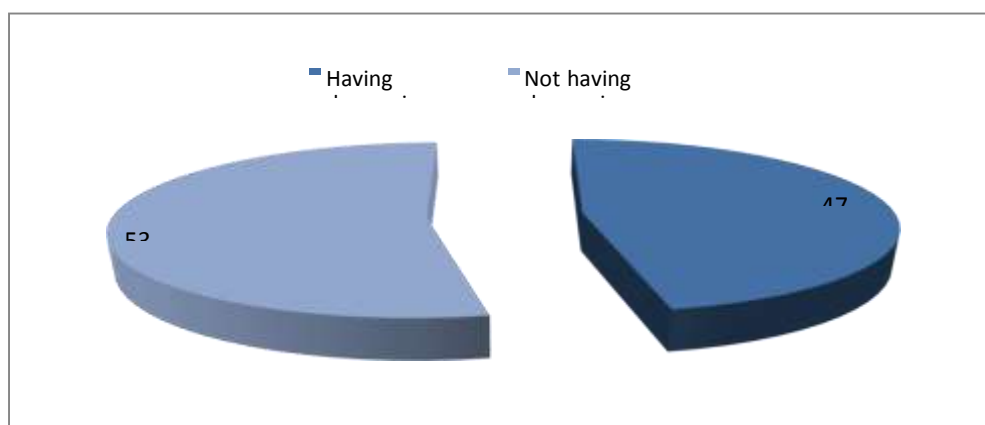


**Table No. 7 Representation of the Prevalence of postpartum Depression**

Postpartum depression	No. of respondents	Percentage
Having depression	28	47
Not having depression	32	53
Total	60	100

As the above table shows, the prevalence of postpartum depression among women. 53% of respondents have no depression while 47% of the respondents suffer from depression.

**Figure No. Prevalence of Postpartum Depression**



**Findings, Suggestions And Conclusion**

1. Majority of the respondents (77%) are found to be graduated or post graduated.
2. More than half of the respondents (55%) are from an age group of 20-30 years.
3. 78% of the respondents are working women
4. 76% of the respondents draw a monthly income below 10000 –20000.
5. 86.7% of the population have access to health service
6. 51.7% of the respondents will go for check-up once in a month
7. Majority of respondents (88.3 %) did not suffer any complication during pregnancy
8. 58.3% of respondents had no expectation of child
9. Half of the respondents children (30%) were female while other 30% was male
10. Majority of the respondents (85%) are in normal weight
11. 66.7% of the population uses betel leaves
12. Least percentage of the respondents (5%) is using substance.
13. 13% of the respondents had a history of depression.
14. Nearly half of the respondents (47%) are feeling scary orpanic
15. Majority (35%) of the respondents are been anxious or worried for no good reason.
16. Majority (53%) of the respondents are unhappy because of the difficulty in sleeping.
17. 28% of the respondents felt sad or miserable.
18. Tendency to self-harm was also found among the respondents which covers 30% of the total population
19. Majority (85%) of the respondents have good

quality of life.

Medicine, 144-147.

20. Majority 71.6% of the respondents are able accept their bodily appearance
21. 37% of the respondent having negative feelings and 35% respondents have negative feelings in seldom.
22. Nearly half of the respondents 47% are prevailing with postpartum depression among women.

### **Suggestions**

1. During the time of pregnancy and after delivery doctors can recommend postpartum check up to screen for the signs and symptoms of depression.
2. Mild symptomatic depressions can be treated by using psychotherapies like talk therapy.
3. Proper counseling can help the respondents to get away from depression.
4. Relaxation techniques can be used

### **Conclusion**

Even in the 21st century attitude of people towards mental illness is very pathetic. This is due to lack of education, awareness, and stigma towards various mental illnesses. Postpartum depression is one such mental illness which people are totally ignorant off. Prevalence of postpartum depression was found to be 47% among women in Pathanamthitta district, Kerala. Since the statistics is seen to be higher in the urban/rural people it is significant to take initiatives to overcome postpartum depression. It is also identified that close association of various elements can recognized as a risk factor of PPD. Taking appropriate measures to mitigate these factors may function as an effective tool to eliminate PPD. Hence, if proper awareness and education is not provided, it can lead to severe consequences which may include homicides and suicides.

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