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Chief Editor

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'Ravichandram' Survey No-101/1, Plot No-23, Mundada Nagar, Jalgaon (M.S.) 425102

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Cost Analysis of Debt & Equity (A Comparative Study Of Capital Mix Of Indian Pharma Industry)

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Introduction : A company uses debt, common equity, and preferred equity to fund new projects, typically in large sums. In the long run, companies typically adhere to target weights for each of the sources of funding. When a capital budgeting decision is being made, it is important to keep in mind how the capital structure may be affected.Capital structure is a mix of a company's long-term debt, specific short-term debt, common equity and preferred equity. The capital structure represents how a firm finances its overall operations and growth by using different sources of funds.Debt comes in the form of bond issues or long-term notes payable, while equity is classified as common stock, preferred stock or retained earnings. Short-term debt such as working capital requirements is also considered to be part of the capital structure. A company's proportion of short and long-term debt is considered when analyzing capital structure. When people refer to capital structure they are most likely referring to a firm's debt-to-equity ratio, which provides insight into how risky a company is. Usually a company more heavily financed by debt poses greater risk, as this firm is relatively highly levered.

Company Profile

"A company empowered by one mission –to place itself on the world map. An enterprise propelled by one force-that synergizes its energies to charter unexplored markets. Organizations fuelled by one dream-to transform competition into opportunity." Ranbaxy Laboratories Ltd. was incorporated in June 1961, in the name of M/S LEPITIT RANBAXY LABORATORIES LTD and it commenced its business in MARCH 1962, in technical and financial collaboration with an international company named LEPTIT SPA, MILAN, ITALY. Ranbaxy Laboratories Pvt. Ltd. merged with "Leptit Ranbaxy Laboratories Pvt. Ltd." in 1962 Ranbaxy and company also merged with this company in 1966. The collaboration arrangement with M/S LEPTIT was terminated in 1966; after which Indian nationals acquired the entire share capital of the company. Therefore the word Leptit was removed from the name of the company. The name is known as RANBAXY LABORATORIES LIMITED. In 1973 the company issued shares to the general public and became a full-fledged PUBLIC LIMITED COMPANY. Today, Ranbaxy has emerged as a Leading Pharmaceutical Company on the Indian firmament, with the second largest market share and enjoys an enviable reputation for its high standard of ethics and quality around its core strength of anti-infective, it has produced new brands in emerging therapeutic areas like cardiovascular, central nervous system and nutritional.

Operating Joint Ventures and Subsidiaries

1.	**Brazil**	Ranbaxy S.P. Medicamentos Ltd.
2.	**China**	Ranbaxy (Guangzhou China) Ltd.
3.	**Egypt**	Ranbaxy Egypt Ltd
4.	**Germany**	Basics Gmb H.
5.	**Hong Kong**	Ranbaxy (Hong Kong) Ltd.
6.	**India**	Rexcel pharmaceuticals Ltd., Solus pharmaceuticals Ltd., Vidyut Travel Services ltd.
7.	**Ireland**	Ranbaxy Ireland Ltd.
8.	**Malaysia**	Ranbaxy (Malaysia) Sdn. Bhd.
9.	**Netherlands**	Ranbaxy Pharmaceuticals B.V.
10.	**Nigeria**	Ranbaxy Nigeria Ltd.
11.	**Panama**	RanbaxyPanama SA.
12.	**Poland**	Ranbaxy Poland Sp. Zo.
13.	**South Africa**	Ranbaxy (SA) (Pty.) Ltd.
14.	**Thailand**	Unichem pharmaceuticals LTD., Unichem Distributors Ltd. Part, Ranbaxy UnichemCO.Ltd.
15.	**U.K**	Ranbaxy (UK) Ltd
16.	**Usa**	Ranbaxy pharmaceuticals Inc.

Objectives of Ranbaxy Laboratories Ltd.

1. To be a leader in the Pharmaceutical industry.
2. To be a profitable company with a steady growth in earnings.
3. To set an example as a socially responsible company.
4. To diversify in health care related areas.
5. To strive for excellence and continuous improvement in all spheres.
6. To improve the quality of life of people by providing better services and quality products.

Introduction to Capital Structure Theory And Analysis

This is a Report on the 'Capital Structure and Capital Expenditure of Ranbaxy Laboratories Ltd.'. The purpose and scope of the project can be listed as:

1. Understanding the organizational structure and functioning of Ranbaxy Laboratories Ltd.
2. Analyzing and comparing the financial health of the firms in the Indian Pharma Industry.
3. Identifying and analyzing the capital structure of Ranbaxy.
4. Conducting a Review of the Capital Expenditure done at Ranbaxy Laboratories Ltd.
5. Identifying loopholes in the functioning and in the area of study and recommending the suggestions for the same.

Litreture of Review On Capital Structure

1. Capital Structure Is A Mix Of Debt And Equity Capital Maintained By A Firm. Capital Structure Is Also Referred As Financial Structure Of A Firm. The Capital Structure Of A Firm Is Very Important Since It Related To The Ability Of The Firm To Meet The Needs Of Its Stakeholders. Modigliani And Miller (1958) Were The First Ones To Landmark The Topic Of Capital Structure And They Argued That Capital Structure Was Irrelevant In Determining The Firm's Value And Its Future Performance. Modigliani And Miller (1963) Showed That Their Model Is No More Effective If Tax Was Taken Into Consideration Since Tax Subsidies On Debt Interest Payments Will Cause A Rise In Firm Value When Equity Is Traded For Debt. In More Recent Literatures, Authors Have Showed That They Are Less Interested On How Capital Structure Affects The Firm Value. Instead Of The Firm. Modigliani And Miller (1963) ArguedThat The Capital Structure Of A Firm Should Compose Entirely Of Debt Due To Tax Deductions On Interest Payments. However, Brigham And Gapenski (1996) Said That, In Theory, The Modigliani-Miller (Mm) Model Is Valid. But, In Practice, Bankruptcy Costs Exist And These Costs
2. Are Directly Proportional To The Debt Level Of The Firm. Hence, An Increase In Debt Level Causes An Increase In Bankruptcy Costs. Therefore, They Argue That That An Optimal Capital Structure Can Only Be Attained If The Tax Sheltering Benefits Provided An Increase In Debt Level Is Equal To The Bankruptcy Costs. In This Case, Managers Of The Firms Should Be Able To Identify When This Optimal Capital Structure Is Attained And Try To Maintain It At The Same Level. CAPITAL

Structure: Theory And Analysi Capital Structure

Financing decisions involve raising funds for the firm. It is concerned with formulation and designing of capital structure or leverage. The most crucial decision of any company is involved in the formulation of its appropriate capital structure. The best design or structure of the capital of a company helps the management to achieve its ultimate objectives of minimizing overall cost of capital, maximizing profitability and also maximizing the value of the firm.

Capital = Total Assets – Current Liabilities.

Methodology

The methodology adopted for the study was as follows:

1. Familiarization, examination and evaluation of the procedures relating to capital structure and capital expenditure.
2. Collection of relevant data form company records and cross checking of this data.
3. Calculations of financial ratios, parameter and norms, as also their financial implications.
4. Broadly the data were collected for the report on the project work has been through the primary and secondary sources.

The primary data is collected by various approaches so as to give a precise, accurate, realistic and relevant data. The main goal in the mind while gathering primary data was investigation and observation. The ends were thus achieved by a direct approach and personal observation from the officials of the company. The other staff members and the employees were interviewed for the sake of maintaining

reasonable standard of accuracy.The secondary data as it has always been important for the completion of any report provides a reliable, suitable equate and specific knowledge.

Operating and Financial Leverages

Operating Leverage

Operating leverage is concerned with the operation of any firm. The cost structure of any firm gives rise to operating leverage because of the existence of fixed nature of costs. This leverage relates to the sales and profit variations.

$$\text{Operating Leverage} = \frac{\text{Contribution}}{\text{EBIT}}$$

Financial Leverage

This ratio indicates the effects on earnings by rise of fixed cost funds. It refers to use the use of debt in the capital structure. Financial leverage arises when a firm deploys debt funds with fixed charge.**Financial Leverage = EBIT /EBT**

Recommendations And Suggestions

The achievements of the Indian pharmaceutical industry are spectacular in recent times and are praise worthy, which has evolved as model industry of the country in performance. But, in the 21st century, the pharmaceutical value chain would depend on the ability of pharmaceutical companies to make the technological shift necessary to maintain and increase their competitive positions. Also for the MNCs, India provides not just the possibility – but the unique & tangible opportunity to make the desired 'technological shift' – in process, and in location! The question before Pharma Company CEOs the world over today is not: 'Should my company go to India?' but 'Can my company afford not to go to India'?"

Recommendations and Suggestions for Ranbaxy Laboratories Ltd.

This paper describes a methodology for deriving the optimum capital structure for an unlevered equity driven firm. Using a hypothetical model for computing optimal capital structure, the idea is to determine the optimum level of debt which Ranbaxy can for maximisising its market value and shareholders wealth. Various methods through which Ranbaxy can raise debt are:

Debentures

Debentures are loans that are usually secured and are said to have either fixed or floating charges with them.

Other Loans

The term debenture is a strictly legal term but there are other forms of loan or loan stock. A loan is for a fixed amount with a fixed repayment schedule and may appear on a balance sheet with a specific name telling the reader exactly what the loan is and its main details.

Overdraft Facilities

Many companies have the need for external finance but not necessarily on a long-term basis. A company might have small cash flow problems from time to time but such problems don't call for the need for a formal long-term loan.

Lines of Credit from Creditors

By a 'line of credit' we mean that a creditor, such as a supplier of raw materials, will allow us to buy goods now and pay for them later.

Leasing

Factoring

Venture Capital

Grants etc.

Conclusion

The successful strategy for Ranbaxy Laboratories Ltd. in a post 2010 world will include:

1. Attain right product-mix
2. Augment skills
3. Use M&A options for either companies or products.
4. Building 'Innovation' Engine at R&D
5. Sustain growth momentum in USA.
6. Attain critical mass in Europe and Latin America.
7. Specialty products focus for "Brand" marketing.
8. Fortifying home business – leverage India Base.
9. Seeding the Japanese market.
10. Networking, licensing and acquisitions.

11. Technology, new market entry vehicles, brands/ proprietary products
12. Global talent pool to fuel growth.

The increasing importance of biotech industry and its symbiotic relationship to pharma will also be very relevant in Ranbaxy's strategy. However Ranbaxy should not close its eyes on the ever increasing Global competition, which is a big threat for the company. The entry of international and new domestic players would intensify the competition significantly. As the company moves ahead towards its mission to become a Research based International Pharmaceutical Company. The management believes that, it is the spirit of Team Ranbaxy that would enable Ranbaxy to reach out to Vision 2012.

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Trans dermal Drug Delivery System: A Painless Method For Healthy Skin-A Review

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Abstract

Now a day about 74% of drugs are taken orally and are found not to be as effective as desired. To improve such characters transdermal drug delivery system was emerged. Drug delivery through the skin to achieve a systemic effect of a drug is commonly known as transdermal drug delivery and differs from traditional topical drug delivery. Transdermal drug delivery systems (TDDS) are dosage forms involves drug transport to viable epidermal and or dermal tissues of the skin for local therapeutic effect while a very major fraction of drug is transported into the systemic blood circulation. The adhesive of the transdermal drug delivery system is critical to the safety, efficacy and quality of the product. Topical administration of therapeutic agents offers many advantages over conventional oral and invasive methods of drug delivery. Several important advantages of transdermal drug delivery are limitation of hepatic first pass metabolism, enhancement of therapeutic efficiency and maintenance of steady plasma level of the drug. This review article provides an overview of TDDS, its advantages over conventional dosage forms, drug delivery routes across human skin, permeation enhancers, and various components of transdermal patches, types of transdermal patches, methods of preparation and its methods of evaluation.

Keywords: TDDS, Topical drug delivery, Systemic blood circulation, Skin, Transdermal patches.

Introduction

First transdermal patch approved in 1979 by FDA was of Scopolamine for motion sickness. Second patch approved in 1981 was of Nitroglycerine. Now a day's several patches are available in market for transdermal use. Some of them are: Clonidine, Testosterone, Fentanyl, Nicotine, Hormones etc. these patches usually applied from 1to7 days depending uponvarious conditions. Oral route is most commonly used route for drug delivery, but due to some major shortcomings such as poor B.A., first pass effect and the ability to create fluctuation of drug level in blood.Topical or Transdermal delivery of anti-analgesic drugs has gained prominence in recent years, owing to its ability to provide concentrated and highly localized pain relief directly to a specific area of the body, unlike oral drug delivery which often causes side-effects as it winds its way through the gastrointestinal tract. However, in spite of its benefits like targeted and concentrated drug delivery, the transdermal application of hydrophobic drugs is significantly limited by the outermost layer of human skin (stratum corneum).

Transdermal delivery not only provides controlled, constant administration of the drug, but also allows continuous input of drugs with short biological half-lives and eliminates pulsed entry into systemic circulation, which often causes undesirable side effects. Thus various forms of Novel drug delivery system such as Transdermal drug delivery systems, Controlled release systems, Transmucosal delivery systems etc. Several important advantages of transdermal drug delivery are limitation of hepatic first pass metabolism, enhancement of therapeutic efficiency and maintenance of steady plasma level of the drug. The first Transdermal system, Transderm-SCOP was approved by FDA in 1979 for the prevention of nausea and vomiting associated with travel, particularly by sea. The evidence of percutaneous drug absorption may be found through measurable blood levels of the drug, detectable excretion of the drug and its metabolites in the urine and through the clinical response of the patient to the administered drug therapy.

The advantages of delivering drugs through the skin include:

1. Hepatic first pass metabolism, salivary metabolism and intestinal metabolism are avoided.
2. The ease of usage makes it possible for patients to self-administer these systems.
3. In case of an emergency, removing the patch at any point of time during therapy can instantly stop drug input.
4. Since the composition of skin structurally and biologically is the same in almost all the humans, there is minimal inter and intra patient variation.
5. Drugs showing gastrointestinal irritation and absorption can be suitably administered through the skin.
6. Continuous, non-invasive infusion can be achieved for drugs with short biological half lives, which would otherwise require frequent dosing.
7. Due to reduced frequency of dosing there is better patient compliance.

8. Therapeutic failures associated with irregularities in the dosing with conventional therapies can be avoided.
9. The adverse effects are minimized due to a steady and optimum blood concentration time profile.
10. The risks, pain and inconvenience associated with parenteral therapy are evaded.
11. The release is more prolonged than oral sustained drug delivery systems.

The following are some of the disadvantages of the transdermal delivery system;

1. There is possibility of skin irritation due to the one or many of the formulation components.
2. Binding of drug to skin may result in dose dumping.
3. It can be used only for chronic conditions where drug therapy is desired for a long period of time including hypertension, angina and diabetes.
4. Lag time is variable and can vary from several hours to days for different drug candidates.
5. Cutaneous metabolism will affect therapeutic performance of the system.
6. Transdermal therapy is feasible for certain potent drugs only.
7. Transdermal therapy is not feasible for ionic drugs. 8. It cannot deliver drug in pulsatile fashion.

Selection Of Drug Candidate For Transdermal Delivery

The transdermal route of administration cannot be employed for a large number of drugs. Judicious choice of the drug substance is the most important decision in the successful development of atransdermal system. The drug candidate should have following ideas characteristics:

Adequate skin permeability

1. Drugs with low molecular weight
2. Drugs with low melting point
3. Drugs with moderate oil and water solubility

Adequate skin acceptability

1. Non-irritating drugs
2. Non-metabolizing drugs Adequate clinical need
3. Need to prolong administration
4. Need to reduce side effects on target tissues
5. Need to increase patient compliance.

Structure Of Skin:

The skin can be considered to have four distinct layers of tissues including non-viable epidermis (stratum corneum), viable epidermis, viable dermis and hypodermis (subcutaneous connective tissue). The epidermis is the relatively thin, tough, outer layer of the skin. The epidermis has keratinocytes. They originate from cells in the deepest layer of the epidermis called the basal layer. New keratinocytes slowly migrate up toward the surface of the epidermis. Stratum corneum (Non-viable epidermis) is the www.wjpps.com 2202 Nawazish et al. World Journal of Pharmacy and Pharmaceutical Sciences outermost portion of the epidermis, relatively waterproof and, when undamaged, prevents most bacteria, viruses, and other foreign substances from entering the body. The epidermis also protects the internal organs, muscles, nerves, and blood vessels against trauma. The outer keratin layer of the epidermis (stratum corneum) is much thicker. Viable Epidermis layer of the skin resides between the stratum corneum and the dermis and has a thickness ranging from 50-100 µm. The structure of the cells in the viable epidermis is physiochemically similar to other living tissues. Cells are held together by tonofibrils. The water content is about 90%. The dermis, the skin's next layer, is a thick layer of fibrous and elastic tissue (made mostly of collagen, elastin and fibrillin) that gives the skin its flexibility and strength. The dermis contains nerve endings, sweat glands and oil glands, hair follicles, and blood vessels. The subcutaneous tissue also known as hypodermis is not actually accepted as a true part of the structured connective tissue. It is composed of loose textured, white, fibrous connective tissue containing blood and lymph vessels. Most investigators consider the drug permeating through the skin enter the circulatory system before reaching the hypodermis where the fatty tissue serve as a depot of the drug.

Epidermis :

In a typical part of the epidermis there are number of different strata in which the cells have distinct anatomical features. From below, the first stratum is the basal layer or layer of Malpighi. Its cells are mostly polygonal in shape, the deepest tending to a cylindrical columnar form, and the most superficial becoming somewhat flattened. Active mitotic proliferation takes place in the deeper layers, the development of new cells leading to a gradual displacement of the older cells towards the surface. Hence, this stratum is also called stratum germinatum. The epidermis is quiet avascular, and between the cells of stratum germinatum there are fine intercellular channels which probably allow the transmission of nutrient fluids derived from capillary blood vessels in the adjacent dermis. These channels are bridged across by

delicate protoplasmic threads connecting one cell with another. The stratum germinatum, therefore, appears to be syncytium of cells.

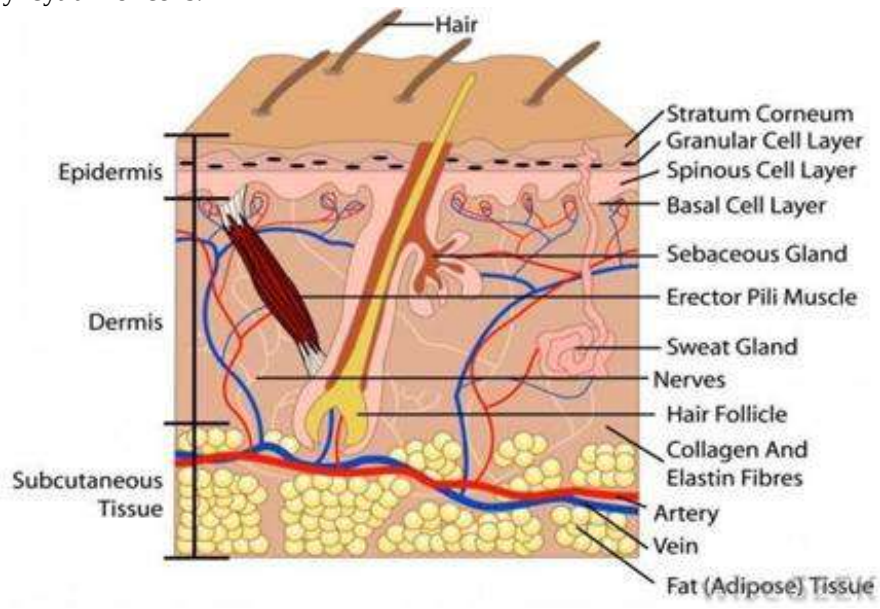

Figure 1: Transverse section of human skin

Dermis:

The dermis or corium consists of a dense felt work of connective tissue in which bundles of collagenous fibers predominate, mingled with a certain proportion of elastic tissue in superficial levels. Dermis contains fine plexuses of blood vessels, lymphaticsand nerves, hair follicles, sweat glands and sebaceous glands.[31, 32] the thicker the epidermis; therefore, the more prominent are the papillae.

Factors Affecting Transdermal Bioavailability (Physicochemical factors)

Skin hydration

In contact with water the permeability of skin increases significantly. Hydration is most important factor increasing the permeation of skin. So use of humectants is done in transdermal delivery.

Temperature and pH

The permeation of drug increase ten folds with temperature variation. The diffusion coefficient decreases as temperature falls. Weak acids and weak bases dissociate depending on the pH and pKa or pKb values. The proportion of unionized drug determines the drugconcentration in skin. Thus, temperature and pH are important factors affecting drug penetration.

Diffusion Coefficient

Penetration of drug depends on diffusion coefficient of drug. At a constant temperature, the diffusion coefficient of drug depends on properties of drug, diffusion medium and interaction between them3

Drug Concentration

The flux is proportional to the concentration gradient across the barrier and concentration gradient will be higher if the concentration of drug will be more across the barrier.

Partition Coefficient

The optimal partition coefficient (K) is required for good action. Drugs with high K are not ready to leave the lipid portion of skin. Also, drugs with low K will not be permeated. Molecular Size and Shape Drug absorption is inversely related to molecular weight, small molecules penetrate faster than large ones.

Biological Factors

Skin Condition

Chloroform, methanols damage the skin cells and promotes penetration. Diseased state of patient alters the skin conditions. The intact skin is better barrier but the above mentioned conditions affect penetration.

Skin age

The young skin is more permeable than older. Children are more sensitive for skin absorption of toxins. Thus, skin age is one of the factors affecting penetration of drug in TDDS.

Blood flow

Changes in peripheral circulation can affect Transdermal absorption.

Regional Skin Sites

Thickness of skin, nature of stratum corneum and density of appendages vary site to site. These factors affect significantly penetration.

Skin metabolism

Skin metabolizes steroids, hormones, chemical carcinogens and some drugs. So skin metabolism determines efficacy of drug permeated through the skin.

Species Differences

The skin thickness, density of appendages and keratinization of skin vary species to species, so affects the penetration.

Pathways Of Drug Absorption Through The Skin

The drug can be absorbed by various pathways through the skin depending on the physicochemical properties of the drug. Both lipophilic and hydrophilic drugs are absorbed from different routes. The upper stratum corneum of the skin opposes the absorption of drug but presence of various absorption routes facilitates the entry of drug and transport of drug to the systemic circulation. Various drug absorption routes (figure 1) are as follows:

Transfollicular route

Transfollicular route is the shortest pathway that drug has to follow to reach the systemic circulation that provides a large area for diffusion of drugs. Skin has various sweat glands, oil glands, hair follicles and pores opening to the outer surface of the skin via their ducts. These ducts offer a continuous channel across the stratum corneum for drug transport but various factors like secretion from glands, content and amount of secretion etc., affect the transport of drugs through this route. However Trans appendage route occupies only 0.1% of total skinsurface and therefore contributes a little.[1]

Transcellular route

Drug delivering through this route passes from corneocytes which has highly hydrated keratin creating hydrophilic pathway. Corneocytesare surrounded bylipids connecting these cells. So a drug requires a number of partitioning and diffusion steps. It is the most widelyused route by various types of drugs. In transcellularroute drug passes through the matrix (cytoplasm) of thecells. This route is suitable for hydrophilic drugs. The drug passes through the corneocytes of stratum corneum. The highly hydrated keratin provide aqueous pathway to thehydrophilic drugs. A number of partitioning and diffusion steps are needed to pass the drug through the cell matrix12

Intercellular route

As name indicates in intercellular pathway the drug diffuses through the continuous lipid matrix present between the cells. The barrier property of this route is due tortuous structure formed by corneocytes and the drug has to pass through the alternating lipid and aqueous domain by partitioning into the lipid bilayer and diffusing to the inner side. It has been found that water has to travel 50 times more by this route so; it is suitable mainly for uncharged lipophilic drugs.[35]

Approaches to Development Transdermaltherapeutic Systems

Various technologies have been successfully developed to provide a rate control over the release and the transdermal permeation of a drugs. These technologies can be classified into two major categories as follows.

Rate-programmed transdermal DDS

1. Membrane permeation-controlled systems
2. Adhesive dispersion-type systems.
3. Matrix diffusion-controlled systems.
4. Micro reservoir type or micro sealed dissolution controlled systems.

Physical stimuli-activated transdermal DDS

1. Structure based

1. Microneedles
2. Macroflux
3. MDTS

2. Electrically based

1. Iontophoresis
2. Ultrasound
3. Photochemical waves
4. Electroporation

5. Electroosmosis

3. Velocity based

1. Powder jet
2. Needle free injection

Components of Transdermal Patch:

The basic components of transdermal patch consists of polymer matrix / Drug reservoir, active ingredient (drug), permeation enhancers, pressure sensitive adhesive (PSA), backing laminates, release liner, and other excipients like plasticizers and solvents.

1. Polymer matrix

Polymers are the backbone of a transdermal drug delivery system. Systems for transdermal delivery are fabricated as multilayered polymeric laminates in which a drug reservoir or a drug–polymer matrix is sandwiched between two polymeric layers: an outer impervious backing layer that prevents the loss of drug through the backing surface and an innerpolymeric layer that functions as an adhesive and/or rate-controlling membrane. Polymer selection and design must be considered when striving to meet the diverse criteria for the fabrication of effective transdermal delivery systems. The main challenge is in the design of a polymer matrix, followed by optimization of the drug loaded matrix not only in terms of release properties, but also with respect to its adhesion cohesion balance, physicochemical properties, compatibility and stability with other components of the system as well as with skin.

The polymers utilized for TDDS can be classified as

1. natural polymers includes cellulose derivatives, zein, gelatin, shellac, waxes, gums, natural rubber and chitosan etc,

2. synthetic elastomers includes polybutadiene, hydrin rubber, polyisobutylene, silicon rubber, nitrile, acrylonitrile, neoprene, butylrubberetc,

3. synthetic polymers includes polyvinyl alcohol, polyvinylchloride, polyethylene, polypropylene, polyacrylate, polyamide, polyurea, polyvinylpyrrolidone, polymethylmethacrylate etc. The polymers like cross linked polyethylene glycol, eudragits, ethyl cellulose, polyvinylpyrrolidone and hydroxypropylmethylcellulose are used as matrix formers for TDDS. Other polymers like EVA, silicon rubber and polyurethane are used as rate controlling membrane.

2. Drug

The most important criteria for TDDS are that the drug should possess the right physicochemical and pharmacokinetic properties. Transdermal patches offer much to drugs which undergo extensive first pass metabolism, drugs with narrow therapeutic window, or drugs with short half-life which causes non-compliance due to frequent dosing. For example, drugs like rivastigmine for Alzheimer's and Parkinson dementia, rotigotine for Parkinson, methylphenidate for attention deficit hyperactive disorder and selegiline for depression are recently approved as TDDS.

3. Permeation enhancers

To increase permeability of stratum corneum so as to attain higher therapeutic levels of the drug permeation enhancers interact with structural components of stratum corneum i.e., proteins or lipids. The enhancement in absorption of oil soluble drugs is apparently due to the partial leaching of the epidermal lipids by the chemical enhancers, resulting in the improvement of the skin conditions for wetting and for trans-epidermal and trans-follicular permeation. The miscibility and solution properties of the enhancers used could be responsible for the enhanced transdermal permeation of water soluble drugs.

4. Pressure sensitive adhesive (PSA)

A PSA maintains an intimate contact between patch and the skin surface. It should adhere with not more than applied finger pressure, be aggressively and permanently tachy, and exert a strong holding force. The selection of an adhesive is based on numerous factors, including the patch design and drug formulation. PSA should be physicochemically and biologically compatible and should not alter drug release. The PSA can be positioned on the face of the device (as in reservoir system) or in the back of the device and extending peripherally (as in case of matrix system).

5. Backing laminate

The primary function of the backing laminate is to provide support. Backing layer should be chemical resistant and excipients compatible because the prolonged contact between the backing layer and the excipients may cause the additives to leach out or may lead to diffusion of excipients, drug or permeation enhancer through the layer. They should have a low moisture vapour transmission rate. They must have optimal elasticity, flexibility, and tensile strength. Examples of some backing materials are aluminium vapour coated layer, plastic film (polyethylene, polyvinyl chloride, polyester) and heat seal layer.

6. Release liner

During storage release liner prevents the loss of the drug that has migrated into the adhesive layer and contamination. It is therefore regarded as a part of the primary packaging material rather than a part of dosage form for delivering the drug. The release liner is composed of a base layer which may be non-occlusive (paper fabric) or occlusive (polyethylene and polyvinylchloride) and a release coating layer made up of silicon or teflon. Other materials used for TDDS release liner include polyester foil and metalized laminate.

7. Other excipients

Various solvents such as chloroform, methanol, acetone, isopropanol and dichloromethane are used to prepare drug reservoir. In addition plasticizers such as dibutylpthalate, triethylcitrate, polyethylene glycol and propylene glycol are added to provide plasticity to the transdermal patch.

Types Of Transdermal Patches :

Single layer drug in adhesive

In this type the adhesive layer contains the drug. The adhesive layer not only serves to adhere the various layers together and also responsible for the releasing the drug to the skin. The adhesive layer is surrounded by a temporary liner and a backing.

a) Multi -layer drug in adhesive

This type is also similar to the single layer but it contains an immediate drug-release-layer and other layer will be a controlled release along with the adhesive layer. The adhesive layer is responsible for the releasing of the drug. This patch also has a temporary liner-layer and a permanent backing.

b) Vapour patch

The patch containing the adhesive layer not only serves to adhere the various surfaces together but also serves as to release the vapour. The vapour patches are new to the market, commonly used for releasing the essential oils in decongestion. Various other types of vapour patches are also available in the market which are used to improve the quality of sleep and reduces the cigarette smoking conditions.

c) Reservoir system

In this system the drug reservoir is embedded between an impervious backing layer and a rate controlling membrane. The drug releases only through the rate controlling membrane, which can be micro porous or non porous. In the drug reservoir compartment, the drug can be in the form of a solution, suspension, gel or dispersed in a solid polymer matrix.

d) Matrix system

1. Drug-in-adhesive system

This type of patch is formulated by mixing the drug with adhesive polymer to form drug reservoir. It then followed by spreading on an impervious backing layer by solvent casting or melting method. The top of the reservoir is protected by an unmediated adhesive polymer layers. It may further be categorized into single-layer and multi-layer drug-in-adhesive. The system is considered to be compatible with a wide variety of drugs. Moreover the system is competent to deliver more than one drug in a single patch. It offers advantages in reduced size and thickness and improved conformability to the application site, helping drive patient preference.

2. Matrix-dispersion system

The drug is dispersed homogenously in a hydrophilic or lipophilic polymer matrix. It is then altered into a medicated disc with the definite shape and thickness. This drug containing polymer disk is fixed on to an occlusive base plate in a compartment fabricated from a drug impermeable backing layer. Instead of applying the adhesive on the face of the drug reservoir, it is spread along with the circumference to form a strip of adhesive rim.

e) Microreservoir system

The system consists of microscopic spheres of drug reservoirs which releases drug at a zero order rate for maintaining constant drug levels. Microreservoir system is a combination of reservoir and matrix-dispersion system. The aqueous solution of water soluble polymer is mixed with drug to form a reservoir. It is then followed by dispersing the solution homogeneously using high shear mechanical force in a lipophilic polymer to form thousands of microscopic drug reservoirs. Cross linking agents are added to stabilize the thermodynamically unstable dispersion by in-situ cross-linking the polymer.

Evaluation Parameters For Tdds Patch :

Physical appearance

The prepared patches were physically examined for colour, clarity and surface texture.Thickness of the patch The thickness of the drug loaded patch is measured in different points by using a digital micrometer and determines the average thickness and standard deviation for the same to ensure the thickness of the

prepared patch. Patch will have an equal thickness at every point. The variation of thickness within the patch and patch to patchcanbe calculated.

Weight uniformity

The patches are dried at 60°C before weighing. The weight uniformity of the patch is measured by cutting and weighing the 1 cm 2 piece of 3 patches and then calculating the weight variation. The mean of the 3 is taken as the weight of the patch. The individual weight should notdeviate significantly from average weight.

Folding endurance:

A strip of specific are is to be cut evenly and repeatedly folded at the same place till it broke. The number of times the film could be folded at the same place without breaking gives the value of the folding endurance.

Percentage moisture content

Individually weighed patches are kept in the desiccators having fused calcium chloride at room temperature for 24 hrs.

Drug content

A specified area of patch is to be dissolved in a suitable solvent in specific volume. Then the solution is to be filtered through a filter medium and analyze the drug contain with the suitable method (UV or HPLC technique). Each value represents average of three different samples. Flatness test 38-39 Flatness test is performed to determine the smoothness ofthe film. Three strips of the film one from the center and two from the both sides of the film are to be cut and measured length wise. Variation in length is measured byfinding out percent constriction. Zero percent constriction is considered equivalent to 100% flatness.

Thumb tack test

It is a qualitative test applied for tack property determination of adhesive. The thumb is simply pressed on the adhesive and the relative tack property is detected.

Shear Adhesion test

This test is to be performed for the measurement of the cohesive strength of an adhesive polymer. An adhesive coated tape is applied onto a stainless steel plate; a specified weight is hung from the tape, to affect it pulling in a direction parallel to the plate. Shear adhesion strength is determined by measuring the time it takes to pull the tape off the plate. The longer the time take for removal, greater is the shear strength.

Peel Adhesion test

In this test, the force required to remove an adhesive coating form a test substrate is referred to as peel adhesion. Molecular weight of adhesive polymer, the type and amount of additives are the variables that determined the peel adhesion properties. A single tape is applied to a stainless steel plate or a backing membrane of choice and then tape is pulled from the substrate at a 180 angle, and the force required for tape removed is measured. Peel adhesion is the force required to remove an adhesive coating from a test substrate. Adhesive should provide adequate contact of the device with the skin and should not damage the skin on removal. Peel adhesion properties are affected by the molecular wt. of the adhesive polymer, the type and amount of additives, and polymer composition. It is tested by measuring the force required to pull a single coated tape, applied to a substrate, at a 180 angle.

Rolling ball tack test

In this test a steel ball of 7/16 inch in diameter is rolled down an inclined having horizontally placed patch facing adhesive surface upward. The ball rolls down and runs horizontal distance on the patch. The distance run by theball gives the tack property of the adhesive patch.

Quick Stick (peel-tack) test

In this test, the tape is pulled away from the substrate at 90 C at a speed of 12 inches/min. The peel force required breaking the bond between adhesive and substrate is measured and recorded as tack value, which is expressed in ounces or grams per inch width.

Uniformity of dosage unit test

An accurately weighed portion of the patch is to be cut into small pieces and transferred to a specific volume volumetric flask, dissolved in a suitable solvent and sonicate for complete extraction of drug from the patch and made up to the mark with same. The resulting solution was allowed to settle for about an hour, and the supernatant was suitably diluted to give the desired concentration with suitable solvent. The solution was filtered using 0.2m membrane filter and analyzed by suitable analytical technique (UV or HPLC) and the drug content per piece will be calculated.

Polariscope examination

This test is performed to examine the drug crystals from patch by polariscope. A specific surface area of the piece is kept on the object slide and observed for the drugs crystals to distinguish whether the drug is present as crystalline form or amorphous form in the patch.

Skin Irritation study

Skin irritation and sensitization testing can be performed on healthy rabbits (average weight 1.2 to 1.5 kg). The dorsal surface (50cm2) of the rabbit is to be cleaned and remove the hair from the clean dorsal surface by shaving and clean the surface by using rectified spirit and the representative formulations can be applied over the skin. The patch is to be removed after 24 hr and the skin is to be observed and classified into 5 grades on the basis of the severity of skin injury.

A Novel Approach In Transdermal Drug Delivery: Micro Fabricated Micro Needles :

The development of more sophisticated drugs has demanded the need for more sophisticated methods to deliver those drugs. Conventional drug delivery techniques using pills and injections are often not suitable for Transdermal protein based, DNA-based, and other therapeutic compounds produced by modern biotechnology. An attractive alternative method of delivery involves drug administration across the skin. This approach avoids degradation in the gastrointestinal tract and first-pass effects of the liver associated with oral delivery as well as the pain and inconvenience of intravenous injection. Despite its many potential advantages, transdermal drug delivery is severely limited by the poor permeability of human skin; most drugs do not cross skin at therapeutically relevant rates. A number of methods have been developed to increase rates of transdermal transport with varied levels of success. Chemical enhancers can increase permeability of skin to small molecules but also trigger skin irritation or other safety concerns which limit their use. Iontophoresis employs an electric field to drive ionized molecules across skin by electrophoresis and nonionized molecules by electroosmosis. Despite concerns about skin irritation, Iontophoresis may be useful to deliver some peptides and small proteins. Recently, physical methods to transiently increase skin permeability using electroporation and ultrasound have shown promise for delivery of both small drugs and macromolecules. In this study, we present a novel approach to transdermal drug delivery which dramatically enhances transport of molecules across skin. We have used standard micro fabrication techniques to etch arrays of micron-size needles into silicon. When these microneedle arrays are inserted into the skin, they create conduits for transport across the stratum corneum, the outer layer of skin which forms the primary barrier to transport. Once a compound crosses the stratum corneum it can diffuse rapidly through deeper tissue and be taken up by the underlying capillaries for systemic administration. The design of microneedles which painlessly permeabilize skin is based on an understanding of skin anatomy. Human skin is made of three layers: stratum corneum, viable epidermis, and dermis. The outer 10-15 ím of skin, called stratum corneum, is a dead tissue that forms the primary barrier to drug transport. Below lies the viable epidermis (50-100 ím),a tissue containing living cells and nerves, but no blood vessels. Deeper still, the dermis forms the bulk of skin volume and contains living cells, nerves, and blood vessels. Therefore, microneedles which penetrate the skin just a little more than 10-15 ím should provide transport pathways across the stratum corneum, but do so painlessly since the microneedles do not reach nerves found in deeper tissue. Microneedles were made using micro fabrication technology, which is the same technology used to make integrated circuits. An advantage of this approach is that micro fabrication readily makes structures of micron dimensions in a way that is easily scaled up for cheap and reproducible mass production. To adapt this technology for transdermal drug delivery, we created threedimensional arrays of sharp-tipped microneedles of approximately 150 ím in length. A deep reactive ion etching process was used to micro fabricate the needles for this study. In this process, a chromium masking material is deposited onto silicon wafers and patterned into dots which have a diameter approximately equal to the base of the desired microneedles. The wafers are then loaded into a reactive ion etcher and subjected to carefully controlled plasma based on fluorine/oxygen chemistries to etch very deep, high aspect ratio valleys into the silicon. Those regions protected by the metal mask remain and form the microneedles.

Conclusion :

This article provide an valuable information regarding the transdermal drug delivery systems and its evaluation process details as a ready reference for the research scientist who are involved in TDDS. The foregoing shows that TDDS have great potentials, being able to use for both hydrophobic and hydrophilic active substance into promising deliverable drugs. To optimize this drug delivery system, greater understanding of the different mechanisms of biological interactions, and polymer are required. TDDS a realistic practical application as the next generation of drug delivery system. Transdermal drug delivery represents one of the most rapidly advancing areas of novel drug delivery.

Due to recent advances in technology and the ability to deliver the drug systemically without rupturing the skin membrane, transdermal route is becoming a widely accepted route of drug administration. TDDS are designed for controlled release of drug through the skin into systemic circulation maintaining consistent efficacy. It offers the delivery of drug at lowered dose that can save the recipient from the harm of large doses with improved bioavailability. This may be achieved by by-passing the hepatic first metabolism. Almost all major and minor pharmaceutical companies are developing TDDS.

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Conceptual Study: Impact of Digitalization Banking On Rural India

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Abstract: In modern economy bank are to be considered not as dealers in money but as the leaders of development. they play on important role in the mobilization of deposits and distribution of credit s to varies sectors of the economy.The shift from tradition to digital banking has been gradual and remains ongoing and its constituted by differing degrees of banking services digitalization. that's why there is significant impact of digital banking rural area of India. This paper tries to explain the impact of banking digitalisation on rural area.

Key words: digitalisation, banking services, rural area, urban area.

Introduction:

Banking sector is the lifeline of any modern economy. It is the one of the important part financial base of the financial sector. Which plays a very important role in the functioning of an economy .it is most important factor for economic development of country that its financing requirement of trade, industry and agriculture sector are met with higher degree of commitment and responsibilities.In today's world bank is one of the common factor to connect every person and their day to day life. reasons is that bank services is available on the tip of the fingure.In this modern era people are adopting very easily to the digital bank services..Very speciously the Number of users of digital bank services are increasing day by day. Digital banking is part of the border context for the move to online banking, where banking services are delivered over the internet. Generally Indian economy are distributed in two areas. And that is rural and urban area. Indian banking system try reach each and every person with equal development. Before the digitalisation of banking services are very lengthy and time consuming process so that increasing the speed of users of banking services was very poor. There is some latest trend in Indian banking system and financial sector. For ex. Mobile banking, unified payment interface(UPI), block chain, artificial Intelligence(AI), robot fintech companies etc.According to lead squared website, prolonged lockdown during the 2020-21 pandemic accelerated the adoption of digital banking. Consumers quickly switched to digital payments through mobile apps which they were reluctant to use before. Therefore, the purpose of this paper to explain the impact of digitalisation of banking services on rural area in India.

Objectives of this study:

1. Impact of Digitalization banking system on rural area
2. Government initiative for digitalisation banking in rural area
3. challenges for rural community adopting digital bank services
4. importances of digital bank for rural community.

Research Methodology: The paper has been written on the basis of secondary data. The secondary data were collected from journal, research paper, magazines, internet, and official statistical document.

Digital banking services in rural area:

India is the developing country. Near about 60% papulation are living in rural area.so Indian economy can't ignore if it wants holistic development.

Digital Payment Technique in Rural India The job searchers in distinct rural schemes have attained a new goal by integrating more than half a million volunteers also called banking correspondents' (BCs) number. The new target is to enrol shops and people in e-economy by providing effective training based on cashless transactions. However, an inducement of `100 is being offered to every rural community shop for achieving any form of payment through digital platform, but it is an intimidating task for the BCs from corner to corner in India. In addition, it has been analysed that around 2.5 million people in rural areas of India have enrolled themselves in cashless transactions and around 55,000 traders have moved into a digital policy for payments (Purmal, Alam, & Zam Zam, 2013). However,these calculated changes have been marked after the Government of India initiated demonetization on 8th November. The two payment systems, namely UPI and USSD, have been make better up by the National Payment Corporation of India. In addition, people in rural community are much more comfortable with fingerprints rather than other security features.However, it would support towards higher rates of enrolment. Some analyses stated that around 34 per cent out of 1.1 million active workers have an Aadhaarlinked bank account based on the centre's rural job scheme based on Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGA). In addition, a review meeting conducted by the Kant panel identified that 35 per cent of ration shops had hand machines out of the 160,000 to analyse biometrics of MGNREGA workers (Pritchard, Ram Mohan, Parasuraman, Sekher, & Choithani, 2013). However, it has been analysed that rural youth are much more inclined to find ways to go cashless, which is enormous in the current scenario.

Figure 1 describes the rise of digitization in India, which is significant. The figure also states that by the end of the financial year 2019, the number of digital purchasers in India would rise by 239.7 million, which analytically showsthe success of digital payment in the banking sector of India.

Importance of Digitalization of Banking in rural area:

Digitalization of rural banking is very helpful in financial enclosure and supports to the economy to grow faster with the development of all other sectors. Here are Some of the impacts of digitalizing rural banking are:

1. Growths of Efficiency: digitalization of banking increases the efficiency in banking sector and assists slicker transactions.
2. Fast and furious: digitalization will reduce the time of transaction and thereby inspires easy flow of funds related to traditional banking.
3. Huge exposure: digitalization of banking covers large number of people and has extensivecoverage.
4. Progresses the quality: Digitalization will improve the quality of service of the banking sector related to traditional banking.
5. Less human error: Digitalization of banking keeps proper records of transactions and thereby reduces the human error.
6. Environment friendly: As digitalization of banking is more environment friendly because it saves paper and trees.
7. Growths in Investment: Digitalization of banking leads to quick and easy access to numerous banking services and thereby increases the investment activities in the country.
8. Less cost: Digitalization of banking decreases the cost of printing currency notes as there is no practice of hard cash and less cost in sustaining records as its available online.

Government empowering the digital banking in rural area

The Indian government has been long trying to arrive the kingdoms of a cashless economy and fully incorporate digital payments as a universally accepted mode of transaction, even in the rural pockets of the country. But it was only in the uninviting times, hauled by the Covid-19 pandemic, that budgetary digitalisation elect up the pace. It has developed as a silver lining for the digital financial sector in India. To deliver a digital push, specifically in rural India, the Ministry of Electronics and IT (MeitY) launched a scheme called "Digital Finance for Rural India: Creating Awareness and Access through Common Service Centres (CSCs)". It pointed at setting CSCs as Digital Financial Hubs, by spreading awareness regarding government policies and digital finance options available for rural citizens. To thrust the project with the preferred swiftness, the government put in a generous investment of 65.625 crores to popularise different digital financial services such as IMPS, UPI, Bank PoS machines etc.The financial enclosure drive was off to a relaxed start due to infrastructural challenges, but soon, the attitude towards technology changed with the introduction of more suppliers and schemes motorized by both public and private sectors. One of the rare that stood out among the rest clinuded the Reserve Bank of India's call to create a Rs 345-crore Payments Infrastructure Development Fund (PIDF) to cheer digital payments in Tier III to VI centres in the seven North- eastern states. RBI's declaration, made earlier this year, led to the setting of Points of Sale (PoS) infrastructure in both physical and digital form. It marked at improving the digital payment experience, services and access for small towns and villages.

There is some Additional Popular Government initiative, which soon converted a household name, was Prime Minister's Digital India programme. The campaign launched on July 1 2015, introduced new initiatives to certify that the citizens could digitally access all government services with the help of high-speed internet, including the rural Indian population. Also, the country also greeted Bharat Net Project. It is a top mission promoted by the Government of India to boost internet services, e-banking, e-governance, and e-education among the rural population. The plan aimed to connect every 2,50,000 Indian Gram Panchayat and offered 100 Mbps connectivity to achieve the same. Besides, the other schemes which promoted digital literacy and empowerment in cores of the country included Pradhan Mantri Jan Dhan Yojana (PMJDY), Direct Benefit Transfer (DBT), Atal Pension Yojana, and RuPay cards.Several fintech start-ups and giant's corporations have also contributed to rushing the digital revolution, particularly in rural areas, given the general market which rests there. One of the most exclusive features of digital payments has been their capability to access the areas that even banks could not access. Though, the digitalisation movement is yet to reach its best potential. Their slogan is to encourage smooth and easy digital transactions in remote parts of the country, as it will benefit both people and companies. The extension of digital platforms to the regions of the country is one of the key indicators of economic growth, which was otherwise hammered by the covid surge and restrictions. A McKinsey report highlighted that despite the propagation of urbanisation, the rural

population is expected to form 63% of the entire market share in India by 2025. With mobile and internet reaching all corners of the nation, rural India is now becoming progressively well-versed with the digital mode of payments.Amongst its current effect lay the financial empowerment of both men and women, boosting the economy and the country's Gross Domestic Product (GDP). India, which was otherwise enormously cash-driven, is slowly transitioning towards a cashless and paperless economy. It has been made possible with the years of basic and initiatives sponsored by the Government and fintech companies in India. Today we have an display of digital bill payment services targeted towards rural India. Thus with the broader and bottomless spread of digital empowerment, India would soon be able to bridge the prevailing digital gap and capitalise on the new market.

Challenges of Digital Payment Faced by Rural India

The current demonetization has pushed the entire country toward cashless or at least less-cash economy. However, there is vast difference between 'Bharat' (rural India) and 'India' (urban India). Rural areas have multiple challenges in its transition to cashless/less-cash economy, multipronged approach needed to overawed these challenges. Incorporation of rural economy with proper economy is long due, and it is high time to do that (Paul, 2007). Several Challenges in Rural Areas Which Are Posing as Roadblocks for Digital Banking

Financial literateness and not literacy alone:

Being a part of the proper financial system is a costly business—for the least requirement, it demands financial literacy which is far more taxing than literacy. Given that most individualstend to struggle while filling up cheque and bank forms, even with literate, the transaction is acost in rural areas.

1. Digital illiteracy:
   The rural population is less alert of digital world and computer/ smartphone. They even absence the basic knowledge of operating a smartphone or a computer. Poor internet connection is also making the worse problem.
2. Susceptible system and the mistrust:
   The inaccuracy is that if money has been hold in a bank, they can be cheated from withdrawing money, making them even more wary to a digital transaction. Further, the scams that happen to make the things worse.
3. selective to no acceptance of digital payments:
   As there are limited entities to commit transaction in rural areas, no acceptance by any of such limited entities may soon result in non-digital payment mode, despite the willingness to pay orso.
4. Limited number of transactions:
   Higher number of transactions with the same business may push an individual to relay toward ease of payment.

Conclusion:

Digitalization beneficial for reserve transaction records that the customer and banker can effortlessly access. It is also beneficial for the government to introduce different plans and reach out to individuals, the best example of which is DBT (Direct Benefit Transfer) via bank accounts, which reduces the leakage of government funds. Digitalization helps to bring India into the world's corruption-free nation and also helps to fight money laundering and collect taxes properly.There are massive possibilities that rural economy could become the cashless economy in India. In Alternative way is by generating awareness about digital transactions and financial literacy among rural people by partnering with different educational organizations and NGOs. It can also deliver multilingual online payment platforms, that is, mobile apps in regional languages for ease of transactions. However, the digital payment can lead to new possible Developments as well as supporting in upgraded condition of the digital payment privilege inrural sector.

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Smart City Development in India: A Geographical Study

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Abstract: The paper centers the infrastructural development for the smart urban Development in India .The research helps us arrive at a general line of action for urban planning implications catering to the Infrastructure sector, amongst others, thus affecting environmental, social and economic structure significantly the study various government policies for successful implementation of smart city Development. Smart city concept introduces new practices and services that highly impacts policy making & planning.
Key words: Infrastructure sector, Smart Urban Development, and Sustainability.

Introduction:

A smart city would describe the integrated management of information that creates value by applying advanced technologies to search access transfer, and process information "smartness" here is seen as an infrastructure quality, cost and benefit optimization takes place when information sources are connected and information is shared in real time as that will have profound impact and how cities are planned and managed for bettering the quality of life for citizens, provisioning water supply transportation entertainment, safety and security, delivery of government services. Smart City is a booming international phenomenon. Smart city word originated back in 1998, but the first funding for smart city came in the year 2000.The six dimensions of a smart city are Smart Economy, Smart Mobility, Smart Environment, Smart People, Smart Living and Smart Governance. Every city can become smarter by focusing on any of the above dimensions. A smart city is a community that is efficient, sustainable & livable. The term smart city has become more and more popular in the field of urban planning. Smart cities can work as a tool for controlling the rapid urbanization and various problems caused by the ever increasing urban population. The implementations of the smart technologies can increase the value of the city.

Objectives: The main objectives of the study were are follows

1. To study for planned inclusive sustainable urban development and there is a need to consider the economic sustenance of the urban centers, if smart development is to implemented.
2. To study the profile of Indian smart city development.

Methodology:

We are thus establishing the following line of action or methodology for the research in our paper; analyzing of major developments related to smart initiative in service delivery across India. Establishment of elaborate sections for parameter sing smart city development, particular to Indian standards. To study the special aspect of Indian City and to study geographical point of view I have collected some unpublished and published record from various departments. The secondary data is being collected through various sources such as books, magazines, journals, newspapers and websites.

Discussion:

Infrastructure plays a major role in the urban development some cities have fully the grasped possibility of becoming "smart city", smart cities can be identified ranked along the six main axes or dimension

Smart Economy
Smart mobility
Smart environment
Smart people
Smart living

Smart Governance Smart Governance (Participation): We need to inculcate public participation in decision-making, strengthen public and social services, have a certain level of transparency in governance, and evaluate political strategies & perspectives.

Smart People (Social and Human Capital): The level of qualification, affinity to life-long learning, Social and ethnic plurality, flexibility, creativity, open-mindedness and Participation in public life should be necessitated.

Smart Economy (Competitiveness): The innovative spirit, Entrepreneurship, Economic image & trademarks, Productivity, Flexibility of labor market, Ability to transform or respond to change are the requisites.

Smart Mobility: Local accessibility; availability of infrastructure (ICT); Sustainable, innovative and safe, transport systems.

Smart Environment (Natural resources): Attractive natural conditions, Pollution free environments, Environmental protection, Sustainable resource management are necessary for sustainable conditions.

Smart Living (Quality of life): The availability of Cultural facilities, Health conditions, Individual safety, Housing quality, Education facilities, Tourist attractions, and Social cohesion can contribute greatly towards our goal

India's Smart Urbanization narrative:

The reliance on western models of urban planning and containment has resulted in a catastrophic failure to manage the growth of cities in many low and middle income countries. The equity in Development of Indian cities relies largely on the resources allocation and ingenuity of urban poor, leading towards the sustainable urban development models which India seeks. Analyzing the baffling numbers we understand that the measures to contain this are not an easy. Thus, out of necessity, the urbanization policies of India are subjugated to ICT integrated governance systems

Concept of Sustainable Development:

There have been many concepts of sustainable development but most accepted definition of sustainable development is the one given by Brundtland1 report, which says sustainable development as development that "meets the needs of the present without compromising the ability of future generations to meet their own needs. It aims at assuring the on-going productivity of exploitable natural resources and conserving all species of fauna and flora",(World Commission on Environment and Development 1987). There is a need to understand the deeper meaning of it. And to bring this definition into practice, it is important to understand the sustenance of people and resources in the present context, and trends of their future needs and requirements. The sustainable development needs to be smart in the present context. "Smart cities make urbanization more inclusive, bringing together formal and informal sectors, connecting urban cores with peripheries, delivering services for the rich and the poor alike, and integrating the migrants and the poor into the city. Promoting smart cities is about rethinking cities as inclusive, integrated, and livable." "Smart cities" can reconcile growth and sustainability, says Joshi-Ghani (urban sector manager at the World Bank.). Cities need to adopt green growth to improve the day-to-day lives of residents. Thus urbanization provides a great opportunity to make sustainable development. Sustainable growth needs to house the many generations to come (Greencitiesbysheila.blogspot.in, 2012).

Smart Initiatives In Urban Management Across India

Service delivery or City infrastructure can be broadly subdivided into five sectors and further (refer figure Although the concept of smart city goes beyond this narrow field of classification limited to ICT, it delivers infrastructure for social and economic initiatives concerning economic growth, social capital and higher resources efficiency. In a broader approach, smart cities are treated as a new urban development paradigm, where we focus on phenomena such as human and social capitals, education and natural environment. Such models of urban development point to smart cities as areas which, on one hand, are a supporting factor for intellectual capital development and well-being growth by institutional system; at the other hand providing a knowledge transfer mechanism for system of innovation along with Sustainable development inclusions.Following are the ideal smart services successfully implemented in various cities in India Funding for these projects are being propagandized in various Central and State development policies. It has been established that investments in human and social capital and traditional (transport) and modern (ICT) communication infrastructure fuel sustainable economic growth and a high quality of life, with a wise management of natural resources, through participatory governance.

Water Supply

Distribution and monitoring system thru GIS, Hydraulic modeling, Online water quality monitoring, Sustainable operations- metering and online billing, etc. are some of the successful systems implemented in Indian cities which can be listed under smart water supply services. A lot of 24/7 water supply programs in urban and rural sectors were implemented across India. GIS based mapping integrated with the hydraulic modeling, Metering with analyzers and online billing systems, centralized real time web based monitoring of water supply services improved water availability due monitoring of input and output points and checking of water distribution losses.

Waste water

Integration and automation of water treatment plant and sewerage systems, Enterprise resource planning (Oracle) system and grievance management funded under state projects and many local bodies. Generation of database for sewerage services and grievance management services along with the grievance management services led to improvement in service delivery, bill collection and procurement leading to efficiency and transparency in waste water sector.

Solid Waste Management (SWM)

Off-site real time monitoring system, GIS and GPS enabled services, biometric attendance systems for sanitary workers, sensor based applications for smart solid waste management services. GPS and GPRS technologies through cell phone images are taken and stamped with time and location and put in public domain for scrutiny on real time basis thus improving the SWM service delivery.

Municipal Services

Integration of all operations of municipal corporation through GIS (land based services), Computerised building plan scrutiny and approvals, Standardized online citizen administration (GIS based), Traffic information system initiative and many others as smart governance in Urban bodies. Land being the base of all operations for municipal services, GIS mapping and integration of various databases was initiated in Jn NURM 1 for improving the services. Building Plan scrutiny and Approvals automation on a comprehensive level and its integration with GIS database accelerated the pace of development.

Revenue and Management

Municipal e-revenue systems using GIS linked property database, Tulana: online application for service level benchmarking, M-Governance, e-tendering, Dynamic

Water Supply Waste water
Solid Waste Management
Municipal Services
Revenue and Management

• **Water Resource Management** • Distribution Management • Internal Business Process • Water Quality Management • Billing & Collection • Grievances Handling
• **Plant Management** • Collection & Distribution • Billing and Collection • Internal Business Process • Grievance Handling
• **Attendance Monitoring** • Bin Tracking System • Vehicle tracking System • Waste collection & Transfer • Treatment and Disposal • Internal Business Processing
• Birth & Death Certificates • Building Plan Approval • Grievance Management • Utility Bills • Licenses • **Traffic** • Street Lights • Flooding
• **Property Tax** • E-Procurement • Accounting System • Personnel Management

Conclusion:

The smart city development is more concerned with making progress as concerns the smart indicators rather than rating a city which inevitably is snapshot in time. Our world is undergoing changes due to globalization, urbanization and technological advancements and it forces us to think and change our ways of living. Urbanization is a global phenomenon that is influencing all aspects of the world economy from power generation through to power consumption. New technologies designed to limit both the environmental and negative economic impact of this global trend are emerging with the potential to transform not only our electricity networks but also entire industries in the process. We need to adopt these and be adaptive in development. Since this built environment lasts a long time, strong infrastructure and services will sustain cities. Planning a city is not merely replicating past practices but needs to adapt based on evidence and analysis of sustainable growth of cities.

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Consumer preferences for M Commerce during COVID 19 pandemic: A Study of Consumers in South Goa.

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Abstract: Life after the pandemic changed drastically and is not remained same like earlier. During Covid 19 pandemic, traditional shopping was not possible due to the government restrictions on the operation of shopping malls, service outlets. Amazon, Flip cart, Myntra and many more E- commerce industry players grabbed the opportunity and increased the speed and size of the business.
M Commerce is the part of E commerce where buying and selling activities are done by using mobile devices, phones, tablets or any other portable devices through online mode. This paper is focused on how m commerce helped people to stay home and buy the product at their doorstep during COVID 19 pandemic, and slowly how buying perception of consumers changed. It is found that from the small sample of 200 respondents, 115 respondents changed their mode of shopping from Retail stores to m shopping for safety, convenience and quick. Looking at the satisfaction level of consumers, m commerce will be no more remain as a saviour in hard times but it will be need of the hour.
Key words: m commerce, consumer preferences, COVID 19 pandemic.

Introduction:

Life after the pandemic changed drastically and is not remained same like earlier due to new rules after Covid 19 pandemic. The worldwide spread of the COVID-19 pandemic has disrupted everything such as trade, services, lifestyle, eating habits, buying habits and so on.E-commerce which is known as Electronic commerce is the online exchange of goods, services, and data. It includes all those activity that takes place directly between a company, its partners, and customers by using the internet. E-commerce introduced in Indian market before the pandemic, but gained more popularity after the Covid-19 pandemic. Many business organizations and service sectors adversely damaged due to the pandemic's unpredictable scenario. But e- commerce industry players like Amazon, Flip cart, Myntra etc. has grown at a faster speed. During lockdown period traditional shopping was not possible due to the government restrictions on the operation of shopping malls, service outlets, consumers diverted towards online shopping for their all types requirements.M Commerce is that part of E commerce where buying and selling activities are done by using mobile devices, phones, tablets or any other portable devices through online mode. In simple words, commercial transactions conducted electronically by mobile phones are M commerce. Buying product from basic commodities to branded goods is possible through m commerce. Besides purchasing goods and services, internet-enabled mobile handset helps to access many other services such as SMS, MMS, banking, payment, gaming, emailing, chat, weather forecast & GPS. These wide range of services are considered as "m-commerce.

Objectives of The Study:

This paper is focused on how m commerce helped people to stay home and buy the product at their doorstep during COVID 19 pandemic. The prime objectives of this paper are:

1. To study how COVID-19 pandemic impacted the buying perception towards m-commerce.
2. To understand the attributes for m commerce during the period of COVID 19 pandemic.
3. .To find out the reasons of shopping through m commerce during COVID 19
4. To examine the consumers' willingness to continue in m-commerce Post Pandemic period.

Methodology:

For this study, data collected from Primary and Secondary source. For primary data, structured questionnaire was prepared and administered to 287 respondents of South Goa.Respondents include, people from private and government service, entrepreneurs, professionals and students. Only 227 responses received of which 203 were complete in all responses. For study convenience, considered only 200 responses. Secondary data is collected from different published and unpublished materials such as news paper, Journal, reports, blogs, research papers and websites.

Analysis:

To attain the objectives of the study, data is collected from different parts of South Goa. The duration of the study was 2 months. Data is analyzed using percentage method, bar graphs and pie charts.

Profile of Respondents: Table 1 shows the number of respondents, gender, occupation.

	Gender		
Particulars	Male	Female	Total
Govt. Service	**19**	**09**	**28**
21-30	07	06	13
31-40	06	02	08
41-50	03	01	04
51-60	02	00	02
61 and above	01	00	01
Pvt. Service	**15**	**49**	**64**
21-30	04	17	21
31-40	04	18	22
41-50	03	06	09
51-60	02	04	06
61 and above	02	04	06
Business	**23**	**14**	**37**
21-30	04	00	04
31-40	09	03	12
41-50	05	06	11
51-60	03	03	06
61 and above	02	02	04
Professional	**16**	**12**	**28**
21-30	02	00	02
31-40	06	05	11
41-50	05	03	08
51-60	02	02	04
61 and above	01	02	03
student	**16**	**27**	**43**
21-30	16	27	43
Total	**89**	**111**	**200**

Table 2 shows the number of respondents age, and their annual income

Particulars	**Govt. service**	**Pvt. service**	**Business**	**Professional**	**Students**	**Total**
Male	**19**	**15**	**23**	**16**	**16**	**89**
20000-50000	05	05	06	01	09	26
50000-80000	06	04	08	05	02	25
80000-100000	05	02	05	08	03	23
1lack and above	03	04	04	02	02	15
Female	**09**	**49**	**14**	**12**	**27**	**111**
20000-50000	03	28	05	02	12	50
50000-80000	02	12	04	03	07	28
80000-100000	03	05	02	04	04	18
1lack and above	01	04	03	03	04	15
Total	**28**	**64**	**37**	**28**	**43**	**200**

Other observations of respondents are:

1. 111female respondents and 89 male respondents.2. 59 % respondents are graduates and post graduates. 3.94 % respondents are from nuclear family and only 6 percent respondents belonging to joint family. 4. 14% respondents are from government service, 32% respondents are of private service, 18% respondents do business, 14%respondents are professionals like, Lawyers, Doctors, civil engineers and 24 % respondents are students. To meet consumer demand during pandemic, people shifted from traditional shopping to m commerce. Under m commerce, the products directly reach to the customer at door step from manufacturer at low price. Therefore, slowly customer started preferring the product from online sites. It is observed that, M-commerce sites has the high demand during Covid-19,pandemic(57%).43 % respondents still prefer both m commerce and traditional shopping

To understand the preferences of M. commerce sites used by different age group when asked, it is found that M-commerce sites are mostly used by 21-30 age group, followed by 31 – 40 age, least online purchases were done by people whose age is above 61 years.

Fig. 1M commerce users as per age group

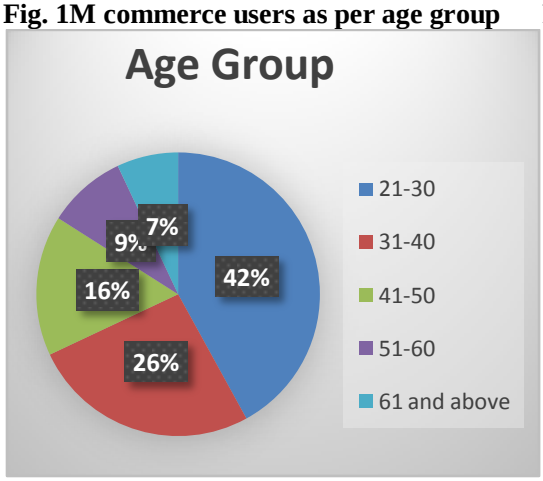
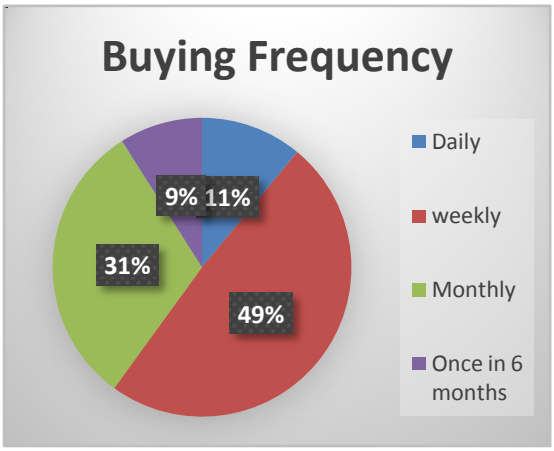


Fig.2 showing Frequency of m commerce



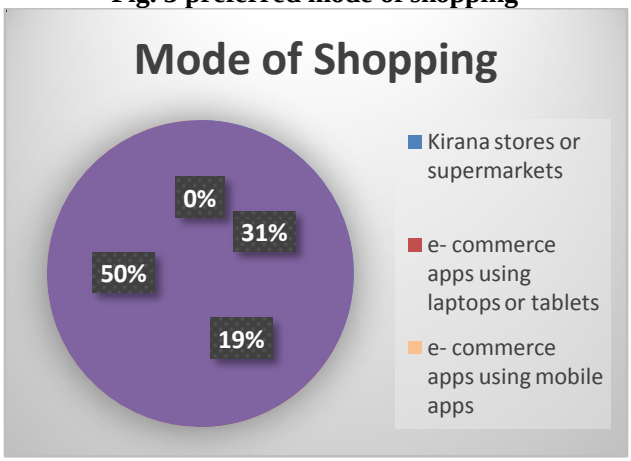
It is found that 11% respondents purchase daily through mobile app, 49% on weekly basis 31% respondents once in a month & 9% respondents buy once in 6 months.

Table 3 Attribute for M commerce

Attributes	Agree	Strongly agree	Disagree	Strongly disagree	Total
Convenience in shopping	99	77	08	09	200
Choice of goods	87	103	07	03	200
Quality of Goods	63	84	32	21	200
Security of transactions	112	69	16	03	200
Store Ambience and services	93	56	34	17	200
Trust in vendors	112	54	14	10	200
Customer reviews	174	12	6	8	200
Offers/ discount	69	104	14	3	200

It is found that 87% of the respondents prefer buying the product based on customers review, followed by trust on vendor (56%). Security transaction is equally important to more than 60% buyers.50% buyers prefer M shopping because of convenience, 44% buyers go for M shopping as they get wide variety and more discount. During COVID 19 pandemic, people wanted to maintain social distancing to keep themselves safe. Therefore, respondents preferred to buy the product through online mode. 31% respondents buy groceries from Kirana store / supermarkets, 19% respondents buy online mode using laptops and tablets and 50% respondents shop by m commerce.

Fig. 3 preferred mode of shopping



To understand the satisfaction level of respondents while shopping using mobile apps,it is observed that satisfaction level while using mobile app of 24% respondents is very high,46% respondents satisfaction level is high and 9% and 21% respondents satisfaction level is average and low respectively.

Table 4 showing satisfaction level while shopping through m commece

Satisfaction level	M Commerce	Kirana Shop
Very high	24%	19%
High	46%	18%
Average	9%	31%
Low	21%	32%

I t is observed from the table that, 70% respondents satisfaction level during m shopping is very high and high where as only 37% respondents satisfaction level from traditional shopping is high. This shows that presently, people are more interested in m commerce rather than traditional shopping.

Table 5 showing the reasons of shopping through m commerce during COVID 19

Sl.No.	Variables	Agree	Neutral	Disagree
1	Convenience	151	12	37
2	Handy	144	09	47
3	Accessible	156	17	27
4	Can shop anytime anywhere	188	--	12
5	Flexible payment options	165	11	24
6	Health safety	193	--	07

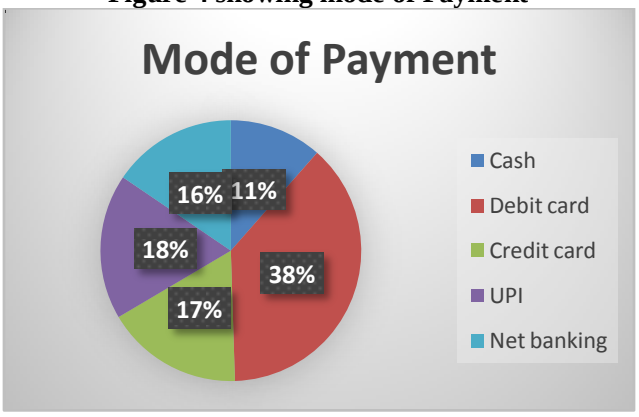
Table reveals that ,97% respondents shifted towards m shopping for giving safety to Health, 94% respondents diverted as m shopping is possible anytime and anywhere, 82% prefer due to flexible payment option and 78% respondents feel that m shopping is easily accessible, 75% diverted for m commerce because of the convenience.

Table 6 Reasons keeps away from m commerce even during Covid 19 pandemic

Sl. no	Reasons	Agree	Neutral	Disagree
1	Hidden charges	126	08	66
2	Fake reviews	154	03	43
3	Predatory pricing	113	07	80
4	Delay in delivery	132	11	47
5	No security in transaction	151	13	36
6	Delivery charges	145	11	44
7	No return policy	112	09	79

The table reveals that in spite COVID 19 pandemic many people do not prefer shopping by M commerce due to fake reviews, less security transactions, delivery charges and hidden charges.

Figure 4 showing mode of Payment



Only 11% respondents pay cash where as all other pay either by using, debit card, credit card or net banking. 115 respondents agreed that there mode of shopping changed from Retail stores to m shopping during covid 19 and 85 respondents had not changed mode of shopping.

To know respondents expenditure on cloths if increased. it is found that 67% respondents expenditure on clothes decreased.

Findings of The Study:

1. To meet consumer demand during pandemic, people shifted from traditional shopping to m commerce.

2. M-commerce sites are more used by 21-40 age group respondents and least by above 60 years age group.
3. 87% respondents prefer M commerce based on customers review, 56% trust on vendor, 50% because of convenience.
4. 70% respondents satisfaction level is very high while buying through m commerce.
5. 50% respondents preferred mode of shopping is m commerce, 31% from Kirana store.
6. 97% respondents diverted towards m shopping for safety to Health, available anytime and anywhere and easily accessibility and convenience.
7. Few People do not prefer shopping by M commerce as there is delay in delivery, followed by predatory pricing, and fake reviews.
8. 56% respondents opined that they do not have any problem in m commerce.
9. 57% respondents have changed their mode of shopping from retail store to m commerce.
10. Products like clothing, electronics, electric items and cosmetics are purchased by m commerce, medicines are purchased more from retail outlets and gold and diamond are preferred from specialized showrooms.

Conclusion:

During the COVID-19 pandemic, almost all types business processes were affected, resulting the change of consumer behaviour. Though e commerce and m commerce was existing before pandemic, post pandemic period, it is developed at a faster speed. Looking at the growth and the future of m-commerce, it is certainly going to be big and bright. Many new players will enter into the market. To make it more common and conventional, the spread of digital awareness is very much important among the masses. Hence forth m commerce will be no more remain as a saviour in hard times but it will be need of the hour as it will save our time and money.

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A Study of Involvement of Hrm In management Of Un-Organized Service Industry In India.

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Abstract : The manufacturing and service industries in India have changed dramatically from the traditional era to the current era of industrialization. Today, the government is pushing small scale businesses, mostly in the service sector, and in India, more than 80% of the service sector is unorganized, with many tiny players entering the sphere of service delivery and making significant improvements. Previously, different government control agencies or the government itself ran and managed service industries. In the late 1980s and 1990s, a large number of private investors entered the service sector. The government also created a public-private partnership (PPP) investment and management strategy. Government-sponsored facilities and incentives are used to set up and run these businesses. Service is currently one of the most important industries in which a huge number of people are employed, alongside other industries such as building, mining, and steel production. As a result, implementing modern HRM interventions to manage India's unorganized service institutions has become increasingly vital.

Introduction

As industries become more complex, a more professional approach to managing unorganized industry in India is required. Because the service sector employs a large number of people, it is increasingly relevant and important to employ modern HRM concepts and philosophies in employee management in India. These unorganized private service industries are now lagging behind in HRM practices. Because of these unprofessional attitudes, many service organizations have fallen behind in the race for sustainable development in the service sector. Despite the fact that the Ministry of Industrial Development has taken numerous initiatives to improve the quality of India's service industry, such as ASSOCHAM rating, FICCI accreditation, and FHRAI accreditation, we have yet to see the required level of progress in quality management. The main goal of this study is to emphasize the positive aspects of HRM approach in the management of India's unorganized service sector. It will undoubtedly contribute to the establishment of a positive working atmosphere in these organizations. Men, money, materials, and machines are the primary sources of any organization's resources. The most valuable resource is men. Humans are the most important resource in the service sector. Human resources play a critical part in the success of any firm. For consistent and high-quality service delivery, the employee-management connection is critical.

Objectives of study:

1. To know about the term unorganized retail sector?
2. To study the government initiative in unorganized retail sector.
3. To study the HRM implementation challenges in the unorganized sector.

Research Methodology:

The quantitative research methodology is adopted for this research paper and only secondary data isutilized for extracting the results.

What is the Unorganized Sector, and how does it differ from the Organized Sector?

The Government of India established the National Commission for Enterprises in the Unorganized Sector (NCRUS) in 2004 to recognize the importance of the unorganized sector. In 2008, NCEUS submitted a document titled "Report on Definitional and Statistical Issues Relating to the Informal Economy," which is available on the Development Commissioner MSME's website (http://demme.gov.in as of 20.04.2015). The unorganized sector is defined as any unincorporated private firms owned by individuals or households that participate in the sale and production of goods and services on a proprietary or partnership basis and employ less than ten people, according to the research. According to National Accounts Statistics (NAS), the unorganized sector refers to all operating units whose activities are not governed by any Statutory Act or legal instrument, and which do not keep regular accounts. In general, the lack of regular accounts has been the primary criterion for identifying these units as unorganized, as well as the primary indicator of HR's difficulty in defining a framework and scope for framing and implementing HR policies and procedures in this sector.Economic Survey done in 2007-08 (available at http://indiabudget.nic.in, viewed on 02.05.2013) suggests that roughly 8% of the entire workforce in India is working in the unorganized sector, which includes both self-employed and employed people. This could be owing to the organized sector's inability to offer mass-scale employment possibilities, particularly for semi-skilled and unskilled people. Those who are

unable to enroll in the organized sector become unorganized actors who work as labor. Though this does not imply that the whole workforce in the unorganized sector is made up of semiskilled or unskilled workers, skilled workers are frequently included in the mix.As a result, if the competencies of these workers are correctly mapped, their efforts can be put to good use, resulting in a direct and indirect contribution to the Indian economy. The offered argument is supported by CSO surveys, which explain the unorganized sector's proportion of net domestic product (NDP). It shows that the unorganized sector's part of the NDP ranges from 60 percent (1999-2000) to 57.4 percent (2005-06), and despite the small drop in share, the contribution is still significant (more than 57 percent) Given the enormous potential for employment and NDI contribution, incorporating human resource management principles into the unorganized sector is not only necessary but also desirable. As a result, quality human resources will be in great demand in the unorganized sector.

Theoretical Base Of Human Resource Management (Hrm)

HRM Function

Planning: Staff level planning necessitates a thorough examination and evaluation of the organization's existing and future demands, as well as a comparison of time-bound human resource demand. To bring demand and supply into balance, the proper steps must be prepared. The first step is to create a detailed outline of the current worker profile.

Staffing: The HRM function of staffing include managing organizational structure through effective and proper human resource selection, placement, assessment, and development to fill the employer's assigned role.It is an important function of management and a continual process that necessitates effective human resource management.

Developing: Within a business, developing personnel is a vital function that focuses on enhancing skills, abilities, talent, and knowledge, among other things. This can be accomplished by demonstrating a financial and time investment. It also necessitates sophisticated information technologies. Development can take numerous forms, some of which can be measured in time and expense, while others cannot. Development is a concept of one-on-one learning.

Employee Monitoring: A properly designed and implemented employee monitoring policy is essential. Human resources must design a monitoring policy that is carried out within the legal framework of the country. It must be well-written so that managers are aware of their responsibilities in terms of human resources, and employees are aware of monitoring. Policy for monitoring must be developed in close collaboration with the legislative framework. Managers must be aware of their responsibilities to human resources, and employees must be aware of monitoring. Policy for monitoring must be developed in close collaboration with the legislative framework.

Maintaining: One of the most critical functions is to maintain a consistent high-quality output. The need of maintaining human resource management should be understood by management. Establishing a safe and healthy workplace, adequate industrial relations policies, and a collective bargaining mechanism are the essential principles of HRM upkeep.

Managing relationships: In a healthy workplace, employee and employer relations must be blended and addressed by members of a specialist management team. Within the organization, it strengthens the employee-employer relationship. It improves job happiness, engagement, and dispute resolution inside the company.

Managing changes: The majority of improvements in any organization fail owing to mental barriers between management and employees. Any organization needs a proactive and systemic approach to managing and bringing better change, as well as adequate communication about the change. Only through properly engaging people can a successful organizational change be achieved. Because change is a gradual process that occurs in stages, management must exercise caution when implementing change in the organization.

Evaluating: Any organization needs to be evaluated on a regular basis in order to determine its productivity. In order to improve the performance of an organization on a timely basis, it is necessary to conduct a two-way review of both organizational and individual performance. It is necessary to compare current performance to previous records. To measure organizational service effectiveness, top management support is required, as well as principal-based evaluation methodologies.

HRMObjectives

The societal goal

HRM must concentrate on legal compliance, benefits, and the relationship between labor and management. Organizations must give equal opportunity and compensation to their employees, as well as guarantee that the legal framework is followed.

Objectives of the Organization

HRM's primary goal is to improve efficiency and effectiveness, but it also supports other actions that help the organization achieve its goals. HR planning, employee interactions, selection, training and development, appraisal, placement, and assessment are the societal goals of HRM.

Occupational Goals

HRM is responsible for a wide range of duties in a business. It also ensures that the cost of facilitation does not exceed the value of the services provided. Appraisal, placement, and assessment are the three major functional purposes of HRM.

Personalized Goals

We have witnessed a shortage of essential talent in today's fast-changing market. Organizations constantly promote and urge their personnel to upgrade in order for them to become competitive. This will only be achievable if HRM encourages employees to pursue their own personal goals through commitment. Training and development, appraisal, placement, compensation, and assessment are the major personnel objectives of each firm.

Managing Human Resources

The HR department's primary role is to ensure that human resources are used effectively and efficiently. To achieve these goals, service sector organizations must establish a proper HR department and assign tasks to accomplish the goals listed below, such as developing recruitment and selection policies that are aligned with the organization's goals.

1. Develop a positive work environment within the organization.
2. Adequate support and supervision from the organization.
3. Encourage a positive attitude toward learning and teach the necessary skills.
4. Maintain a healthy balance between organizational and people requirements.

From an HR standpoint, the following are the functions that management should consider:

Recruitment and Selection Procedures That Work

There are a plethora of services that must be rendered in service delivery, so a well-educated and competent candidate must be present who can comprehend the exact requirements of the customer and identify the skill set necessary by the firm and the consumer.

Employee Training and Development

Service sector is a profession that need continuous training, learning and development. If you study the successfulservice provider companies of any country you will find that all institutions have well planned employee training and development systems. There must be specific budget for the overall training and development of employee as per the industrial and service sector requirement.

Salary and Wage Administration

Service sector is a volatile industry and we know that quality service sector only be deliver by employee themselves. In a service industry it is so important to focus on employee satisfaction; to render quality service any service. Institution need establish better wage and salary administration. They must follow the wage and salaryadministration set by government but there are very few number of unorganized service provider in India they follow this decorum.

Maintaining Point Base Appraisal System

A good HR system always focuses on good appraisal system. In manufacturing industry measuring and analyzingproductivity or performance is easy comparatively in service sector. In service industry, there is not a uniform or standard system to measure the service quality. The service provider-service taker relations can judge only on the actual service render by the employee and satisfied customer.

Sound Welfare Policy

India is a county where eighty percent of industries are informal in nature and they don't have proper welfare policy. and same as other industry in India small service provider don't have proper welfare policies related to employee which bring high level of employee dissatisfaction. Most of the private institutions hire employee on consolidation basis and they offer lump sum money to employee. They don't have good welfare schemes or they don't follow the government norms regarding employee welfare schemes like PF. ESI, Maternity benefits, Bonus etc

Promote Research Based Quality Improvement Technique

Anyone who deliver service can't be a quality service provider, to become a quality service provider research is most important thing. At present there are so many small service provider companies they don't support or promote research based method to improve the service quality. This kind of culture reduces the credibility of service provider and quality as well. So small and unorganized service provider in India need to focus on research based quality improvement of their organization.

Merge Personal Need with Organizational Need

To promote holistic service delivery and performance HRM always focus on correlation between organizational andpersonal need. To promote better culture both employer and employee need to fulfill the each other side'sexpections.

Give Motivation to Employee

Motivation is a important factor when it comes quality service delivery and boost best productivity in any organization Service is a complete labour intensive industry. Human need continuous motivation to maintain productivity and e quality standards.

Reduce Employee Turnover

If you study the trend of employee hiring and firing in small companies or service sector institutions in India, there is a high employee turnover. In service sector institutions, the main bonding is between service provider and service. taker. If employee turnover will be high, institutions can't be establishing good bonding between institute. employees and service receivers,

HRM implementation challenges in the unorganized sector

Employees in the unorganized sector are typically not formally educated, and bosses are not always educated either. As a result, only a small percentage of them are aware of and comprehend human resource management procedures. Employers frequently treat employees as labor rather than human capital. Employee interpersonal relations in the unorganized sector are poor, which adds to the resistance to HRM methods. Employees are employed on the basis of personal and informal recommendations for a limited time or for seasonal work. Even their job's tasks and functions aren't clearly defined. This causes a sense of job instability among employees, as well as a lack of functional clarity, leading to a tendency for people to leave jobs without warning. As a result, human resource management in the unorganized sector becomes extremely difficult. Some of the difficulties are as follows:

Skilled personnel is in short supply:

The unorganized sector is a labor-intensive sector that employs over 93 percent of India's total workforce; yet, competent and trained workers is in short supply. This might be attributed to the fact that there are very few courses, training, or skill development programs available to meet the sector's needs.

Stress and working conditions:

The unorganized sector's working pattern encourages employees to work longer hours, resulting in labor exhaustion, frustration, and low motivation. Furthermore, the unorganized sector's casual character results in very little or no job security. Employee productivity is harmed by reduced pay and bad working conditions, which lead to stress and other work-related concerns.

Workforce attrition is a regular occurrence in the absence of a written employment contract. Employees leaving without notice or intimation is a common occurrence. Poaching: Because skilled labour is limited in the unorganized sector, luring competitors' staff by paying them more is a simple choice.

Human Relation Approach

A better human relation is the key factor of effective and efficient function of any organization. It gives understanding and knowledge on how employee interacts and responds in any organization. This is an effort to understand and satisfy the needs of employee as well as need of organization. Organization is a bond of employee, employer and policies & procedures, to get the desired result it is important to smooth function of organization. It helps organization to understand need the employee and their problems. The long term success of any organization depends upon the style of leaderships it adopted, the democratic way of function of any organization leads tosustainable long term growth. Service sector institutions administration is concerned with the allocation of resources and efforts of people to achieve the need of service excellence. So, it is important that unorganized service sector institutions must move ahead or merge Unprofessional administers office with HRM department or establish full fledge separate HR department in organization. The present system of unorganized service sector companies are working on model of developing, operating and fulfilling the procedure only, but HRM will focus on satisfaction of employee rather than only following procedure. It will help in development of character and morale of employee. It will help in good relation, better policy and better practices within the organization.

Conclusion

The general administration of unorganized service sector companies are done by unprofessional administers, they main the employee detail and manage administration task in unorganized service sector. Unprofessional administers that plays the role of head administrator. This paper is focusing on shifting Unprofessional administers office concept to HR administration concept so that it can implement proper planning, organizing, directing and controlling of both human being and resources, also focus on to understand the concept of HRM, employee behavior, need of employee and their aspirations. Attracting, developing and retaining the best talents are the key of successful service delivery. If unorganized service

sector companies want to grow and develop, then they need to implement these modern HRM interventions techniques rather than the old systems of personnel management.Human Resource Management methods are critical for corporate growth and development in any industry, organized or disorganized. Because the unorganized sector is so large, better HRM practices are required. Many employers in the unorganized sector, particularly in manufacturing, trade, transportation, and construction, have begun to recognize the value of structural HRM practices such as recruitment, selection, performance appraisals, compensation, training and development, and so on, as well as their positive impact on the business. Lack of qualified labor, greater attrition rate, lack of formal education, insufficient skill development centers, and other challenges in the unorganized sector can be addressed through a suitable framework of HR policies and procedures that the Indian government can enact as a statutory act. It's also worth noting that the Indian government has taken steps to improve skill development programs for millions of people working in the unorganized sector. HR professionals, freelancers, and consultants must also recognize and investigate these possibilities. The organized sector has already recognized and reaped the benefits of modern HRM methods. Now it's up to the unorganized sector to follow suit.

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A Study of Financial Statement Analysis of Bank of India

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Abstract:
Financial statement of any business entity is an important statement to understand the position as well as forecasting future course of action. Management, Government, shareholders or stakeholders are interested in knowing the financial condition of the business concern. Banking business is also has the same consequences. In present study the financial statements of the Bank of India has been analyzed with some methods. Recently the Finance Minister of India announced possible disinvestment in few nationalized banks including the Bank
Key words: financial statement analysis, financial position.

Bank of India.

Hence this study is conducted for the analysis of financial statements of the concern bank, to investigate the need of the disinvestment in this Bank. Standard analysis tools has used for this research. Ratio analysis, common size statement analysis as well as Trend analysis methods are adopted to analyze the financial statement of Bank. The data is secondary in nature as its totally depends upon the financial reports of concern Bank. Annual reports of last two years have been studied for common size statement and Ratio analysis, where as for trend analysis last four years balance sheets were studied.

Introduction:

Financial statements of any business entity whether manufacturing, trading or service are an important tool to evaluate its progress as well as business conditions. Financial statements are the mirror of any business entity hence it becomes important to analyze their statement at the end of each financial year to understand the current position of the business entity. This analysis helps the business entity to frame strategies for future course of action. In the present study the researcher has analyzed balance sheets of the Bank of India to ascertain the financial position of the Bank. As the finance Minister NirmalaSitharaman has recently (2020-21) announced the disinvestment in banking sector which includes the Bank of India.Bank of India was founded on 7th September, 1906 by a group of eminent businessmen from Mumbai. The Bank was under private ownership and control till July 1969 when it was nationalised along with 13 other banks.Beginning with one office in Mumbai, with a paid-up capital of Rs.50 lakh and 50 employees, the Bank has made a rapid growth over the years and blossomed into a mighty institution with a strong national presence and sizable international operations. In business volume, the Bank occupies a premier position among the nationalised banks.The Bank has over 5000 branches in India spread over all states/ union territories including specialized branches. These branches are controlled through 59 Zonal Offices and 10 NBG Offices. There are 45 branches/ offices abroad which includes 23 own branches, 1 representative office and 4 Subsidaries(20 branches) and 1 joint venture.The Bank came out with its maiden public issue in 1997 and follow on Qualified Institutions Placement in February 2008.While firmly adhering to a policy of prudence and caution, the Bank has been in the forefront of introducing various innovative services and systems. Business has been conducted with the successful blend of traditional values and ethics and the most modern infrastructure. The Bank has been the first among the nationalised banks to establish a fully computerised branch and ATM facility at the Mahalaxmi Branch at Mumbai way back in 1989. The Bank is also a Founder Member of SWIFT in India. It pioneered the introduction of the Health Code System in 1982, for evaluating/ rating its credit portfolio.

Presently Bank has overseas presence in 18 foreign countries spread over 5 continents – with 45 offices including 4 Subsidiaries, 1 Representative Office and 1 Joint Venture, at key banking and financial centers viz., Tokyo, Singapore, Hong Kong, London, Paris, New York and DIFC Dubai[(1)].

Research methodology:

For the present study the researcher has adopted exploratory research method. Data is collected by the secondary source i.e. the annual reports of the bank, as well as from newspapers, books and internet.

Objectives of the study:

1. To understand financial position of the bank.
2. To study the trend of deposit and other assets and liabilities of the bank.
3. To find the necessity of disinvestment in Bank of India.

Hypothesis of the study:

1. The bank is in good financial position.
2. There is a positive trend in banks Assets and Liabilities

Data Analysis:

Common size statement Analysis

As per the balance sheets of Bank of India for the year 2019- 2020 and 2020-2021 it shows that the cash and balance with RBI is 4.45% in 2020 which is increased in the 2021 to 8.36%. Investment of the bank increased in the year 2020-21 by 1.66%, Advances and fixed asset are decreased by 5.76% and 0.14% respectively. Percentage changes in the liabilities are Reserve and surplus is decreased by 0.33% whereas the Deposits are increased by 1.84% it means the customers interest is increasing depositing. Borrowings of the bank has decreased by 2.1% it shows that the financial conditions of the bank is strong enough so that the external borrowing have reduced.

Table: 01 Balance sheet 31st March 2021

Liabilities	Rs	%	Assets	Rs	%
Capital	32776625	0.45%	Cash and balance with Reserve Bank of India	606975678	8.36%
Res & sur	424079259	5.84%			
pending allotment	30000000	0.41%	Balance with banks and money at call and short notice	658831007	9.07%
Deposits	6271135601	86.39%	Investments		
Borrowings	324641055	4.47%	Advances	1872528456	25.79%
Other liab& Provisions	175931916	2.42%	Fixed assets	3656865239	50.38%
			Other assets	89141309	1.22%
				374222767	5.15%
	7258564456	100%		**7258564456**	100

(000's omitted)

Table:02 Balance sheet 31st March 2020

Liabilities	Rs	%	Assets	Rs	%
Capital	32776625	0.49%	Cash and balance with Reserve Bank of India	292392508	4.45%
Res & sur	405386540	6.17%	Balance with banks and money at call and short notice	572170546	8.70%
Deposits	5555049786	84.55%	Investments	1585729874	24.13%
Borrowings	397524659	6.57%	Advances	3688833041	56.14%
Other liabilities & Provisions	179217207	2.72%	Fixed assets	89819999	1.36%
			Other assets	341008849	5.19%
	6569954817	100%		**6569954817**	**100%**

(000's omitted)

The above balance sheets and the respective percentage provides the information regarding the financial positions of the Bank. It shows that the financial position of the bank of India is growing. There is no such requirement of disinvestment in bank of India.

Table: 03 Trend Analysis (base year 2016-17)

Particulars	Trend % 2016-17	Trend % 2017-18	Trend % 2018-19	Trend % 2019-20	Trend % 2020-21
Liabilities:					
Capital	100%	165.21	261.50	310.55	320.02
Reserve & Surplus	100%	113.75	131.00	136.44	142.74
Share Application money and pending allotment	100%	00	269.35	00	174.22
Deposits	100%	96.44	96.45	102.86	116.12
Borrowing	100%	110.61	112.27	100.88	82.38
Other liabilities	100%	66.67	95.93	124.59	122.30

Total liabilities	100%	97.32	99.82	104.95	115.89
Assets:					
Cash and balance with Reserve Bank of India	100	114.62	106.90	106.92	221.94
Balance with banks and money at call and short notice	100	94.15	95.67	83.48	96.12
Investments	100	107.26	115.49	124.05	146.48
Advances	100	93.15	93.04	100.65	99.78
Fixed assets	100	97.67	105.41	106.14	105.34
Other assets	100	97.41	118.78	123.32	135.33
Total Assets	**100**	**97.32**	**99.82**	**104.95**	**115.89**

(Source: financial reports of Bank of India)

The table 03 is regarding trend analysis of Bank of India's financial statements i.e. balance sheet. Shows changes in assets and liabilities in last five years' balance sheet. Trend of deposit in this bank was declined in the two financial years 2017-18 and 2018-19, the percentage with the base year was 96.44% and 96.45% respectively immediately in the successive years it has increased to 102.86% and 116.12%. it shows that the customer satisfaction of the bank.

Conclusion:

The financial statement of last five years of Bank of India has studied under this study where the last two years' balance sheets were studied with the Common size statement analysis methods gave a positive result of BoI financial conditions. Whereas the Trend analysis which used the five years' performance indicates that in 2017-18 and 2018-19 the deposit percentage dropped to approx. 96% to the base year which is quite surprising that in the very next year it has increased to 102.86%. Fixed assets of the bank has increased in positive trend whereas the Investment and Cash balance with RBI has increased remarkable.The external borrowings of the bank attract a more by its reducing figures. It shows the strength of Bank that they have enough capital and investment to run the business.Finally, it is on the basis of analyzing all financial data researcher concluded that the Bank of India has good financial condition and government has to support it and not to hurry for privatization of this Bank.

Findings:

1. The researcher has found that the common size statement of year 2019-2020 shows the Deposits were 86.39% of total liabilities.
2. Capital of the bank has increased in every year in the year 2020-21 it increased to 320% of the base year 2016-17.
3. Investment and the Advances are the tow assets which cover about 75% of total assets of the bank.
4. The bank allots all pending allotments and application money timely.
5. The bank has Positive growth trend in last five years
6. Government has to support the bank instead of privatization.
7. As the Deposits are increasing it seems that the customers have belief in bank's performance.
8. Fixed assets of the Bank are same for all five financial years it has some negligible changes in it. i.e. 06% it means the bank has not spent its profit more on fixed assets.
9. External borrowings of the bank have decreasing trend, year by year.
10. The financial position of the bank on the available information is good and progressive.
11.

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Impact of Globalization on Indian Society

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Abstract : India Has Felt The Impact Of Globalization Through Increased Prosperity, Partly Triggered By Increasing Trade Volumes, Investment, And Growth. It Also Had A Tremendous Impact On The Social, Monetary, Cultural, And Political Areas. In Recent Years, Globalisation Has Increased Due To Improvements In Transportation And Information Technology. With The Improved Global Synergies, Comes The Growth Of Global Trade, Doctrines, And Culture.The Effect Of Globalization On Indian Society Is Felt Since 1990s. Gradually, Indians Have Started To Feel The Intensity Of Its Effect Now. The Effect Of Globalization On Economy, Media And Sometimes On Society Too Are Almost Regularly Analyzed And Debated In Various Fora.Hence, It Is Essential To Study Its Impact On The Most Important Possession Of Human Society And Language. The Term Globalisation Is Changing The Way People Think And Live In The World.This Paper Presents An Analysis Of Some Of The Impact Of Globalization On Indian Society And Languages.Globalization Has Improved Almost Every Thing Like Work Culture, Living Standards, Education, Health Care And Charity Culture In India. Family Lives Also Have Undergone A Lot Of Change. Younger Generation Find Changes Good But The Older Generation Feel That The Impact Is Bad. We Are Becoming More Of A Individualistic Society In General.
Keywords: Globalization, Society, women,Family,Pandemic,People

Introduction

The world in which we breathe today is a globalised world. Globalization is the spread of products, technology, information, and jobs across national borders and cultures. In economic terms, it describes an interdependence of nations around the globe fostered through free trade.Globalization means the speedup of movements and exchanges (of human beings, goods, and services, capital, technologies or cultural practices) all over the planet. One of the effects of globalization is that it promotes and increases interactions between different regions and populations around the globe. Globalization changes the way nations, businesses and people interact. Specifically, it changes the nature of economic activity among nations, expanding trade, opening global supply chains and providing access to natural resources and labor markets,the term 'globalization' means combination of economies and societies through cross country flows of information, ideas, technologies, goods, services, capital, finance and people. India was main mover of globalization. The wake of globalization was first felt in the 1990s in India when the then finance minister, Dr Manmohan Singh initiated the economic liberalization plan. Since then, India has gradually become one of the economic giants in the world. Today, it has become one of the fastest growing economies in the world with an average growth rate of around 6-7 %. There has also been a significant rise in the per capita income and the standard of living. Poverty has also reduced by around 10 %. The last sixty years have witnessed a huge increase in globalization, but the phenomenon has been going on for much longer. Thomas Friedman describes the current trend as the third great wave of globalization in human history.

Globalization impact on society

Globalisation is a positive process.People in various countries are intrested to inter connect and work together and become more creative in the fields of commerce,finance,cross-border trades and technology.It is actully an attempt to integrate and interact globally by many countries and people People today, especially the young, developed an identity that gives them a sense of belonging to a worldwide culture, which includes an awareness of events, practices, styles and information that are a part of the global culture. There is the development of a bicultural identity or a hybrid identity, which means that part of one's identity is rooted in the local culture while another part stems from an awareness of one's relation to the global world. Globalisation refers to the increased interconnectedness across the countries of the world whether economically, culturally or technologically. It has a particularly profound effect on the cultural diversity of a country. For India, its influence can be explained as following:

Positive Impact

Family structure — Increasing urbanization as a consequence of globalization has resulted in migration of people from rural areas, resulting in the disintegration of the joint family system. A new trend of nuclear families with one or maximum two children has emerged in India.

Role of Women — As a result of globalization, women in India have become more aware of their rights and are now stepping out of homes to pursue not only schooling but higher education and jobs. With patriarchy's influence decreasing, women are taking leading roles in various walks of life.

Globalisation in context of status of women implicates the relegation of the stereotypic pattern of duties of the women like rearing and caring the children to the back ground and taking up the various diversified occupation and thus making their living quite vibrant and alive.

Role of caste is decreasing ― with increasing urbanization as a result of globalisation, not only are caste barriers breaking at workplace but also at areas of living-people belonging to all caste work and live together. On the other hand, class discrimination is increasing.

Schedule caste

Globalisation benefits the schedule caste people in promoting cultural homogeneity in the way of loosening of the ideas of pollution and purity and eradication of untouchability and so many socio-cultural and economic disabilities associated with them.

High standard of living:

With the outbreak of globalisation, the Indian economy and the standard of living of an individual have increased. This change is notified with the purchasing behaviour of a person, especially with those who are associated with foreign companies. Hence, many cities are undergoing a better standard of living along with business development. Globalisation has also impact on the wealth generation among people. More people understand the importance of finance and investment across the country.Developing nations experience an improved standard of living―thanks to globalization. According to the World Bank, extreme poverty decreased by 35% since 1990.Now, people tend to spend higher on lifestyle and living. From food to clothes to bungalows, the impact of globalisation in India can be observed in every sector.

Changing Social Values

The possible impact of globalization on the society is a controversial issue. Some normative economist find it to be beneficial while other contest the whole idea of globalization as they find globalisation as a cause for weakening of the social values mainly in India. Studies show that the process of globalisation of Indian economy and the society is causing permanent damages to social structure and economic system of India (Jindal, 2013). It is not that globalisation tends to damage the social values only but it has helped in bringing some positive social changes in Indian society such as providing employment opportunities in organized sector to down trodden section of society and Dalits.Promotes shared cultural understanding. Advocates view the increased ability to travel and experience new cultures as a positive part of globalization that can contribute to international cooperation and peace.

Lifestyle ― Whether it be in attire, food habits or taste in music, there has been an attempt to imitate the West. Sarees, Salwar-Kameez for women has given way to skirts and pant, jeans and shirts. Similarly for men, traditional dhoti-kurta has been replaced by shirts and trousers. Even in food habits, junk food like pizzas, burgers, pasta are the preferred choices of the youth today in India.

Language ―

The effect of globalization on the power, status, and use of Indian languages is not immediately visible like its (globalization's) effect on economy, industry, etc. However, on language, globalization has indirect but highly effective and long lasting impact. Education and employment opportunities are directly related. So also are education and language. English today is becoming the favoured mode of communication among the people of India over their mother tongues.

Covid19 impact

Response to the COVID-19 pandemic. Because the world was able to communicate across boundaries, nations were able to work together to quickly produce vaccines for the virus. In addition, doctors traveled where they were needed. For example, Cuba sent doctors to Italy at the beginning of the pandemic to assist with the crisis as it developed there. However, countries also enacted strict travel restrictions and many closed their borders to cut down on the free movement of people and spread of the virus.

Negative impacts

The Negative Effects of Globalization on Cultural Loss

Apart from all the benefits globalization has had on allowing cultural exchanges it also homogenized the world's cultures. That's why specific cultural characteristics from some countries are disappearing. From languages to traditions or even specific industries. That's why according to UNESCO, the mix between the benefits of globalization and the protection of local culture's uniqueness requires a careful approach.

Loss of Cultural Identity

While globalization has made foreign countries easier to access, it has also begun to meld unique societies together. The success of certain cultures throughout the world caused other countries to them. But when cultures begin to lose their distinctive features, we lose our global diversity.Critics of globalization decry the decimation of unique cultural identities and languages that comes with the international movement of businesses and people. At the same time, the internet and social media are driving this trend even without the movement of people and commerce.

Increases the likelihood of pandemics :-

Increased travel, critics say, has the potential to increase the risk of pandemics. The H1N1 (swine flu) outbreak of 2009 and coronavirus in 2020 and 2021 are two examples of serious diseases that spread to multiple nations quickly.

Growing Inequality

In India, globalisation is leading to growth of a new generation of young and rich, and then there are millions of rural and urban poor—and this inequality is growing. The rich are becoming preoccupied with their own advancement, given global complexities, the poor are in a state of existential poverty. A step to improve the excessively low poverty line in India is to base it on a "nutritious" food security line, and then include education, sanitation, permanent housing and so on as part of the criteria. Considering the size of India and her economic growth, poverty differs greatly from one state to another, so poverty lines should be adapted to each state and updated regularly. India is also infamous for child labour and underpayment. Solving this issue requires a different approach for towns and cities (factories) and for rural areas (agriculture).Globalisation has tripled Indian GDP in a generation, an amazing accomplishment, ..but the workers of India have been left out," Maskin, a professor of Economics and Mathematics at Harvard University, said. Noting that the rise of inequality in so many developing countries is surprising, he said inequality cannot be solved by market forces.

"Yet, India will still be facing some huge challenges, challenges that may be even harder to solve than the pandemic....the problem of increasing income inequality," he noted.

Indian society is multifaceted to an extent perhaps unknown in any other of the world's great civilizations. Virtually no generalization made about Indian society is valid for all of the nation's multifarious groups. Comprehending the complexities of Indian social structure has challenged scholars and other observers over many decades.

Conclusion

Globalization has advanced social justice on an international scale as well, and advocates report that it has focused attention on human rights worldwide that might have otherwise been ignored on a large scale.We cannot say that the impact of globalisation has been totally positive or negative. It has been both. However, it becomes a point of concern when, an overwhelming impact of globalisation can be observed on the Indian culture. Every educated Indian seems to believe that nothing Indian is to be approved unless recognised and recommended by an appropriate authority in the West. This should be checked in order to preserve the rich cultural diversity of India and to ensure the fulfillment of the principle of self-sufficiency. As the process of interconnecting the diverse world order, globalisation has touched almost all spheres of human life: social, economic, political, cultural, environmental etc. People should accept and enrich globalisation and its benefits but should not forget their rich culture and heritage.

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Role in The Study of Various Medicinal Plants Found In Mukhed Area Dist.Nanded Maharashtra

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Abstract: - The present work investigation deals with the study of the various medicinal plants species are as a herbal drugs are used in the Ayurvedic medicinal formulations. The medicinal plants sample data were collected to found in the local place mukhed area Dist. Nanded in Maharashtra. The studies were different samples of medicinal plants as a herbal drug used in Ayurvedic medicine can be used in effective way for the treatments on the human health. The different medicinal plants as a herbal drugs whole parts from root, steam, leaf, flower and fruits are used in the Ayurvedic medicinal formulation. No side effect of the herbal drugs on human health. The studies were sample in a medicinal use of various plant species such as Adulsa, Neem, Bel, Sitaphal, Aghada, Kavath, Mehndi, Pudina, Kala Datura, Yellow Datura, Shtavari, Karanja, Agave, Ruchiki, Patri, Ranbhendi, Gulwel, Til, Methi, Spinach.
Keywords: - Medicinal plants, herbal drugs, Ayurvedic, health, etc.

Introduction: -

All living organisms need to study of the known local medicinal plants. Medicinal plants are useful for everyone. List of local medicinal plants found in Mukhed area. The present paper has been written related with various medicinal plants found in Mukhed area. In the recent fast there is a rise in various medicinal plants studied before rainy season. The study was made in the month of January 2021 to April 2021. These medicinal plants sample were not much polluted. The present paper work investigation deals with the study of the various medicinal plant samples were collected in local mukhed area. The studies of sample of medicinal plants herbal drugs as a Ayurvedic medicine used in the effective way for the treatment human health.

Location:

The study of the medicinal plant data sample was collected from the mukhed area for the monitoring variety of various medicinal plants sample. The medicinal plants sample were collected from the different area location before rainy season between early in the morning 7.30 AM to 09.00 AM in the month of January 2021 to April 2021.

Location map of the study area Mukhed Dist. Nanded

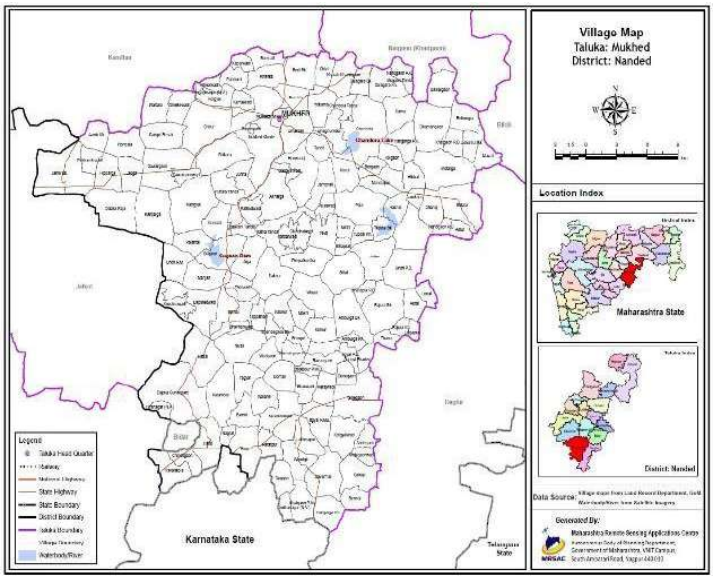

Figure 1.1

Materials and methods: -

The sample data was collected during the month of January 2021 to April 2021. The samples are identified and collected in the polythene bags. The following samples of various medicinal plants was

collected are used for as a medicinal plant as a drug and Ayurvedic medicine. The different medicinal plants as a herbal drugs whole parts from root, steam, leaf, flower and fruits are used in the Ayurvedic medicinal formulation.

The list of the following local medicinal plants found in mukhed area.

No.	Name	Scientific Name
1	Adulsa	Justica adathoda l
2	Neem	Azadirachta Indica L
3	Sitaphal	Anona Squamosa L
4	Bel	Aegle marmelos L
5	Kavath	Feronia Elephuntum
6	Mehndi	Lawsonia inermis
7	Pudina	Mentha piperita
8	Kala Datura	Datura metal L
9	Yellow Datura	Argemone Mexicana l
10	Ruchiki	Calotopis procera
11	Patri	Abutilon indicum l
12	Ranbhendi	Kydia calycina
13	Gulwel	Tinospora cardifolia wil
14	Tilli	Withania somniferadunal
15	Karanja	Pongamia pinnata
16	Shatavari	Asparagus racemosuswil
17	Aghada	Achyranthes aspera

Uses of the various medicinal plants-

1. Adulsa - Its leaf juice is the most common home remedy for cough, respiratory diseases and bleeding disorders. It is also a highly effective natural medicine forrespiratory infections.
2. Neem – Neem leaf is used for leprosy, eye disorder, bloody nose, intestinal worms, stomach upset, loss of appetite, skin ukers, diseases of heart and blood vessels, fever, diabetes, gum diseases and lever problem.
3. Sitaphal – Custard apple leaves help in the regulation of sugar in the body due to the presence of fibres and antioxidants. This prevents aging of skin.
4. Bel – bel is a plant. The unripe fruit, root, leaf and branch are used to make medicine. it is used for constipation, diarrhea, diabetes and other conditions.
5. Kavath – kavath is one of the most important herbs in Ayurvedic medicine system. The unripe fruit is used as remedy to trat diarrhea and dysentery. The ripe fruit is used in treatment of hiccups and throat problem.
6. Mehndi – Traditional medicine used for Heena include being used as a coagulant for open wounds and a poultice to sooth burns and eczema.
7. Pudina – pudina contains menthol that can help relax muscles and ease the pain. Also, pudina is effective in curing headache.
8. Kala datura – though a strong narcotic plant, datura offers umpteen health benefits and is extensively used for hair and skin health.
9. Yellow datura – datura is a source of narcotic, acrid, anodyne, intoxicating properties. It can reduce vomiting, headache, uterine stimulation.
10. Ruchiki – colotropis procera is well known plant and has traditionally used for diarrhea, stomatic, sinus.
11. Patri – it is useful in gout, ulcers, bleeding disorders and worms. It can be used as digestive, laxative and inflammatory.
12. Ranbhendi - the leaves of ranbhendi are applied in poultices for skin diseasesand body pain.
13. Gulwel – gulwel is mainly used for fever, hay fever, small cuts, acidity, bloating jaundice and urinary infection.
14. Til – Til is an anti-aging property. It boosts skin health, hair growth, dental health, digestion, bone health. It is a good source of energy and it stabilizesblood pressure.
15. Karanja – Karanja is medicinal herb mainly used for skin disorders. It is used for managing constipation as it helps to improve gut motility.

16. Shatavari – it is an antioxidant and antiviral. It boosts immune system. It helps hormone balancing reduce symptoms of menopause.
17. Aghada – Aghada has excellent appetizer and digestive properties because of which it helps improve digestive strength and reduce ama in the body.

Results and Discussion

The list of the local medicinal plants found in mukhed area is shown in the table no. 1. The following samples of medicinal plants are collected and used for as a Ayurvedic medicine. these plants are herbal drugs are used in Ayurvedic medicine effective way for treatment of typhoid fever. There is no side effect of the ayurvedic medicine drugs on human health of the treatments. The ayurvedic herbal drugs formulation which maybe better than option over allopathic formulations. The different medicinal plants parts are used as a herbal drugs for using as a ayurvedic medicine such as root, steam, leaf, flower and fruits are used in the Ayurvedic formulation. A number of different medicinal plants species are used in Ayurvedicmedicine. There is no any side effect of herbal drug on human health.

Conclusion: -

The study of the medicinal plants sample data was collected and useful for herbal drug used as a ayurvedic purposes. The studies of the above list of local plants are found in mukhed area useful for everyone as a medicine.

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A study on challenges and opportunities of rural marketing in India

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Abstract: Rural marketing is a developing concept, and as a part of any economy has untapped potential; marketers have realized the opportunity recently. Improvement in infrastructure and reach promise a bright future for those intending to go rural. Any macro-level strategy for these markets should focus on availability, accessibility and affordability. Rural marketing is a two way marketing process. The content now encompasses not only marketing of products which flow to rural areas, but also products which flow to urban areas from rural areas. Rural markets offer a great scope for a concentrated marketing effort because of the recent increase in the rural incomes. Such incomes will increase faster because of better production and higher prices for agricultural commodities. Rural marketing is a developing concept, and the marketers have realized the opportunity of growth in the market recently. Any macro level strategy for these markets should focus on availability, accessibility and affordability. Focused attention needs to be paid to market research, key decision areas, problems and rural marketing environment, to reduce the uncertainly in dealing with these markets. This paper discusses the rural marketing and its strategies and also focuses on issues and challenges, problems, key decision areas and rural marketing environment.
Keywords: Rural Market, FMCG, Disposable Income, Rural Consumers.

Introduction:

India is a land of diversity and about 70% of the Indian population lives in villages. These villages contribute in the economic development of the nation through the production of food grains, vegetables, fruits etc. Export of these agricultural commodities result in the generation of capital and earnings of foreign exchange. Rural India is going to become a biggest market of the world in the near future and it is transforming like anything. Rural marketing as an emerging trend is about to explore possibilities in the rural India. It is process to hunt a treasure lceland, yet to be hunted by the adventurous explorers. It is not simply a marketing to just sell and deliver consumers satisfaction but something else certainly. It is a visit to the 75 crores people residing in the villages of India where they have hope, aspirations, needs and potential. They too have money and will to spend the same, which is more important. Because of change in the rural market environment, its market profile is changing and people are changing themselves. Ultimately, their needs and requirements are also changing. At this point of juncture companies are rushing with their product portfolio to satisfy the needs of rural consumers. The companies are applying several models and strategies to be winner in the rural market. It is also great fallacy that those who have not seen rural India, they are making and shaping rural strategy to win the hearts of rural India.

Objectives of The Research Study:

The present research study is carried out with the following objectives in view-

1. To study the conceptual background of rural & urban India and also Rural Marketing.
2. To study the features of Indian rural markets.
3. To identify the major opportunities available in the rural market.
4. To study the major challenges faced by marketer in rural market.

Hypothesis of The Research Study:

The said research study is carried out with the following hypothesis in mind.

1. Day by day rural India is going to become a biggest market in the world.
2. Rural marketing has become a fad to market products in rural India for the established companies.

Research Methodology:

The present research study uses the most recent available published secondary data. To achieve the above stated objectives, the secondary data was used and Desk Research Method was basically adopted. The secondary data was also used from various reference books related to Rural Markets, Marketing, Banking, Finance, Commerce, Management and Economics. For the said research study the data pertaining to the above objectives was collected and reviewed the literature on the topic concerned. The literature was thus collected by visiting various libraries. The Secondary data is also collected from various websites.

Conceptual Background:

The Census defines urban India as "All the places that fall within the administrative limits of a municipal corporation, municipality, cantonment board etc or have a population of at least 5,000 and have at least 75 percent male working population in outside the primary sector and have a population density of at least 400 per square kilometer. Rural India, on the other hand, comprises all places that are not urban!"The

government of India only defines a non-urban market. An urban market is the one which has a population density of 400 people per sq/km. 7% of its population has to be involved in non-agricultural activities and there is a municipal body. If we go by statistics, roughly around 70% of the India population lives in the rural areas. That's almost 12% of the world population. To expand the market by tapping the countryside, more and more MNCs are foraying into Indians rural markets. Among those that have made some headway are Hindustan Lever, Coca-Cola, LG Electronics, Britannia, Standard Life, Philips, Colgate Palmolive and the foreign-invested telecom companies.

Phases In Rural Marketing

Part1 (before 1960's)

It was completely an unorganized market where "baniyas and mahajans" dominate the market. Rural marketing was another word for agriculture marketing because, agriculture produces like food grains and industries like cotton, oil seeds, etc. occupied primary attention. **Part2 (1960 to 1990)** The greatest thing which happened in this period was green revolution which led to farming involves scientific and technological methods and many poor villages become prosperous business centers. Rural marketing meant "marketing of agriculture inputs" and "agriculture marketing". Agencies like khadi and village industries commissions bloomed and government paid attention to promote these products.

Part3 (after Mid 1990)

Since 1990, India's industrial sector had gain strength and maturity. Its contribution to GNP increased substantially. With support and development programs of center and state government rural area progressed socially and economically and emerges as a new market. Rural marketing was considered different from agriculture marketing. Rural marketing define as a function which mange all those activities in assessing, stimulating and converting the purchasing power of rural people into an effective demand for specific products and services and to create satisfaction and better standard of living for achieving organization goals. Rural marketing in Indian economy can be classified under two broad categories these are: the market for consumer goods that comprise of both durable and non-durable goods and market for agriculture inputs that include fertilizers, pesticides, and seeds and so on.

Rural Marketing:

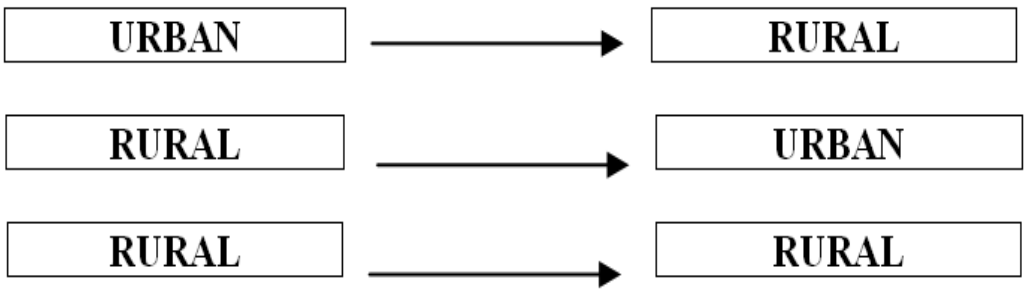
Rural marketing involves the process of developing, pricing, promoting distributing rural specific product and a service leading to exchange between rural and urban market which satisfies consumer demand and also achieves organizational objectives.

It is a two-way marketing process wherein the transactions can be:

1. Urban to Rural: It involves the selling of products and services by urban marketers in rural areas. These include: pesticides, FMCG Products, Consumer durables etc.
2. Rural to Urban: Here a rural producer (involved in agriculture) sells his produce in urban market. This may not be direct. There generally are middlemen, agencies, government, co-operatives, etc who sell fruits, vegetables, grains, pulses and others.
3. Rural to rural: These include selling of agricultural tools, cattle, carts and others to another village in its proximity.

Rural Marketing In Modern India:

Rural Marketing is defined as a function that manages all activities involved in assessing, stimulating and converting the purchasing power of rural consumers into an effective demand for specific products & services and moving these products & services to the people in rural areas to create satisfaction and a better standard of living and thereby achieving organizational goals. The process should be able to straddle the attitudinal and socio-economic disparity between the urban and rural customers.



Urban to Rural (U2R): A major part of rural marketing falls into this category. It includes the transactions of urban marketers who sell their goods and services in rural areas, like pesticides, fertilizers, seeds, FMCG products, tractors, bicycles, consumer durables etc.

Rural to Urban (R2U): Transactions in this category basically fall under agricultural marketing where a rural producer seeks to sell his produce in an urban market, like seeds, fruits and vegetables, milk related products, forest produce, spices etc.

Rural to Rural (R2R): This includes the activities that like place between two villages in close proximity to each other, like agricultural tools, handicrafts and bullock carts, dress materials etc.

Features of Indian Rural Markets:

The main features of Indian Rural Markets are as follows:

1. Large, Diverse and Scattered market: Rural market in India is large, and scattered into a number of regions. There may be less number of shops available to market products.
2. Major Income of rural consumers is from Agriculture: Rural Prosperity is tied with agriculture prosperity. In the event of a crop failure, the income of the rural masses is directly affected.
3. Standard of Living and rising disposable income of the rural customers: It is known that majority of the rural population lives below poverty line and has low literacy rate, low capital income, societal backwardness, low savings etc. But the new tax structure, good monsoon, government regulation on pricing has created disposable incomes. Today the rural customer spends money to get value and is aware of the happening around him.
4. Traditional Outlook: Villages develop slowly and have a traditional outlook. Change is a continuous process but most rural people accept change gradually. This is gradually changing due to literacy especially in the youth who have begun to change the outlook in the villages.
5. Rising literacy levels: It is documented that approximately 45% of rural Indians are literate. Hence awareness has increases and the farmers are well-informed about the world around them. They are also educating themselves on the new technology around them and aspiring for a better lifestyle.
6. Diverse Socioeconomic background: Due to dispersion of geographical areas and uneven land fertility, rural people have disparate socioeconomic background, which ultimately the rural market.
7. Infrastructure Facilities: The infrastructure like cemented roads, warehouses, communication system and financial facilities are inadequate in rural areas. Hence physical distribution is a challenge to marketers who have found innovative ways to market their products.

Opportunities:

The rural market has been growing gradually over the past few years and is now even bigger than the urban market. The saving to income percentage in rural area is 30% higher than urban area. At present 53% of all FMCGs and 59% of consumers durables are being sold in rural area. Major opportunities available in rural market are as follow:

1. Reduction of Risk during Recession:

It has been observed that companies which cater both urban and rural markets tackle the recession in the better way. The demands for goods in the urban market often follow a cyclic whereas in the rural market it is steady. So companies can safeguard themselves from the harmful effects of recession after entering in the rural market.

2. Increase in Literacy Rate:

Literacy rate is increasing in rural areas. According to census 2011 it stood at 68.9% (2001 census 58.7%). There are more graduates in rural than in urban India. This brings social and cultural changes in buying behavior of the rural customers and more aware about national and international brand. Due to increase in literacy rate they get jobs in nearby towns. They earn urban salaries but continue to live in self owned homes in the villages, they have high purchasing power and prefer to buy branded product.

Table: 1 Increase in literacy rate

	2001	2011	Difference
Overall India	64.8%	74.0%	+9.2%
Rural	58.7%	68.9%	+10.2%
Urban	79.9%	85.0%	+5.1%

Source: census of India 2011

3. Increasing in disposable income and purchasing power:

Projects from private companies and the rural employment initiatives by the Government like MNREGA (Mahatma Gandhi National Rural Employment Guarantee Act) schemes have given the rural population an opportunity to meet their daily needs. Government decided to expand the agriculture loan at lower rate of interest and distribute million of Kisan Credit Cards, has given a boost to the income level to the rural sector. According to advanced estimates of national income released by center statistic organization "The

Per Capita income at current prices during 2011-12 is estimated to be Rs. 60,972 compared to Rs. 53,332 during 2010-11 showing a rise of 14.3%. Companies have the opportunity to enter in this new market and take the advantage of increased disposable income.

4. Infrastructure improving rapidly:

In 50 years only, 40% villages have been connected by roads, in next 10 years another 30% would be connected. Rural telephone density has gone up by 300% in the last 10 years. Government of India is planning its most ambitious national program in Jan.2013 to facilitate electricity through decentralized renewable energy sources. The government aims to provide LED lights to around 400million homes that do not have an electricity connection by 2017. Rapid development of rural infrastructure is also major attraction for marketers. Marketers can make effective use of the large available infrastructure –

1.	Post Offices	1,38,000
2.	Haats (periodic markets)	42,000
3.	Melas (exhibitions)	25,000
4.	Mandis (agri markets)	7,000
5.	Public Distribution Shops	3,80,000
6.	Bank Branches	32,000

5. Increase Population and hence Increase in Demand:

The rural market in India is vast and scattered and offers a plethora of opportunities in comparison to the urban sector. It covers the maximum population and regions and thereby, the maximum number of consumers. More than eighty percent of rural markets in India still do not have access to any sort of organized marketing and distribution So there is a sea of opportunities for retailers to serve the consumers in rural and semi urban India. CRISIL study estimates that over 60% of India's population would be residing in rural area in 2026.

6. Low Penetration Rate:

Penetration rate in rural India is very low. Above table shows the rural and urban share in stock of consumer durables like: color T.V and refrigerator and in stock of FMCGs like shampoo and toothpaste.

Table: 2 Low rate of penetration

Durables	**Urban**	**Rural**	**Total(%of rural HH)**
CTV	30.4	4.8	12.1
Refrigerator	33.5	3.5	12.0
FMCGs	**Urban**	**Rural**	**Total(%of rural HH)**
Shampoo	66.3	35.2	44.2
Toothpaste	82.2	44.9	55.6

It is clear from the table that 30.4% urban population have color T.V and 33.5% have refrigerator on the other hand only 4.8% rural population have color T.V and 3.5% have refrigerator. Other table shows that 66.3 urban population use shampoo and 82.2% use toothpaste, while 35.2% rural population use shampoo and 44.9% use toothpaste. It is clear that penetration rate in rural market is low as compared to urban market; low penetration indicates the existence of unsaturated markets, which are likely to expand as the income level rise as well as awareness increases. It provides an excellent opportunity for the industry players in form of vastly untapped market.

7. IT Penetration in Rural India:

Today's rural children and youth will grow up in an environment where they have 'information access' to education opportunities, job opportunities, government schemes, worldwide news and mandi prices. Rural areas offer a great potential for growth in internet usage with the number of claimed internet users in these spaces to be reached at 45million by Dec. 2012, according to the recent IMRB survey, conducted jointly with internet and Mobile Association of India (IMAI). The number of claimed internet users has witnessed a compounded annual growth rate of 73% since Dec. 2010. As the electronic ethos and IT culture moves into rural India, the possibility of change are becoming visible.

Challenges:

The peculiarities of rural markets and rural consumers pose challenges to marketers in reaching them effectively. There are a large number of small villages which are not easily accessible because of all weather roads. The main challenges of rural marketing are discussed below:

1. Transportation problems:

Transportation is essential for movement of products from urban production centers to remote villages. In rural India transportation facilities are quite poor. Nearly 80 percentages of villages in the country are not

connected by well constructed roads. Many parts of India have kuccha roads. Due to poor transportation facilities it is not possible for a marketer to access the rural market.

2. Low level of literacy:

The literacy rate is low in rural areas as compared to urban areas. Marketers face communication problem due to the lack of literacy rate. Print medium is not much effective and it is irrelevant since its reach is poor. So, low level of literacy becomes challenge for marketers in rural areas.

3. Many languages:

India is a country of many languages. Language becomes barrier in effective communication in the market efforts. The number of languages vary from state to state, region to region and district to district, etc.

4. Warehousing problems:

A storage function is necessary because there is a time gap between production and consumption of commodities. Agricultural commodities are produced seasonally but they are demanded over the year so there is need to store them. But in rural areas, there is lack of public as well as private warehousing. Marketers face problems of storage of their goods.

5. Inadequate media coverage:

Media have lots of problem in rural areas. Television is a good source to communicate the message to rural people. But due to non availability of power as well as television sets, majority of rural population cannot get the benefits of various media

6. Underdeveloped people and underdeveloped markets:

Rural society in India is underdeveloped. Modern technology has tried to develop the people and markets in rural areas. But the technology has made very less impact in rural areas.

7. Seasonal demand:

Seasonal demand is main problem of rural market. Agriculture situation plays a significant role in the demand of commodities in the rural market because it is the main source of income. Again agriculture depends on monsoon so buying capacity of rural consumers varies. Despite this, many rural areas are not connected by rail transport. Kuccha roads become unserviceable during monsoon.

Suggestions:

To solve the problems of rural markets n India, the following suggestions can be used by marketers.

1. Regarding the problems of physical distribution, the marketer may have a joint network of stockiest/clearing-cum-forwarding agents at strategic location facilitation of physical distribution for its products in the rural market. The main advantage of this scheme is that the costs of physical distribution can be stared by the companies and stockiest. The combination of different modes of transport based on availability of tracks will be beneficial to the companies. Presently, bullock-cart plays a very vital role in rural distribution where the roads are not available. Some of the leading companies use delivery vans in rural areas for resolving the distribution problems in rural market. The delivery van takes the products to the retail shops in every corner of the rural market and it enables the company to establish sales contact with majority of the rural consumers which helps in sales promotion.
2. The rural market is composed of a number of retail sales outlets along with fair price shops under the public distribution system. It is suggested that the government should encourage private shopkeepers and cooperative stores to come forward and establish their business in rural areas instead of the weekly market known as weekly bazaar. Fertilizer companies have opened their outlets for proper distribution of fertilizer among the farmers.
3. To slave the problems of sales force management, it is suggested that the company takes due care in the recruitment and selection of sales people because the traits they required are different from urban and suburban sales persons. For the rural markets, only those sales people should be preferred for selection that is willing to work in rural areas. They must be aware of the local language and must have the patience to deal with rural customers and can discharge the duties of a bare-footed salesman.
4. With reference to marketing communication in rural areas, the company should use organized media-mix like TV, radio, cinema and POP advertising. Television is gaining popularity in the rural areas but due to poor supply of electricity, radio is performing significantly better. Since, the rural people need demonstration, short-feature films with disguised advertisement messages, direct advertisement films and documentaries that combine knowledge and advertisements will perform better rural marketing communication.

Conclusion:

Rural marketing has become a fad to market products in the rural India for the small, medium and big established companies. But it is beyond that. Rural marketing is a process of developing, pricing, promoting and distributing rural specific goods and services leading to exchanges between urban and rural markets which satisfies consumer demand and also achieve organizational objectives. But very often, rural marketing is

confused with agriculture marketing -the latter denotes marketing of produce of rural areas to the urban consumers or industrial consumers. Whereas rural marketing involves delivery of manufactured products or processed inputs or services to rural consumers. The Indian rural market with its vast size and demand base offers great opportunities to companies. Two-third of the Indian population lives in rural areas and almost on third of the national income is generated here. It is only natural that rural markets form a critical of the total markets in India. As part of planned economic development, the government is making continuous efforts towards rural development. In this age of liberalization, privatization and globalization, rural market offers a big attraction to the marketers to explore markets that are untapped. Companies are taking specific initiatives to succeed in the dynamic rural market.

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Marketing Pattern of Onion: A Study in Nashik District

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Abstract: The present study is determine the onion cultivation, price spread, marketing channels and marketing efficiency of onion in Nashik district. Nashik district is leading in onion production it covers 12.38 per cent of total in the State. For the study of market, Lasalgaon APMC was selected. A sample of 100 farmers was interviewed of which 70 were small, 20 were medium and 10 were large. The producer's share in consumer's rupee and marketing efficiency were high. The reason of higher producer's share and marketing efficiency were due to that the onion growers sold their produce in the market through fair dealing and with low marketing cost.
Keyword: Cultivation, Production, Efficiency, Marketing.

Introduction

Onion is one of the most popular vegetable that form of daily diet. In India, onion an important commercial crop. It is widely grown is different parts of the country. At present, India stands second larger producer of onion in the world, next only to China (FAO, Production Year Book). Indian onions are famous for their pungency and are available round the year. At least 175 countries grow onions. According to the United Nations Food and Agricultural Organizations. There are estimated 6.7 million acres of onion is an indispensable item in every kitchen as condiment and vegetable. It is used either in raw form and dehydrated form to add favour and taste to Indian cousins. Since onion has medicinal value, it is used in some pharmaceutical preparation also. It has many uses as, folk remedies and recent report suggests that onion play a part in preventing heart diseases and other ailments. Onion bulb is rich in minerals like phosphorous, calcium and carbohydrate. It also contains proteins and vitamin C. China ranks first in area and second in onion production in the world. The area under onion in India was 804.600 thousands ha. and its production was 82 lack MT in 2010-11. It is grown in three seasons of the year (i) Kharif, (ii) late Kharif and (iii) rabbi. The major onion production are Maharashtra, Gujarath, Uttar Pradesh, Rajasthan, Orissa, Karnataka, Tamil Nadu, Madhya Pradesh and Bihar. Maharashtra ranks first in onion production with a share of (18%) in terms of productivity. The principal onion growing districts in the Maharashtra State are Nashik, Jalgaon, Pune, Solapur and Ahmednagar occupying about 94.68 per cent of area under cultivation of onion in the State.

The district of Nashik accounts for the largest share in the production of onions in India. Nashik onion is not only consumed in the farthest corners of India, it is also exported to many countries. Onion is a major item of agricultural exports, earning valuable foreign exchange to the country. Onion poses more problems as compared to other agricultural commodities due to seasonality and high demand. It adversely affects the economy of the farmers that there is need to call from Government and policy makers to pay attention on effective planning. Presently development of marketing infrastructure and price support of onion are main concern of government to solve the problems of onion growers. However, more intensified efforts are needed to identify the specific problems related to onion marketing.The present investigation was undertaken with the objectives to estimate the marketable surplus and marketed surplus in the study area in various size groups of farmers and to calculate the price spread and marketing efficiency of onion in Nashik district.

Study Area

Nashik district has been brought for the present work. Nashik is one of the important districts in Maharashtra State. It is renowned for the historical and religious places, the meat of the vegetable market, grape city, onion market, and industrial district in north Maharashtra. Nashik district is situated in a partly upper Godavari basin. It is situated between 19^0 33' to 20^0 53' North latitude and 73^0 15' to 75^0 16' East longitude. The entire area of the district is 15,530 sq. kms. Average height from sea level of the location is 565 ticks.

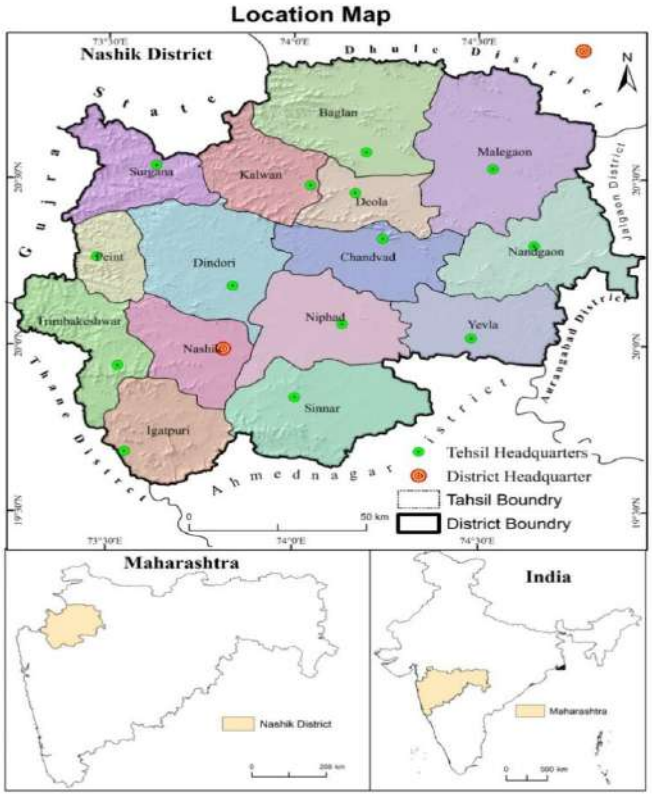


Fig. No. 1: Location Map of Study Area (Nashik District)

Objectives

The present study was undertaken with the following objectives.

1. To study the economics of production of onion.
2. To study the marketing pattern and price spread in the marketing of onion.

Materials and Methods

The study was conducted in Nashik district during the year 2020-21. Nashik district was selected purposively as having remarkable onion production in Maharashtra. Out of 15 blocks of Nashik district, Niphad and Yeola blocks were selected for the study because leading onion producing blocks and higher access to markets. In selected blocks, seven villages were selected from Niphad based on highest area under onion crop; similarly six villagesfrom Yeola were selected. From each village, ten per cent farmers were selected randomly. Hence, the study covered 13 villages from 2 blocks of Nashik district to form a sample of 100 respondents. A pre-tested structured interview schedule was used to collect the data from the respondents by personal interview method. In total 100 farmers were interviewed in the study of which 70 were marginal, 20 were small and 10 were large. For the study of market, Lasalgaon APMC was selected which is Asia's biggest onion market. The data pertaining to onion prices were obtained from onion retail stores in Niphad and Yeola blocks. 2 per cent functionaries were selected for collection of data regarding marketing and price spread of onion in different channels of marketing. Altogether total in numbers market functionaries were viz.19, 5 wholesalers, 5 exporters and 9 retailers were chosen for the study.

Results and Discussion

Disposal pattern of onion in sample farms and marketing channels:

Table No. 1 :Utilizationofproduceinsamplefarms of threesizesandindifferentchannels

Sl.No	Particulars	Sizeoffarmgroups			SampleAverage
		Small	Medium	Large	
1	Totalproductionofonionin quintalsPer farmlevel	43.43(100)	127.48(100)	206.97(100)	125.96(100)
2	Retainedonion (inquintals)				
I	Homeconsumption	3.77 (8.69)	6.50 (5.1)	8.20 (3.96)	6.16 (5.92)
Ii	Kindpaymentaswages	5.66	10.85	16.04	10.85

		(13.04)	(8.51)	(7.75)	(9.77)
Iii	Relativesandreligiousperson	3.77 (8.69)	10.85 (8.51)	20.84 (10.07)	11.82 (9.09)
Iv	Retainfornext years	0.94 (2.17)	4.07 (3.19)	3.21 (1.55)	2.74 (2.30)
4	Total retention for onion	14.16 (32.60)	32.27 (25.31)	48.30 (23.34)	31.58 (27.08)
5	Marketable surplus	29.27 (67.39)	95.20 (74.68)	158.64 (76.65)	94.37 (72.91)
7	Quantity purchased from other farm	6	12	20	11
8	Marketed surplus	35.27 (100.00)	107.20 (100.00)	178.64 (100.00)	105.37 (100.00)
9	Disposal factual marketed surplus of onion Indifferent marketing channels				
I	Producer→Commissionagent/Wholesaler →Retailer Consumer	28.98 (82.17)	83.56 (77.95)	140.04 (78.39)	82.89 (78.67)
II	Producer→Commissionagent/Wholesaler →Exporter	6.29 (17.83)	23.64 (22.05)	38.60 (21.61)	22.48 (21.33)

Total production of onion in quintals was highest in large size farms (206.97 qts) as compared medium (127.48 qtls) and was lowest in small size farms (43.43qtls). The quantity retained for onion growers was mostly for home consumption, some of the quantity was used as kind payment to labours as wages, some of the quantity used as gift for religious purpose and finally they retain some quantity for next year. The highest per cent of the produce was retained by small size farms (32.60 per cent) followed by medium size farms (25.31 per cent) and large size farms (23.34 per cent) respectively. This also indicated that highest percentage marketable surplus was found by large size farms 76.65 per cent followed by 74.68 per cent in medium size farms and 67.39 per cent in small size of farm groups. This makes the sample average for marketable surplus of 72.91 per cent of the total production. The same result was generated by Baba *et al.,* (2010), Gaurav (2011) and Sashimatsung (2015). It could be seen from the table that actual marketed surplus was highest in large size farms (158.64 qtls) followed by medium and small size of farm groups (95.20 and 29.27/qtls) respectively. The table revealed that disposal pattern of actual marketable surplus of Onion in two different marketing channels i.e. channel I and channel II was most prevalent adopted by the growers in the study area, as the highest percentage of the produce was transacted trough channel I i.e. 82.89 per cent of growers and 22.48 per cent through channel II.

Price spread of onion (one quintal) in different channels:

In channel-I (Producer → Commission agent/Wholesaler → Retailer → Consumer)average marketing cost when producers sold their produce to commission agents/wholesalers in the market was Rs. 75.26/qtl. Sale price of the producer to commission agents/ wholesalers was Rs. 646.91/qtl in different farm size groups. This is conformity with the result of Jagtap (2014). Average marketing cost incurred by wholesaler/ commission agent was Rs. 173.16 and margin of wholesaler/ commission agent was Rs. 107.24. However, an expense incurred by the retailer was Rs 161.14, margin of retailer was Rs 102.83 and the consumer's purchasing price was Rs 981.21.

Table No. 2 :Pricespread ofonionin differentsizeof farmgroups forchannelI

Sl. No	**Particulars**	**Sizeoffarmgroups**			**Sample Average**
		Small	**Medium**	**Large**	
1	ProducersalepricetoCommissionagent	635.53	643.78	661.43	646.91
2	**Cost incurredbythe producer**				
I	Packingcost	5.22 (0.54)	5.92 (0.60)	6.48 (0.66)	5.88 (0.60)
Ii	Packingmaterialcost	7.04 (0.72)	6.45 (0.66)	7.12 (0.72)	6.87 (0.70)
iii	Transportationcost	10.5 (1.07)	10.57 (1.08)	8.28 (0.84)	9.78 (0.99)
Iv	Marketcost	7.35 (0.75)	7.08 (0.72)	7.65 (0.77)	7.36 (0.75)
V	Labourcost	13.02 (1.33)	11.84 (1.21)	8.60 (0.87)	11.15 (1.14)
vi	Loadingand unloadingcharges	6.51 (0.67)	7.82 (0.79)	8.60 (0.87)	7.64 (0.78)

vii	Weighingcharges	6.20 (0.63)	6.76 (0.69)	7.33 (0.74)	6.76 (0.69)
viii	Miscellaneouscharges	18.38 (1.88)	19.02 (1.94)	21.99 (2.23)	19.80 (2.01)
3	Totalcost(i-viii)	74.26 (7.61)	75.46 (7.69)	76.05 (7.71)	75.26 (7.67)
4	Netpricereceivedbyproducer	561.27 (57.50)	568.32 (57.91)	585.38 (59.35)	571.66 (58.26)
5	Salepriceofproducerto Commissionagent/Wholesaler	635.53 (65.11)	643.78 (65.60)	661.43 (67.06)	646.91 (65.93)
6	**Cost incurred by theCommissionagent/Wholesaler**				
I	Loadingandunloadingcharges	9.45 (0.97)	9.72 (0.99)	10.62 (1.07)	9.93 (1.01)
Ii	Grading	11.24 (1.15)	11.52 (1.17)	11.79 (1.19)	11.52 (1.17)
iii	Packing	9.14 (0.94)	9.41 (0.96)	9.77 (0.99)	9.44 (0.96)
Iv	Marketfee	12.39 (1.27)	12.68 (1.29)	13.06 (1.32)	12.71 (1.29)
V	Commissionof Commissionagent/Wholesaler	9.45 (0.97)	9.72 (0.99)	10.09 (1.02)	9.75 (0.99)
vi	Losses&miscellaneouscharges	13.34 (1.37)	13.00 (1.32)	11.37 (1.15)	12.57 (1.28)
vii	Commissionagent/WholesalerMargin	110.00 (11.27)	111.08 (11.32)	100.64 (10.20)	107.24 (10.93)
7	Totalcost(i-vii)	175.01 (17.93)	177.13 (18.05)	167.34 (16.97)	173.16 (17.65)
8	Salepriceof/Commissionagentwholesalersto Retailers	810.54 (83.04)	820.91 (83.65)	828.77 (84.03)	820.07 (83.57)
9	**Costincurredbytheretailers**				
I	Weighingcharges	10.92 (1.12)	10.57 (1.08)	11.26 (1.14)	10.92 (1.11)
Ii	Loadingand unloadingcharges	9.45 (0.97)	10.36 (1.05)	10.62 (1.08)	10.14 (1.03)
iii	Towncharges	6.51 (0.67)	7.93 (0.81)	7.97 (0.81)	7.47 (0.76)
Iv	Carriageupto shop	15.12 (1.55)	18.07 (1.84)	18.06 (1.83)	17.08 (1.74)
V	Miscellaneouscharges	19.11 (1.96)	9.93 (1.01)	9.03 (0.91)	12.69 (1.29)
Vi	Retailersmargin	104.37 (10.69)	103.57 (10.55)	100.56 (10.19)	102.83 (10.48)
10	Totalcost(i-vi)	165.50 (16.96)	160.43 (16.34)	157.49 (15.96)	161.14 (16.42)
11	Salepriceofretailerstoconsumers	976.04 (100)	981.34 (100)	986.26 (100)	981.21 (100)
12	Pricespread	340.51 (34.87)	337.56 (34.40)	324.83 (32.94)	334.30 (34.07)
13	Producer'sshareinconsumer'srupee(%)	65.11	65.60	67.06	65.93

Table No. 3 :Price spread of onion in different size of farm groups for channe lII

Sl.No	Particulars	Sizeoffarmgroups			SampleAverage
		Small	**Medium**	**Large**	
1	Producersale pricetocommissionagent	745.32	773.56	801.12	773.33
2	**Costincurredbytheproducer**				
I	Packingcost	10.98	12.32	13.60	12.30

		(0.73)	(0.81)	(0.88)	(0.81)
Ii	Packingmaterialcost	15.99 (1.07)	13.63 (0.89)	14.76 (0.96)	14.79 (0.97)
iii	Transportationcost	17.12 (1.14)	16.09 (1.06)	17.25 (1.13)	16.82 (1.11)
Iv	Marketcost	15.34 (1.02)	14.78 (0.97)	16.09 (1.05)	15.40 (1.01)
V	Labourcost	18.41 (1.23)	16.75 (1.10)	17.91 (1.17)	17.69 (1.17)
vi	Loadingandunloadingcharges	13.56 (0.91)	17.41 (1.14)	17.91 (1.17)	16.29 (1.07)
vii	Weighingcharges	12.92 (0.86)	14.29 (0.94)	15.43 (1.00)	14.21 (0.93)
viii	Miscellaneouscharges	17.76 (1.19)	17.24 (1.13)	14.76 (0.96)	16.59 (1.09)
3	Totalcost(i-viii)	122.08 (8.18)	122.51 (8.06)	127.72 (8.34)	124.10 (8.19)
4	Netpricereceivedbyproducer	623.24 (41.75)	651.05 (42.84)	673.40 (43.98)	649.23 (42.86)
5	Salepriceofproducerto Commissionagent/Wholesaler	745.32 (49.93)	773.56 (50.90)	801.12 (52.33)	773.33 (51.05)
6	**CostincurredbytheCommission agent/Wholesaler**				
I	Loadingandunloadingcharges	22.76 (1.52)	18.39 (1.21)	16.59 (1.08)	19.25 (1.27)
Ii	Grading	19.70 (1.31)	17.90 (1.18)	18.41 (1.20)	18.67 (1.23)
iii	Packing	29.71 (1.99)	26.44 (1.74)	25.21 (1.64)	27.12 (1.79)
Iv	Marketfee	19.05 (1.27)	19.71 (1.29)	20.40 (1.33)	19.72 (1.30)
V	CommissionofCommissionagent/ Wholesaler	14.53 (0.97)	15.11 (0.99)	15.76 (1.02)	15.13 (0.99)
Vi	Losses&miscellaneous charges	20.51 (1.37)	20.20 (1.33)	19.41 (1.27)	20.04 (1.32)
vii	Commissionagent/Wholesalermargin	80.88 (5.42)	86.12 (5.66)	81.2 (5.30)	82.73 (5.46)
7	Totalcost(i-vii)	207.16 (13.88)	203.87 (13.41)	196.98 (12.87)	202.67 (13.37)
8	Salepriceof/Commissionagent wholesalerstoexporter	952.48 (63.81)	977.43 (64.32)	998.10 (65.19)	976.00 (64.44)
9	**Costincurredbytheexporters**				
I	Transportationcharges	138.88 (9.30)	122.51 (8.06)	127.72 (8.34)	129.70 (8.57)
Ii	Freightchargestoportof shipment	101.73 (6.81)	105.10 (6.92)	107.82 (7.04)	104.88 (6.92)
iii	Clearingandforwardingcharges	50.38 (3.37)	54.36 (3.57)	56.40 (3.68)	53.71 (3.54)
Iv	Dockcharges/ wharfage/terminal handlingcharges etc.	100.12 (6.71)	103.62 (6.81)	105.49 (6.89)	103.08 (6.80)
V	Commission	10.98 (0.73)	11.33 (0.74)	11.78 (0.77)	11.36 (0.75)
Vi	Miscellaneouscharges	28.42 (1.90)	29.40 (1.93)	30.35 (1.98)	29.39 (1.94)
vii	Exportersmargin	109.75 (7.35)	115.96 (7.63)	93.34 (6.07)	106.35 (7.03)
10	Totalcost(i-vii)	540.26 (36.19)	542.28 (35.68)	532.90 (34.81)	538.48 (35.56)
11	Salepriceof exporterstobuyers	1492.74	1519.71	1531.00	1514.48

		(100)	(100)	(100)	(100)
12	Pricespread	747.42 (50.07)	746.15 (49.09)	729.88 (47.67)	741.15 (48.94)
13	Producer'sshareinbuyer'srupee(%)	49.93	50.90	52.33	51.05

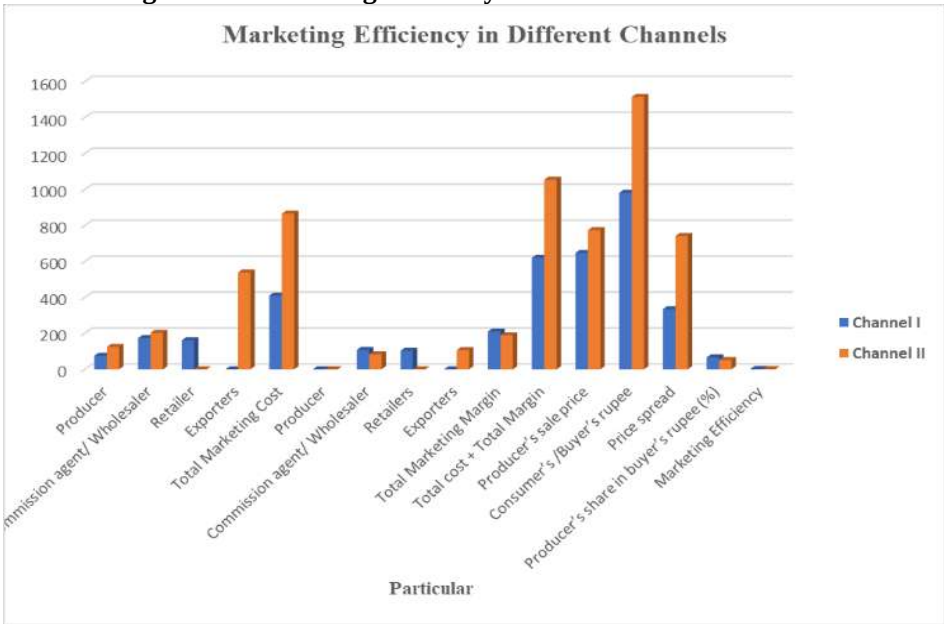
In this channel, marketing cost of the producer, commission agents/wholesalers and retailers was 7.67 per cent, 17.65 per cent and 16.26 per cent of consumers paid price respectively. The commission agent/ wholesalers margin was estimated to be 10.93 per cent and the retailer's margin was 10.48 per cent of the consumer paid price. Producer share in consumer price was highest on large size farms (67.06 per cent) as compared to medium and small size of farm groups (65.60 per cent and 65.11 per cent) on respectively. Price spread was highest in small size farms which constituted to Rs. 340.51/qtl of consumer paid price (Table 2). The result showed low producer's share in consumer price. This is due to onion growers did not have any control over the market due to the absence of coordination and integration among themselves. All the expenses in the marketing process are incurred by the producers practically the retailers or buyer charges paid to mandi are also charged from the producer (Barakade et al., 2011).The channel-II (Producer → Commission agent/Wholesaler → Exporter →International Buyer) was found prevalent in study area due to export variety of onion. Average marketing cost incurred by producers was Rs.124.10/qtl and sale price was Rs.773.33/qtl in different farms size group. Average marketing costincurred by wholesaler/ commission agent was Rs. 202.67and margin of wholesaler/ commission agent was Rs. 82.73. However, an expense incurred by the exporter was Rs 538.48, margin of exporters was Rs 106.35 and the consumer's purchasing price was Rs 1514.48. In this channel, marketing cost of the producer, commission agents/wholesalers and exporter was 8.19 per cent, 13.37 per cent and 35.56 per cent of buyers paid price respectively. The commission agent/ wholesalers margin was estimated to be 5.46 per cent and the exporter's margin was 7.03 per cent of the buyer paid price. Producer share in buyer price was highest on large size farms (52.33 per cent) as compared tomedium and small size of farm groups (50.90 per cent and 49.93 per cent) on respectively. Price spread was highest in small size farms which constituted to Rs.747.42/qtl of consumer paid price.

Indices of marketing efficiency in different channel: Marketing efficiency is an effective agent of change and an important means for raising the income level of the farmers. As data indicated that the marketing efficiency of onion was found to be the higher i.e. 1.94 per cent in case of channel I compare to channel II (1.04 per cent).Thus, the marketing efficiency of onion was found to be better in case of sale in the domestic market through retailer. From the result it is to be noted that the wholesaler's sale price of onion for retailer in domestic market or channel I (Rs. 981.21) and exporter in export market or Channel II (Rs.1514.48) differed significantly and turned out to be higher in export market due to better quality of produce diverted to exporter as against retailer. The same result was generated by Shah (2015).

Table.4 Indices of marketing efficiency indifferent channels

Si. No.	Particular	Channel	
		I*	II**
1	MarketingCost		
	Producer	75.26	124.10
	Commissionagent/Wholesaler	173.16	202.67
	Retailer	161.14	-
	Exporters	-	538.48
	TotalMarketingCost	409.56	865.25
2	MarketingMargin		
	Producer	-	-
	Commissionagent/Wholesaler	107.24	82.73
	Retailers	102.83	-
	Exporters	-	106.35
3	TotalMarketingMargin	210.07	189.08
4	Totalcost +Total Margin	619.63	1054.33
5	Producer'ssaleprice	646.91	773.33
6	Consumer's/Buyer'srupee	981.21	1514.48
7	Pricespread	334.30	741.15
8	Producer'sshareinbuyer'srupee(%)	65.93	51.05
9	MarketingEfficiency	1.94	1.04

Fig. No. 2: Marketing efficiency in different channels



In conclusion, onion is an important business to many producers and this is an importantcrop which helps to increase the economic condition of the farmers. Due to urbanization and globalization, there is rise in demand for onion in both domestic and international market. The study indicated that the marketing efficiency of onion was found to be the higher i.e. 1.94 per cent in case of channel I compare to channel II (1.04 per cent). Thus, the marketing efficiency of onion was found to be better in case of sale in the domestic market through retailer. The result showed low producer's share in consumer price. Market intermediaries are accruing higher margin so the major share of consumers' rupee is pocketed by the middlemen. Apart from this, due to lack of marketing system farmers are unable to get remunerative price. Sometimes farmers needed cash after threshold the crop and supposed to be forced sale of their produce and get uneconomic minimum market price. Therefore, for profitable transactions a fair and suitable marketing system of onion is needed in the district. Marketing through co-operative and farmer producer organization should be encouraged to increase the producer's share in consumer rupee. Beside this, effort should be also made to boost the export trade of onion by improving quality and quantity terms.

Conclusion

The result obtained in respect of six months maintenance cost and returns for various categories of onion cultivation are in with during the year 2020-21. In view of the major cost on labour, there is immediate need to develop the labour saving practices such as use of weedicides, improved tools for planting, harvesting etc. On the other hand, market intermediaries are accruing higher margin by in incurring less cost and services. The major share of consumers rupees is pocketed by the middlemen. The marketing efficiency was low. Therefore, in order to regulate the expenditure on commission, transportation and packing, efforts should be made to develop the necessary infrastructure for the marketing of onion in the district. The co-operative marketing should be encouraged to increase the producers share in consumers rupee. Government intervention is also necessary to safeguard the interest of farmers. Efforts should, therefore, be made to boost the export trade of tis valued crop by enhancing its production volume.

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Influence of Education on Health: A Study on The Tribal Women of Marking Village of Sonapur Block Under Kamrup (M) District of Assam

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Abstract: Acknowledging the vital importance of health for human being in maintaining equilibrium among physical, emotional, spiritual, economic and mentalstatus,it is an utmost urgency to make ubiquitous of education for wellbeing of human.TheTribal women are the boon to nature as they typically live amidst of the nature. They use to constitute about half of the total population. They are mostly prone to reproductive health issues and other allied health problems as they have low level education. Hencea strategy to prepare humankind for the health challenges faced by the tribal women need to address frequently.And education is the best medium to overcome this problemso, this study is an attempt to know the influence of education on health of the tribal women who are deprived of education due to several reasons. The data was collected from 45 respondents (women)of different age groups from Markang villagewhich is very near to the capital city of Assam andthe study resultslow level of education leads to a very low level of knowledge and awareness about health related issues regarding menstrual hygiene, pregnancy and Covid pandemic.
Key words*:* Education, Health, Tribal women

Introduction

Education helps in developing a responsible citizen of a nation. Education is the way through which one can acquire knowledge, skills and values which helps in holistic development of an individual. Education is the internal ability of an individual through which a person can build his personality. It has a strong impact on all the aspects of human development like social, economic, health, moral, intellectual etc.Education can be viewed from a wider and narrower sense. In the wider sense, education is a continuous social process through which one can develop their innate abilities for modification of his/her behaviors. On the contrary, in the narrower sense, education refers to a systematic process of acquiring knowledge in a formal environment. According to Aristotle "Education is the creation of a sound mind in a sound body". Education provides scope to acquire knowledge and information on health and health risks. Education can yield better health through multiple pathways. Hence, Education can be perceived as an important element for maintaining a balanced and a healthy life. Health helps in maintaining equilibrium in the physical, mental, social and spiritual aspect of a human being. Both education and health are utmost significant component in the growth of any community as well as the nation.Coming to the prospects of a tribal community, they are deprived themselves from formal education. In the era of 21st century it is worth to mention that in tribal community mostly women are the equal partner of men while performing
any work persistently ignoring their health condition. Hence an attempt has been made to study the influence of education level on health among the tribal women of Markang village of Sonapur block under Kamrup (M) district of Assam.

Significance of the study Area

The investigator have selected Markang village under Sonapur block of Kamrup (M) district. It is a village which is near to the capital of Assam extending an area of 238 hectares.It is predominantly inhabited by AmriKarbi Tribes with a total population of 1006. Even though a part of the capital city of Assam, the education level of the women of Markang village is very deplorable. Their main occupation is agriculture. They are basically far away from the modern society.

Significance of the study

Education is considered as the prime determinant of health. The influence of education on health has a direct effect on the growth and development of an individual, community as well as the nation. Low level of education divulges lower gradient of health condition which in turn induce lower level of economic, social and personal development. Education and health is the fundamental human right. Education improves maximum health returns.Tribes mostly keep themselvesfar away from mainstreaming of education specially the women section. Hence it is necessary to findout the impact of education on health of women so that it can minimize the health risk.In the present study, an attempt has been made to highlight the level of education of tribal women and their perception regarding menstruation, pregnancy and Covid- 19 pandemic.

Objectives of the study

1. To study the level of education among the tribal women.

2. To find out practices adopted during Menstruation among the tribal women
3. To find out practices adopted during Pregnancy among the tribal women
4. To find out practices adopted during Covid-19 pandemic among the tribal women.
5. To offer remedial suggestions for the gap areas.

Delimitation of the study

The study is delimited to only 3 dimensions of health aspect viz. menstruation, pregnancy and Covid- 19 pandemic.

Methodology**:** In the present study the investigators have selected descriptive survey method.

Sampling

In the present study the investigators purposively selected 1 villagefrom the district. Using stratified random sampling method,45 tribal womenare selectedfrom 3 different age groups viz. 10- 20 years, 21 -45 years, and Above 45 years.15 tribal women are selected from each group.

Tools

The tools used for collection of data for the present study are-

1. Questionnaires for the tribal women
2. Informal interview was conducted with the tribal women

Statistical Techniques used:

In the present study simple Percentage analysis and graphical representation is done based on the nature of data.

Results and Discussions

Analysis on the basis ofresponses of sampled tribal women

Table 1

Showing the level of education among tribal women in the village

Level of education	Age group		
	10- 20 yrs.	21 -45 yrs.	Above 45 yrs.
Lower Primary	88.23	10.09	3.91
Upper Primary	8.60	8.87	Nil
Secondary	2.18	2.27	Nil
Higher Secondary	00.99	2.23	Nil
Higher/Other equivalent degree	Nil	Nil	Nil
No formal education	1.17	76.09	96.09

Table 1 shows the level of education among tribal women in the village. It is found from the above table that most of the women belonging to the age group of 10-20 years have access to only lower primary level of education. Again 76.09% and 96.09% of women belonging to age group 21-45 years and above 45 years respectively have no access to formal education. Besides this, the women belonging to age group above 45 years have totally zeroaccess to upper primary, secondary, higher secondary and higher education. The tribal women are the equal bread earner of their family. They use to work at their agricultural field equal to men.Most of them got early marriage due to their old traditional belief and custom. Again, for poor transportation and communication facility, they refrain themselves from attending school. Hence these induce to dropout and zero access to education among tribal women in the village. It is also very pathetic to found that no single women of different age group have higher education or any other equivalent degree or qualification.

Table 2 Responses of tribal women regarding the perception andpracticesadopted during menstruation period

Practices/Variables		*10- 20 yrs.*	*21-45 yrs.*
Perception about menstruation before and after attaining	Physiological process	5.09	1.02
	God gifted	84.02	96.02
	Traditional belief	76.45	91.88
	No idea	24.39	67.98
Reasons/sources of Menstruation	Physical growth	13.00	8.69
	God gifted	69.07	51.06

	A disease	56.87	23.08
	Abdomen	34.76	2.08
	Vagina	54.00	36.07
	No idea	39.08	33.00
Perception about menstrual hygiene	Yes	97.05	98.22
	No	2.95	1.78
Practices adopted during menstruation	Not attend spiritual and religious events	100	100
	Do not touch any living being	96.44	97.56
	Do not do domestic work	96.44	97.56
	Do not go outside	96.44	97.56
Material used	Cloth only	85.04	89.08
	Disposable pad/tampon	12.05	9.08
	Reusable Pad	Nil	Nil
	Underwear only	1.01	1.03
	Other materials	1.67	1.75
Health Problems faced during Menstruation	Abdominal pain	65.21	22.45
	Nausea	23.42	16.07
	Fever	1.07	1.11
	Agitation	2.02	Nil
	No feeling	34.09	39.66

Table 2reveals the responses of sampled tribal women regarding the perception and practices adopted during menstruation period. It is found from the data that most of the women have the perception about menstruation as a God gifted and traditional phenomena. Only 5.09% of women of age group of 10-20 years grant it as a physiological process. 69.07% and 51.06% of women belonging to the agegroup of 10-20years and 21-45 years respectively believed that the source of menstruation is again a god gifted phenomena. Whereas 56.87% and 23.08 % of women belonging to the agegroup of 10-20 years and 21-45 years respectively perceived menstruation as a disease.Regarding menstrual hygiene,only a few i.e. 2.95 % and 1.78% of women belonging to the age group of 10-20years and 21-45 years respectively have the proper knowledge and information, which they acquired through institutional support like school, Television and other health services. During menstrual period they typically confined themselves at their home, not even attend any spiritual and religious places, do not touch any living being, do not perform any house hold-hold activities and do not go outside their house. They have a strong believe that if they disobey these kinds of customs, they will be the victim of curse of God. Almost 85.04% and 89.08% women belonging to the age group of 10-20 years and 21-45 yearsrespectively use cloth during menstruation period.A very few percentage of women i.e. 12.05% and 9.08% have used disposable pad. Most of the tribal women belonging to the age group of 10-20years have abdominal pain during menstruation period. From the above discussion it is obvious that regarding the perception and practices adopted during menstruation period it is more traditional rather than scientific.

Table 3 Responses of tribal women regarding the perception and practices adopted during Pregnancy

Variables	% of Tribal women
Suffering from Anemia	84.56
Not visit to PHC for regular check up	92.33
Delivery done at home	89.90
Not aware about health services	91.09
Belief on the influence of evil demons during pregnancy	96.56
Take rest for 6-5 days of post delivery	96.22

Figure 1
Responses of tribal women regarding the perception and practices adopted during Pregnancy

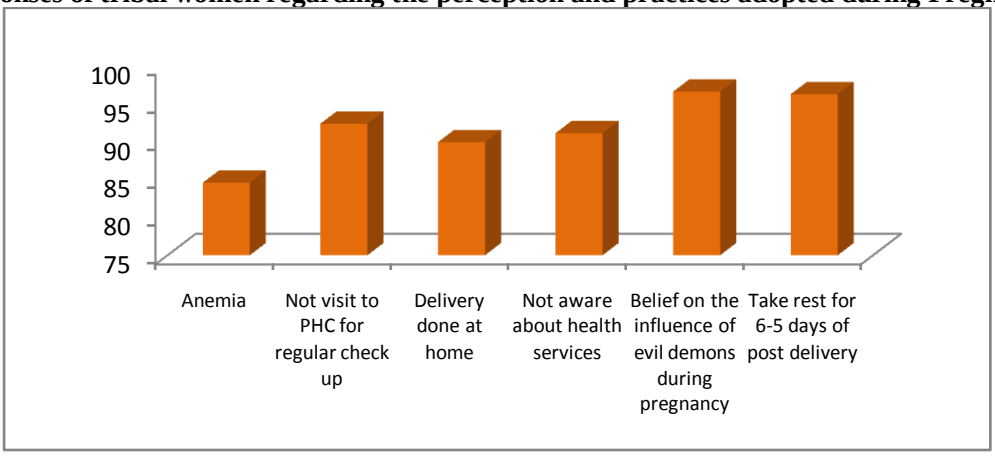

Table 3and figure 1illustrates the percentage of responses of tribal women regarding the perception and practices adopted during Pregnancy. Analysis done during the informal interview revealed thatmost of the tribal women (84.56%) suffers from Anemia. Though the ASHA workers visit their village, but most of them do not visit nearby health centers for regular follow up during pregnancy. They (89.90%) mostly delivered babies at their home under the supervision of the elderly women of their familyand denied access to any health services. This may be due to poor transportation and communication facilities available in the hilly area and their profound traditional believes. They have strong hesitation to come into the contact with male health workers such doctor, pharmacist, laboratory technician etc. to get any kind of services during pregnancy.

Table 4
Responses of tribal women regarding the perception and practices adopted during Covid- 19 pandemic

Variables	% of Tribal women
Knowledge about Covid-19	98.04
Washing hand frequently	2.03
Use Sanitizer	2.09
Maintain Social distancing	Nil
Suffering from fever, cold &cough	78.26
Tested Covid positive	1.09
Hospitalized during fever/Covid positive	1.09
Death rate	Nil
Fully Vaccinated	99.06
Partially Vaccinated	Nil
Not Vaccinated	00.04

Table 4 divulges a different scenario regarding Covid- 19 pandemic. 98.4% sampled tribal women have knowledge of Covid -19 which they have gain through various sources like TV, health services, Mobile phone etc. But very few of them have followed the protocol like washing hand frequently, use Sanitizer, maintain social distancing etc. 78.26% sampled women have suffered from fever, cold & cough but only 1.09% have come out to testing centers and tested as Covid positive. Though they have knowledge about Covid- 19 pandemic still they do not possess any safety measures to get rid of the disease. But due to the State Government utmost effort, 99.06% of women are fully vaccinated with dose of Covid vaccine.

Suggestions and Recommendations

1. Adequate provision to be made for educating the tribal women as well as make effort for continuing their education.
2. Developing awareness regarding the impact of education for the better health of the tribal women.
3. Awareness to be developed through health camp and health session by nearby PHC.

4. Village Health Nutrition Day organized on every 2nd and 3rd Wednesday by nearby PHC and Sub centers to be extended to cover all the tribal women by ensuring their participation to create awareness and attitude regarding better health condition.
5. Developing knowledge and information regarding menstrual hygiene, pregnancy and its allied health risk.
6. Promotion of community awareness program and dissemination of information through different media is to be organized.
7. Provision of proper transportation and communication facility.
8. Organizing more and more survey and research activities to be done to find out other gap areas in this sector.

Conclusion

Health and education universally goes hand by hand. Hence, understanding the role of education on better health condition is very much necessary. It is observed from the above discussion that most of the tribal women are deprived of formal

education which leads to poor stock of knowledge, information, skill, attitude and abilities, which in turn effect on their health. Extended and extensive support of education opens the mind of people from traditional and superstitious believes. However, it is undoubtedly important to attain formal education by the tribal women to give a healthy support to their physical growth. It is prominent from the above discussions that most of the tribal women have deprived of formal education due to various personal, social and traditional reasons. At the same time, they totally ignore the health risk which may be induced due to lack of knowledge of menstrual hygiene, anemia and pandemic like Covid- 19.Educational disparities lead to the gap areas of knowledge regarding sound health among tribal women.It is perhaps most important to adopt strategies to bring these women to the mainstreaming so that the light of education brings will enlighten their life. Impact of education on health refers to a broader social context which is beneficial for the upliftment of tribal community as well as the society itself.

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Study Of Variation Of Sunlight Intensity With Time

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Abstract: Investigation on the sunlight intensity impact & ambient temperature on the inorganic solar panels in summer season , 18thFeb-2020 at Latur city , Maharashtra state , India was carried out. It was noticed that the max power (P_{max}) point is shifting up (increased) by the proceeding of time from 08:00 am-To- 5:00 pm. Beyond 12 pm the intensity of sunlight showed a non-monotonic behavior, because of change of sun position and the direction at which the surface of the panel is illuminated. The effect of sunlight intensity on the electrical parameters of the solar panels is elaborated. V_{oc} (Open circuit voltage) remains unchanged where asI_{sc}(Short circuit current) shows increment of its value because of the fact that charge carriers acquire enough kinetic energy to move towards their electrodes before they replace or recombine together. Efficiency decreases with the increase of temperature so that, Fill Factor showed a reverse trend of increment with the increase of temperature.
Keywords:Sunlight intensity, ambient temperature , fill factor, inorganic solar panels,Short-circuit current ,Open-circuit voltage , Monotonic.

Introduction:

Solar power is amazing. On average, every square meter of Earth's surface receives 163 watts of solar energy.A gigantic power station in the sky up above us, sending out clean, non-stop energy for free. The Sun, a seething ball of nuclear power, has enough fuel onboard to drive our Solar System for another five billion years—and solar panels can turn this energy into an endless, convenient supply of electricity.The energy the Sun sends out arrives on Earth as a mixture of light and heat. Both of these are incredibly important—the light makes plants grow, providing us with food, while the heat keeps us warm enough to survive—but we can't use either the Sun's light or heat directly to run a television or a car. We have to find some way of converting solar energy into other forms of energy we can use more easily, such as electricity. And that's exactly what solar cells do.A solar cell is an electronic device that catches sunlight and turns it directly into electricity. It's about the size of an adult's palm, octagonal in shape, and colored bluish black. Solar cells are often bundled together to make larger units called solar modules, themselves coupled into even bigger units known as solar panels. The cells in a solar panel are designed to generate electricity. A solar panel's cells generate power by capturing sunlight. They are sometimes called photovoltaic (PV) cells because they use sunlight ("photo" comes from the Greek word for light) to make electricity (the word "voltaic" is a reference to Italian electricity pioneer Alessandro Volta, 1745–1827).Most cells convert about 10–20 percent of the energy they receive into electricity. A typical, single-junction silicon solar cell has a theoretical maximum efficiency of about 30 percent, known as the **Shockley-Queisser limit**. That's essentially because sunlight contains a broad mixture of photons of different wavelengths and energies and any single-junction solar cell will be optimized to catch photons only within a certain frequency band, wasting the rest. Some of the photons striking a solar cell don't have *enough* energy to knock out electrons, so they're effectively wasted, while some have too much energy, and the excess is also wasted. The very best, cutting-edge laboratory cells can manage just under 50 percent efficiency in absolutely perfect conditions using multiple junctions to catch photons of different energies. When we place a layer of n-type silicon on a layer of p-type silicon, a barrier is created at the **junction** of the two materials. If we shine light onto the sandwich, photons enter our sandwich, they give up their energy to the atoms in the silicon. The incoming energy knocks electrons out of the lower, p-type layer so they jump across the barrier to the n-type layer above and flow out around the circuit. The more light that shines, the more electrons jump up and the more current flows.This is what we mean by photovoltaic—light making voltage.The inorganic semiconductor materials used to make photovoltaic cells include crystalline, multicrystalline, amorphous, and microcrystalline Si, the III-V compounds and alloys, CdTe, and the chalcopyrite compound, copper indium gallium diselenide (CIGS).
Inorganic photovoltaic cells utilize crystalline elements as a light absorber, organic photovoltaic cells utilize molecules or polymers to convert sunlight into electricity.

There are 3 types of solar panels primarily used in the solar industry:

1. Monocrystalline solar panels.
2. Polycrystalline solar panels.
3. Thin film (amorphous) solar panels.

A typical organic solar cell consists of two semiconducting layers made of plastic polymers and other flexible materials. The cell generates electricity by absorbing particles of light, or photons. This continuous movement of electrons from hole to hole produces an electric current.Solar panels available in the market are made from inorganic semiconductor materials, of them approximately 85% are based on crystalline silicon [3]. Silicon can offer many advantages like high crystal quality, stability, non-pollutant, and ideal band gap (Eg=1.11 eV) for solar energy absorption [1]. If the light intensity and temperature of the environment changes, the solar cells performance will be affected. i.e. , the response of the absorbent layer in solar cells is changed in terms of charge carrier generation and recombination[2].when it is subjected to the variation of light intensity and temperature. Light intensity is changed daily due to the rotation of the earth around its own axis, and seasonally due to the rotation of the earth around the sun [3]. Solar panels are made from regularly arranged arrays of solar cells interconnected together according to the required voltage and current. Little attention has been paid on the practical investigation of inorganic solar panels under different sunlight intensities and temperatures in outdoor situations. Therefore, in this research work we investigate the effect of sunlight intensity and ambient temperature on the electrical performance of inorganic solar panels based on silicon. The solar panels are installed in an outdoor condition in Latur city, located in Maharashtra state, India.

Methodology:

Two small silicon based solar panels (Leybold Didactic GMBH) with dimension of 25×25 cm2 connected in series were installed on the roof of a home building specified for the investigations. The panels were inclined 36 degrees due south and a light meter was used to measure the light intensity, accordingly. Two digital multimeters were utilized to measure the current and voltage produced by the panels, while a variable resistor (1 Ω to 100 kΩ) was connected as a load and a thermometer was used to measure the ambient temperature. The maximum power (Pmax) delivered from the solar panels and the fill factor (FF) were calculated by the following equations:

$P_{max} = V_{mp} \times I_{mp}$(1)

$FF = P_{max} / (V_{oc} \times I_{sc})$ (2)

Where, Isc and Voc are short-circuit current and open-circuit voltage of the solar panels, respectively.

Table No.1

Sr. No.	Time(hrs)	Intensity(kLux)
1	08:00 am	53.62
2	09:00 am	67.5
3	10:00 am	98.47
4	11:00 am	110.15
5	12:00 pm	117.75
6	01:00 pm	99.51
7	02:00 pm	92.24
8	03:00 pm	84.12
9	04:00 pm	65.27
10	05:00 pm	23.74

Figure 1: The intensity of sunlight versus time from 8:00 am to 5:00 am.

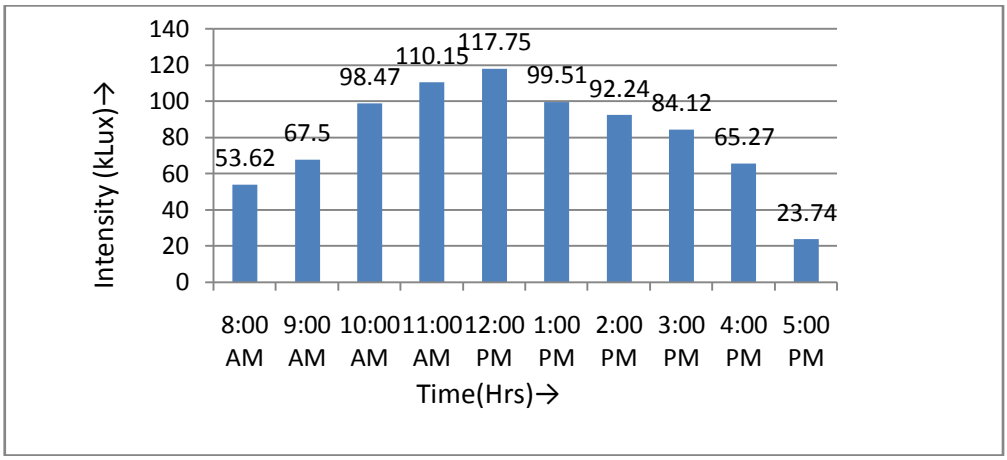


Table No.2

Sr. No.	11:00 am			12:00 pm			1:00 pm		
	Voltage V(Volts)	Current I (mA)	Power Max	Voltage V(Volts)	Current I (mA)	Power Max	Voltage V(Volts)	Current I (mA)	Power Max
1	2	232	464	2	254	508	2	241	482
2	4	217	868	4	227	908	4	203	812
3	6	198	1188	6	193	1158	6	171	1026
4	8	92	736	8	72	576	8	63	504
5	10	68	680	10	45	450	10	37	370
6	12	56	672	12	18	216	12	27	324

Figure 2: V-I characteristics of solar panels in the time range from 11:00 am to 1:00 pm.

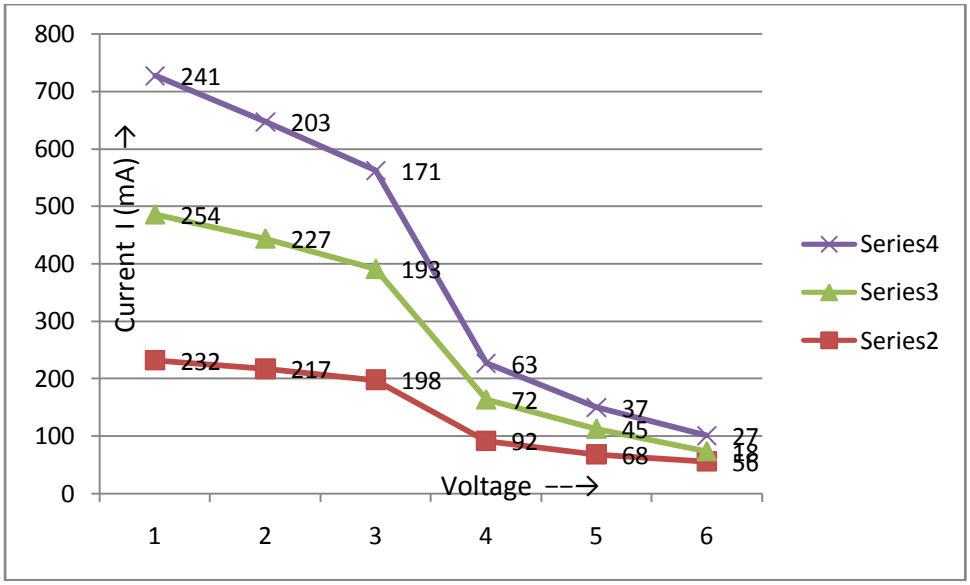
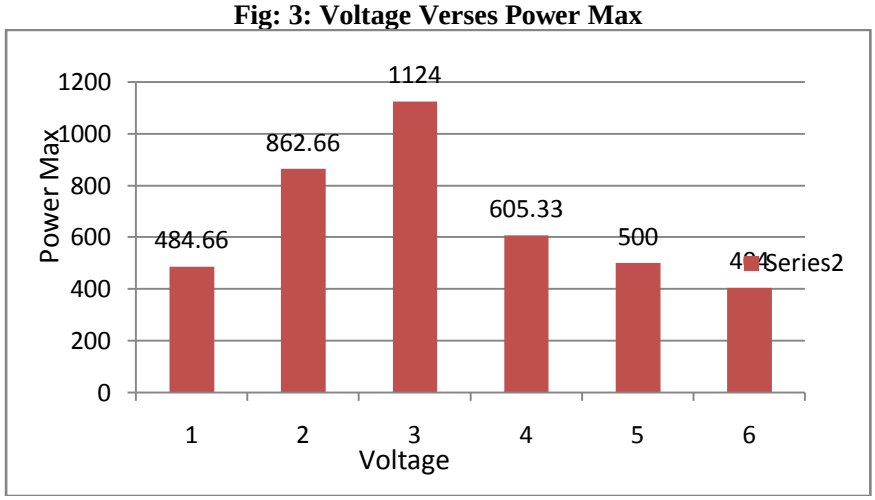


Table No.3(Average Power Max)

Sr. No.	Time(hrs)	Voltage V(Volts)	Power Max(mW)
1	11:00 am	2	484.66
2		4	862.66
3		6	1124
4		8	605.33
5		10	500
6		12	404

Fig: 3: Voltage Verses Power Max



Results And Discussion:

Graph is plotted between intensity of sunlight and time from 8:00 am –to-5:00 pm recorded on 18th Feb-2020. Bar graphs shows that as the time increases from morning 8:00 am to noon 12:00 pm, sunlight intensity is continuously increasing and the highest peak is obtained at 12:00 pm i.e. the maximum sunlight intensity is obtained as 117.75 kLux. Further after past meridian it is seen that the intensity goes on decreasing making the intensity spectra to show a non-monotonic change behavior. This is because of the orientation of the sun , position of the sun and the direction at which the surface of the solar panel is illuminated. [4]. From this we can predict that the quality of electrical power generated by the solar panel will be high/good ,iff , the solar intensity is high/good.Voltage verses current characteristics are drawn in the fig.2 , of the solar panel in the Fig.2 , of the solar panel under investigation at three different times on 18th Feb-2020. It is found that the current generated by the solar panels at 12:00 pm was increased by the preceding time at 11:00 am(before noon). As the sunlight intensity increases the photo electron generations are also increased[5] , and hence current generation will be large at the output load. After past meridian with the decrease in sunlight intensity, the current generation also decreases. The shape of the V-I curves at three different irradiation times defines the inherent property of bilayer solar cells where a knee position on each curve is definitely presented [6]. From this V-I characteristics it is seen that the production of maximum power point (P_{max}) at the external load is exactly matched with the internal resistance of the solar panel [7]. Electric power generated by the solar panels used in this experiment for three different times is recorded. It is found that the maximum power point (P_{max}) at mid noon 12:00 pm is increased by the preceding time 11:00 am and past meridian time 1:00 pm. The highest reachable power for the solar panels is considered to be mid noon (12:00 pm), and it was counted to be 1.124 W. It is noted that the increment in the maximum power is not regular and there are some deviations compared to the regular change of time because of secondary impact of ambient temperature acting upon the performance of the solar panels.The electrical parameters V_{oc} (Open circuit voltage), I_{sc}(Short circuit current) and FF(Fill Factor) are studied. Study shows that the V_{oc} remains relatively unchanged, because it is directly correlated to the energy gap of the P-N junction active layer, which is very less affected by variation of sunlight intensity.Whereas I_{sc} increases towards its value , because of the charge carriers (Free electrons and holes)acquire enough kinetic energy to move towards their corresponding electrodes effectively before they recombine together.Surrounding temperature is also one of the factor which shows effect on the generation of electric power of the solar panels. Temperature changes are seen in the morning and evening because of the wind , cloud and sun position.Fill Factor is the ratio of maximum obtainable power to the product of V_{oc}&I_{sc} . Higher the value of fill factor , better is the performance of solar panel. It was found that there are no any changes seen in the fill factor (FF) for the ambient temperature 10^0C to 36^0C . FF also shows increment in its value , for the increase in the ambient temperature.

Conclusion :

The study of variation of sunlight intensity and ambient temperature effect with the inorganic solar panels, in Latur city , Maharashtra state, India , was carried out on 18th Feb-2020. Maximum sunlight intensity was attained at mid noon (12:00 pm) and then it is decreased showing non monotonic behavior after mid noon. The maximum sunlight intensity was recorded as 117kLuxat 12:00 pm. This can be ascribed with the changes of sun position , orientation and its directionat which the surface of the panel is illuminated. As the sunlight intensity is increased , which in turn increases the photoelectrons , resulting in the increased load current. The maximum solar electric power generated b y the inorganic solar panels was 1.124W at 12:00 pm. The electrical parameters of the inorganic solar panels V_{oc} ,I_{sc}& FFare studied. Study of these parameters shows that V_{oc} remains relatively unchanged whereas I_{sc} shows increment in its value which can be ascribed that the charge carriers (free electrons and holes) acquire enough K.E. to move towards their corresponding electrodes effectively before they recombine together. Fill factor FF , which indicates the quality of the solar panels showed that , its value increases with the increase in ambient temperature.

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Challenges and Problems Faced By Working Women in 21st Century in India

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Abstract: India is a traditional country and there is multiplicity in religions, traditions and customs. But even if well competent women engineers or managers or geologists are available, preference will be given to a male of equal ability. In the age of 21st century, woman wants equivalent opportunities as man and primary challenge is how to balance work and home. Gender favoritism, uneven pay, mental and physical harassment, inadequate leaves are some of the key issues of working woman at the workplace. Responsibility of the women in India generally is household and limited to family issues. In some cases women can get employment as nurses, doctors, teachers the caring and nurturing sectors. The main purpose of this paper is to focus on such key areas and challenges faced by working woman in today's epoch and to put the psychological view of the issues, challenges and role of society to assist for balancing the life of working woman in psychological, physical, social and mental aspects.
Keywords: challenges, problems, working women

Introduction: Position of Women Workers

Women are the backbone of the society. [17] She plays a extremely important responsibility in the economic development of the nation and her participation is as equal as their male counterparts. [27]Without active contribution of women in diverse national, social, economic and political activities, the growth of the country will be sluggish. Traditionally, Indian women had been Home makers but in 21st Century, due to higher education, enhanced alertness and growing financial demands of family, women also go out and choose job. Although Indian women have started working outside their homes, but still there are numerous issues and challenges that working women face nowadays. [17] At times they are not treated equally in their place of work. They do not find the same benefits as that of male employees too. Gender favoritism, unequal pay, security, mental and physical harassment, lack of good family support, deficient maternity leave are considered as major issues and challenges that working woman faces at the present time. The working and social situation in today's epoch is far different than that of twenty-thirty years back. Advances in technology plus developing work and the role of family for women in India have changed the contribution to the business environment of 21st century. The financial demands for Indian families are rising day by day. Today women are giving their best and active contribution in all the male-dominated fields such as sports, medical, law, military, academics, politics, bank, top level corporate positions etc. In recent era working women can spend less time in household works than they did thirty years ago. Moreover, Indian working women are facing lot more challenges than their counterparts in other parts of the world. In India, still men are considered as the primary champion and chief of the family. Although working women handle their professional life in facing competition and challenges at work place and personal life in managing domestic work, care children, family, cooking, communal responsibilities are still considered as the responsibility of women merely. Due to such multitasking hard work of female augmented stress becomes by-product for her. If we consider women's role in business environment, then sometimes they have to take their work at home also and it cuts few more hours of sleep. It is not just about the reduced sleep, but this type of lifestyle creates stress in working women and it directly affects her family. [8] Many Indian families are still living as joint families along with their in-laws and parents. This adds more stress to women because they have to handle them and please all the family members of her husband. [17]The belief of male superiority in the society creates several hurdles for women at their workplace. Women discover that they must be much better than their male colleague to reach at the top. When she achieves that top position in the company, again it is much complicated for women to work with male employees. Also as of social and psychological custom in the social order, the women colleagues too don't lend support to their own woman boss. Working in such conditions inevitably put much greater strain on women than man. These types of problems make women less eager to progress in their career. It has been observed that the family responsibility expands the working women have to change their job, select part time job or leave the job. This situation creates unnecessary stress for losing their job. In those days, women did not have information of assorted investment outlets. But in 21st Century, the working women have become more conscious about the monetary investments and they have the great possibility to get a optimistic alteration in socio economic conditions of the nation. Today's working women put in various investment avenues like shares, debentures, mutual funds, commodities etc.

Issues And Challenges Before Indian Women

Favoritism

Gender biases start to take place at a very early phase for Indian women. It is very hard to admit the fact that women are also competent of working shoulder to shoulder with men. Indian culture supports male supremacy in all main, central and challenging tasks whereas women are considered to be weak and only capable of bearing lesser work pressure at the work place. The potential and capabilities of Indian women have always been underestimated in regard of their recruitments, salary issues and promotions. In many families, even if woman is working, her all salaries are given to her husband, father in-law or elder member of the family and in this way, her independence is on the superficial level [12].

Gender Stereotyping

The phenomenon of gender segregation in the workplace remains valid regardless of profession or differing social and cultural factors on which the different systems of work are based. 'Deeply entrenched in our definition of what it means to be manager is the belief that the manager will be male (Shrank and Kanter 1994). There are innumerable studies (Fels 2004 Manning 2002; Rosener 1997) debating whether women lack the abilities and personality traits required of managers. This stereotyping of management poses a major obstacle to women who are qualified to excel in positions of leadership. With organizations and jobs being gendered (Webb 1991) stereotypes around women managers get perpetuated. In comparison to men, women are often not recognized or appreciated for their contributions or capabilities. This lack of parity results in an inequitable position, classification, grade and salary between men and women catalyst, 1999).

Coping Up With Dual/Multiple Roles

Marriage is one more road block in the career accomplishment of Indian women followed by child nurturing. Conventional mindset of roles, food habits and life style has not changed. The double role of performing not paid work at home, rearing and teaching children and working in the work place adds extra responsibility to the women. Organizations are uncertain to employ women as they feel that women taking maternity leave will mean a hinder for their operations.

Long Work Hours and Travel: Easier Said Than Done

Higher positions insist longer hours of working, lot of long as well as short distance travel and attending late meetings. Women are thus left out of work loop as they do not have time to attend meetings and discussions or networking after work hours. Furthermore, meeting with many people for business sometimes is looked down by society and it becomes quite a pain in the neck to keep some very important family relations due to such cloak-and-dagger.

Glass Ceiling

"I have both a brain and a uterus, and they both work" (Ely 2003). This volatile statement and many more such exchanges have been ended by women managers as an answer to their incapability to arrive at higher levels of management. Analysis of glass ceiling suggests that beliefs and attitudes held by organizational members (i.e. women are not viewed as leaders) as well as relative side of the organization (i.e. social structures) contribute to the glass ceiling effect, which is experienced by many women in management. Scarcity of women in executive positions across a variety of countries – a mere 3 percent has been attributed to the glass ceiling effect. (Adler and Izraeli 1994). It is argued by researchers that women may not create the glass ceiling but help maintain it (Rosener 1995). So, breaking the glass ceiling is the need of the hour.

Maintaining Work Life Balance

An individual's life can be divided into four fundamental quadrants- self, workplace, family and friends and community. Work life balance is regarding people having a measure of control over when, where and how they work. It is accomplished when an individual's right to a fulfilled life inside and outside paid work is acknowledged and valued as the norm, to the common benefit of the individual, business and society. This theory in namely the work life balance gains importance when it comes to a female employee.

Career Path of Women

Experts say that important differences still exist between the career paths of men & women. It results from a series of circumstances such as managerial boards` decisions to choose one of their own kinds using such criteria as seniority, personal affinity and similar educational background. Another factor is that when many women reach a certain age, they decide to invest more time in their family, rather than step on the accelerator of their professional career.

Lack of Influential Mentor for Women

Every leader in making looks upon a Godfather or Mentor. The scarcity of such Mentors in the corporate becomes rather more difficult for women to find a women mentor/godmother due to the truth that they may be the 'firsts as trend setters' to reach the corporate ladder. Many a times it's a social disgrace attached to having a male adviser for woman as the family and friends may not take in it and society may try

to find a 'meaning' to such relation, adding the complexities for women.

Health Issues

The health problems of women are so dissimilar than men that they frequently become difficult to discuss, disclose or deal with, at the workplace. It is inspiring to know from the qualitative research interviews from many women working in reputed organization, they even face sarcastic comments from male colleagues about wellbeing issues and yet sometimes off the corporate meeting this becomes a subject for amusement.

Balancing Personal and Professional life

It is an incredibly big challenge for Indian working women to keep a balance between their work and family. She has the liability to accomplish all the hopes of family members and particularly from kids. In India, the career and professional ambitions are still considered as less important for women. In majority of the families, there is a lack of emotional and moral support given to the working women. And at the same time, there are a lot of official expectations and deadlines that women have to accomplish to carry on their career. In this type of twofold roles to become ideal in all tasks, the working women experience very much stress in her day to day life [12].

Mental and Physical Harassment

In order to attain success in corporate sector, women feel that they have to do better than their male associate. This leads to higher expectations and efficiency by their superior. This type of form creates strain for woman. Inadequate Maternity leave is also the cause of pressure/stress for working women as they have to take care of their baby as well as achieve the targets given to them in office. Indian working women also feels unsecure at their workplace. There are many cases where women subordinates are asked for sexual favors from their male superiors in return of the promotion and growth granted to them. The male superiors show that they have done some forgiveness or extra favour that should be repaid with much of a regard from women. In corporate sector, usually women are treated as weak and helpless and therefore male colleagues and superiors feel that they can get any benefit of their female colleagues and subordinates [12].

Cutting Edge Leadership

Women are cutting edge managers and leaders because they have certain management qualities and traits such as patience, tolerance, honesty, loyalty, assertiveness, dedication, communication skills etc

Multi-Task Masters

Women are natural multi-task masters due to range of roles played. They are used to managing budgets, menus, children's activities, homework, exams, and just about everything else. Women are emotionally much tougher and this is not an individual feature but a inherited makeup. The hormonal changes that take place in their bodies protect them from stress.

Dedication towards the Organization

If women find an employer who values their potentials, they become indebted to the organization to give their best output and they put in more efforts. Women are more dedicated and committed towards their work and they stick at one job for a longer time.

Facilitators to the Subordinates

As managers, women try to create an environment that subordinates would be empowered and they do not hesitate to appreciate the subordinates for their good performance as they do to their children. They motivate their subordinates, which develops creativity and interest of subordinates towards accomplishment of the task.

Team Building

Women are likely to have more of aspirations to build teams, which is one of the key qualities a leader should possess. The usual fact of holding the family together comes handy to work as a team player and be empathy oriented.

Non-Aggressive approach

Handling children's problems, counseling, coping up with the stress develops tolerance in women. Women as managers are better handlers of human emotion and their non-aggressive attitude is their biggest plus point.

Excellent Role-Model for the Followers

Women project the ability to be credible, reliable and trustworthy. They prefer to influence rather than command. They view power as a means to change, by sharing information and empowering others. They act as good example for the followers.

Delegation of Authority

The ability to make the staff feel worthy and individually recognized is a desired skill for a manager. They hand over more readily and express their appreciation for hard work more often and prove to be better at making subordinates feel value and rewarded.

Conclusion

The paper discussed the issues and challenges of working women in the present era of 21st century. The problems of individual and professional life are highlighted in the paper and explained in detail. To apply the balancing between personal and professional life and maintain her-self fit and fine women has to suffer a lot of circumstances and challenges. Women's participation in management jobs has become an increasingly important issue in the corporate world. Even when the percentage of women in management is less, they are proving to be successful and are acting as inspiration for other women. The polite and soft nature of women is helping them to attain the manager's position and they are proving the best. Over the next few years, the penetration of women managers will rise up. The growth is slow because of the hurdles on their way. Corporate should review the leadership qualities of women and use the potentials so that with competent women managers on the lead, many companies can face a fortune future. Hence, in 21st century, woman needs more mental and social support from the society as well as governing body.

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Role of E-Banking In Digital Payment System In India

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Abstract- : The present paper discuss on the role of E-Banking in Digital Payment System in India. Online banking also known as internet banking and known as electronic payment system that enables customers of bank or other financial institutions to conduct range of financial transactions through the financial institutions website. Online banking system is also part of the core banking system operated by a bank. E banking has resulted in reducing cost drastically and has helped generate revenue through various channels as per last available information the cost of bank transaction on branch banking is estimated to be in range of rs.70 to rs.75 while it is arounding Rs.15 to Rs.16 on Atm, Rs.2 or less on online banking and Rs.1 or less on mobile banking. The number of customers base has also increased because of the convince in anywhere banking.

Keywords: E-banking, Mobile wallets, cashless economy, E-commerce , ATM, RTGS , Government of India.

Introduction:

Online banking also known as internet banking and known as electronic payment system that enables customers of bank or other financial institutions to conduct range of financial transactions through the financial institutions website. Online banking system is also part of the core banking system operated by a bank. E-banking of virtual banking is on electronic payment system that enables customerse-banking or virtual banking, is an electronic payment system that enables customers of a bank or other financial institution to conduct a range of financial transactions through the financial institution's website. The online banking system will typically connect to or be part of the core banking system operated by a bank and in the contrast to branch banking which was the traditional way customers accessed banking services. Digital payment gateway is an e-commerce application, which facilitates acceptances of electronic payment and authorizes credit card payments for online retailers, e-business etc. This payment gateway facilitates the transfer of information between a payment portals (such as website, mobile phone or interactive voice response service) and the front end processor. Digital payment system refers to an electronic device that allows an individual to make Electronic commerce transactions, and also to purchase online items. It also facilitates digital wallet where it is linked to an individual's bank a/c. Customers use digital wallets to store payment data, eliminating the need to re-enter information each time when they make a purchase.

Objective of Study :

1. To study of E- banking
2. To study of e – banking in digital payment system
3. To study of e- commerce

Research Methology :

The Study of e-banking and digital payment system, e-commerce is based on secondary available data. The data has been collected form internet sources, articles, newspaper, various published research papers etc.

Electronic Banking Products and Services :E-Banking has provided immense opportunities in offering goods and services to the customers. These products are totally changing the outlook of banking sector. Now the Industry is shifting towards. Cashless society, where physical cash, notes and coins have become a thing of the past, and digital cash and electronic purse have taken their place. There are many non-cash payment **methods which are in use. These are as follows:**

1. **Automated Teller Machine :** ATM is a cash rending teller machine. This is a machine which is frequently seen at banks and other locations, such as shopping centers and building societies. Customers can withdraw any sum up to a limited amount, can view the status of his account and order a new cheque book. There is a number called personal Identifications Number (PIN), which is a key for carrying the desired transactions. On the other hand, we can say that it's machine which replaces the human aspect of providing the cash and standing in a long queue. ATM's can be installed on the bank's premises (onsite ATM's) for which no license is required from RBI, however, for ATMs to be installed at public places (offsite ATM's) Banks have to obtain a license. These offsite ATM's are mainly installed at airports, railway stations, market places, petrol pumps, etc.
2. **Mobile Banking :**

The traditional brick and mortar is done from fixed branch premises, where the customer has to go personally for carrying out business transactions. Through mobile banking the customer can conduct a host of banking transactions and inquiries through the mobile. Banking can also be carried through a

mobile van with or without 29 computerized banking system. The mobile van moves from place to place on designated routes at designated hours and the customers can transact their banking business, such as deposit, withdrawal, cheque collection, draft issuance, passbook update, etc. Mobile banking helps the customer to do his account management, electronically which was earlier possible through internet banking Mobile banking service is divided into two categories.Sms Based :This service can be availed from any mobile having SMS based service. The customer types the required keywords and PIN number and send the message to the predefined number. Menu Based:The customer downloads and installs the application on the mobile. Whenever the customer wants any sort of information, he selects the application, selects the request from menu and sends the request to the designated number. This request is internally sent as SMS text. The Central Computer at bank sends back the result to him.

3. **Electronic fund Transfer (EFT):** in the present age of integrated technology consisting of computer and communication facility, distances need no longer be constrict in providing customer service. EFT system hosted and operated by the RBI permits transfer of funds, from any account to any other account at any Brach of any member bank in any other city (jain 2006) In other words, electronic fund transfer facilitates the quiche movement of deposit money from one bank account of one customer to the bank account of another customer. IN this system, the sender and the receiver may be located at different cities. As an important tool of customer services, EFT system addresses the needs of individual customers to transfer money from one Place to another within a day or two, following are the participants of this scheme: Individual customer through their banks/braches.
4. **Society for world-wide Inter-banking Financial Tele-communication (SWIFT) -**
It is a computerized message system which links banks around the world. In 1996, It was updated from centralized system to decentralized system. SWIFT is a co-operative organization formed by international banks and financial institutions. The member banks are shareholders of this society. It Provides guarantec to carry messages without any mutilation of the message. The network provides round the clock service to participating banks. It aims to improve the speed and service in order to prevent the individual bank setting up its own computerized messaging system in opposition.
5. **Internet Banking :**
As the banking industry has been constantly innovating and with the advent of technological development particularly in the area of telecommunication and information technology, one such innovation is internet baking. Internet banking is defined as an internet portal through which the customers can use different kinds banking services from bill payment to making investment. All the banks using internet as an additional channel or banks using internet only as delivery channel are now on the equal footing to offer their banking services on the internet and to compete for customers around the world. Internet banking is useful for both thebankers and the customers. The rationale use of internet banking technology from the bank point of view is mainly related to cost savings. Internet banking sister can be segregated into four categories from level, I which offers just minimum functionalities, such as access. To one's deposit account data, to level IV siste that offer sophisticated services. Generally, internet banking is offered, in tow ways. First, an existing branch with physical offices can establish a website and offer its customers internet banking in addition to traditional banking channels. Second way is that bank may be established as "virtual" branchless or internet with a computer server at its heart that housed in an office that serves as Banks's legal address. Virtual banks may offer customers the ability to deposit and withdraw the funds at automated teller machine or other remote channels used by the banks nevertheless. Internet banking has relatively high initial set-up costs (both technological and marketing) with saving following later and it appears, at present, that or major banks have achieved significant cost reductions through its provision.
6. **E-commerce :**E-commerce refers as the transaction between the buyer and seller without exchanging any papers or any meeting between two persons and largely using the internet Electronic commerce allows efficient transactions among customers, suppliers and partners for cutting the transaction time and reducing the costs of doing business. The ministry of commerce is supporting "Electronic commerce (EC)/ Electronic data interchange (EDI) for Trade" Project for facilitating international trade. The community partners of this project are various trade regulatory and facilitating agencies like the customs Department, the Directorate General of Foreign trade (DGFT) Airports, the Reserve Bank of India (RBI), Export Promotion Organization (EPOS), Exporters, Importers, Agents, Container corporation of India (CONCOR) and banks. The objective of this project is to i) facilitate electronic delivery of services; 11) simplify procedures; iii) Provide 24 hour access to users with their partners; iv) procedure transparent; v) reduce the transaction cost and time; and vi) introduce international standards and best practices.

Electronic Data Interchange (EDI) EDI is the exchange of documents in the standardized electronic from, between organizations, in automated manners, directly from a computer application in one organization to an application in another. EDI can be compared and contrasted with electronic mail. Email enables free-format textual message to be electronically transmitted from one person to another. EDI on the other hand, supports structured business messages (those which are expressed in hard copy, pre-printed from or business documents) and transmits them electronically between computer applications rather than between people to their customers. Bank that provide EDI services to their customers always have an advantage over those who do not provide such services. IT can be said that EDI can be used for automating the existing processes, an opportunity to ratiohlize the procedures, reduce the costs and improve the quality of services.

Digital Payment System in India:

Technology systems, architecture and infrastructure are mature enough to enable the billion urban people in India to transact digitally. It is now a matter of increasing awareness transact to rural India. The NitiAayog panel on e-payments which is working to promote the use of digital payments systems in rural India, where card based payments are more common in rural area. With limited cash in hand and an indefinite crunch in sight, most people are rushing to cashless transactions.The Payment and Settlement Act, 2007 has defined Digital Payments. As per this any "electronic funds transfer" means any transfer of funds which is initiated by a person by way of instruction, authorization or order to a bank to debit or credit an account maintained with that bank through electronic means and includes point of sale transfers; automated teller machine transactions, direct deposits or withdrawal of funds, transfers initiated by telephone, internet and, card payment.The transfer of funds from one party to another over electronic and Digital media is known as Digital payment System. The different approaches to Digital payments include card payment, mail order, and online payment. Online transactions are a daily activity for almost everyone today. With the introduction of the Internet, online transactions became easy. Most product and service companies made their web presence prominent and started interacting with their customers online. Online shopping became popular. With financial institutions working on similar lines, people around the world began to carry out financial transactions over the Internet. Credit and debit cards became commonplace and gave impetus to electronic payment system.

Following are the some products and services which covered under Digital Payment System that explain below:

1. **National Electronic Funds Transfer (NEFT):**
   It is the most commonly used electronic payment method for transferring money from any bank branch to another bank in India. It operates in half hourly batches. At present there are 23 settlements.
2. **Immediate Payment Service (IMPS):**
   is an instant electronic funds transfer facility offered by National Payments Corporation of India (NPCI) which is available 24 x 7.
3. **Cheque Truncation System (CTS):**
   It is the process that obviates the need to move the physical instruments across bank branches. This reduces the time required for their collection and brings elegance to the entire activity of cheque processing.
4. **Real Time Gross Settlement (RTGS):**
   is primarily used for high-value transactions which are based on 'real time'. The minimum amount to be remitted through RTGS is Rupees Two Lakhs. There is no upper limit.
5. **Prepaid payment instruments (PPIs):**
   It is for purchase of goods & services and funds transfers has increased considerably in recent years. The value of transactions through PPI Cards (which include mobile prepaid instruments, gift cards, foreign travel cards & corporate cards) & mobile wallets have jumped drastically from Rs.105 billion and Rs. 82 billion respectively in 2014-15 to Rs. 277 billion and Rs. 532 billion respectively in 2016-17.
6. **Unified Payment Interface(UPI Apps):**
   UPI is a mobile payment system which allows you to do various financial transactions on your smartphone. UPI allows you to send or receive money using virtual payment address without entering bank information. Merchants can enroll with banks to accept payments using UPI. Like in the case of a PoS machine, the merchant would require a current account with a bank to accept UPI payments. The examples of few UPI Apps are SBI Pay, Union Bank UPI App, Phonepe, etc.

7. **Aadhaar Enabled Payment System:**
   Aadhaar Enabled Payment System (AEPS) is one of the best cashless payment methods. AEPS is like Micro ATM it uses smartphone and a finger-print scanner for the transaction. In order to use this facility, it is mandatory to link your Aadhaar card to your bank account. You can use AEPS in order to perform transactions like Aadhar to Aadhaar fund transfer, Cash withdrawn, Cash deposit, etc.
8. **Unstructured Supplementary service Data(USSD):**
   You can use USSD cashless option if you don't have a smartphone or internet connection. Unstructured Supplementary Service Data is mobile banking service. From any mobile phone, you can dial *99# and use this service. You can do all these things which are available to a person with smartphone and internet connection. Almost including SBI, ICICI, BOB, Axis Bank and PNB supports USSD payment option.**Credit**
9. **Card or Debit Card:**
   Credit card or debit card is another cashless payment method. The usage of credit card and debit card was limited in India. However, usage of credit card and debit card is increasing now because of demonetization. The limitation of this payment method is an availability of swipe card facility (PoS) at merchant end.
10. **E-Wallets :**
    E-Wallet is next cashless payment option. E-Wallet can be used to purchase products starting from grocery to airline tickets. In order to use E-Wallet customer and merchant, both require a smart phone with active internet connection. The most popular example or E-Wallet is PayPal.

Conclusion:

E-banking is very useful to bank,bank customers and any other person to do transaction in the bank. E-banking system is save time and save money .An Electronic payment system that enables customers of a bank or other financial Institutions to conduct a range of financial transactions through the financial Informations website.Online banking is risk but also securities of E-banking and E-commerce so it is safe for work.Digital transactions bring in better transparency, scalability and accountability. The new move will compel more merchants to accept digital money. Cash may no longer be king.Improved solutions in terms of UPIs, mobile wallets, and digital transactions with more secured features, ease of transactions and reduced cost of managing the digital payments could lead to more potential developments and supporting in improved conditions of digital payments processing in rural sectors. However, National Payments Corporation of India (NPCI) new payment application are designed to work on all phones with or without internet and even without phones is helping rural India.

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A Study of Density of Population In Udgir Tahsil

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Introduction: Density of population per unit of area represents the ratio of population to land (Desai, 1985). In other words, density of population indicates the man-land ratio. This is calculated by dividing the total population of a region by the total land area. In case the land area is small for a given population, the density will be high; but if the land area is large, the density of population will be low.

Objectives

1. To study the proportion of density in Udgir tahsil compare to Latur district and Maharashtra.
2. To understand rural-urban differential in density of population in Udgir tahsil.

Data and Methodology

For the present study circle level has been considered as a basic unit for investigation. The present research as based on secondary sources i.e. Census of India, District census handbook Latur, 1991 to 2011.

Population density is simple arithmetic ratio, which is computed by dividing total population by total area.

$$Density\ of\ Population = \frac{Total\ Population}{Total\ Area\ Km^2} \times 100$$

Study Area

Udgir tahsil is a part of Latur district lies to the east in district. It is situated between $18^0$16' North latitude to $18^0$37' North latitude and $76^0$56' East longitude to $77^0$21' East longitudes. The height of the region ranges from 510 meters to 650 meters from mean sea level. The height of Udgir town is 632 meters above mean sea level.

Result and Discussion

The proportion of density in Nilanga tahsil compare to Latur district and Maharashtra since 1991 to 2011 is presented in Table no.1

Table No.1
Density of Population Per Km^2 (1991 to 2011)

Sr.No.	Region	Density		
		1991	2001	2011
1	Udgir (Tahsil)	225	233	396
2	Latur (District)	234	291	343
3	Maharashtra	257	315	365

Source : District Census Handbook of Latur 1991 to 2011

The density of population has shown an increasing trend from 1991 to 2011 in almost all of the region. In 1991, the density of population of Udgir tahsil (225) was lower than that for Latur district (234) and Maharashtra (257) persons per km^2. The density of population of Udgir tahsil was increased to 396 persons per sq.km. in 2011 which was higher than that for Latur district (343), Maharashtra (365) persons per sq.km. This was due to government efforts made for socio-economic development of the region.

Rural-Urban Differential in Density of Population

This is a ratio of rural population and rural area of a region and urban population and urban area of the region. This ratio denotes density of rural and urban population of region.

Table No.2
Rural-Urban Density of Population Km^2

Sr.No.	**Tahsil**	**Density**					
		Rural density			**Urban density**		
1	Udgir	1991	2001	2011	1991	2001	2011
		180	217	255	2147	15850	19275

Source : District Census Handbook of Latur 1991 to 2011

The density of rural population of Udgir tahsil was 180 persons per km^2 in 1991 which increased to 217 person per km^2 in 2001 and 255 persons per km^2 in 2011. Density of rural population increased by 1.41 times during last 30 years.

In 1991, the urban density of population of Udgir was 12147 persons per km^2 which increased to 15850 persons per km^2 in 2001 and 19275 persons per km^2 in the year 2011.Decadal increase in urban density of population was much higher than rural density. It was probably due to noticeable rural-urban migration. Urban population growth is closely related with rural-urban migration.

Conclusion

The density of population has shown an increasing trend from 1991 to 2011 in almost all of the region. The study area has registered lower population density in 1991. As per census 2011, population density of Udgir tahsil was (396) per sq.km. higher than that for Latur district and Maharashtra state.

Decadal increase in urban density is much higher than rural density. It is probably due to noticeable rural urban migration.

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Green Marketing: A Step towards Sustainable Growth

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Abstract: In the modern era of globalization, it has become a challenge to keep the customers as well as consumers in fold and even keep our natural environment safe and that is the biggest need of the time. Consumers are also aware of the environmental issues like; global warming and the impact of environmental pollution. Green marketing is a phenomenon which has developed particular important in the modern market and has emerged as an important concept in India as in other parts of the developing and developed world, and is seen as an important strategy of facilitating sustainable development. In this research paper, main emphasis has been made of concept, need and importance of green marketing. Data has to be collected from multiple sources of evidence, in addition to books, journals, websites, and news papers. It explores the main issues in adoption of green marketing practices. The paper describes the current Scenario of Indian market and explores the challenges and opportunities businesses have with green marketing. Why companies are adopting it and future of green marketing and concludes that green marketing is something that will continuously grow in both practice and demand. Green marketing enabled for the remarketing and packaging of existing products which already adhere to such guidelines. Additionally, the development of green marketing has opened the door of opportunity for companies to co-brand their products into separate line, lauding the green friendliness of some while ignoring that of others. Such marketing techniques will be explained as a direct result of movement in the minds of the consumer market.

Key Words: Green Marketing, Eco Friendly, Environmental Marketing, Green Product, Global Warming, Sustainable Development.

Introduction:

"Green Marketing" and "Environment Marketing" are the buzzword in today's business world. Environmental issues influence all human activities. Some academic disciplines have integrated green issues in to their literature-as society becomes more concerned with the environment business have begun to modify their behavior in an attempt to address society's new concerns. Now days some of the business organizations have been quick to accept new concept like environmental management and waste minimization. They have also integrated environmental issues in to all organizational activities. Green Marketing incorporates a broad range of activities like product modification, changes into the production process, and changes in packaging and modification in advertising. Normally green marketing offers business bottom line incentives and top line growth possibilities. While modification of production process of any type of business organisation may involve start up costs and it will save money in the long term. Green Marketing is a Phenomenon which has developed particular importance in the modern business world. In the era of Libralisation Privatisation & Globalisation it has become a challenge to keep the customers as well as consumers in fold and even keep our natural environment safe and that is the biggest need of the time. Consumers are also aware of the environmental issues like, global warming and the impact of environmental pollution. Green marketing is a phenomenon which has developed particular important in the modern market and has emerged as an important concept in India as in other parts of the developing and developed world, and is seen as an important strategy of facilitating sustainable development.

Conceptual Background:

The term "Green Marketing" refers to the planning, development and promotion of products of services that satisfy the needs of consumers for quality, output, accessible prices and services, without however a negative effect on the enviromnet, with regard to the use of raw material, the consumption of energy etc (Davis, 1991; Kangis, 1992; Meffet and Kirchgeorg, 1994; Jand and Kaur, 2004; Peattie and Grane, 2005; Grant, 2008; Pride and Ferrell, 2008).According to Kangis (1992), Green marketing must be more than either a green way of marketing, or the marketing of so-called green products. Greens have to refer both to the method and to the product. This is why the very idea of green marketing needs considerable development and analysis, with rules and integrity in economic, scientific, academic and ethical terms.

According to Pettie (2001), evolution of green marketing has three phases.

1. **First phase** was termed as 'Ecological"; green marketing, and during this period all marketing activities were concerned to help environment problems and provide remedies for environmental problems.
2. **Second phase** was "Environmental"; green marketing and the focus shifted on clean technology that involved designing of innovative new products, which take care of pollution and waste issues.
3. **Third phase** was "Sustainable"; green marketing. It comes into prominence in the late 1990s and early 2000.

The American Marketing Association defines green marketing as efforts by businesses and organizations to produce, promote, package and reclaim products in a manner that is sensitive or responsive to ecological concerns Green marketing is quickly making the shift from trendly marketing tactic to cultural movement as more and more consumers demand environmentally friendly products, made in a sustainable way.

1. **Pride and Ferrell (1993):** Green marketing also alternatively known as environmental marketing and sustainable marketing refers to an organizations effort at designing, promoting, pricing and distributing products that will not harm the environment.
2. **Polonsky (1994):** defines green marketing as all activities designed to generate and facilitate any exchanges intended to satisfy human needs or wants, such that the satisfaction of these needs and wants occurs, with minimal detrimental impact on the natural environment.
3. **Elkington (1994:93):** defines green consumer as one who avoids products that are likely to endanger the health of the consumer or others; cause significant damage to the environment during manufacture, use or disposal; consume a disproportionate amount of energy; cause unnecessary waste; use materials derived from threatened species or environments; involve unnecessary use of, or cruelty to animals; adversely affect other countries.

Research Methodology:

The present research study uses the most recent available published secondary data. To achieve the above stated objectives, the secondary data was used and Desk Research Method was basically adopted. The secondary data that are mainly used are published in annual reports of various banks and survey reports of leading business magazines. The secondary data was also used from various reference books related to Non-performing Assets, Marketing, Banking, Finance, Commerce, Management and Economics. For the said research study the data pertaining to the above objectives was collected and reviewed the literature on the topic concerned. The literature was thus collected by visiting various libraries. The Secondary data is also collected from various websites.

Objectives Of The Research Study:

The present research study is carried out with the following objectives in view-

1. To Provide an Overview of the Fundamentals about Green Marketing in India.
2. To study the Opportunities & Challenges of Green Marketing in India.
3. To study the Benefits of Green Marketing
4. To give the suggestions for Improvement of Green Marketing in India.

The Indian Context:

The Indian government has developed a number of legislations to reduce the production and marketing of harmful goods and by products. Such legislations put restrictions on the production of environment threatening goods. Many provisions dealing with the environment are scattered in pieces and are found in different enactments of the country. The general enactments which provide for the Prevention and Control of Pollution are: The Factories Act, 1948; the Motor Vehicle Act, 1988; Environment Act, 1986; Air Prevention and Control of Pollution Act, 1987; The Water Act, 1974.

Environmental Standards:

International standards called ISO 14001 and European Union Eco-Management and Audit System and earlier British Standard for environment and being adopted. The ISO took up the responsibility for drawing up a new environmental standard series. ISO 14000, with the help of Bureau of Indian Standards has developed environmental standards for India. In India, more than 600 companies have certified for ISO 14001. The ISO 14000 Series comprises of standards or EMS. The organizations who want to improve their EMS use the ISO 14000 guidelines. Other standards in the 14001 series that are concerned with specifis areas of environmental audit are :

1. ISO 14000-General guidelines on principles of EMS.

2. ISO 14001-Specifications and Guidance for EMS.
3. ISO 14010-Guidelines for Environmental Auditing.
4. ISO 14012-Guidelines for Environmental Auditing-Qualifications for Auditors.
5. ISO 14015-Environmental site assessment.
6. ISO 14020-Environmental Labeling (Eco-Labeling)
7. ISO 14021-Environmental Labels and declarations.
8. ISO 14040-Life Cycle Assessment.

Eco-Labeling:

It is an environmental claim that appears on the packaging of product. It is awarded to a manufacturer by an appropriate authority. ISO 14020 is a guide to the award of eco-labeling works like an instructor for the firms who indulge in the production of goods and services that cause damage both to the health of humans and the environment. The Government of India launched an eco-mark scheme in 1991 to increase consumer awareness with respect to environment friendly products. The products that require eco-marketing are textiles, toilet soaps, detergent cakes, paints, packages, pesticides and insecticides, cosmetics, batteries and pharmaceutical products. The eco labeled goods naturally spur the demand for green products and in turn, aim to increase green consumerism.

Eco-mark Scheme:

The Government of India launched an eco-mark scheme in 1991 in increase consumer awareness towards environmental friendly products. Another aim of the eco-mark scheme is to stimulate the consumers to go for pro-environmental products. The eco-mark is needed for products like cosmetics, leather goods, paints, lubricant oil, plastic products, batteries etc.

Benefits Of Green Marketing:

Due to increase in consumerism across the globe, the sensitivity in accepting pollution free, harmless and green products is also increasing tremendously, the manufactures are being pressurized for manufacturing such goods, As discussed in the earlier sections, both the manufacturers as well as the consumers are equal partners in bringing eco-friendly goods to the society. Hence, the manufacturers and the consumers can benefit out of green marketing in the following ways:

Benefits Available for Firms and Industries:

1. Helps to access new markets.
2. Can help to achieve competitive advantage over other competitors.
3. Protects the company in the long run.
4. Aids in long term growth.
5. Improves the quality of the environment.
6. Environmentally responsible company will hold a unique status in the society.

Benefits for the Consumers:

1. Health benefits.
2. The network of green users expands.
3. Less threat to the eco-system by the consumers.
4. The Earth will be protected from hazardous goods.

The Four Ps Of Green Marketing:

Like conventional marketers, green marketers must address the four PS in innovative ways.

1. Product:

An entrepreneur wanting to exploit emerging green markets either:

1. Identify customers environmental needs and develop products to address these needs; or
2. Develop environmentally responsible products to have less impact than competitors.

The increasingly wide varieties of products on the markets that support sustainable development and are good for the triple bottom line include:

1. Products made from recycled goods, such as Quick Tuff housing materials made from recycled broccoli boxes.
2. Products that can recycled to reuse.
3. Efficient products, which save water, energy or gasoline, save money and reduce environmental impact. Queensland's only waterless printer, print point, reduces operating costs by using less water than conventional printers and is able to pass the savings on to customers.
4. Products with environmentally responsible packaging. McDonalds, for example, changed their packaging from polystyrene clamshells to paper.
5. Products with green labels, as long as they offer substantiation.

6. Organic products many consumers prepared to pay a premium for organic products, which offer promise of quality. Organic butchers, for example, promote the added qualities such as taste and tenderness.

2. Price:

Pricing is a critical element of the marketing mix. Most customers are prepared to pay a premium if there is a perception of additional product value. This value appeal or taste Environmental benefits are usually an added bonus but will often be the deciding factor between products of equal value and quality. Environmentally responsible products, however, are often less expensive when product life cycle costs are taken into consideration. For example fuel-efficient vehicles, water-efficient printing and non hazardous products.

3. Place:

The choice of where and when to make a product available has a significant impact on the customers being attracted. Very few customers go out of their way to buy green products merely for the sake of it. Marketers looking to successfully introduce new green products should, in most cases, position them broadly in the market place so they are not just appealing to a small green niche market. The location must also the be consistent with the image which a company wants to project..

4. Promotion:

Promoting products and services to target markets includes paid advertising, public relations, sales promotions, direct marketing and on-site promotions. Smart green marketers will be able to reinforce environmental credibility by suing sustainable marketing and communications tools and practices. For example many companies in the financial industry are providing electronic statements by email, e-marketing is rapidly replacing more traditional marketing methods, and printed materials can be produced using recycled materials and efficient processes, such as waterless printing.

Challenges of Green Marketing:

Implementing Green Marketing is not going to be an easy job. The firm has to face many problems while trading the way of green marketing, Challenges which have to be faced are given as under:

1. Green marketing encourages green products, green technology, green power; a lot of money has to be spent on R&D programmes. Thus practicing green marketing initially will be a costly affair.
2. Initially the profits will be very low since renewable and recyclable products and green technologies are more expensive. Green marketing will be successful only in long run.
3. Many customers may not be willing to pay a higher price for green products which may affect the sales of the company.
4. The firm may give up on green marketing concept or be forced to practice unfair to cut cost to sustain in the competition and thus the entire idea of going green will be a farce.
5. The firms practicing green marketing have to strive hard and convincing the stockholders and many a times there may be some who simply may not believe and co-operate.

Golden Rules Of Green Marketing:

1. Know You're Customer: Make sure that the consumer is aware of and concerned about the issues that your product attempts to address.

2. Educating Your Customers: isn't just a matter of letting people know you're doing whatever your doing to protect the environment, but also a matter of letting them know why it matters. Otherwise, for a significant portion of your target market, it's a case of "So what?" and your green marketing campaign goes nowhere.

3. Being Genuine & Transparent: Means that a) you are actually doing what you claim to be doing in your green marketing campaign and b) the rest of your business policies are consistent with whatever you are doing that's environmentally friendly. Both these conditions have to be met of your business to establish the king of environmental credentials that will allow a green marketing campaign to succeed.

4. Reassure the Buyer: Consumers must be made to believe that the product performs the job it's supposed to do-they won't product quality in the name of the environment.

5. Consider your Pricing: If you're charging a premium for your product-and many environmentally preferable products cost more due to economies of scale and use of higher quality ingredients make sure those consumers can afford the premium and feels it's worth it.

6. Giving your Customers an Opportunity to Participate: Means personalizing the benefits of your environmentally friendly actions, normally through letting the customer take part in positive environmental action.

Need Of Adoption Of Green Marketing:

Green marketing has been widely adopted by the firms worldwide and the following are the possible reasons cited for this wide adoption:

1. Opportunities:

As demand changes, many firms see these changes as an opportunity to exploit and have a competitive advantage over firms marketing no environmentally responsible alternatives. Some examples of firms who have strived to become more environmentally responsible, in a attempt to better satisfy their consumer needs are:

1. McDonald's replaced its clam shell packaging with waxed paper because of increased consumer concern relating to polystyrene production and Ozone depletion.
2. Thua manufacturers modified their fishing techniques because of the increased concern over driftnet fishing and the resulting death of dolphins.
3. Xerox introduced a "high quality" recycled photocopier paper in an attempt to satisfy the demands of firms for less environmentally harmful products.

2. Government Pressure:

As with marketing related activities, governments want to "protect" consumer and society; this protection has significant green marketing implications. Government regulations relating to environmental marketing are designed to protect consumers in several ways

1. Reduce production of harmful goods or by products. Modify consumer and industries use and consumption of harmful goods.
2. Ensure that all types of consumers have the ability to evaluate the environmental composition of goods. Government establishes regulations designed to control the amount of hazardous wastes produced by firms.

3. Competitive Pressure:

Another major force in the environmental marketing area has been firms desire to maintain their competitive position. In many cases firms observe competitors promoting their environmental behavior and attempt to emulate this behavior. In some instances this competitive pressure has caused an entire industry to modify and thus reduce its detrimental environmental behavior. For example when one tuna manufacture stopped using driftnets the others followed suit.

4. Social Responsibility:

Many firms are beginning to realize that they are members of the wider community and therefore must behave in an environmentally responsible fashion. This translates into firms that believe they must achieve environmental objectives as well as profit related objectives. This results in environmental issues being integrated into the firm's corporate culture. There are examples of firms adopting strategies.

5. Cost of Profit Issues:

Firms may also use green marketing in an attempt to address cost or profit related issues. Disposing of environmentally harmful byproducts, such as polychlorinated biphenyl contaminated oil are becoming increasingly costly and in some cases difficult. Therefore firms that can reduce harmful wastes may incur substantial cost savings. When attempting to minimize waste, firms are often forced to re-examine their production processes.

Suggestions:

In order to achieve environmental and profit related objectives, the business organizations can consider following suggestions:

1. Zero paper consumption.
2. A firm can aim to achieve carbon neutrality.
3. Adopt mechanisms to evaluate the level of damage a product can cause to the environment.
4. Bring about transparency in the ethical environment.
5. Use resources judiciously.
6. The industry should not mislead the consumers in the name of green marketing.
7. Instead of making plans to reprocess the waste, make strategies to reduce the wastes in the production stage itself.
8. Consumers are to be well educated about green marketing and the importance of protecting the planet from polluted goods and services should be emphasized.
9. All educational institutions should introduce a subject on "Environmental Studies" in the academic curriculum.

Conclusion:

Green marketing covers more than firms marketing claims. While firms must bear much of the responsibility for environmental degradation, ultimately it is consumers who demand goods, and thus create environmental problems.

In the present era, a firm without green concepts cannot survive in the market. But the central theme is that the "Consumer" needs to be educated in this regard. A lack of information or keeping the consumers in the dark about the utility of green products is another way of cheating the consumers. A proper legislation in Consumer Protection Act is the need of the hour. The role of the media & the stakeholders should be to play an informative role in educating the consumers. Now days, the consumers are getting quite aware about the importance of the protection of the earth, protecting the ozone layer, pollution of air, water & environment from print and non print media. Therefore, in order to survive in the present era of cut-throat competition, firms need to go greener than their competitors.

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E– Business& E-Commerce, The Need of Today's India With A Case Study Of Grocery Market

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Abstract: In the beginning of the last decade of the 20th century, Indian Economy experienced Economic Crisis. On this ground, it was necessary to bring new changes in Indian Economy. Hence Government of India adopted New Economic Policy (NEP) in 1991.Among the major factors that drove India's economic growth following the economic reforms of 1991 were increased FDI, adoption of information technology and an increased domestic consumption. A major development in the nation's services sector has been visible in the telecom and information technology sectors.This improvement in the telecom & IT sector increases no. of users of telecommunication services & internet services in India. As a result, India had around 749 million internet users across the country. Today we have 1.18 billion mobile connections, 700 million Internet users, and 600 million smartphones, which are increasing 25 million per quarter. This Statistical data indicates that use of internet & telecommunication increases in India very rapidly. This increase in no. of users increases the need of E Business& E-Commerce in India. E-business or electronic business is the administration of conducting business via the internet. This would include the buying and selling of goods or services, along with providing technical or customer support through the internet. In the emerging mode of global economy E-Business & E-Commerce are the necessary factors of Economic Development.The India online grocery market size was valued at USD 2.9 billion in 2020 and is expected to expand at a compound annual growth rate (CAGR) of 37.1% from 2021 to 2028.The preference for online delivery of grocery products became more visible following the COVID-19 outbreak. With the social distancing standards, consumers are turning their focus to online grocery shopping, which is not only convenient but is a safer option.

Introduction:

Globalisation has created a revolution in the IT Sector. Due to entry of Private & foreign banks financial sector has become highly professional & competitive.The term E-business is derived from the terms E-mail & E-Commerce. E-business include buying & selling of goods or services along with providing technical or customer support through the internet. E-Business is an abbreviation for Electronic Business. IBM was one of the first companies to use the term *e-business* when, in October 1997, it launched a thematic campaign to address the confusion many consumers had about internet-based businesses. Till October 1997 the word e-commerce was used.The term electronic commerce (ecommerce) refers to a business model that allows companies and individuals to buy and sell goods and services over the Internet. Ecommerce operates in four major market segments and can be conducted over computers, tablets, smartphones, and other smart devices E-Business (electronic business) is any process that a business organization conducts over a computer-mediated network. Business organizations include any for-profit, governmental, or non-profit entity. Their processes include production-, customer-, and internal- or management-focused business processes.E-business opens new door to customers around world. E-business establishes more closer & responsive relationship with partners, employees & suppliers. It connects, adopts IT System so it is very easy to manage the business activity. With the help of internet, it is possible to add innovative values to the existing products & services.E-business refers to the use of Web, internet to conduct the business. Some people use the term E-business & E-Commerce interchangeably but they are not synonyms. E-commerce refers to buying & selling online, while E-business encompasses all business conducted online. E-commerce is a branch of E-business. India e-commerce will reach US$ 99 billion by 2024, growing at a 27% CAGR over 2019-24, with grocery and fashion/apparel likely to be the key drivers of incremental growth.

An Indian E-commerce industry has been on an upward growth trajectory and is expected to surpass the US to become the second largest E-commerce market in the world by 2034. India e-commerce sector is expected to reach US$ 111.40 billion by 2025 from US$ 46.20 billion in 2020, growing at a 19.24% CAGR, with grocery and fashion/apparel likely to be the key drivers of incremental growth.The growth of e-business in recent decades has given rise to new business requirements. On the customer front, consumers expect organizations to offer self-service options for conducting transactions; they expect personalized experiences; and they want speedy, secure interactions.

Objectives:

1. To Study the importance of E-business& E-commerce.
2. To Study the need of E-business & E-commerce in India.
3. To study progress made by business after introduction of E-Commerce E-business in India.

Scope of E-Business:

The scope of E-business is broader. E-business is used in almost all types of businesses & business functions like financing, insurance, Commercial transactions like ordering, delivery, payment, product service, maintenance, use of public & private services, public procurement, transportation, accounting etc.

Types of E-Commerce:

1. **Business to Business (B2B):** Business-to-business (B2B) is a transaction or business conducted between one business and another, such as a wholesaler and retailer. B2B transactions tend to happen in the supply chain, where one company will purchase raw materials from another to be used in the manufacturing process.
2. **Business to Customers (B2C):** The term business-to-consumer (B2C) refers to the process of selling products and services directly between a business and consumers who are the end-users of its products or services.
3. **Consumer to Business (C2B):** Consumer-to-business (C2B) is a business model where an end user or consumer makes a product or service that an organization uses to complete a business process or gain competitive advantage.
4. **Consumer to Consumer (C2C):** Consumer to Consumer is the business model that facilitates business activities among two people.
5. **Business to Administration (B2A):** Business-to-administration or (B2A) takes place between companies, public administration, or government agencies.
6. **Consumer to Administration (C2A):** Consumer-to-administration (C2A) e-commerce encompasses all electronic transactions between individuals and public administration.

Importance Of E-Commerce & E-Business:

1. The process of e-business enables sellers to come closer to customers that lead to increased productivity and perfect competition.
2. The customer can also choose between different sellers and buy the most relevant products as per requirements, preferences, and budget.
3. Customers now have access to virtual stores 24/7.
4. E-business also leads to significant transaction cost reduction for consumers.
5. E-business has emerged cross-border trade of goods and services.
6. It makes starting, managing business easy and simple.
7. The growth in the e-commerce sector can boost employment, increase revenues from export, increase tax collection by ex-chequers, and provide better productsand services to customers in the long-term.
8. It helps in better communication between business houses.
9. It makes purchasing very easy.

Progress Made By Business After Introduction Of E-Commerce & E-Business:

1. Online retail sales in India are expected to grow by 31 per cent to US$ 32.70 billion in 2018, led by Flipkart, Amazon India and Paytm Mall.
2. Electronics is currently the biggest online retail sales category with a share of 48 per cent, followed closely by apparel at 29 per cent.
3. Technology enabled innovations such as digital payments, hyper-local logistics, analytics driven customer engagement and digital advertisements have enabled the eCommerce industry in India to grow at a much faster rate.
4. India's e-commerce market was worth about $3.9 billion in 2009. Online travel constitutes a sizable portion (87%) of this market today. Online travel market in India had a growth rate of 22% over the next 4 years and reach ₹54,800 crore ($12.2 billion) in size by 2015.
5. Indian e-tailing industry is estimated at ₹3,600 crore (US$800 million) in 2011 and estimated to grow to ₹53,000 crore ($11.8 billion) in 2015. In 2013, the e-retail segment was worth US$2.3 billion. About 79% of India's e-commerce market was travel related in 2013.
6. According to Google India, there were 35 million online shoppers in India in 2014. Electronics and Apparel are the biggest categories in terms of sales. Overall e-commerce market had reached ₹1,07,800 crores (US$24 billion) by the year 2015 with both online travel and e-tailing contributing equally.

7. Another big segment in e-commerce is mobile/DTH recharge with nearly 1 million transactions daily by operator websites. Year 2016 also saw online sales of luxury products like jewellery also increased.
8. Most of the retail brands have also started entering into the market and they expect at least 20% sales through online in next 2–3 years. According to Google India Research in 2016, by 2021 India is expected to generate $100 billion online retail revenue out of which $35 billion will be through fashion e-commerce

Hypotheses:

1. E-business change the business pattern in India
2. E-business plays crucial role in Economic Development.
3. E-business change the buying pattern of customers.

Research Methodology:

The goal of this study is to learn about the concept of E-business & it's benefits to business, customers and Indian Economy. But due to time constraint only study of Grocery Market is taken for research. An investigator adopted the "survey" as method of data collection for the present study. The questionnaire was developed and allotted to the customers & entrepreneurs to collect responds.

Sample For The Study

Random sampling technique was adopted to select the sample for the present study. The products which are selected for the study are fresh produce, breakfast & dairy, snacks & beverages, cooking essentials etc.

Data Analysis & Findings:

1. The staples and cooking essentials segment dominated the market with a share of 33.9% in 2020.
2. The breakfast and dairy segment is expected to expand at a growth rate of 37.6% over the forecast period.
3. The online segment dominated the market with a share of 63.8% in 2020 and is expected to expand at the highest CAGR during the forecast period.
4. In 2020, South India held the largest share of 34.6% in terms of revenue.
5. West India is projected to be the second fastest-growing region with a CAGR of 37.3% during the forecast period.

Conclusion:

E-Commerce & E-business helps customers in shopping variety of products. It also helps to every type of business & industry irrespective of its size & nature by different ways. It contributes lot in development of Indian Economy.

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Ultrasonic Velocity Studies and Molecular Interactions In Mixtures of Amino Acids In Aqueous Medium

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Abstracts: Ultrasonic velocities, densities and viscosities have been measured in aqueous solutions of Glycine + water + Methanol system as a function of concentration and temperature at 5 MHz frequency. From these data, acoustical parameters such as adiabatic compressibility, intermolecular free length etc. has been evaluated. The results have been analysed on the basis of variations in ultrasonic velocities and free lengths. The importance of the variation of the parameters is discussed in terms of the interactions present in these systems.

Introduction:

The scientific understanding of the molecular world and the application of quantitative methods lay the foundation of modern scientific activities joining and shaping of atoms molecules and ions to form molecular complexes is the prerequisite for functional systems. The spatial modification and the three dimensional arrangements of the constituent atoms, molecules and ions results in the functional structure. The atomic and molecular interactions that determines the arrangement and stability of functional group, their flexibility and function [1]. The properties of a material are controlled by the type of bond and bond strength between the atoms, molecules and ions involved for shaping and joining materials into a desired system, the processes are determined by the strength and direction of interactions between the joining surfaces. A separation between the bonding forces in the bulk material and the surface forces has some significance. Both internal and external bonds are based on the interatomic interactions. The strength and direction of bonds, as well as the number of bonds per atom in a molecular system determines the properties and the spatial dependence of these properties [2]. Several experimental techniques are employed to investigate the properties of pure and mixed liquid systems. A great deal of interest has been focused on the studies of biomolecular systems in aqueous and non-aqueous media. The studies on biomolecular systems containing lipids, carbohydrates, proteins, nucleic acids etc are of vital importance in the elucidation of the molecular interactions prevalent in the requisite system and the conformational changes occuring in the system due to the modification of structural aspects. As a part of our program of studying solute-solvent interactions in pure and mixed biomolecular systems, the present work reports the results of the studies on aqueous amino acid systems. Many thermodynamic properties of liquid systems are determined from the knowledge of the dependence of ultrasonic velocity, density and viscosity as function of composition and temperature [3]. To our knowledge there are very few reports on the experimental data using ultrasonic technique. In recent years ultrasonic velocity measurements have attracted great deal of interest in investigating the solute–solute, solute – solvent and solvent –solvent interaction. With a view to understand the molecular interactions in amino acid based liquid systems, the present work aims at determining the ultrasonic velocity in aqueous solutions of Glycine + water + Methanol system. A systematic study using ultrasonic velocity (u), density (ρ), and viscosity (η) measurements as a function of mole fraction has been carried out. The temperature dependence of these quantities has also been investigated from 293.15.K to 318.15 K. using this experimental data. Several derived parameters have been evaluated.

Experimental Details:

The solutions of various concentrations in mole fraction were prepared by taking purified A.R. grade samples at 303 K in all the mixtures. The ultrasonic velocities in liquid mixtures have been measured using an ultrasonic interferometer working at 5 MHz frequency with an accuracy of 0.01 %. The temperature of the mixture was maintained at the desired temperature by circulating water around the liquid cell from thermostatically controlled water bath with an accuracy of ± 0.1ºC. The density of the solution was measured using a pyknometer of capacity 5 ml. The viscosity measurements were carried out using Ostwald's viscometer. Experiments were repeated at least four to five times for each solution, and, the average was taken as the final value of the measured quantity.Using the measured data, the acoustical parameters such as adiabatic compressibilityβ, intermolecular free length L, specific acoustic impedance etc. have been calculated at different temperatures and for all compositions.

Results and Discussion:

Velocity of ultrasonic waves in a medium is fundamentally related to the binding forces between the atoms or the molecules. The variation of ultrasonic velocity, density, viscosity and related parameters

as a function of composition and temperature throw much light upon the structural changes associated with the liquid mixtures having weakly interacting components as well as strongly interacting components. The measured values of density, viscosity, ultrasonic velocity and other parameters of the solution of Glycine + water + methanol at different mole fraction 293.15, 298.15, 303.15, 308.15, and 313.15 K are given in Table1(a), 1(b) and 1(c) respectively.

Table 1(a): Densities (ρ) of glycine + water+ methanol mixtures at various temperatures (K).

x1	T=293.15	T=298.15	T=303.15	T=308.15	T=313.15
0.0000	0.98896	0.98146	0.97884	0.97180	0.96987
0.0042	0.98937	0.98319	0.98019	0.97592	0.97395
0.0083	0.99106	0.98567	0.98353	0.98126	0.97951
0.0124	0.99272	0.98777	0.98542	0.98372	0.98177
0.0164	0.99354	0.98954	0.98722	0.98554	0.98333

Table 1(b): Viscosities (η) of glycine + water+ methanol mixtures at various temperatures (K).

x1	T=293.15	T=298.15	T=303.15	T=308.15	T=313.15
0.0000	1.1943	1.0547	0.9728	0.8721	0.8011
0.0042	1.2104	1.0715	0.9741	0.8758	0.8318
0.0083	1.2590	1.1040	1.0066	0.9232	0.8502
0.0124	1.2767	1.1363	1.0378	0.9113	0.8934
0.0164	1.3089	1.1533	1.0543	0.9415	0.9086

Table 1(c): Ultrasonic velocities (u) of glycine + water+ methanol mixtures at various temperatures (K).

x1	T=293.15	T=298.15	T=303.15	T=308.15	T=313.15
0.0000	152037	152569	153527	154558	156025
0.0042	153435	153969	155409	155061	156650
0.0083	154271	155385	156021	156142	157863
0.0124	154759	156910	156687	157350	158401
0.0164	154483	158340	156951	157466	158591

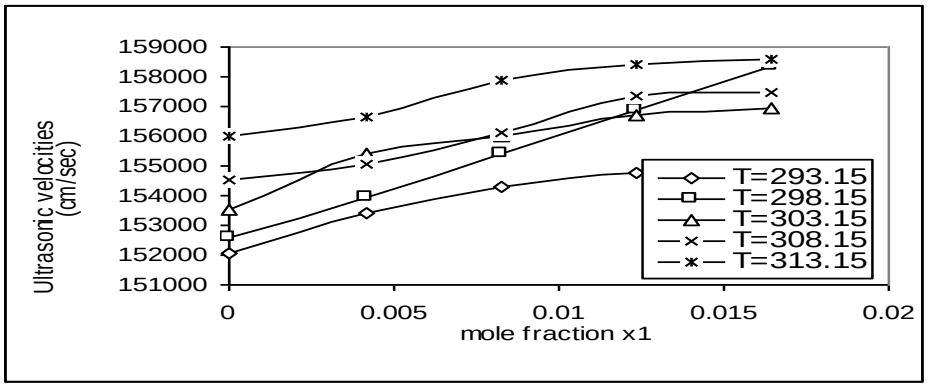

Fig. 1: Variation of ultrasonic velocities of (gly+wat+met)against mole fractions at various temperatures.

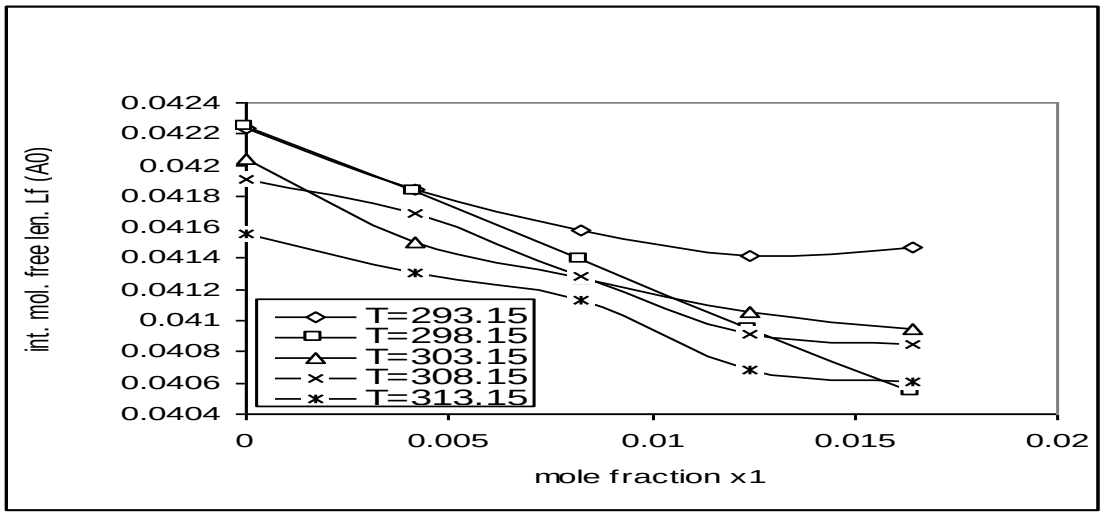

Fig. 2: Variation of intermolecular free length of (gly+wat+met)against mole fractions at various temperatures

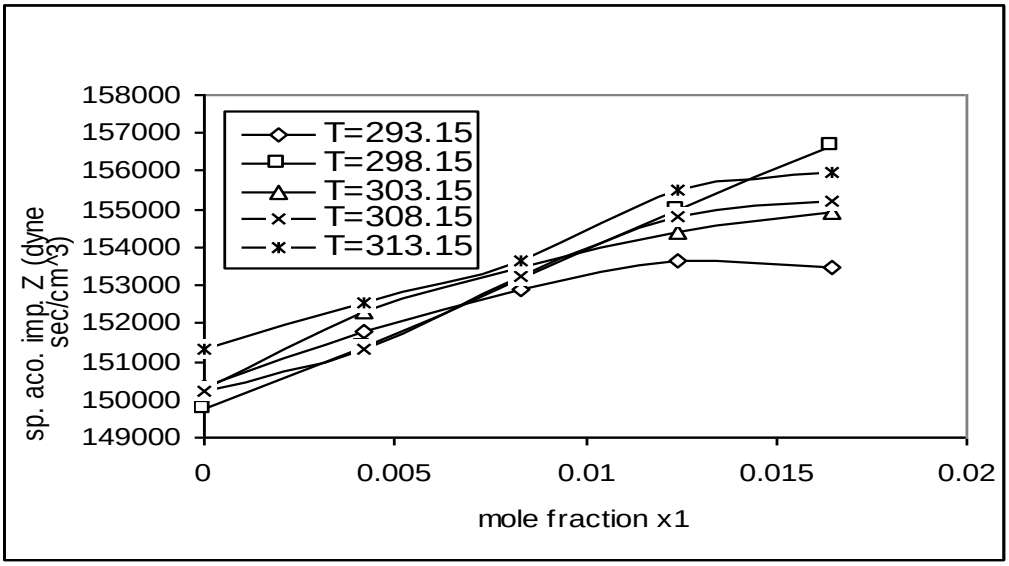

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Fig. 3: Variation of Specific acoustic impedance of (gly+wat+met) against mole fractions at various temperatures.

The Figure 1, 2, and 3 depicts the variation of ultrasonic velocity, intermolecular free length and acoustic impedance as a function of mole concentrarion. It can be seen from the Figure 1 that the ultrasonic velocity increases nonlinearly with increasing concentrations for all the temperature studied. This type of variation of ultrasonic velocity with increasing concentration of solute generally indicates association between solute and solvent molecules. The bond formation strengthens the forces between the molecules and thus results in the decrease of compressibility. From tables it is also seen that density and viscosity values in these mixtures covering the entire composition range also vary with composition. The variation of ultrasonic velocity in a solution depends on the intermolecular free length on mixing. On the basis of a model for sound propagation proposed by Erying and Kincaid, ultrasonic velocity increases on decrease of free length and vice-versa. Intermolecular free length is a predominant factor in determining the variation of ultrasonic velocity in liquids. The decrease in the value of intermolecular free length, as evident from the nature of the Figure 2, suggests a significant interaction between solute and solvent molecules and indicates a structure promoting behavior with the increase of concentration. The decrease in intermolecular free length implies the increase in the number of free ions and hence the occurrence of ionic association due to ion-ion interactions.

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Thermoelectric Power & Electrical Properties of Spray Deposited ZnO Thin films

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Abstract: Thin films of ZnO have been deposited using a mixture of aqueous solution of zinc acetate on heated glass plate by spray technique. Only substrate temperature & concentration of precursor solution has varied, where as all other preparative parameters keeping at optimized conditions for obtain good quality thin films. In air deposited films were annealed at 373˚K. This research paper reports the results for 0.2 molar concentrations and at different substrate temperatures. Thermoemf of ZnO thin films was calculated using thermoelectric power technique, which shows that the thermoemf increases with the increase in temperature difference, which can be attributed to the increase in concentration and mobility of charge carriers with rise in the temperature. Also electrical characterizations have been carried out using electrical resistivity method. it was observed that the electrical resistivity (**ρ**) decreases as temperature (T) increases, indicating the semiconducting nature of thin films. The decrease in electrical resistivity was due to the improvement in crystallinity of thin films, which would increase the charge carrier mobility.

Introduction:

Semiconductor II-VI group thin films have found numerous technological applications in solar cell window, transparent conductive films, varistors, , and bulk acoustic devices. Particularly, As Zinc oxide is an II-VI type semiconductor, ZnO thin films are of great interest for applications like optoelectronic devices such as lasers modulators and optical switches and photovoltaic applications [1-4]. However, recently, ZnO thin films have extensively been investigated for their optoelectronic device and photovoltaic applications by using different deposition techniques. Due to noncentral symmetry & polar surfaces of wurtzite structure, zinc oxide is a unique. Many techniques have been employed to prepare ZnO thin films such as RF magnetron sputtering [5], sol-gel [6], DMSO chemical bath [7] and spray pyrolysis [8]. The spray pyrolysis technique is considered as a useful technique for large area deposition due to the simplicity & low cost of the apparatus. In the present work polycrystalline wurtzite zinc oxide thin films were deposited by spray pyrolysis technique using aqueous and nonaqueous solution of zinc acetate.

Experimental:

(ZnO thin films were deposited by spraying an aqueous solution of zinc acetate 0.2 M on a heated glass substrate. Compressed air was used as a carrier gas and spray rate was maintained at 5ml/min. The substrate temperature was kept at constant temperature within the range 648-748 K with an accuracy of ± 5 K. To enhance the conductivity deposited films were annealed at 373 K for 60 min. The films from acetate solution having molarity 0.1, 0.3 and 0.4 were also prepared to optimize substrate temperature without changing other preparative parameters. The apparatus and deposition details have been already reported.Thermoemf characterization of ZnO thin films was carried out using thermoelectric power technique, Also electrical characterization have been carried out using electrical resistivity method.

Results and Discussion:

1. Thermemf Studies:

The dependence of thermoemf with temperature difference for various substrate temperatures and concentrations are plotted in Figure 3.14 and 3.15 respectively. It is observed that the polarity of thermoemf for ZnO thin films is positive (+ Ve) towards the hot end. This indicates that the electron flows from hot end to cold end. Hence depletion of electrons at the hot end results in positive polarity, which confirms n-type conductivity. From Fig. 1, it is also clear that the thermoemf increases with the increase in temperature difference, which can be attributed to the increase in concentration and mobility of charge carriers with rise in the temperature. Induced thermoemf is higher in thick films as compared with thin films, which may be due to the larger grain size and less number of defect levels. Similar type of results was reported for Bi_2S_3 thin films by others [9].

2. Electrical Studies:

The variation of log of electrical resistivity (log **ρ**) with reciprocal of temperature (1000/T) of ZnO thin films for various substrate temperatures at a constant 0.2 M concentration is shown in fig. 1. In each case it was observed that the electrical resistivity (**ρ**) decreases as temperature (T) increases, indicating the semiconducting nature of thin films. The decrease in electrical resistivity was due to the improvement in crystallinity of thin films, which would increase the charge carrier mobility. Similar results have been reported having the same behavior of nanocrystalline materials prepared by different methods [10-11] The

spray deposited ZnO thin films possess higher electrical resistivity may be due to its nanocrystalline nature of the films. Nair et al [12] have reported the same results for chemically prepared CdSe thin films. Figure 1. shows the variation of log of resistivity with concentration, which gives similar results as discussed earlier. The dependence of log of electrical resistivity with reciprocal of temperature is nonlinear due to the irregular grain boundaries and large spacing between them (defect states). The activation energy was calculated from the linear portion of the change in log of electrical resistivity with the reciprocal of temperature using the relation

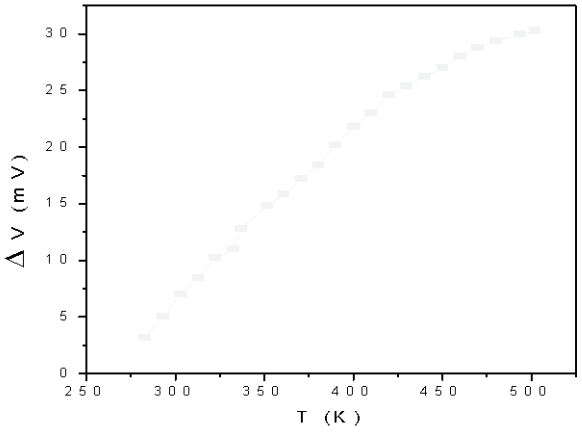
$$\rho = \rho_o \exp(-Ea / 2kT)$$

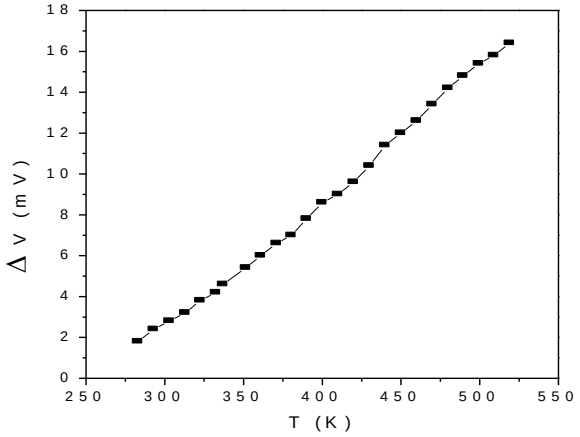
Where the symbols have their usual meanings

Table 1 shows the variation of activation energy as a function of substrate temperature and concentration of the precursor solution for ZnO thin films. The temperature depends of electrical resistivity of ZnO films made at different substrate temperature is shown in figure 1. The activation energies E_a obtained for ZnO thin films for conduction from 0.46 to 1.16 x 10^{-2} eV as shown in Table 1. The doner level E_d from the bottom of conduction band is produced by interstitial Cd atoms and this was in the range E_d = 0.81-2.36 eV. These E_a and E_d values are nearly the same ones in the previous studies reported [13, 14].

Sr. No.	**Subtrate Temperature (K)**	**Activation energy E_a (eV) For various concentrations.**				**Doner level E_d (eV)**			
		0.1	0.2	0.3	0.4	0.1	0.2	0.3	0.4
1	648	0.82	0.26	0.43	0.81	1.64	0.52	0.86	1.62
2	698	0.97	0.99	0. 62	0.73	1.94	1.98	1..24	1.44
3	748	0. 32	0.30	0.36	0.46	0.64	0.60	0.72	0.92

Table 1 Variation of Activation energy and doner level with substrate temperature and concentration of the precursor solution for ZnO thin films.





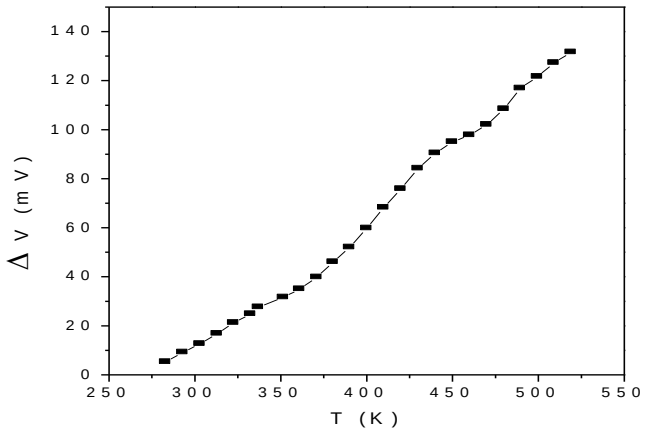


Figure 1.Variation of thermoemf versus temperature difference of l ZnO thin films at various substrate temperature (T_s) for 0.2 M concentration.

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A Study of Emotional Stability of Secondary School Student in Relation to Academic Stress

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Abstract :
Education is a powerful weapon you can use to change the world. It is not only a means to enhance human capital, productivity and, hence, the compensation to labour, but education is equally significant for enabling the process of acquisition, assimilation and communication of information and knowledge, all of which augments a person's quality of life. Consideration of these factors and the ways in which they interact provide an organic view of the teaching-learning process that is often called a "systems approach". This approach also provides a way of looking at ourselves, the environments in which we teach, and the environments around us. Using this perspective, we can better examine the process and better design the process itself. The present investigation aims at the study of emotional stability of secondary school students in relation to academic stress. The sample consisted of100 students of four secondary schools of Faridabad district. While selecting the sample for the study, due attention is paid to the various aspects of the criteria of sample selection. The sample was administered the scales of emotional stability and academic stress by the investigators individually. The result indicated that emotional stability that there is significant negative correlation between emotional stability and academic stress of secondary school students.

Introduction

Education is usually understood as a course of study to acquire a body of knowledge with skills undertaken to enhance one's ability to do a particular job and be able to earn more in life. The more liberal definitions of education, where it is understood as development and refinement of one's personality, without necessarily an eye to economic advantage, have been out of use for long, and one finds only scattered instances of the practice of education with such aims. Education, in the present day context, is perhaps the single most important means for individuals to improve personal endowments, build capability levels, overcome constraints and in the process, enlarge their available set of opportunities and choices for a sustained improvement in wellbeing. Education is essential not merely as means to other ends, but it is an attribute that is valued in itself, by most individuals. More importantly, it is a critical invasive instrument for bringing about social, economic and political inclusion and a durable integration of people, particularly those 'excluded', from them mainstream of any society**.**

Education aims at making children capable of becoming accountable, productive and functional member of society. Knowledge skills and attitude are built through learning experiences and opportunities created for learners in school. It is in the classroom that learners can analyze and evaluate their experiences, clear their doubts and think independently. Teaching and learning process in the class room situation is a process that includes many variables. These variables interact as learners work toward their goals and incorporate new knowledge, behaviors, and skills that add to their range of learning experiences. Over the past century, various viewpoint on learning have emerged, among them — behaviorist cognitivist and constructivist (knowledge as a constructed element resulting from the learning process). Rather than considering these theories separately, it is best to think of them together as a range of possibilities that can be integrated into the learning experience. During the integration process, it is also important to consider a number of other factors — cognitive style, learning style, the multiple natures of our intelligences, and learning as it relates to those who have special needs and are from diverse cultural backgrounds.An individual tries to keep a balance between himself and his environment by this personality, particularly when an individual deals with his problems effectively to be well adjusted. Adjustment is defined as confirmation to a group with a continuous process of maintaining harmony among the attitudes of an individual and the environmental conditions which surround him. It is the fulfillment of potential for a personally and socially satisfactory life. The outcome of the individual effort to deal with stress and the adjustment involves the ability to solve one's personal problems in an adaptable and constructive way. To be well adjusted and individual has to be intelligent so that he can think rationally, act purposefully and deal effectively with the environment.

Emotional Stability

Emotional stability has been inquire and recognized as a personality representation in human mind. However, no matter the approach of natural language description based on lexical hypothesis or clinical observations are inductive, these approaches are short of theoretical framework on emotional

stability to explain its nature and construct. In the meanwhile, the criterion validity of the existing emotional stability measurements with regard to the prediction of behaviour has been challenged by trait theorists.

Emotional Stability is the strength of emotions. It is the ability to handle difficulties in life and to understand and have empathy for others. It is the ability to inspire and lead others. Emotional stability is not something we are born with. As children, our emotional stability is very weak and raw, requiring attention. As we get mature and learn more, we have the ability to work on our emotional stability the same way we do physical exercise.

Academic Stress

Scientific and technological progress all over the globe has made man highly sensitive, critical and creative. Associated with this growth is the emergence stress. The term 'stress' has become a part of our every day vocabulary. The concept of stress may differ according to the individual's state of contexts and interpretations. It is recognized that certain amount of stress is desirable, tolerable, productive but excessive stress may damage person's self and his life (Rajendran and Kalippan, 1991)

Gupta and Khan (1987) Academic stress is a mental distress with respect to some anticipated frustrations associated with academic failure or even a fear of the possibility of such failure.

According to Shah, M.L. (1988) in the context of school, academic stress means a pervasive urgency to learn all those things which are related or prescribed by the school.

Need of The Study

Man is a social animal. While living in a society, man should live with love, co-operation, kindness and sense of sharing with others. It is because; every society has certain customs, traditions, norms and ideals, the fulfillment of which is the primary responsibility of man, so that he can reside well in the society. Any man can be called socially intelligent when he adjust himself in the society. If a man adjust himself in more and behave in society, only then he can adjust himself in the society.

The National Policy on Education (NPE), 1986 and the Programme of Action (1992) gives the basic policy framework for education, emphasizing on correcting the existing inequalities. It stresses on reducing dropout rates, improving learning achievements and expanding access to students who have not had an easy opportunity to be a part of the general system. The NPE, 1986 envisaged some measures for integrating of children with physical and mental handicap with the general community as equal partners, preparing them for their normal growth and development and enabling them to face life with courage and confidence. Modern age is the age of cutthroat competition, which results in tensions and stresses. Achievement is the end product of all educational endeavors (Balsubramaniyan, 1997). The main concern of all educational efforts is concentrated on student's achievement. Curriculum and co-curricular offerings have tremendously expanded, gripping the students in the adjustment problems. Feeling the insecurity, conflicts within themselves, bad company and low achievement creates emotional tensions and stress among the students. Unable to face the changing trends in the society, the students are taking to drug addiction and even the suicidal note is increasing. All these factors necessitate a more formal, systematic and intensive process of carrying on the methods of analysis. A systematic structure of investigation must be involved to improve the performance of students in different spheres, to introduce an atmosphere conducive to intellectuals and to minimize the stress on students. The world is becoming more and more competitive. Quality of performance has become the key factor for personal progress. Parents desire that their children climb the ladder of performance to as high as possible. This desire for a high level of achievement puts a lot of pressure on students, teachers, schools, and in general, the educational system itself. In fact, it appears as if the, whole system of education revolves round the academic achievement of students, though various other outcomes are also expected from the system. Thus a lot of time and effort of the schools are used for helping students to achieve better in their scholastic Endeavour's. Intelligence of the child should be molded according to the norms of the society so that he can understand how he can adjust with/make adjustment to his family, friends, near and sear ones, relatives and to his environment at large.

Objectives of the study

The study will be to achieve the following objectives.

1. To study the relationship between Emotional stability and academic stress of secondary school students.
2. To study the relationship between Emotional stability and academic stress of boys of secondary schools.
3. To study the relationship between Emotional stability and academic stress of girls of secondary schools

Hypothese of The Study

1. There is no significant relationship between Emotional stability and academic stress of secondary school students.
2. There is no significant relationship between Emotional stability and academic stress of boys of secondary schools.
3. There is no significant relationship between Emotional stability and academic stress of girls of secondary schools

Delimitations of The Study

The present study will be delimited to:-

1. The study was confined to Faridabad district only.
2. The study was confined at the secondary level.

Methodology

The present study is a descriptive survey which aims at analyzing the emotional stability and academic stress of secondary school students of Faridabad district only.

Sample

The sample for the present study comprises of 100 students studying in class IXth & class Xth from different secondary schools of Faridabad district selected randomly.

Tools

Following tools were employed to collect the data for the present study: _

1. Bisht Battery of Stress Scale (BBSS) developed by Abha Rani Bisht (1987).
2. Emotional Stability test for children by Dr. A. Sen. Gupta & Prof. A.K. Singh

Hypotheses Wise Findings:

1. **Correlation Between Emotional Stability And Academic Stress Of Secondary School Students**
   The coefficient of correlation between Emotional stability and Academic stress of secondary school students is 0.64. The 'obtained 'r' is much higher that the tabulated values. So it is concluded that there is significant negative correlation between emotional stability and academic stress of secondary school students. **Hence hypothesis -1,** "There is no significant relationship between emotional stability and academic stress of secondary school students" is rejected.
2. **Correlation Between Emotional Stability And Academic Stress Of Boys Of Secondary Schools**
   The coefficient of correlation between Emotional stability and Academic stress of boys' of secondary school students is -0.56. The obtained 'r' is much higher that the tabulated values. So it is concluded that there is significant negative correlation between emotional stability and academic stress of boys of secondary school students.
3. **Hence hypothesis -I1,** "There is no significant relationship between emotional stability and academic stress of boys of secondary schools" is rejected.
4. **Correlation Between Emotional Stability And Academic Stress Of Girls Of Secondary Schools**
   The coefficient of correlation between Emotional stability and Academic stress of girls of secondary school students is -0.77. The obtained 'r' is much higher that the tabulated values. So it is concluded that there is significant negative correlation between emotional stability and academic stress of girls of secondary school students.
5. **Hence hypothesis -I1I,** "There is no significant relationship between emotional stability and academic stress of girls of secondary schools" is rejected.

Educational Implications

1. This study will help to increase the awareness among secondary schools students in relation to emotional stability.
2. The teachers will be able to implement this awareness in a proper way to drive maximum benefits.
3. It will help the students to make better adjustments in school as well as in their social life.
4. It will lead to diagnosis, remediation and enhancement of learning.
5. This study can help us to relate the level of emotional intelligence with the effectiveness of teachers because if a teacher is not emotionally competent, then his teaching can never become effective because emotional stability and emotional intelligence are the pre-requisites for a good and effective teacher.

Suggestions For Further Study

1. Only two correlates of secondary school students namely emotional stability & Academic stress has been taken, it would be desirable to take up more variables.

2. Instead of conducting the research on secondary school students, representative sample of some other group of students may also be undertaken.
3. The present study covers only representative sample of students from Faridabad district. The study may be replicated on a large sample in order to get a better understanding of variables under study.
4. Academic stress of senior secondary school students may be compared with under achievement in different subjects.

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Pharmacy: Always Trusted For Your Health

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Abstract: The pharmacist's role as a health caregiver in any society is so important, as the pharmacists are essential healthcare professionals, who enhance patient care and promote wellness. Trust is a central part of all human relationships and a fundamental element of social capital. Trust is also essential to healthcare: there is a significant association between trust in healthcare professionals and health outcomes for patients. The present paper highlights the various important aspects that evidently support the theme of World Pharmacy Day 2021 "Pharmacy: Always Trusted For Your Health".

Keywords: Pharmacists human relationships, fundamental element, social capital, healthcare.

Introduction: **Pharmacy** is defined as the science and art of preparing and dispensing medicines in patient care. It includes prescription handling, compounding and labelling drugs, monitoring patient's drug profile and providing patient care.

Pharmacy profession is different than other profession because :

1. Pharmacy person requires knowledge in pharmaceutical sciences and health sciences.
2. The main aim of pharmacy is safe use of medicines and provides drug consultation whenever necessary.
3. Pharmacy profession covers broader area involving from preparing and dispensing medicine to counseling and clinical services to the patients.
4. Pharmacist can also actively participate in health education and awareness to the public.
5. Pharmacist has a link between patient and health care professional.

Trust is an essential component of all human interactions and is crucial in health care. There is a substantial relationship between trust in healthcare providers and patient health outcomes. For many years, pharmacists have consistently been named among the top three most trusted professionals in national surveys (according to Gallup's 2018 report, Americans' Rating).

Nurses are ranked in first place, with an 84% rating in honesty and ethics, followed by 67% for medical doctors and 66% for pharmacists. The American Public Health Association (APHA) association outlined that the role of the pharmacist is now escalating beyond the dispensation and distribution of medicines, and health supplies. Pharmacist can provide many services to public health that may include pharmacotherapy, provide care, and prevention measures. A pharmacist has an available resource for health and medication information apart from dispensing medicine.

Professionals included in Health care system are:

1. Direct professional

1. Pharmacist
2. Physician / Doctors
3. Nurses
4. Compounder
5. Dispenser

2. Indirect professional

Like Engineers, Teachers and every person in different professional plays different minor roles in health care system but after **Doctor** only **Pharmacist** play major and trusted role for **Public Health**.

Mission For Pharmacist:

The word "HEALTH "means different things to different peoples from different nation. To many people it merely means freedom from any disease or the absence of disease. According to WHO *"Health is complete physical, mental and social well-being and not merely absence of disease*. According to ayurvea S*wasth* (health) is defined as *"well balanced metabolism*". In today's scenario, along with food, clothing and shelter, medicine has become one of the major basic needs of human being. "Without medicine there is no life, it act as **Sanjivani** for human being''. Thus the mission of a pharmacist can be summarized as :

"Right drug to the patient at right time in right dose through right route in right way".

Pharmacists are some of the most easily accessible members of a person's health care team. Better coordination of this accessibility can help ensure that patients get the treatments they need, when and where they need them.

The acronym **pharmacist** can be precisely elaborated as : P- Patience

H- Honesty

A-Alertness

R-Research
M- Motivator
A-Administrator
C- Courageous
I-Intelligent
S- Studious
T- Trust

Trust plays a vital role in pharmacy and it is quite evident from the last letter " T " that stand for nothing but TRUST.

Pharmacist Role:

The pharmacist's role as a medical caregiver in society is so important, as Pharmacists are essential healthcare professionals, who enhance patient care and promote wellness. While responsibilities vary among the different areas of pharmacy practice. The main roles of a pharmacist are :

1. . To evaluate factors that may affect a patient's medications adherence.
2. Help in training and educating of colleges of pharmacy and patients.
3. Provide pharmaceutical care to their patients. Improves patients' quality of life with minimum risk.

In providing pharmaceutical care, pharmacists strive to cure disease, eliminate or reduce symptoms, arrest or slow a disease process.But pharmacist's role in real practical work (especially in the most of developing countries) is limited, as most of their duties are limited to drug dispensing mainly with some irregular and rare duties as counsel patients. This may be due to many reasons as limited education and limited information sources for medical and drug data reporting and supplying, and this may be due to some reasons as languages, phrases complexity, time. But the pharmacist's role can be more beneficial (according to the pharmacist's education, ability and potentials) in many other duties, as in medical and drug data supplying and reporting, drug discovery, health care policy and disease treatment. That will be beneficial to both local and international health care process.

Three Elements Of Trust That Play A Pivotal Role In Pharmacy :

Positive relationships: The genuine interest of pharmacists in their patients and time taken to listen to their needs, as well as their (pharmacists')extra efforts during the pandemic, have helped them to establish meaningful connections and continue to build positive relationships.

Expertise: Pharmacists are the experts in medicines management. They typically complete a four-year Master of Pharmacy degree or a doctorate in pharmacy, followed by a preregistration year/internship. Once registered, they undertake lifelong learning or further training to become more specialised.

Consistency: As the most accessible healthcare provider in many parts of the world, working in premises that operate longer working hours than many other healthcare facilities, pharmacists and their pharmacies are more able to demonstrate, consistently, their skills and caring.

Trust During Pandemic: Pharmacists across the country have done an incredible job continuing to put the health and welfare of their patients and communities first, amidst increasingly difficult circumstances. In

the face of adversity resulting from the COVID-19 pandemic, our pharmacists have remained accessible, approachable and have gone above and beyond to ensure that patients have had the care that they need, when they need it. Pharmacists practising to full scope and being remunerated appropriately for not only the sacrifices made, but the expertise and attention to detail that the role requires, must be acknowledged and supported by governments and policy makers. So, pharmacists are one of the most trusted professions. During the current pandemic when the healthcare system is collapsing amid the unprecedented number of coronavirus disease cases, pharmacists played a pivotal role in disease prevention, management, and containment. They work in several localities and are linked to the patients, either directly or indirectly. Health authorities across various countries are recognizing the value of community pharmacists in the healthcare system due to their availability and accessibility to the public. During the ongoing COVID-19 crisis where clinicians and nurses are overburdened, pharmacists are well-situated to offer collaborative and complementary expertise alongside current models of care. However, the capabilities of pharmacists are under-recognized both by patients and physicians. Practitioners report strong mutual respect for pharmacists as allied health professionals. All the aforesaid facts are sufficient to justify the appropriateness of the theme of this WPD 2021 "Pharmacy: Always trusted for your health".

Importance Of Ethics In Pharmacy

1. Maintains the covenantal relationship between the patient and pharmacist.
2. Promotes the good of every patient in caring, compassionate and confidential manner by pharmacist.
3. Makes environment to respect the autonomy and dignity of each patient by pharmacist.
4. Makes pharmacist to act with honesty and integrity.
5. Maintains professional competence by pharmacist.
6. Respects values and abilities of colleagues and other health professionals.
7. Helps the pharmacist to serve individual, community and societal needs.
8. Helps to seek justice in distribution of health resources.

Conclusion:

Pharmacy has built up a reserve of trust over many years of caring, positive relationships, expertise and excellent practice, all delivered with consistency. We can put this trust to good use in countering the anti-vaxxers as well as in continuing to improve the health of our communities in general. Developing a health care system that puts people at the center of their own care and uses all available resources as effectively as possible has become a consistent goal of most governments. Achieving this goal requires different health professionals to work in collaboration with each other to meet the health needs of patients. In order for that to happen, governments must work with all key professional groups to use all available resources of the system most effectively and, importantly, pharmacists must be recognized as trustworthy professionals.

In this context, it is indeed noteworthy that the Indian pharma industry is flourishing overseas, touching almost every part of the world. With low cost, speed and high quality advantage, India is gearing up to become the hub for contract research and manufacturing. Having a competitive edge is one thing and maintaining it is another.

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Unified Payments Interface as digital innovation in India

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Abstract: Digital financial literacy has become the present need of India. There is growing awareness in this direction since the onset of demonetization. In an era where computers communicate, take orders, move and do about almost all activities that were previously the domain of a live human being, it is necessary that our country take calculated steps to advance towards this mission. A digital and cashless economy is the current mission. Digital literacy is thus, the ability to make informed judgement and take effective decisions regarding the use and management of money, in a digital mode. There has been a rapid surge in online traffic and usage of web based and mobile application based portals- both financial andotherwise, but this is limited to urban or metropolitan cities. India's national divide is loud and clear in this aspect. During the phase of demonetization, dozens of hundreds of people around the nation crowed ATMs and the bank branches, hence proving that India has a long way to go before it achieves a complete state of digitization. This study examines the rate of digital financial literacy and how it acts as a necessary primary step towards a much enhanced financial literacy and financial inclusion.
Keywords: UPI, Digital Innovation and Unified Payments Interface etc.

Introduction:

Unified Payments Interface in India Interoperability among payment systems in India has facilitated unparalleled ease of transactions while robust customer protection measures have made India's retail payment system one of the safest in the world. Unified Payments Interface (UPI) is a mobile-based, 365x24x7 'fast payment' system launched in August 2016 which allows users to send and receive money instantly using a Virtual Payment Address (VPA) set by the user itself. The unique feature of VPA-based transaction is that it obviates the need for sharing account or bank details to the remitter. It supports person-to-person (P2P) and person-to-merchant (P2M) payments which can be used over a smart phone (app-based) or a feature phone (USSD8-based), and at merchant location/website. It facilitates immediate money transfer through both 'pull' and 'push' payments. Non-financial transactions, such as balance enquiry, can also be carried out using UPI. It powers multiple bank accounts into a single mobile application of any participating bank/non-bank Third Party Application Provider (TPAP). Funds can also be transferred through UPI using account number with and IFSC (Indian Financial System Code) of the bank branch. The UPI 2.0 was launched in August 2018, which enabled users to link their Overdraft accounts to UPI VPA. Users are also able to pre-authorise transactions by issuing a mandate for specific merchant for a one-time payment There's also an added feature of AutoPay facility for recurring payments. The framework of UPI comprises NPCI as switching and settlement service provider and banks as Payment System Providers (PSPs) – as issuer banks and beneficiary banks. Additionally, it can also have Third Party Application Providers (TPAP) such as Google Pay. Transactions are carried out through mobile devices with two-factor authentication using device binding and UPI PIN as security. Currently, the per transaction limit is INR 0.2 million.

Objective of the research study:

The objectives of the present research study are as follows

1. To study the present status of Unified Payments Interface in India.
2. To evaluate the benefits of Unified Payments Interface in India.

Review of Literature:

Finauet.al (2016) examined rural dwellers' perceptions of digital ªfinancial services (DFS) to identify which factors may enhance or impede their adoption. DFS are provided by mobile network operators, either individually or in collaboration with commercial banks. The study found that DFS uptake is hindered by agents' lack of liquidity and the implicit costs that agents impose on consumers. In addition, consumers tend to fully spend the funds received through mobile money, but fail to use their mobile phones for saving purposes. Ghaffar& Sharif (2016) examined the level of financial literacy in Pakistan. The study revealed that the persons, who have more financial knowledge, usually save money. It was found in the study that middle-aged and older people were careful in spending their money and male respondents usually have better saving habits. Further it was also found that respondents earning high salaries agree that financial literacy do help in leading a financially secure life.

Aggarwal and Gupta (2016) identified the linkage between the gender gap in stock market participation and financial literacy while controlling for two major externalities of education level and wealth. It was found that female teachers participate less in stock market to an extent of 16.7% as compared to male. Results of corroborate the view that non-participation in stock markets was a common response to deficiencies in advanced financial literacy and lack of risk attitudes.

Totenhagen et.al (2015) has identified the key considerations and promising delivery methods which may inform positive changes in financial literacy and behavior among youth. Study also has conducted a comprehensive review of the current literature on youth financial literacy education and identified characteristics of financial education programs which influence positive changes.

Hospido et.al (2015) has measured the impact of financial literacy training in compulsory education in Spain. Study used a matched sample of students and teachers in Madrid and two different estimation strategies. It was found in the study that students of private schools did not increase their knowledge much, possibly due to a less intensive implementation of the program. Study also analyzed the bias that arises because the set of schools that participate in financial literacy programs was not random.

Arif (2015) examined the relationship between financial literacy and the influence of the factors that affect the investment decision. The data was collected from 154 respondents through modified questionnaire containing questions related to demography of the investors, factors affecting the investment decisions and financial literacy level of the individual investors at Karachi Stock Exchange. Study concluded that the financial literacy level of the investors was below average. Significant difference in financial literacy was found between the respondents regarding age, gender, work activity and marital status of the respondents.

Morris and Koffi (2015)has studied the relationship between financial literacy level of Canadian university students and their prior education on the subject. The results revealed that education on financial topics improved financial literacy level. However, the improvement was almost insignificant for courses taken at the secondary level. The results also showed that financial literacy was influenced by socio demographic variables as well.

Potrich et.al (2015) has study the individual financial level through socioeconomic variables. 1400 sample were collected and data analysis was performed by using descriptive statistics and multivariate analysis techniques. Following variable were considered to measure the financial literacy; dependent family members, occupation, educational level, father's educational level, mother's educational level, individual income and family income. Results of study were indicating that men who do not have dependent family members and have higher educational and both individual income and family income levels are those who are more likely to belong to the group with high financial literacy levels.

M and M (2015) has examined the financial literacy and its determinants among Gen Y employees in coimbatore city. The study found that gender, education, income and age impact the level of financial literacy. Study also concluded that financial literacy level is low among Gen Y employees in Coimbatore city.

Shih and Ke (2014)has discussed consumer money attitudes, financial literacy regarding financial decisions, and financial behavior. Study suggested that consumers who have retention planning and achievement-esteem attitudes toward money make high-risk financial decisions; anxiety toward money tends to exist mainly in low-risk investors. Financial literacy affects consumer financial behaviors, and demographic variables play segmentation roles.

Park (2011) examined the impact of three dimensions of digital literacy on privacy-related online behaviors:(a) familiarity with technical aspects of the Internet, (b) awareness of common institutional practices, and (c) understanding of current privacy policy. Hierarchical regression models analyzed data from a national sample of 419 adult Internet users. The analyses showed strong predictive powers of user knowledge, as indicated by the three discrete dimensions, on privacy control behavior.

Way & Wong (2010) state that the development and use of technology-based tools for financial literacy education has grown rapidly in recent years, often based on the presumption that digital media will enhance past practice. The studies present an ecological model for technology- based financial literacy education intervention and propose an action agenda for practice and further research.

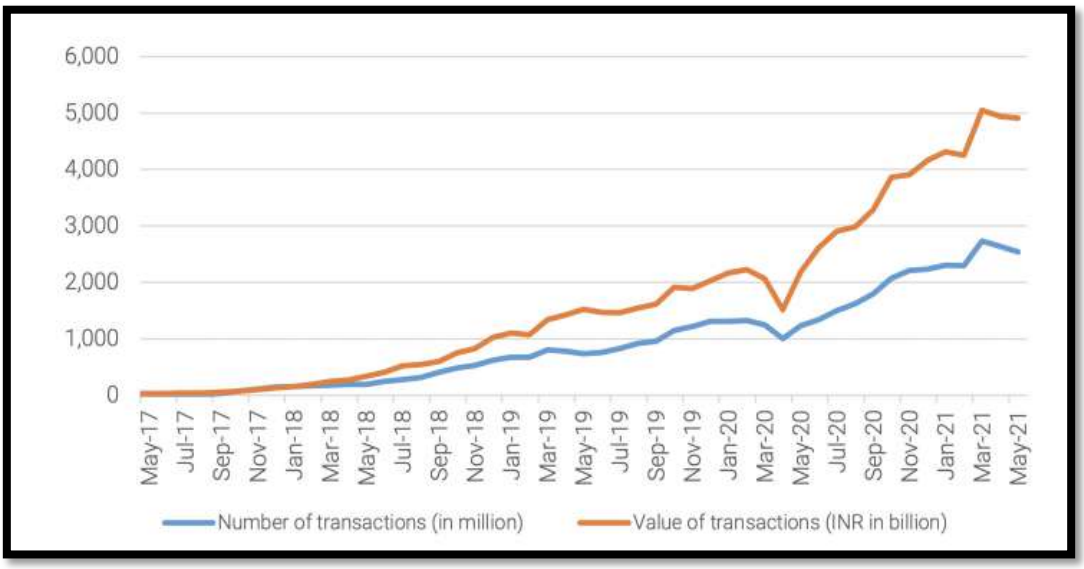
Research Design:

The research study is based on secondary data and hence the research design is framed as follows

1. Universe: UPIbased transactions in India.
2. Population: Present UPI based transactions in India.
3. Sample: UPI transactions till May 2021.
4. Sources of Data: Secondary sources
5. Variables studied: UPI transactions.

Data Analysis and Interpretations

1 UPI - Trend in number and value of transactions till May 2021



(Source: NPCI)

Above diagram gives a clear cut idea about usage of UPI transactions till May 2021. It shows that number of transactions as well as Value of transaction is raised from May 2017 to May 2021. Governments Supports Digitalization and Because of Covid-19 pandemic we can have look on the value growth from 2000 billion to around 5300 billion till may 2021. And itsincreasing day by day as all are promoting to cashless India..

2 Benefits of UPI Payments

1 Customer/ Users

1. Immediate money transfer through mobile device round the clock 24*7 and 365 days.
2. Single mobile application for accessing different bank accounts.
3. Single Click 2 Factor Authentication – Aligned with the Regulatory guidelines, yet provides for a very strong feature of seamless single click payment.
4. Virtual address of the customer for Pull & Push provides for incremental security with the customer not required to enter the details such as Card no, Account number; IFSC etc.
5. QR Code
6. Best answer to Cash on Delivery hassle, running to an ATM or rendering exact amount.
7. Merchant Payment with Single Application or In-App Payments.
8. Utility Bill Payments, Over the Counter Payments, QR Code (Scan and Pay) based payments.
9. Donations, Collections, Disbursements Scalable.
10. Raising Complaint from Mobile App directly.

2 Banks

1. Single click Two Factor authentication
2. Universal Application for transaction
3. Leveraging existing infrastructure
4. Safer, Secured and Innovative
5. Payment basis Single/ Unique Identifier
6. Enable seamless merchant transactions

3 Merchants

1. Seamless fund collection from customers - single identifiers
2. No risk of storing customer's virtual address like in Cards
3. Tap customers not having credit/debit cards
4. Suitable for e-Com & m-Com transaction
5. Resolves the COD collection problem
6. Single click 2FA facility to the customer - seamless Pull
7. In-App Payments (IAP)

UPI Payer PSP Performance (Feb'22)					
Sr. No.	Payer PSP	Total Volume (In Mn)	Approved %	BD %	
1	Yes Bank Ltd	1792.10	97.87%	2.13%	0.00%
2	Axis Bank Ltd.	723.79	98.06%	1.94%	0.00%
3	Paytm Payments Bank	634.58	98.06%	1.92%	0.02%
4	ICICI Bank	552.51	97.94%	2.06%	0.00%
5	State Bank Of India	446.83	97.74%	2.24%	0.02%
6	HDFC BANK LTD	418.82	98.61%	1.39%	0.00%
7	BHIM	25.47	91.28%	8.57%	0.15%
8	Kotak Mahindra Bank	7.18	96.20%	3.80%	0.00%
9	Airtel Payments Bank	6.65	87.23%	12.54%	0.23%
10	IDFC FIRST Bank	2.86	95.00%	4.96%	0.04%
11	India Post Payment Bank	2.36	93.44%	6.50%	0.06%
12	Federal Bank	2.36	96.84%	3.12%	0.04%
13	Jio Payments Bank	2.07	95.10%	4.40%	0.50%
14	Deutsche Bank	0.88	99.92%	0.08%	0.00%
15	INDUSIND BANK	0.81	94.84%	5.15%	0.01%

Table No. .2 UPI payer PSP performance

Source: https://dbie.rbi.org.in/DBIE/dbie.rbi?site=statistics

Business Decline (BD) - Transaction decline due to a customer entering an invalid pin, incorrect beneficiary account etc. Or due to other business reasons such as exceeding per transaction limit, exceeding permitted count of transactions per day, exceeding amount limit for the day etc. Such declined transactions are termed as Business Decline. Any decline which is not because of a technical reason of the bank or NPCI is termed as business Decline.Technical Decline (TD) - Transaction decline due to technical reasons, such as unavailability of systems and network issues on bank or NPCI side.

PSP - Payment Service Provider

Payer PSP - Under this function a bank can onboard a customer, create his/ her UPI ID, create device binding which is used as a first factor of Authentication, using this customer can enter their UPI PIN to approve a financial transaction or non-financial request where ever necessary.Payee PSP - Under this function a bank can onboard a customer/merchant & allow them to receive money basis allocated UPI ID or raise a Collect request. It is also known as beneficiary PSP/resolving PSP.

Conclusions of the research study:

Financial inclusion is a key driver for sustained and balanced economic growth, which helps reduce income inequality and poverty. The 21st century saw the rapid evolution and development of the financial markets and systems, with technological advances, new financial intermediaries, innovative products and services. The COVID-19 pandemic has enhanced the focus on all aspects of digital financial inclusion. There has been accelerated use of the digital financial services mainly due to the relaxations and innovative approach adopted by the authorities, private players adopting the remote business and payment models and increase in first-time consumers due to lockdown and social distancing protocols. While these are encouraging developments, the challenges of bridging the digital divide have got amplified. The risk of cyber incidents, online frauds, illicit financial flows and data privacy have come to the fore with increase in customer uptake as most of these technologies and platforms are relatively new and evolving. As the countries emerge from the pandemic, the digital financial system will have a crucial role to fulfil the aspirations and needs of our economies recovering from the pandemic. At the same time, these new technologies must be designed and implemented with adequate safeguards so as not to exacerbate the risk

of further marginalizing the excluded section. Going ahead, the authorities have to focus on a robust and safe architecture to strengthen the trust of the stakeholders which will help in broadening the coverage and impact of digital financial inclusion Digital financial inclusion in emerging market economies remains an on-going journey, with considerable successes achieved so far.

Suggestions of the research study

More organised classes and sessions or workshops can be arranged to help spread digital awareness, especially among women, who are believed to educate the entire family. This can also be a method of women empowerment and support.

It was inferred from the study that bonus points, gifts and rewards on transactions can act as a great incentive. This method can be adopt din larger scale to induce the masses to covert to digitalization.

Government and non-governmental institutions also play a major role in ushering in digital economy. People tend to have an eager need to catch up with the latest trend in the market, trends set by technology included.

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Study of Zingiber Officinale and Evaluation in vitro Anti-Bacterial and Anti-Oxidant Activity

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Abstract: A root of *Zingiber officinale* extracts from Ethanol, Chloroform, Carbontetrachloride, Methanol, and Hexane were investigated for their in vitro antimicrobial properties, with disk-diffusion and minimal inhibition concentration (MIC) method. All extract of *Zingiber officinale (Bel)* were different in terms of their antibacterial activities. The ethanol act showed a stronger and broader spectrum of antibacterial activity, study was also carried out to evaluate the in-vitro antioxidant activities of ethanol ,chloroform and carbon tetrachloride extract of *Zingiber officinale* species namely. This was achieved by screening the two plant extracts at varying concentrations (10-50ìg/ml) using DPPH radical scavenging activity. The results were analyzed statistically which showed that ethanol extract *Zingiber officinale* has more antioxidant activity than standard antioxidant.
Key words – Antioxidant activity, Antibacterial activity, DPPH Test.

Introduction

Ginger is a tropical plant that was spread around the tropical world during the colonial days. In Africa, Asia, or South America, and many hot spots between those continents, locals have taken to using ginger widely in medicine and food. The entire ginger family is rich in oils that both kill micro-critters and stimulate the immune system to do the same. The ways it stimulates the body are many and whether added to food or taken as a medicinal tea [1-5], ginger makes your body a little bit stronger and a little bit better able to resist the damaging forces of nature. Here are the basics for using ginger as a medicine. Damage to cells caused by free radicals is believed to play a central role in the aging process and in disease progression. Antioxidants are our first line of defense against free radical damage and are critical for maintaining optimum health and wellbeing. The need for antioxidants becomes even more critical with increased exposure to free radicals [6-10]. Pollution, cigarette smoke, drugs, illness, stress, and even exercise can increase free radical exposure. Because so many factors can contribute to oxidative stress [11-16], individual assessment of susceptibility becomes important. Many experts believe that the Recommended Dietary Allowance (RDA) for specific antioxidants may be inadequate and, in some instances, the need may be several times the RDA [17-18].

Material and method

Plant Material:

The plant materials used in this study, *Zingiber officinale* roots, seed and leaves of were collected from the field in Latur District. A voucher specimen of the collected sample was deposited in our institutional herbarium for the reference. Preparation of various extract of *Zingiber officinale*.

In present study we use dry stem of the plant collected from western ghat region Maharashtra. Dried Fruit, Leaves and Seeds are cut into small pieces these pieces are then grinded. The grinded sample is dark or gray brown in colour with a special smell.This powder of all three separately stirred in non-polar solvent Carbon tetra chloride, for 1/2 hour & then it is refluxed for 1/2 hour this is performed for extraction of non-polar component from powder. After extraction the Carbon tetra chloride layer is distilled to recover solvent & to get a brown colored liquid fraction which shows single spot on thin layer chromatography.The residue of Carbon tetra chloride extraction is used for further study. This residue is mixed with Chloroform and stirred for 1/2 hour & then refluxed for 1 hour. After filtration the filtrate is distilled to get Chloroform Fraction which is Red-brown colored liquid.Then the Residue of Chloroform is used for extraction with Ethyl acetate stirred well & refluxed for 1 hour then filtered. Filtrate is then distilled & fraction of Ethyl acetate is collected it shows no spot on TLC plate. Conclusion is that no organic compound is present.The Ethyl acetate residue is further mixed with ethanol & stirred for 1/2 hr and refluxed for 1hr. Then it is filtered & filtrate is distilled out. Ethanol fraction is yellow brown in colour & show three spot on TLC plate .All extract Collected in Bottle and studied for various activities.

Antioxidant Activity

DPPH Scavenging Test:

Quantitative measurement of radical scavenging property was carried out in a universal bottle. The reaction mixture contained 50 µL of test samples (or 80% MeOH as blank) and 5 mL of a 0.004% (w/v) solution of DPPH in methanol. Different known antioxidants, vitamin E, and butylated hydroxytoluene (BHT, Sigma) were used for comparison or as a positive control. Discoloration was measured at 517 nm

after incubation for 30 min. Measurements was taken at least in triplicate. DPPH radical's concentration was calculated using the following equation: DPPH scavenging effect (%) = [(Ao – A1) / Ao] ×100; Where Ao was the absorbance of the control and A1 was the absorbance in the presence of the sample. The actual decrease in absorption induced by the test compounds was compared with the positive controls. The mean OD 517 results of DPPH scavenging activity were recorded.

Antimicrobial Activity:

The agar diffusion method [11] was used to evaluate the antimicrobial activity. Bacteria were cultured overnight at 37 ^{o} C in Mueller Hinton 10 µl Broth and fungi at 28 ^{o} C for 72h in Potato Dextrose Broth (PDB, Oxide) and used as inoculums. A final inoculums, using 100 µl of suspension containing 10 ^{8} CFV/ml of bacteria 10 ^{4} spore/ml of fungi spread on Mueller Hinton Agar (MHA) and Potato Dextrose Agar (PDA) medium respectively.

The disc (6 mm in diameter) was impregnated with 10 µl of 75 µl/ml, 50 µl/ml, 25 µl/ml, 10 µl/ml and 5 µl/ml of each extracts and for each organism placed on seeded agar. Ciprofloxacin and Fluconazole (75 µl/ml, 50 µl/ml, 25 µl/ml, 10 µl/ml and 5 µl/ml) were used as positive control bacteria and fungi respectively. The test plates were incubated at 37 ^{o} C for 24h for bacteria and at 28 ^{o} C for 72h for fungi depending on the incubation time required for a visible growth.

MIC values were also studied for microorganisms by turbid metric method, which were determined as sensitive to the extracts in cup plate method. MIC was defined as the lowest concentration of extract that inhibit visible growth.

Observation tables

Table-1 Antibacterial activity of Ethanolic extracts seeds Zingiber officinale

Bacterial	Extract Ethanolic	Extract CCl_4	Cefotax	Pencil	Tetrax
G (+)	In mm	In mm	In mm	In mm	In mm
1.Staphylococcus epidermidis	10	9.2	10	10	9
2. Staphylococcus aureus	08	10.6	10	8	8
3. bacillus paludisme	12	6.4	11	10	8
4. Bacillus subtilis	14	9.4	11	10	7
G (-)					
1. Escherichia coli	5	8.7	6	5.5	5.5
2. Pseudomonas aeruginosa	8	7.8	6	7	4.5
3. Bacillus subtilis	7	8.5	4.5	8.5	9
4. Enterobacter aerogenes	4	5.7	6	5	6

Table-II: Antifungal activity of Ethanolic extracts from extract from seeds Zingiber officinale

Fungus	**Extract Ethanoli**	**Extract CCl_4**	**Cefotax**	**Penicil**	**Tetrax**
1. Candida albicans	6.5	6.8	7	5	9
2.Aspergillus fumigatus	8.3	3.6	5	7	4
3. Aspergillus niger	4.7	10.5	10	8	9

Table-III :Antibacterial activity of methanolic extract from root of *Zingiber officinale*

Bacteria	Extract Ethanolic	Extract CCl_4	Cefotax	Penicil	Tetrax
G (+)	In mm	In mm			
1. Staphylococcus epidermidis	6.6	7.2	10	10	9
2. Staphylococcus aureus	8.8	7	10	8	8
3. bacillus paludisme	6.8	9.7	11	10	8

4. Bacillus subtilis	9.8	5.4	11	10	7
G (-)					
1. Escherichia coli			6	5.5	5.5
2. Pseudomonas aeruginosa	7.3	3.4	6	7	4.5
3. Bacillus subtilis	8.5	6.3	4.5	8.5	9
4. Enterobacter aerogenes	8.2	7.4	6	5	6
1. Staphylococcus epidermidis	8.3	4.3	10	10	9

Table-IV
Antifungal activity of Ethanolic extract from root of Zingiber officinale

Fungus	Extract ethanolic	Extract CCl_4	Cefotax	Penicil	Tetrax
1. Candida albicans	4.0	5	7	5	4
2.Aspergillus fumigatus	7.2	8	5	6	4
3. Aspergillus niger	4.2	8	6	4	5

Table-V: Antioxidant activity of Fruits

Extract Conc. Mg/ml	BHT	Ethanol	$CHCl_3$	CCl_4
0.05	45.1	20.60	21.53	17.47
0.1	46.91	36.64	14.53	10 .70
0.2	49.24	24.24	27.50	24 .50
0.3	57.57	40.12	44.00	30 .50

Table VI: **Antioxidant activity of root**

Extract Conc. Mg/ml	BHT	Ethanol	CHCl3	CCl4
0.05	45.1	18	15	17
0.1	46.91	21	23	25
0.2	49.24	23	27	29
0.3	57.57	45	30	267

Results And Discussion:

There is a strong need for effective antioxidants from natural sources as alternatives to synthetic antioxidant in order to prevent the free radicals implicated diseases which can have serious effects on the cardiovascular system, either through lipid per oxidation or vasoconstriction The extracts and essential oils of many plants have been investigated for their antioxidant activity [5-7]. Secondary metabolites such as polyphenols are not required for plant development and growth, but are involved in plant communication and defense [8-9]. Polyphenols interact with pathogens, herbivores, and other plants; they protect from ultraviolet radiation and oxidants, repel or poison predators and attract beneficial insects or microbes [10-11]. Therefore, in this study, the antioxidant properties of the methanol extracts of leaves and stems of plant like of reexamined for DPPH radical scavenging activity according to the method described and the results of the screening are shown in table 1 & table 2 as comparable with known antioxidant BHT. In terms of antioxidant activity, all the extracts investigated exhibited a rather high degree of activity (more than 40%). In particular, fruits (ethanol extract) of *Zingiber officinale* displayed the highest activities as antioxidant activity as removal of the stable radical DPPH and the lowest activity were found in CCl4 *extract of stem.* As expected, the overall activity of the raw extracts was lower than that of commercial antioxidant BHT, the reference antioxidant. The results of Antimicrobial activity were done for all the five, pet ether, chloroform, acetone, and methanol and aqueous extracts. During antimicrobial study methanolic extracts showed maximum zone of inhibition against almost all organisms in cup plate methodThe ethanolic extract from roots of *Zingiber officinale*showed a good inhibition against all the bacterial Strains tested (MIC

between 10&80 ug/ml). The gram (+) bacteria were sensitive with gram (-) bacteria and some common fungi.

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Human Resource Management: A Study on Perception Towards Work- Life Balance Of Employees With Special Reference To Believers Church Medical College Hospital, Thiruvalla

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Abstract : Employee Work Life Balance (WLB) is a major driver in the organization that helps to achieve higher productivity. It is a healthy blend of both employee's work life and personal life. There are many factors influencing work-life balance of an employee in the organization. The researchers have identified some factors along with demographic variables to study and understand the work life balance.Work- life balance is one of the key factors for the employees to achieve success. Organizations have devised various plans, policies, programs to help their employees to achieve the balance between their work commitments and family responsibilities. Certain policies are statutory while others are voluntarily implementedfound that work responsibilities negatively impact the personal life of employees. The factors like overtime, travelling to work, meetings and training after the working hours impact the work life balance of the employees.Quantitative research methods were used for the study and a sample population was chosen amongst the participants who were single and, in a relationship, female and male by using a convenient sampling method. Out of 80 distributed questionnaires, 55 were completed and returned, and giving an overall returning rate of 68.75%. The study also confirmed negative effects of poor WLB due to high levels of work- family conflict on work satisfaction and psychological health. This study also shows the main causes of work family conflict were excessive working hours and inflexibility of work schedule.
Key words: Work life balance, Employee's work life, Work satisfaction, Work- family conflict.

Introduction

Work-life balancetypically means the achievement by employees of equality between time spent working and personal life.A good work-life balance for employees can improve staff motivation, increase staff retention rates, reduce absence, attract new talent, and reduce employee stress.

Work-life balance reduces the stress employees experience. When an employee spends the majority of their days on work-related activities and feels as if they are neglecting other important components of their lives, stress and unhappiness result. An employee, who doesn't make time for self-care, eventually damages their output and productivity. The workplace that enables employees to achieve work-life balance is particularly motivating and gratifying to employees, which makes them happy. And happy employees, whose needs for work-life balance are achieved, tend to stay with their employer productive. It is tough to make time for family, friends, community participation, spirituality, personal growth, self-care, and other personal activities, in addition to the demands of the workplace.Because many employees experience a personal, professional, and monetary need to achieve, work-life balance can be challenging. Employers can help employees achieve work-life balance by instituting policies, procedures, actions, and expectations that enable them to pursue more balanced lives, such as flexible work schedules, paid time off (PTO) policies, responsibly paced time and communication expectations, and company-sponsored family events and activities.

Objective of The Study

Following is the objective of this study:

1. To know the perception towards the work-life balance of employees with special reference to Believers Church Medical College Hospital, Thiruvalla.

Research Methodology

Research Design

Research design is the comprehensive blueprint used to guide study towards the objectives. The descriptive research design has been adopted for the present study. Under the descriptive research, the survey research is chosen, which implies that the information gathered with the help of a well- designed structured questionnaire.

Sampling

The sampling covers the employees from the Believers Church Medical College, Thiruvalla in Kerala. Simple random sampling is used for collecting the primary data through the structured questionnaire.

Data Collection

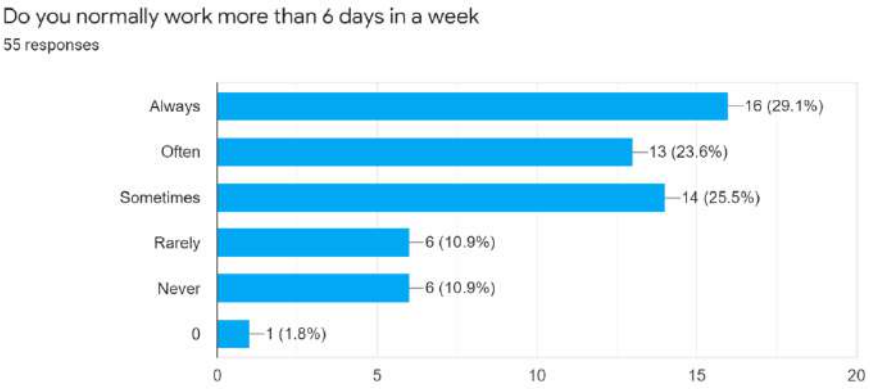
The data collection is the key task in the research methodology, for any study. The data can be collected by using two sources, namely primary and secondary data. The primary data are collected for the first time and in unique character. The primary data is collected with the survey technique, using questionnaire. 80 questionnaires were distributed among the employees of Believers Church Medical College, Thiruvalla. Out of which 55 were completed and returned which were used for statistical analysis. The secondary data is collected from several sources such as websites, magazines, books, and research reports related to the subject under study.

Data Analysis And Findings

Demographic variables state the frequency and percentage of the respondents of each of the descriptive such as age, gender, marital status, work experience, designation, qualification, monthly income.

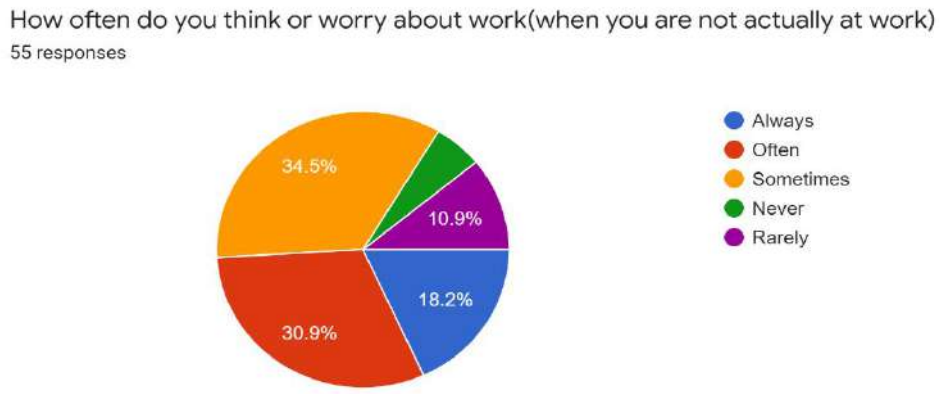
Variables	Frequency (N= 55)	Percentage
Gender		
Male	6	10%
Female	49	90%
Age		
21-30	29	52%
31-40	12	22%
41-50	14	26%
Above 50	0	Nil
Marital Status		
Married	23	42%
Unmarried	32	58%
Work experience		
0-5 years	29	52%
5-10 years	20	37%
10-15 years	6	11%
Above 15 years	0	Nil
Educational qualification		
B.Sc. Nursing	44	80%
B. Pharm	8	15%
Other Graduates	3	5%
Monthly Income		
Below Rs.20000	23	42%
Rs.20000 to Rs.30000	17	31%
Above Rs. 30000	15	27%

Fig. 1



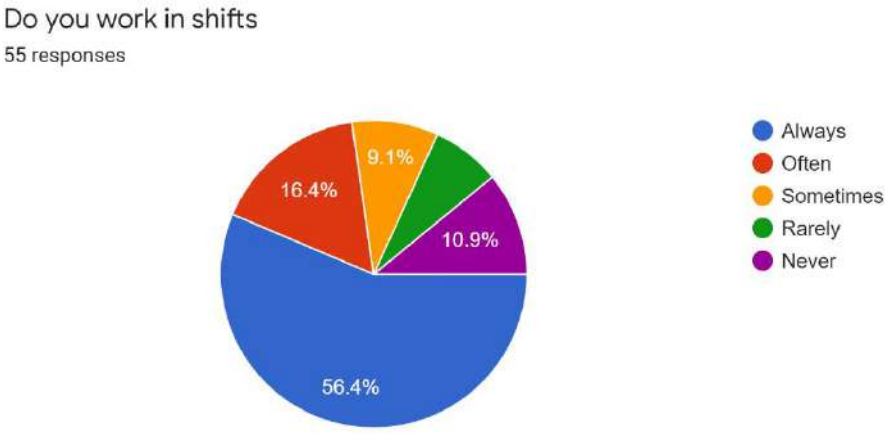
Interpretation: From the above graph, around 29.1% of employees work more than 6 days in a week.

Fig : 2



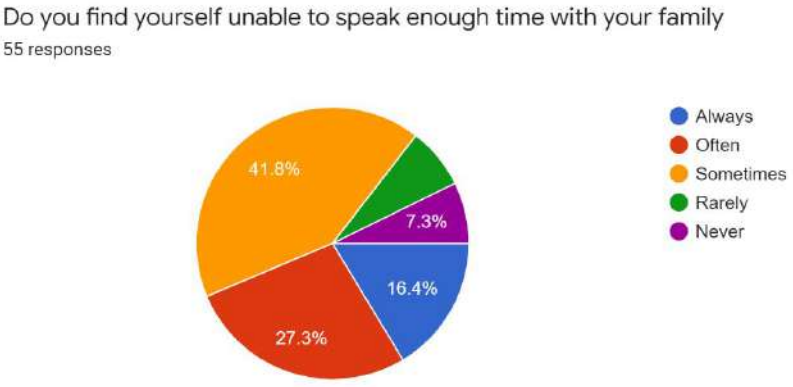
Interpretation: From the above graph, around 34.5% of employees sometimes think or worry about their work.

Fig :3



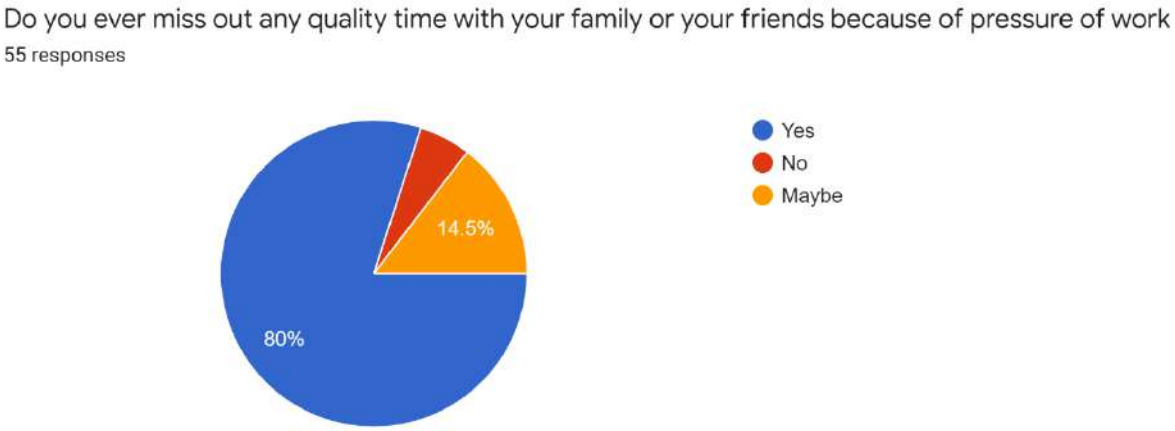
Interpretation: From the above graph almost 56.4% of employees always work in shifts.

Fig :4



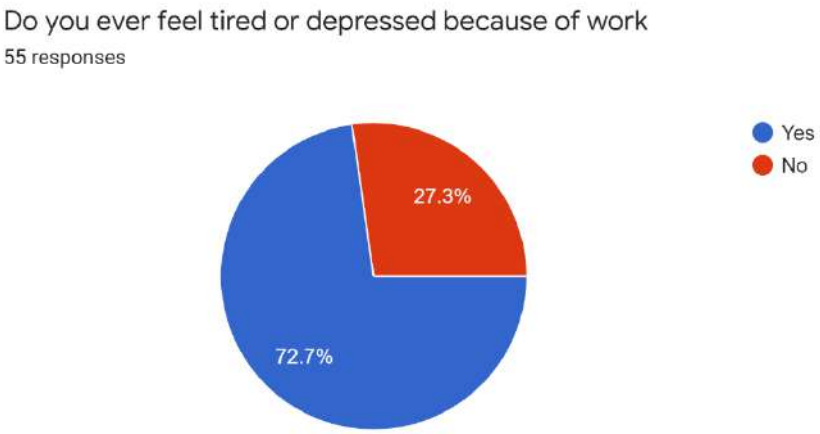
Interpretation: From the above graph, almost 41.8% of employees sometimes find themselves unable to speak with their families due to lack of time.

Fig :5



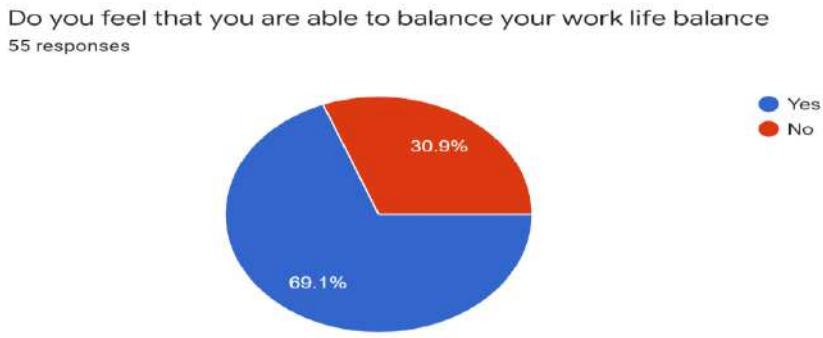
Interpretation: From the above graph, around 80% of employees miss out their quality time with friends and families because of work pressure.

Fig: 6



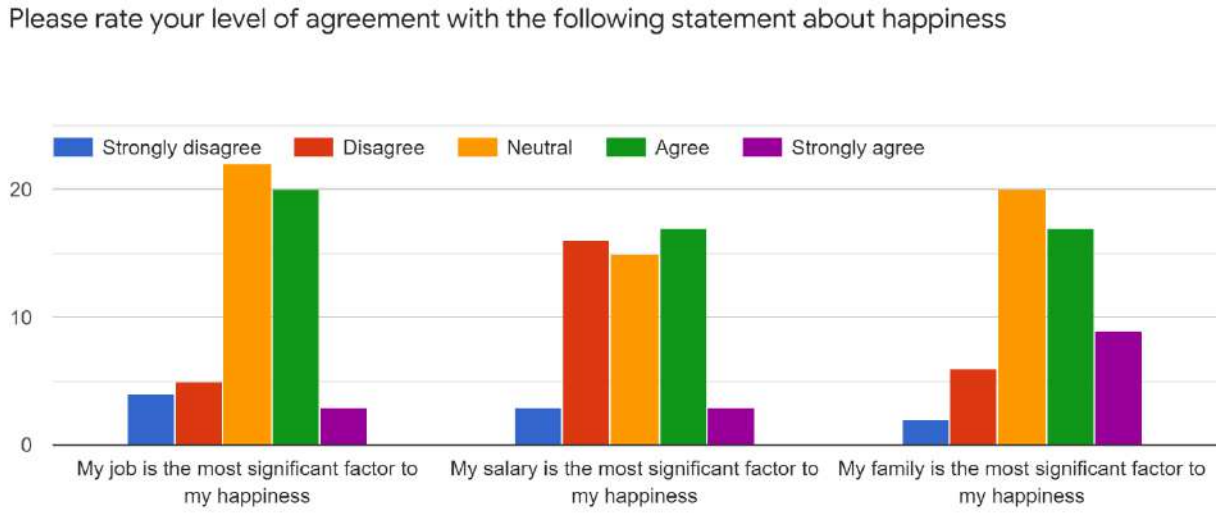
Interpretation: From the above graph, almost 72.7% of employees feel tired or depressed because of work.

Fig :7



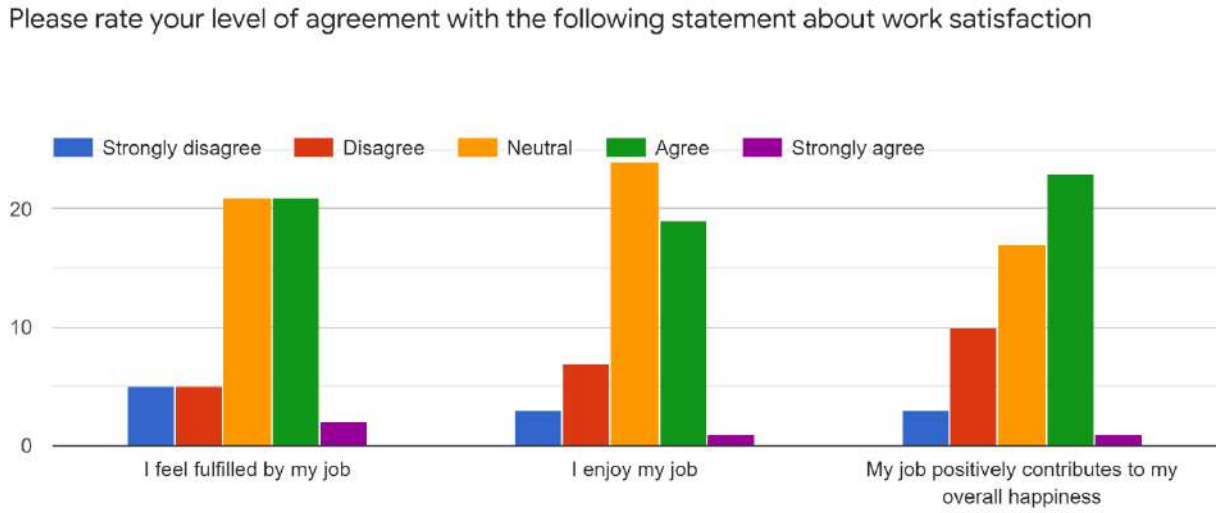
Interpretation: From the above graph, almost 69.1% of employees feel that they are able to balance their work life.

Fig: 8



Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
My job is the most significant factor to my happiness	4	5	23	20	3
My salary is the most significant factor to my happiness	3	16	15	18	3
My family is the most significant factor to my happiness	2	6	20	18	9

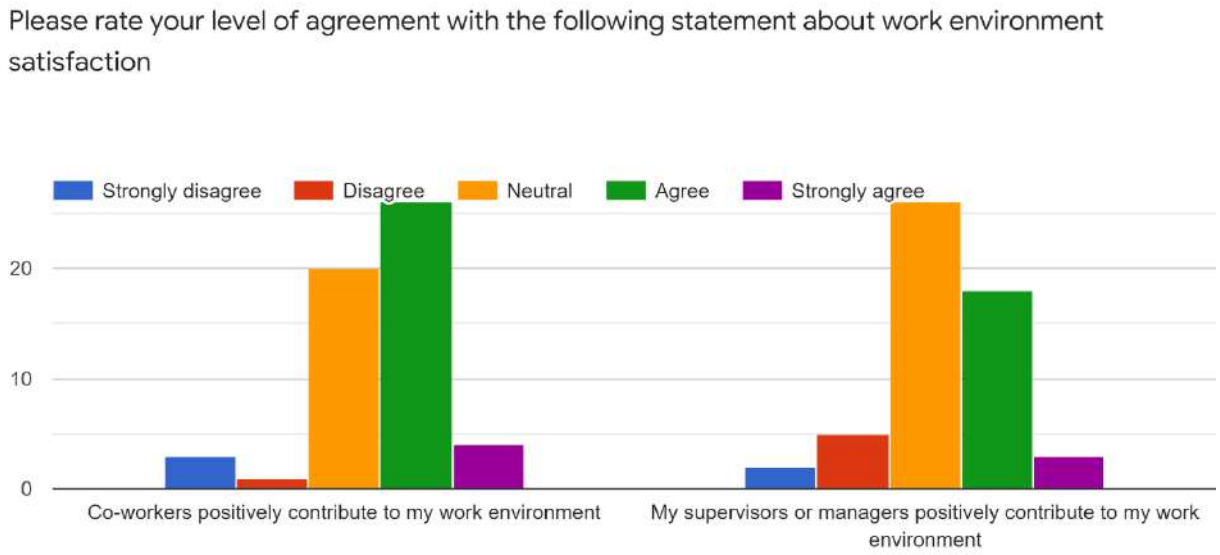
Fig: 9



Statements	Strongly disagree	Disagree	Neutral	Agree	Stronglyagree
I feel fulfilled by my job	5	5	21	22	2

I enjoy my job	3	7	24	19	2
My job positively contributes to my overall happiness.	3	10	17	24	1

Fig: 10



Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Co-workers positively contribute to my work environment.	3	1	20	26	5
My supervisors or managers positively contribute to my work environment.	2	5	26	18	4

Findings of The Study

The major findings of this study are as follows:

1. Majority of employees work for more than 6 days in a week.
2. Almost 56.4% of employees always work in shifts.
3. Majority of employees sometimes think or worry about their work.
4. Majority of employees sometimes find themselves unable to speak with their families due to lack of time.
5. Almost 72.7% of employees feel tired or depressed because of work.
6. Around 80% of employees miss out their quality time with friends and families because of work pressure.
7. Around 69.1% of employees feel that they are able to balance their work life.
8. This study helps to understand about the perception towards work- life balance of employees in Believers Church Medical College Hospital, Thiruvalla.

Discussion And Conclusion

In today's society, it is common for employees to have many challenging responsibilities in their life other than work, for example, commitments involving parents or children, education or sports commitments or personal interests outside of work. People want to escape work for a greater sense of well-being and to reduce stress levels. A poor balance between an employee's work commitments and their other

responsibilities can lead to low productivity as well as high stress and absentees. Meanwhile, employees with better work-life balance often have a greater sense of responsibility, achievement, ownership and control of their working life. If an employer helps an employee to balance their work and home life, the organizations can be rewarded by increased loyalty and commitment. Employees will also be able to focus more on their work and to further develop their career in current organization.it is important to have a positive work-life balance in order to enhance employees' productivity at work that would affect the well-being of an individual itself, the employer and the organization in general. Work-life balance is all about balancing out achievements and enjoyments. An individual has to know why he/she wants to achieve something in life, because of the satisfaction and joy of living that comes afterwards.

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Recent Methods, Principles and Aspects of Teaching Pronunciation to the Learners of English as a Second Language.

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Abstract: The pronunciation is found to be often a basis for discrimination. The learners are found to approximate more native like accent for professional and personal reasons. Many others see the native like accent as irrelevant to their goals of acquiring English as a Foreign Language. However, there are no definite, quantifiable and universally recommended methods or procedures of teaching pronunciation. Moreover, there exists no standard or universally acceptable model that can replace the controversial Received Pronunciation (RP). Even so, the reference value of a standard 'acceptable' or 'intelligible' model of pronunciation cannot be negated. It is endeavoured to present often recommended, and generally applicable current methods, principles and aspects of teaching pronunciation. In the "post-methods" era, these are expected to serve the teachers of ESL as a selection to choose from and combine in order to meet the pedagogical targets.

Introduction:

Teaching of pronunciation and research in teaching pronunciation had their hey-days during the currency of Audio-lingual Method of Language Teaching. The method preached teaching of *Segmentals*— to perceive and to produce distinctions between single sounds in minimal pairs. In the Audio-lingual Method, the goal before the learners of English as a Second Language (ESL) was of acquiring Received Pronunciation (RP). However, the RP was not agreeably defined. The BBC English, or the English as spoken by the educated speakers of the British Southern Midland, was summarily termed as the RP. It did not justify the precedence of British variety of English over many others like the American, Australian, and Canadian etc. A hypothesis that contributed to this shift in paradigm was—it is unrealistic goal for the learners of English as a second language to acquire a 'native-like accent'. The facts were also disregarded that there are many more who see English as their *lingua franca* and that, there are far more speakers of EFL than native speakers of English. Ultimately, whenthe Audio-lingual Method of Language Teaching was replaced by other methods, teaching RP receded in importance and the focus shifted towards teaching other linguistic skills. Also, in Communicative Language Teaching (CLT), emphasis was on teaching more useful aspects of communication like*Suprasegmentals*— rhythm, stress, and intonation. 'Intelligibility' in pronunciation skills was preferred over the 'native-like accent'.

General Mistakes in Pronunciation of English

As English has 44 sounds represented by only 26 letters, the spellings quite often mislead the new readers about their pronunciation. Most of the graphemes in English do not have a clear-cut correspondence to their phonemes. Hence, it is called as a semi-phonetic language. There are no easily discernible rules of letters and their pronunciations in different words. Therefore, in reading English the readers need to remember the pronunciations of the words.English is spread all over the globe and its speakers are across all the families of languages. The more the languages are distinct, the more difficulties in pronunciation. Though there are not many recent books on the errors in pronunciation in respect to a group of languages or in cross-cultural conditions, the mistakes that are generally (irrespective of any other variables) mentioned in the studies on teaching pronunciation are summarized below:

Sr. No.	Type of Mistake	Example	Correct Pronunciation	Wrong Pronunciation
1	Misplaced sound	Ice Cream	/aɪskri:m/	/aɪskri:m/
2	Changing the letter sounds	Because	/bɪˈkɒz/	/bɪˈkɒdʒ/
3	Dropping consonants	Must be	/mʌst/ /bI/	/mʌsbI/
4	Pronunciation of silent letters	Subtle	/sʌtl/	/sʌbtl/
5	Mistakes in pronouncing diphthongs and vowels	Gate Ago	/geIt/ /əgəʊ/	/get/ /ᵃᵍᵒ/
6	The influence of mother tongue (ex. Hindi)	State	/steIt/	/istet/

The Methods, Principles and Aspects of Teaching Pronunciation

In the "post-methods" era without any highly recommended set of procedures, what is the most preferable is a combination of the methods, principles and aspects of teaching pronunciation that suit the

best to the socio-economic and linguistic learner differences. Even in the present digital era, teaching of pronunciation or of any other component of language teaching is hard to be handed over solely to thetechnology. Indeed, a teacher without digital technology will be replaced by the one with technology. However, teacher is irreplaceable by technology. The learners learn best by imitating their teachers from their own linguistic background rather than by listening to the model pronunciation from a native speaker. Only a teacher can combine, adapt and modify a method or methods etc. as per the local needs. Following are the methods, principles, and aspects of teaching an intelligible pronunciation to choose from:

1. The Role of Phonetics

It would be too altruistic to say that Phonetics is an indispensable part of research in language. The ever expanding branches of Phonetics like Acoustic Phonetics, Forensic Phonetics, Clinical Phonetics, Computational Phonetics and so on have not only brought new horizons into sight but also have supplied us with new insights to deal with old questions. The pedagogical value of Phonetics has been accepted since last more than a century. However, in order to teach pronunciation with help of phonetics and phonology one it is a prerequisite to know the terms such as phonemes, segmental, supra-segmental, bilabial plosives, fricatives, allomorphic variation and so on. Without Phonetics it is impossible to study the mistakes in pronunciation. It would be opportune to mention what Henry Sweet, a great phonetician and the Father of Received Pronunciation once said about the role and function of Phonetics in the study of language: "Phonetics is to the science of language generally what mathematics is to astronomy and the physical sciences. Without it, we can neither observe nor record the simplest phenomena of language. It is equally necessary in the theoretical and in the practical study of languages" (Sweet 1964). Phonetics is more important to teach and regulate the use of English as a second or foreign language as English is spread all over the globe and has multitudes of varieties of spoken English. Mistakes in English pronunciation are due to the fact that English is not a phonetic language. The spellings do not match the pronunciation. It is called as a semi-phonic language. Sometimes, the graphemes match the phonemes; sometimes they don't. In this case, the Received Pronunciation is a reference accent.

2. The Relationship between the Learner's Mother Tongue and English

Again, there have been studies about the perception and production of sound. The relationship between the two is complex. It is hypothesized that a greater difference between the learner's native language and the target language can lead to greater difficulty. The evidence supporting the hypothesis comes from the observation that it takes learners longer to reach a high level of fluency in a particular second or foreign language if that language is substantially different from the languages they already know. Lightbown and Spada(44) mention a study by Theo Bogart which found that only those speakers whose native language was similar to the target language could produce native like accents. Thus, the learner's first language plays an important role in the acquisition of the second language. Other factors such as amount and type of exposure to the target language and the degree of use of the first language have been identified as influential contributors to pronunciation.

3. The Longer the Exposure, the Better

In a study carried out by Thorsten Piske, Ian Mackay, and James Flege it was found out that, longer periods of exposure to the second language can lead to improved pronunciation. It was also been observed that adults, who continue to make greater use of their first language, may have stronger accents in the second language. There is an unusual finding that learners' affiliation and their sense of identity are also related to how they produce the sounds and rhythms of second language. The study is mentioned by Lighbown and Spada(69). They mention a study done by Elizabeth Gatbonton, Pavel Trofimovich and MicahelMagidin which they found that those who had high accuracy in pronouncing the second language were perceived as being less loyal to their ethnic group than those who had strong foreign accent in second language.

4. Contrastive Analysis

The research on the teaching and learning of pronunciation is not as extensive as on the other language domains. Still, there are some processes recognized by the researchers that involve in the phonological development in the second language learning and also there are methods used by the researchers to find out the impact of first language on the acquisition of the pronunciation of the second language. For example, *contrastive analysis* helps in explaining the influence of the first language on the acquisition of the pronunciation of the second language. We notice that, the students whose first language is Marathi pronounce the words like bird /bɜ:d/ as /bərd/ while the Punjabi speakers pronounce the word 'school' /sku:l/ as /səkul/ because Punjabi language doesn't have consonant cluster /sk/ and in Marathi, there is a close correspondence between the graphemes and the phonemes.

5. Cognitive Code Learning

The great cognitive linguist Noam Chomsky proposed a new theory in which he differentiated between learning a language from learning other non-linguistic behaviors. He was of the opinion that, while the other learning was subject to stimulus-response-re enforcement-association, learning a language is different because it does not involve only imitating and reproducing the same. He argued that it involved of the underlying knowledge of abstract rules. The drills preached by *Behaviouritic model of language learning* were seen by him as teaching the language-like behaviour but not teaching the *linguistic competence*. Despite the plausibility of the argument, the cognitive code learning could not develop further because no clear-cut methodological guidelines came out. After the rise of communicative theory of language learning in 1970s, the theory became unpopular. If a teachers own knowledge of the target language is limited or he lacks the accent or the skills of the language then the students do not learn the language well. (Richards and Rodgers 73-74). This does not however mean that the theory has been fully wiped out. In Places it is still being taught. The argument that learning a language is different from learning other skills hold the truth. Drills in various aspects of linguistic skills merely familiarize with the aspects, do not necessarily give mastery over the skills to the learners.

6. Segmental vs. Suprasegmental Teaching:

There have been few studies which focus on the effectiveness of the teaching of pronunciation however the research suggests that teaching of theSuprasegmentalfeatures can have better effect than the segmental (Lightbown and Spada 70). The Britannica Encyclopedia defines it as, "Suprasegmental, also called prosodic feature, in phonetics, a speech feature such as stress, tone, or word juncture that accompanies or is added over consonants and vowels; these features are not limited to single sounds but often extend over syllables, words, or phrases" (Britannica 2020). Even though the learners are well trained in the reception and production of the individual sounds, what was found was that though those learners who were trained in individual sounds were better in their accurate usage were seen as not helping it in their perception of the intelligibility of the second language. A research by Trofimovich concluded that when learners focus primarily on meaning, they may not be able to also pay attention to the sounds that make up the words. (Lightbown and Spada 70). Decontextualized pronunciation instruction, as done in segmental training drills, is not enough and that a combination of instruction, exposure, experience, and motivation is required if learners are to change their way of speaking.

7. A Behaviouristic Process of Teaching Pronunciation

Whatever be the tool or method, there are certain procedures of teaching an intelligible pronunciation. Phonetics helps in understanding the articulation of a sound. The figures and the descriptive terms help in understanding the position of tongue, the place of articulation, the position of lips and the palatal movements in the articulation of a speech sound. The English vowels, diphthongs, consonants, and consonant clusters, allophones and so on are better explained and illustrated by Phoneticians. The general suggestions on teaching pronunciation are as follows:

1. Show the students what they need to do with their mouth to make the sound,
2. Create/give drills to the students to build 'muscle memory',
3. Give feedback throughout the process.

8. Accent Neutralization

Accent neutralization is one of the new ideas related to the acceptable or intelligible pronunciation. It relates to the influence of mother tongue. The learners of English as a second language are of two kinds—either those whose L1 or mother tongue is from the same family of languages or those whose L2 is from a completely different family of languages. The speakers who do not have similar linguistic background, they are seen to have an accent. Accent usually reflects a person's place. The people with an accent are easily identified. "Accent is also one of the main reasons why people have a hard time understanding each other and thus many people strive to change their accent (Singh & Srivastava 44). The accent neutralization or accent change can be achieved by studying our native tongue's vowel and consonant sounds and by comparing it to the standard American [or any] vowels and sounds. "By doing this we will know why we're having difficulty imitating their accent and how we can succeed on doing it" (44). The question is, is there a single correct variety of English? The answer is NO. When English has many varieties like Canadian, Australian, American and British as well as there are many more who see language as their *lingua franca*, it is hardly an acceptable goal to achieve a 'native-like' accent. There are far more speakers of EFL than native speakers of English. Yet, the idea holds validity because without an intelligible accent, effective communication cannot take place.

To conclude, though there has been a debate over the value, validity, and viability of the RP, yet its reference value cannot be denied. Educational technology has encompassed almost all the aspects of

human life however, teaching of languages cannot be solely handed over to technology. In the absence of a universally applicable method or process of teaching pronunciation, either a combination or an appropriation of the methods will cater to the pedagogical needs. The role and value of Phonetics is unarguably an indispensable part of teaching and studying language. There is an intricate relationship between the L1 and L2 of the learners as well their sense of cultural identity too. The more the exposure to the target pronunciation, the better its acquisition. Though not much in vogue, the Chomskian Cognitive Code learning has not completely lost its currency. Moreover, the *Suprasegmental*elements of language are preferable over the segmental in case of teaching pronunciation. And, accent neutralization processes can be of some help in gaining acceptance or sociability in a group of speakers.

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The Positive Effects of Yoga on the Players

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Abstract : Physical education refers to the process of imparting systematic instructions in physical exercise, sports, games, and hygiene. The term is generally used for the physical education programs at school and colleges. Having a body that is flexible, strong and controlled is important, if anyone is not able to move the body with the grace, velocity and speed required, then performance will be slow. So, we can say that yoga is very beneficial to everyone especially for a sportsman. Any sport you choose, yoga can enhance and complement your ability. Most sports build muscular strength and stamina. Yoga can benefit professional sports persons, it is necessary to explore what is required to play a sport and play it well. In any Sports we must develop the basic skills and continually train the body so that we can apply the skill in a better way. This of course requires considerable time, energy and commitment to practice the skill at hand.

Keywords: Players, Sports, mind, yoga, effects, injury, fitness, sports, performance, Mental Health.

Introduction

In today's world, all of us suffer from stress and a perpetual anxiety to perform well, leading to a plethora of diseases that we expose ourselves to. Yoga aims to calm and compose our minds and help us focus clearly on what really matters good health and the happiness that accompanies it. The practice of yoga was first developed in India and has evolved over thousands of years. Athletes in all sports are finding that yoga not only elongates tight, shortened, fatigued muscles but also brings calmness and clarity to the mind. Some athletes begin the practice to rehabilitate an injury and to gain more flexibility, stability and strength. Others take it up to increase their powers of concentration and quiet the mind. And some do it because they don't want to miss out on what everybody else is raving about! The reasons are many, but the results are consistent. Yoga originated thousands of years ago in India to help people achieve spiritual enlightenment. Based on the idea that the mind and body are one, we believe that Yoga improves health by improving how we see the world, which calms the spirit and decreases stress. Now day, people practice Yoga to improve their physical, mental and spiritual wellbeing. There are different types of yoga that emphasize different aspects of the mind, body and spirit.

Athletes in all sports are finding that yoga conditioning not only elongates tight, shortened, fatigued muscles but also brings calmness and clarity to the mind. Few athletes begin the practice to rehabilitate an injury and to gain more flexibility, stability and strength.

The Need of Physical education

Physical education forms an important part of modern education. Almost every school can boast of a playground, and one or two teams. In every modern school and colleges, after class work, students join various sports and games. The students generally take to all kinds of physical activities and show a great deal of interest in them.

Benefits of yoga

1. Improve general, mental, physical and spiritual health
2. Increase total flexibility
3. Balance mind and body
4. Improve body strength and stamina
5. Assist relaxation through use of breath static stretching

Positive effects of yoga on sports performance

High Blood Pressure

The relaxation and exercise components of yoga have a major role to play in the treatment and prevention of high blood pressure (hypertension).A combination of biofeedback and yogic breathing and relaxation techniques have been found to lower blood pressure and reduce the need for high blood pressure medication in people suffering from it.

Strength

After a hard working day, come and plunk ourselves, on our home chairs, with very little energy to even fetch a glass of water for ourselves. This is caused by lack of inner strength. Inner strength is essential in doing day to day activities and in preventing you from injuries. This is especially useful, as we grow old and need more energy and strength to do the same activity.

Mental Health

A common practice in yoga is to breathe only from one nostril at a time, while holding the other one closed with the tip of your finger. Medical research has shown that this boosts increased activity of the opposite side of the brain, leading to better cognitive performance and tasks associated with the other side of the brain. Regular yoga practice helps children with attention deficit disorder and people suffering from anxiety, depression and mood swings. It also helps keep the mind calm and reduce stress and thereby increase the general wellbeing of the person.

Joint pain and arthritis

The general tendency of people suffering from joint pain, inflammation and stiffness is to avoid exercise. Yoga helps prevent advancement of this malady by toning the muscles and loosening the joints. When anyone suffering from joint pain practices yoga, the gentle stretching and strengthening movements of the various Yoga poses, improves the blood flow to the muscles and tissues supporting the joints, thereby making it more comfortable to move.

Flexibility

With yoga, not only the muscles of the body, but also the softer tissues of our body are worked out, resulting in less buildup of the lactic acid, which is responsible for stiffness in various parts of the body. Yoga increases a range of motions of the less used inner muscles and helps in lubrication of joints. The result is a more flexible body, able to perform tasks easily!

Respiratory problems

Respiratory problems could also be caused by multiple factors like allergy, exercise, weather change etc. By practicing yoga, the lungs capacities increase and so does stamina and stress on air passages is reduced. International Journal of Yoga, Physiotherapy and Physical Education

Memory improvement

Yoga helps in retaining information better and for a longer time due to its focus on concentration and meditation. By breathing right, concentrating and meditating, more blood flows to the brain, making it supple and ready to accept more information and reproduce that information when required.

Positive Effects of yoga on different factors

Team effects

1. Increases team motivation
2. Improves team cohesion
3. Increases trust
4. Provides an opportunity for team unity outside the demands of intense training
5. Improves player-player support

Psychological effects

1. Develops determination and self-discipline
2. Improves focus
3. Reduces stress and provides a method of relaxation
4. Breath work provides athlete with techniques they can use
5. Helps athletes to achieve flow and get in ‘the zone’
6. Helps athletes to understand the importance of relaxing, resting, and recovering

Physical Effects

1. Contributes to improved cardiovascular fitness and stamina
2. Effective as a form of soft tissue and collagen fibber rehabilitation
3. Increase suppleness through stretching muscles
4. Improves joint mobility to their healthy limits
5. Reduces risk of injury and assists with injury rehabilitation
6. Enhances co-ordination and agility
7. Teaches athletes how the body performs and functions as a synergistic unit

Conclusion

Overall, the studies comparing the effects of yoga and exercise it concludes that, in both healthy and diseased populations, yoga may be as effective as or better than exercise at improving a variety of health-related outcome. However, future clinical trials are needed to further examine the distinctions between exercise and yoga, particularly how the two modalities may differ. In their effects on sports performance. Researcher find out that yoga in sports as important as other think it helps us in different ways and different levels in a sports men life. International Journal of Yoga, Physiotherapy and Physical Education.

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Effect of Direct Benefit Transfer during Covid-19

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Abstract: The Direct Cash / Benefit Transfer scheme provides for direct transfer of money into the bank accounts of eligible persons for pension, scholarship, payments under the Employment Guarantee Scheme and benefits/subsidies under other Government welfare programs. This can facilitate the beneficiaries to use this money to buy goods and services in quantity and of quality from the market at competitive price. The scheme depends upon basic two requirements viz. Aadhaar, the Unique Identification (UID) Number and Bank Account.
Keywords: Adhaar UIDAI, Basic saving deposit account, Direct benefit transfer, Aadhaar seeded bank accounts, BPL (Below Poverty Line), Jan DhanYojana.

Research Design Methodology –

1. This study will have a Descriptive research design highlighting the problems, prospects, benefits and perception of the project.
2. Regarding the collection of data both primary and secondary will be used.
3. The Primary data will be collected from the beneficiaries, questionnaire, Survey General Public as well as the authorities concerned.
4. The secondary data will be collected from the reports, magazines, newspapers, textbooks and website etc.
5. The researcher has proposed survey through structured interview schedule for the purpose of collecting primary data from the Beneficiaries, General Public and the Authorities concerned.
6. Stratified random sampling method will be used for the study. Under this sampling design every item of the universe has an equal chance of inclusion in the sample. Statistical Tools like Chi-Square, ANOVA, and other parametric tests have been used for analysis.

Introduction

Direct benefit transfer is one of the new approach under the concept of financial inclusion where the government funds reach the beneficiaries bank account directly and systematically. The scheme depends upon basic two requirements viz. Aadhaar, the Unique Identification (UID) Number and Bank Account. Aadhaar is a 12-digit individual identification number issued by the Unique Identification Authority of India [UDAI] to serve as proof of identity and address. The cash transfer will be enabled through 'Aadhaar,' a numerical biometric identification that is currently being given to all citizens of the country. The bank account is the most important criterion for the scheme.

Materials And Methods

This is a descriptive and an empirical study based upon historical data and field survey. Considering this the researcher has adopted a suitable model of research methodology. The research methodology consists of:

1. **Primary Data**
2. **Secondary Data**

Primary Data:-

Primary data will be the foundation of this study. The researcher will use the method of a field survey by means of visits and interviews for the purpose of collecting primary data.

Secondary Data:-

The secondary data from various published sources such as published data of various Government agencies, Banks, Research Journals and Periodicals, Newspapers, Other sources etc. can be used.

Objectives

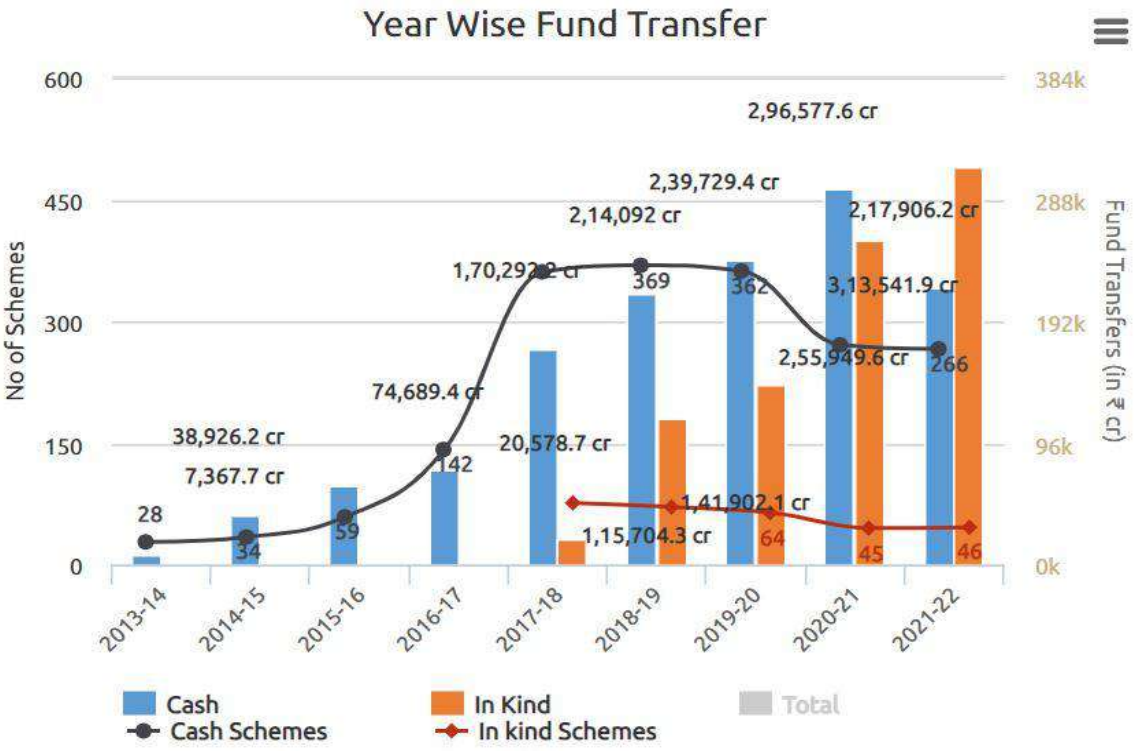
The objective of this study is to identify and suggest a strategy to formalize the direct benefit transfer through financial inclusion, spatial management, contract design and technological development. Following are the objectives of the study:

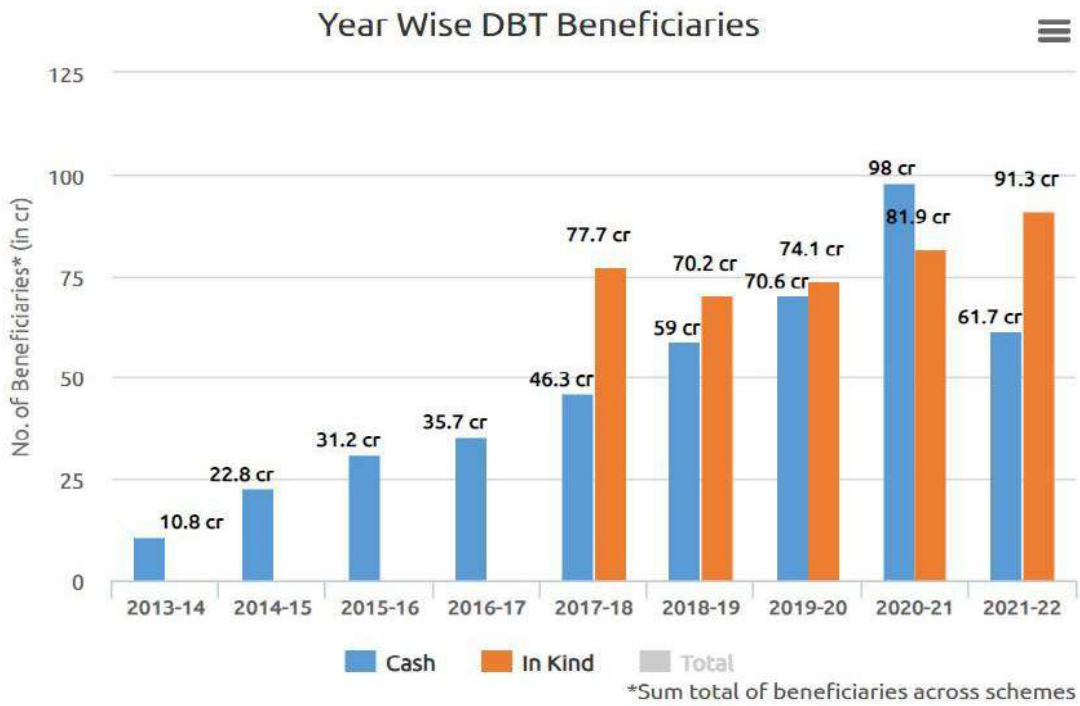
1. 1.To find out level of financial inclusion in Bihar.
2. To know the strategies adopted by RBI and other Commercial banks for strengthening financial
3. inclusion through direct benefit transfer.
4. To recognize different dynamics of financial inclusion.
5. To study the various measures, policies & initiatives of state / central government with respect to financial inclusion.

Observation:

Direct benefit transfer is a scheme which enable with the help of digitalisation of the financial transaction with a common and the accessible network.DBT is a tool which has different designed schemes that can solve specific problems of access, equity or quality. DBT provides the government with greater administrative control over the utilisation of funds and allows it to track the impact of investment in State's economy.In India DBT mission was created in the planning commission to act as the nodal point for the implementation of the DBT programmes. The Mission was transferred to the department of expenditure in July, 2013 and continues to function till 14.9.2015. To give more impetus, DBT Mission and matters related thereto has been placed in cabinet secretariat under-secretary (Co-ordination & PG) w.e.f. 14.9.2015. First phase of DBT was initiated in 43 districts and later on 78 more districts were added in 27 schemes pertaining to scholarships, women, child and labour welfare.Direct Benefit Transfer (DBT) has made significant progress in recent times. Number of schemes monitored under DBT was initially 27 which have increased up to 140 in March 2017(as on 31st March 2015, it was 34 schemes and as on 31st March 2016 it was 59 schemes). Till March 2017, 1, 82,671.36 crore has been disbursed to 35.7 crore Beneficiaries (DBT Mission, 2017).

Tables





Illustration

With the outbreak of the COVID-19 pandemic and the imposition of lockdown and social distancing norms, DBT emerged as a boon in providing succour and relief to millions of citizens whose livelihood was impacted. As the crisis loomed large, a lockdown was imposed by the Government for 21 days. The Public Financial Management System (PFMS) team took up the challenge during this adversity of facilitating smooth functioning of the financial machinery of the Govt. ofIndia. PFMS recorded the highest number of transactions in a single day on 30th March, 2020 of 2.19 crore transactions largely driven by DBT payments. Cash amounts were transferred using the digital payments technology vehicle, Public Financial Management System (PFMS) under Central Schemes (CS) and Centrally Sponsored Schemes (CSS). Between March 24 and April 17, the DBT payments under all the central sector/centrally sponsored schemes through PFMS amounted to Rs 27,442.08 crore in the accounts of 11.42 crore beneficiaries through schemes like PM-KISAN, Mahatma GandhiNational Employment Guarantee Scheme (MGNREGS), National Social Assistance Program (NSAP), Prime Minster's MatruVandanaYojana (PMMVY), National Rural Livelihood Mission (NRLM), National Health Mission (NHM), scholarship schemes of various ministries through the National Scholarship Portal (NSP). In addition, states like UP, Bihar, Madhya Pradesh, Tripura, Maharashtra, Jammu & Kashmir, Andhra Pradesh also leveraged on the DBT platform of PFMS. Through 180 welfare schemes, the state governments using PFMS have disbursed to 4.59 crore beneficiaries, an amount of Rs 9,217.22 crore between March 24 and April 17.With the crisis deepening, and as the number of beneficiary spiked, India's DBT structure was further tested. Till 9th October, 2020, of the financial year 2020-21, a total of 47 Crore beneficiaries received DBT relief to the tune of ₹ 1,41,714 crores.Balazs Horvath, chief economist, UNDP, Asia-Pacific, said: "If a large part of an entire generation loses its livelihood, with no social safety net to catch it, the social costs will be unbearably high. Economic instability will follow." Whether DBT or cash transfer would be able to offset the economic damage caused by the COVID-19 pandemic is a subject of debate. DBT played a major role in sustaining life especially of the under-privileged segments of the society impacted by the COVID-19 crisis, helping millions in providing immediate relief in tiding over the turbulent period.

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Impact of Cryptocurrencies on the Indian Economy

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Abstract

Cryptocurrency is an innovative concept of decentralized virtual currency. It has turned out to be a new avenue of investment instrument in India similar to gold. Even though the government hasn't formulated any regulatory body or legislation with regards tocryptocurrency's trading and transactions in India. Cryptocurrencies raises various limitations on its existence in Indian markets. This study focuses on understanding what cryptocurrency is all about and its impact on the Indian economy. The study also focuses on the present situation and future prospects of cryptocurrencies in India.

Keywords: Cryptocurrency, Impact on Indian Economy.

Introduction

Cryptocurrency is the new buzzword in the Indian market. A number of start-ups have cropped up throughout the country, allowing the average citizen to start investing and trading in crypto coins. According to the latest report, the popularity of cryptocurrency in the country can be evaluated from the fact that India already has the highest number of crypto owners in the world at 10.07 crore. India's population, especially the youth, is driving crypto growth rapidly.

What is cryptocurrency? How is it stored?

Cryptocurrency is virtual, digital currency. Transactions involving cryptocurrency are verified and maintained with a decentralized system using cryptography. Cryptocurrency is stored in a digital wallet and can only be accessed using a private key.

What is the purpose of cryptocurrency?

The purpose of cryptocurrency is to enable individuals to carry out transactions over the internet securely and move from a centralized payment system to a decentralized one, eliminating the need for a third party.

Cryptocurrency in India

The impact is of cryptocurrencies on the Indian economy is clearly depicted because the prices of cryptocurrency market are now falling down. Indian government has made it clear with their stand of not providing a position for cryptocurrency in India. the explanation for this sort of a call from government hails from first, the challenge of monitoring the decentralized transactions in cryptocurrencies are difficult to trace which may be advantageous for the hackers, criminals and also for terrorist activities. The second reason being cryptocurrency market may be a number one competitor for the banking industry. Cryptocurrency like Bitcoin has become popular in India like other nations because the volume of rupee being traded in cryptocurrency are at the best postdemonetisation. Researches shows that the quantity generated by the rupee dominated cryptocurrency is that the third largest volume traded after American dollar and yen. The demonetization policy of 2016 may have encouraged the implementation of cryptocurrencies amongst a considerable share of the population but realities rapidly began to return out that have subdued the expansion of the market within the country. In spite of its enormous population, India only contributes two percent of the entire global cryptocurrency capitalisation. Cryptocurrencies in Indian context portrays few limitations. they're as follows:

1. Reliability and Security:

Cryptocurrency for its characteristic of be a digital mode of transaction, it's become a awfully common platform for hackers, terror finance, drug transaction, and concealing. This has brought tiredness among the population to a bigger extent because it brings lesser security and lack of reliability.

2. Speculative and Risky:

There are various sorts of cryptocurrencies available within the market and these cryptocurrencies functions on the speculative persuade you to buy creates. Not all the cryptocurrencies may fetch good returns for a cryptocurrency investor. the worth is only decided upon the demand supply of the cryptocurrency. Speculation becomes the key player just in case of pricing cryptocurrency and hence the danger factor comes in.

3. Taxing Trouble:

The taxation rules don't make it clear on the taxability of cryptocurrency gains. However, the tax authorities haven't ruled out the chance of taxing the gain out of cryptocurrencies. If an investor makes a financial gain from the investments of cryptocurrencies, it invites liabilities as future financial gain or short-term capital depending upon the amount of holding the cryptocurrency. From the financial year 2022-23, it would be taxed @ 30% in India.

4. Lack of Regulatory Body:

Indian government is following a wait and watch policy towards cryptocurrencies; where as other nations of the globe have already more established the employment of cryptocurrency. There are not any regulatory body to appear after the transaction of cryptocurrencies. This has led to increased chances of fraud, threat to investor protection, monitoring of the movement of cash within the economy. depository financial institution of India together with other central banks of the globe was unable to trace the activities of cryptocurrencies.

5. Price Volatility and KYC Norms:

Cryptocurrency may be a highly volatile market because the pricing strategy depends upon demand and supplies together with speculation, Hence, an investor who signs up for a cryptocurrency transaction should go under the KYC norms which can take a while for the approval by the respective wallets. This approval time taken could vary from wallet to wallet and will even take some days' time. In such cases the investor tends to lose the prospect of creating profit because the value of the currency would be fluctuating at a bigger pace.

Analysing the Impact of Cryptocurrencies on the Indian Economy

Following are the significant impacts of cryptocurrencies on the Indian Economy:

1.Transparency improvement

Cryptocurrency enhances transparency where every transaction is traced back to the source. Additionally, blockchain, the technology on which cryptocurrency relies, is immutable. this suggests that transaction histories are permanent and unalterable. this may help bring down corruption significantly because the data can't be altered by any means.

2.Employment growth

The crypto industry currently employs about 50,000 individuals. As per a report, the industry is poised to determine massive employment opportunities, pegged at over 800,000 by 2030. India already features a strong talent pool of Fintech professionals and IT experts. Additionally, the talent is on the market at cost-effective rates. With the increase of the cryptocurrency market, we will see India becoming a significant hub and global destination for the cryptocurrency market. this may help create ample job opportunities within the BFSI, IT, customer support and repair, and plenty of other industries. In today's times, the cryptocurrency market continues to guide to improving the use rate across the state.

3.Enhancement ofDigital Payments

Cryptocurrency transactions are both time and cost-effective. The transactions are dispensed between the sender and receiver without the necessity of a 3rd party, making the transactions instantaneous. Additionally, the transaction charges levied by intermediaries like banks and payment gateways are eliminated. This helps bring down the value of the transaction, helping economize on each transaction. Thus, cryptocurrency transactions can significantly enhance digital payments, bringing down the time and price of every transaction.

4.Achieving the Goal of Atmanirbhar Bharat

With the govt proposing the creation of one, officially-recognized cryptocurrency, the dependence on third-party, private, and foreign-based cryptocurrency are going to be eliminated. Currently, popular cryptocurrencies like Bitcoin, Ethereum, Dogecoin, et al. are foreign-based. The official cryptocurrency is completely developed within the country and can forgo the necessity to depend upon other cryptocurrencies. Investors, traders, and other individuals will have one cryptocurrency for his or her needs and help the govt fulfil their goal of 'Atmanirbhar Bharat' within the cryptocurrency sector.

Present and Future of Cryptocurrency in India

Presently there is no regulation in India for cryptocurrencies. The absence of a regulation certain bitcoin exchanges such as Unocoin, Zebpay, etc have initiated their operation in trading or cryptocurrencies with Know Your Customer (KYC) norms. The Reserve Bank of India initially was against the trading of cryptocurrencies in India, however in the year 2014 RBI showed its interest in block chain technology used by cryptocurrency to reduce the physical paper currency circulation. In 2015, a financial stability report was published by RBI to identify the importance of private blockchain. In 2016, ICICI bank with Emirates NBD (in terms of assets, one of the largest banking groups in the Middle East) has executed transactions and remittance using block chain technology. Then in 2017, a white paper has been issued by Institute for Development and Research in Banking Technology (IDRBT) of RBI and also a pilot test was taken. The Union finance minister in his Union Budget 2018 speech said, "The government does not consider cryptocurrencies legal tender or coin and will take all measures to eliminate use of these crypto-assets in financing illegitimate activities or as part of the payment system." However, the government has recognized blockchain and said that a "distributed ledger system or the blockchain technology allows

organization of any chain of records or transactions, without the need of intermediaries. The government will explore use of blockchain technology proactively for ushering in digital economy." Though government is taking a cautious approach on cryptocurrencies, it is bullish on the use of blockchain. Cryptocurrency industry believes that blockchain and cryptocurrencies have to go hand in hand. But unless and until a decentralised system is formed, it is as good as keeping track. If only block chain technology is to be accommodated that just builds up a centralised system which gives authority to a person or a body to rectify and modify it. Experts and observers in the country hope and predict that the government will regulate cryptocurrencies in India in different stages. This favourable and positive sign gives hopes to the industry of cryptocurrency. Meanwhile private companies dealing in cryptocurrencies have set up an association called, the Digital Assets and Blockchain foundation which has been engaged in educating the public on the advantageous and investment avenues in cryptocurrency by conducting security checks, identification documents issued by the government, Permanent Account Numbers (PAN) or Aadhaar IDs.

Conclusion

The **cryptocurrency** market cannot be ignored, and the possibilities are endless. Even the government has acknowledged the potential of **cryptocurrency** as a means of payment, thereby proposing a bill to issue and regulate **cryptocurrency** in the country. In the future, we can see **cryptocurrency** becoming the primary player fuelling the country's economy.Cryptocurrency is such an invention which has become a global phenomenon. Earlier RBI warned the Indians from using crypto-currency that to be associated with money laundering and terrorist financing. However, cryptocurrency is a modern technology and a tool which needs to look forward for. Even though there has been no regulatory response from the Indian government, the number of investors in cryptocurrency is increasing rather swiftly over the last few years. Indian government should take responsible steps now to regulate such currency as its user in India is rapidly growing. Future of cryptocurrency in India looks promising and there is ray of hope.

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Linguistic, Science and Society

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Abstract 'Lingua' in Latin means tongue i.e., language and 'istics' means knowledge or science. Hence the word 'Linguistics' etymological means 'The Science of Language' or the scientific study of language. But it is not the study of any particular language; it is the study of human language in general, as a universal and recognizable part of human behaviour. A linguist tries to describe and analyze language in all its forms and manifestations to seek: (i) a scientific understanding of the place of language in human life, (ii) the ways in which it is organized to fulfill the needs it serves, and (iii) the functions it performs. In other words, the aim of linguistics is to find the origin, organization, nature and development of language descriptively, historical, comparatively and explicitly and to formulate general rules relating to language. A linguist, therefore, describes and classifies language. He identifies and describes the units and patterns of the sound system, the words and morphemes, the phrases and sentences, i.e., the structure of language as completely, accurately and economically as possible. Linguistics is scientific study of language and like all other science it has. Linguist comes to be in a position to make predictions about unobserved linguistic data on the basis of data already observed.
Keywords: Linguistic, natural sciences, society and modern change

Introduction:

Linguistics is a science, it has its closeness with other physical sciences like physics, physiology, biology, zoology etc. It touches on physics through acoustics, on physiology through the structure of the human vocal organs, on zoology through the comparative study of the communicative system of living beings. R.H.Robins says, "Linguistics, in its operations and statements is guided by three canons of science:

1. exhaustiveness, the adequate treatment of all the relevant material;
2. consistency, the absence of contradiction between different parts of the total statement and within the limits imposed by the two preceding principles; and
3. economy whereby, other things being equal,

a shorter statement or analysis employing fewer terms is to be preferred to one that is longer or more evolved. Consequently linguistics is getting more and more technical and sophisticated every day." But some scholars content the above saying that linguistics is not a pure science. According to R.A. Hall, the position of linguistics is between the natural and the social sciences like that of geology. To Robins linguistics is an 'empirical science' and within the empirical science it is one of the social sciences, because its subject matter is human, and it is very much different from that of natural sciences. Nevertheless, linguistics is the scientific study of language; whether deductive or inductive, it is objective, precise, tentative and systematic. It does work by means of observations, hypothesis, experiments and tests. It makes generalization and theories and its products are descriptive statements about language.

Linguistics and other sciences:

Anthropology:

Anthropology is the study of mankind and of human culture. Its two divisions are physical anthropology and cultural anthropology. And linguistics is a branch of cultural anthropology. The anthropologists have now a broader horizon which induces besides language. The culture of many different types the old conception that one language is superior to other languages is now outdated. All languages are adequate to the needs of the respective communities and they can contribute to the establishment of linguistic universals. Also, a language is a language even if it has no writing system.Actually, cultural anthropology has made positive contribution to the methodology of social sciences, by studying the culture of the primitive peoples as also their languages. They have found similarities and contrasts between these hitherto unknown language and the known European languages. Cultural anthropology has also furnished data for the interpretation of meaning,, on both the grammatical and lexical levels. Anthropology has also benefited from linguistics in the field of individual and social group learning process, the fact that a man's dialect is the mirror of his culture has also been beneficial to the anthropologists and sociologists. These days a new discipline sociolinguistics is expanding rapidly.

Philosophy:

There has been a close association between philosophy and linguistics. It was the philosophers who first of all speculated on language. Plato's dialogues have explicit reference to language and so have the Vedas and Upanishads of the ancient Indian languages. In the field of semantics, philosophy has contributed tremendous insight to the linguists. The structure a linguists ignored meaning because they thought it to be a subject of philosophy. Philosophers had to coin numerous terms to communicate their metaphysical and mystical experiences. Sanskrit philosophers went to the extent equating the word wit 'Braham' (God). But there are deep rooted differences between philosophy and linguistics. The philosopher's concern is win the uses of language for purposes that are common to many communities, he is not interested in the detailed differences between language while the linguist's concern is with the details of each linage for its own sake and he evolves and evaluates theories primarily to deal with particular languages.

Psychology:

Linguists and psychology are also closely related. Linguistics studies human language, and language is behaviour that psychology studies. There are many questions that concern both the psychologist and the linguist, e.g., how is language learnt by a child? Does he learn by merely imitating the sound he hears? How does a child select the sounds that belong to the language he is exposed to and ignore all other sounds? etc. etc. During the last two decades a separate discipline within linguistics called 'Psycholinguistics' has developed vastly.

Linguistics and Geography:

They both are inter related disciplines. There have been the growth of a new discipline called linguistic geography in which geographical conditions, tress, plants, birds, animals, plains, mountains, rivers, deserts etc. have a bearing on language. The language of the people of a thick forest with a rich stock of animals may be richer in the names of tress and animals than the language of the people living in a desert. Oceans and seas also bring a sea change in language. Study of the names of persons, places, temples, rivers and mountains etc. has helped the comparative linguists in the 19^{th} century in establishing the family history of languages. Languages have also affected geography. Most of the states in India are framed on linguistic basis. Thus geography has been changing because of language.

Linguistics and literature:

A linguist studying a language has to study its literature as well. Literary criticism and literary scholarship together with philosophical studies, constituted a part of linguistics of Western Europe. Grammatical rules and system of sentence structures and word forms found therein. The linguist has taken over the concept of meters, rhymes, rhythms, stresses and intonations from literature. On the other hands, the nature of language is of vital concert to the students of literature, because language is the medium in which literature is written. A creative written is never wholly free from linguistic and cultural considerations however unconscious of these he may be literally. He has to choose his structures and sounds according to the kind of aesthetic effect he wants to create. On the other hand, it is the literary artist who sets the direction of language change by his distinct use of coinages that word formations. Applying linguistics to the study of poetry and other forms of literature under the name stylistics is another proof of closeness between language and literature. Music is much close to linguistics than any other branch of fine arts.

Linguistics and natural sciences:

Linguistics has also its links with natural sciences like physics, physiology and geology. Acoustics brings linguistics near physics, the structure of the human vocal organs brings it near physiology and communicative systems of living beings and their comparison bring linguistics near zoology. On the basis of the information supplied by these natural sciences, the linguist classifies sounds and determines their characteristics. A linguist tries to find out the relation of human language to the communicative systems of animals. Such comparative studies help linguists, in finding out the history of human language. Again, a linguist learn from a biologics such things as how the vocal organs work in making sounds of speech; how the wind comes out of lungs and the wind pipe to the vocal chords to pass through the mouth or nasal passage, how the various speech organs such as vocal chords, soft palate, tongue, teeth, lips etc. affect the sounds etc.

Linguistics and logic and mathematics:

Like logicians and mathematicians, a linguist is also interested in finding out the entities of language and what relations hold between such entities as also what rules should there be of the formations and transformations. Transformation generative grammar of Chomsky is a chemical mixture of logic, mathematics, psychology and linguistic. Yet while logic, mathematics and psychology are interpretive and

explanatory, linguistics is description also. Similarly, linguistics is, in a way, connected with communication engineering in its methodology. Like a communication engineer, a linguist is concerned with the transmission system of speech by sound of speech by sound waves and in conversion of linguistics signals into written message. The linguist is interested in estimating the value of different phonetic components in the sound waves and into the different bands of frequencies of those waves.

Conclusions:

Linguistics is a developing science these days and linguistics researches may open new avenues for the application of linguistics. The speech therapist, the language teacher, the literary artist, the psychologist, the neurologist, the sociologist, the geographer, the communication engineer have the professional need to know something about language.

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Indian Cyber Security: A Critical Review

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Abstract: The word 'Cyber' refers to anything relating to computers, information technology and/or virtual reality. The 'Cyberspace' comprises of computer systems, computer networks and Internet, Local Area Networks and Wide Area Networks, servers, desktops, laptops, Personal Digital Assistants (PDAs), mobile computing platforms etc. and the 'cyber Security' refers to set of activities and measures, technical and non-technical, intended to protect computers, computer networks, related hardware and devices software, and the information they contain and communicate, including software and data, as well as other elements of cyberspace, from all threats, including threats to the national security. Cyber Security is a multi-dimensional concept, a complex issue straddling many disciplines and fields. Nations have to take appropriate steps in their respective jurisdictions to create necessary laws, promote the implementation of reasonable security practices, incident management, and information sharing mechanisms, and continuously educate all sectors of users about cyber-security. Cyber security requires a coherent conceptualization, clear vision of purpose and objectives and a time bound plan of action. Formulation of a national approach involves using elements of national power including political, economic, military and technological capabilities during peace and war to achieve national objectives. The Government has adopted an integrated multi pronged strategy covering aspects such as technical, administrative, legal and people steps to protect the cyber space. The cyber world, digitalisation and computers have become integral and inseparable part of twenty first century in all the sectors of society i.e. education, development, service, governance, infrastructure, professional skills and so on. But for legalised, secured and beneficial outcome is the need of time which would be possible only with effective legal provisions, efficient implementation thereof and social awareness of rights, duties and obligations towards fair use of technology and digital tools. Active and positive participation of individual and responsible role of government would surely avoid the misuse of cyber tools.

Introduction:

The word 'Cyber' refers to anything relating to computers, information technology and/or virtual reality. The 'Cyberspace' comprises of computer systems, computer networks and Internet, Local Area Networks and Wide Area Networks, servers, desktops, laptops, Personal Digital Assistants (PDAs), mobile computing platforms etc. and the 'cyber Security' refers to set of activities and measures, technical and non-technical, intended to protect computers, computer networks, related hardware and devices software, and the information they contain and communicate, including software and data, as well as other elements of cyberspace, from all threats, including threats to the national security. Cyber Security is a multi-dimensional concept, a complex issue straddling many disciplines and fields. Nations have to take appropriate steps in their respective jurisdictions to create necessary laws, promote the implementation of reasonable security practices, incident management, and information sharing mechanisms, and continuously educate all sectors of users about cyber-security.

Government Initiatives:

Cyber security requires a coherent conceptualization, clear vision of purpose and objectives and a time bound plan of action. Formulation of a national approach involves using elements of national power including political, economic, military and technological capabilities during peace and war to achieve national objectives. The Government has adopted an integrated multi pronged strategy covering aspects such as technical, administrative, legal and people steps to protect the cyber space. The major initiatives taken by the Government are as under:

1. National Cyber Security Policy, 2013 (NCSP-2013):

The Government of India had formulated a National Cyber Security Policy with the mission 'to protect information and information infrastructure in cyber space, build capabilities to prevent and respond to cyber threats, reduce vulnerabilities and minimize damage from cyber incidents through a combination of institutional structures, people, processes, technology and cooperation'. It seeks to do so by creating a secure cyber ecosystem and an assurance framework, encouraging open standards, strengthening the regulatory framework, vulnerability management, promotion of research and development in cyber security and enhancing our technical skill sets and human resources. In support of the National Cyber Security Policy, key cyber security projects, viz., National Cyber Coordination Centre (NCCC) and Botnet Cleaning & Malware Analysis Centre, have been identified for implementation with a view to securing the cyber space in the country and creating a secure cyber ecosystem.

However this National Cyber Security Policy, lacked the following key elements -

1. Milestones and performance measures.
2. Cost and resources.
3. Roles and responsibilities.
4. Linkage with other key strategy documents.

2. Cyber Crisis Management Plan (CCMP):

Department of Electronics & IT (DeitY) formulated a Cyber Crisis Management Plan (CCMP) for Countering Cyber-attacks and Cyber-terrorism. It's purpose is to establish the strategic framework and actions to prepare for, respond to and begin to coordinate recovery from a cyber incident. It is updated periodically to take into account changing scenario of cyber threat landscape. The 2015 version of CCMP has been released and has been circulated to all the key Central Government Ministries/Departments/ States/UTs and other critical sector organizations including Telecommunication service providers.

3. Information Technology Act, 2000:

The IT Act, 2000 addresses all aspects related to cyber space in a comprehensive manner with adequate compliance and deterrent provisions. There are number of provisions in the Act which deal with various aspects of actions in the cyber space. It provides provisions such as...

1. A legal framework for protection of Privacy and Security of data in digital form[1].
2. Declaration of any computer resource which directly or indirectly affects the facility of Critical Information Infrastructure, to be a protected system[2].
3. Establishment of a National Critical Information Infrastructure Protection Centre (NCIIPC) as a national nodal agency in respect of Critical Information Infrastructure Protection[3].
4. Provisions for deterrent punishment against host of cyber related offences[4].
5. Seeking information and collection of data/information related to cyber incidents[5].
6. Section 84 A allows for prescription of suitable modes or methods of encryption for promotion of secure e-commerce and e-governance in the country.

Further it also lays separate rules for cyber cafes help in regulating the malicious activities that can be carried out in cyber cafes and provide a mechanism to prevent and deal with instances of cyber crime in an effective manner.

4. Indian Computer Emergency Response Team (CERT-In):

CERT-In is a functional organisation with the objective of securing Indian cyber space. It creates awareness on security issues through dissemination of information on its website and operates 24x7 incidence response Help Desk. CERT-In provides Incident Prevention and Response services as well as Security Quality Management Services. It has been designated under Act[6] to serve as the national agency to perform the functions in the area of cyber security such as -

1. Collection, analysis and dissemination of information on cyber incidents.
2. Forecast and alerts of cyber security incidents.
3. Emergency measures for handling cyber security incidents.
4. Coordination of cyber incident response activities.
5. Issue guidelines, advisories, vulnerability notes and whitepapers relating to information security practices, procedures, prevention, response and reporting of cyber incidents.
6. Such other functions relating to cyber security as may be prescribed.

5. Role of Government Departments/Organisations

1. NCSC*:* National Cyber Security Coordinator, in the National Security Council Secretariat (NSCS) – PMO, is a recently created post with prime responsibility of coordinating cyber security matters at the national level.

2. MHA*:* Ministry of Home Affairs, through Intelligence and Law Enforcement Agencies under its purview, has the responsibility of coordinating with different department and agencies for national security matters, including cyber security, and acts as nodal agency for internal security matters, intelligence, cyber forensics, investigation, etc.

[1] Section 43, Section 43A and Section 72A of the Act

[2] Section 70 of the Act, 2000

[3] Section 70A of the Act, 2000

[4] Section 65, 66, 66A, 66B, 66C, 66D, 66E, 66F, 67, 67A and 67B of the Act, 2000

[5] Section 70B and Section 69B of the IT Act

[6] Section 70B of the Information Technology (Amendment) Act, 2008

3. MEA*:* Ministry of External Affairs articulates Indian position on cyber security matters in international for and conferences, including bilateral and multilateral dialogues. Cyber diplomacy is a key area for every nation in view of cyberspace being viewed as global commons.
4. MoD: Ministry of Defence is the nodal ministry for all wings of defence forces in India. MoD, IDS (DIARA), formed under the aegis of Headquarters, Integrated Defence Staff, is the nodal tri-Services agency at the national level to effectively deal with all aspects of Information Assurance and operations. It has also formed the Defence CERT where primary function is to coordinate the activities of services/MoD CERTs.
5.DoT*:* Department of Telecommunications (DoT) will co-ordinate with all Internet Service Providers (ISPs) and other service providers with respect to cyber security incidents and response actions as deemed necessary by CERT-In, National Technical Research Organisation(NTRO), MoD, Intelligence Bureau and other Government Agencies. DoT will provide guidelines regarding roles and responsibilities of Private Service Providers and ensure that these Service Providers install GIS based system to track the critical optical fibre networks and arrangements of alternate routing in case of physical attacks on these networks.

6.Cyber Appellate Tribunal (CAT): In accordance with the provision contained under Section 48(1) of the IT Act 2000, the Cyber Regulations Appellate Tribunal (CRAT) has been established in October, 2006. As per the IT Act, any person aggrieved by an order made by the Controller of Certifying Authorities or by an Adjudicating Officer under the Act can prefer an appeal before the Cyber Appellate Tribunal (CAT). This Tribunal is headed by a Chairperson who is appointed by the Central Government by notification as provided under Section 49 of the IT Act 2000.

7. **Digital India*:*** Digital Locker system has been implemented, which envisages provision of private space on a public cloud to each citizen where he/she can keep public records and can even exchange it for availing various services. Digital Locker implements secure authentication mechanism to prevent leakage of data through Cyber attacks. Further, eSign framework enables citizens to digitally sign a document online using Aadhaar authentication.

Cyber security teams are facing many challenges like.....:

1. Worldwide shortage in cyber skills - there are not enough people around to follow the security best practice of people, process & technology.
2. Have more compliance mandates to deal with, such as GDPR, which are strengthening data privacy of even the most mature security organisations. However, for those organisations starting to mature their security capabilities it's a big challenge, not all organisations have additional resources to support it.
3. Security teams also have to keep up with the ever-increasing pace of business digitalisation.
4. More technology is being deployed and IT teams have to manage more and more diverse devices to ensure security and often even safety.

Some other steps towards Cyber Space Security:

India has taken several steps in the recent past to strengthen its cyber defence capabilities[7] such as -

1. The National Cyber Security Coordinator was appointed in 2015.
2. A National Critical Information Infrastructure Protection Centre (NCIIPC) has been set up. There is a regular dialogue with the key sectors of the economy.
3. Public-private partnership is being developed.
4. A National Cyber Coordination Centre (NCCC) is being set up.
5. Cyber security Research and Development (R&D) policy has also been under active consideration of the government.
6. India is pursuing active cyber diplomacy by setting up cyber security dialogues with several countries and is participating in several international for a including the UN on cyber security.

Critical Issues to be addressed in the Indian Context:

1. Command and Control Set-up

There should be no ambiguity in responsibility of organisations for cyber security. In USA, National Security Agency and The Cyber Command comes under the DoD. In the UK, GCHQ comes under the Foreign Ministry. In Israel, National Cyber Bureau, directly under the Prime Minister, regulates activity in the Cyber Space. In the Indian context, NTRO has been entrusted with this responsibility which doesn't

[7] In a keynote address, delivered in 18th Asian Security Conference on 10 February 2016, the then Deputy National Security Advisor (NSA) of India

come under any ministry and operates directly under Prime Minister's Office (PMO). The interplay between Ministry of Defence (MoD), Ministry of Home Affairs (MHA), the Armed Forces, and the intelligence agencies, both internal and external, needs to be clearly demarcated. Who will carry out offensive cyber operations in a conflict scenario, can an intelligence agency do it keeping in mind the rules of engagement or the laws of armed conflict?

2. National Critical Information Infrastructure Protection Centre (NCIIPC):

NCIIPC was formed under National Technical Research Organisation (NTRO). For some selected critical infrastructures, NCIIPC takes the lead role. For other non critical structures, it is the responsibility of the CERT-In. The National Disaster Management Authority (NDMA), under the MHA, has also the responsibility for protection of cyber critical infrastructure. NDMA has done very little on this issue. CERT-In is an advisory body and not an implementation agency. Responsibility and authority for all the sub-sectors of critical information infrastructure should be clearly demarcated and made accountable. Lead agency to formulate National Cyber Security Policy is Ministry of Electronics and Information Technology (MeitY). This ministry does not have control over powerful ministries and departments like MoD, MHA and NTRO. The way our ministries work in the stovepipe systems, the interaction, sharing of information, earmarking of specific roles and assignment of responsibility suffer.

3. Standards and Protocols:

We need to have uniform standards, protocols and norms across the country in the cyber domain. The agencies involved are MeitY, Indian Standards Institute (ISI), Bureau of Indian Standards (BIS) and NCCIPC. Is there a need for a central agency like National Institute of Standards and Technology (NIST) of the USA functioning under the Department of Commerce?

4. Code Breaking:

India does not have any credible code breaking capability. Introduction of the 128 or the 256 bits keys have made the issue of code breaking extremely difficult. However, this capability exists in NSA of USA, GCHQ of UK and probably in Russia and China. If we do not have this capability, we must make efforts to develop these capabilities.

5. Public Private Partnership (PPP)

There is a serious mismatch of understanding between the civil sector and the government agency of cyber security. The government agencies feel that the private sector is only interested in grabbing the order, but are not serious enough in developing Indian solutions. They don't put adequate effort in research and development (R&D) and are not willing to invest in the country's cyber security infrastructure. On the other hand, the private industry feels that there is very little understanding of cyber security in the top echelons of the government agencies; procedures are too bureaucratic, rigid, long and time consuming; and the vendors are usually treated shabbily.

6. Delay in Implementation of Projects:

The projects like National Intelligence Grid (NATGRID) and Central Monitoring System (CMS) have cost but time overruns and is still not complete. NATGRID does not have a linkage to the Armed Forces. In India, in principle approval for National Cyber Coordination Centre (NCCC) was accorded in May 2013 with initial budget allotment of Rs. 800 Crores. On 08 August 2017 the parliament was informed that only Phase-I of NCCC has been made operational. When country has adequate fund and expertise this type of bureaucratic delay is not acceptable for such projects of national security.

Recommendations:

1. Guidelines on Ethical Issues: There is a need to evolve comprehensive guidelines on ethical issues such as fairness, transparency and accountability in consultation with the stakeholders including civil society. While formulating the guidelines, we should also consider the code of ethics for IT systems developed by professional societies like IEEE. It can't be one-time exercise; the guidelines have to be reviewed and updated periodically.

2. Infrastructure Development*:* In order to promote the responsible uses of cyber fields, government should invest in the development of bias-free datasets and techniques/tools for building fairness, transparency and accountability features in the systems.

3.Testing and Certification*:* Necessary resources need to be created for testing and certification of safe and secure cyber systems for the desirable ethical features such as fairness, transparency, etc. An independent and expertise organization may be entrusted with this responsibility in collaboration of the government department.

4. Incentives for Compliance*:* Incentives should be provided for compliance. For instance, when Government procures IT systems to provide different services to the public, compliance to the guidelines on ethics should be made mandatory.

5. Public Empowerment: Awareness on the ethical, moral and legal issues must be created and information on the working of the cyber system should be shared with the public so that people can seek explanation if decision of cyber system makes an adverse impact on them. This will put required pressure on the system designers to incorporate the desirable features.

Conclusion:

The cyber world, digitalisation and computers have become integral and inseparable part of twenty first century in all the sectors of society i.e. education, development, service, governance, infrastructure, professional skills and so on. But for legalised, secured and beneficial outcome is the need of time which would be possible only with effective legal provisions, government policies, schemes and efficient implementation thereof along with social awareness of rights, duties and obligations towards fair use of technology and digital tools. Active and positive participation of individual and responsible role of government would surely avoid the misuse of cyber tools.

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Legal aspects of Sustainable Development in India

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Abstract- In this paper I want to focus on Legal aspect ofSustainable Development, basic objective – basic aspect of Sustainable Development, concept principleof polluter pays,principle of precautionary ,view and interpretation of Courts by the way of different case laws, constitutional provision on Environment protection which includes fundamental rights-fundamental duties, directive principle of state policy.
Keywords- Environment, development, ecology,Sustainable Development, Polluter Pays Principle, Precautionary Principle, environment protection, case laws.

Introduction-

Important part of our life isEnvironment but importance of the environmenthave challenged by the actions of manmade development in the past few eras. The earth's increasing population is considered a threat to the Environment. Man with his thoughtless activities had an adverse effect on the earth's ecological system. Environmental problems are not new for the world. Human beings always have a long major impact on their environment. They have been fraudulently using the environment for a long time. But recent trends of development have seriously affected the environment which leads to its degradation. The recent development activities of human beings have contempt for the importance of the environment and this has not only challenged the present environment but also of future. This insecurity of the environment has drawn attention to new aspects of development which comes under Sustainable Development. Sustainable Development plays an important role to secure the present and future of human life.

What is Sustainable Development?

The aspect of 'Sustainable Development' is an old one concept, this known to us by the way of Stockholm declaration,1972. The term Sustainable Development also introduced in 1987, by Harlem Brundtland[i] by the Brundtland Report released by the United Nations.

Sustainable Development means development that satisfy the of the present generation without compromising the capability of next generations to satisfy their ownrequirements. Another aspect of sustainable development is maintaining balance between development activity for human benefit and environment protection. Sustainable Development explores harmonious relation between development and environment. Sustainable Development basically focuses on the rate of consumption and use of natural resources. Sustainable Development ensures that we do not utilize the natural resources in such a way that it is difficult to us to replace it, for example, if we use ground water then it is our responsibility to refill it through various techniques like rain water harvesting.

Main Aspect of Sustainable Development

Main Aspect of sustainable development pursues to achieve the following three basic aims:

1. For the purpose of improvement and effectiveness should maintain production of goods and services ;(economical objective)
2. Conservation and administration of natural resources for example protection of biodiversity and preservation of biotic veracity ;(environmental objective)
3. Conservation and improvement of the quality of lifeby the way equitable distribution of wealth and material resources. (Social objective)

Basic Aspects of Sustainable Development

Following arethe aspects of Sustainable Development:

Polluter Pays Principle –

This principle was already known to us by the way of Principle 4 of the Stockholm Declaration,1972, however it was lawfully recognized as a practical principle of Law of Environmental under Principle 16 of the Rio Declaration, 1992.Principle of Polluter Pays required paying tocost of pollutionby those who cause it. Originally in its rise the Polluter Pay Principle aims to prevent pollution and control must be assigned, for the damage done to the environmentthe polluter must pay. The Principle of Polluter Pays means the ultimate responsibility for harm to the environment extends not only to reimburse the victims of pollution but also to pay the cost for restoring environment as it is. The Principle

of Polluter Pays is the commonly accepted practice that those who cause pollution should abide for the cost of restoring it and to prevent injury to health or the atmosphere.

The Precautionary Principle-

Principle 15 of the Rio Declaration, 1992 talks about the principleof precautionary. In almost all the international instruments it has acknowledged legal recognition and now it has become a fundamental part of the United Nations Environmental Programme.The precautionary principle applicable when there is a suspicion that a certain activity may have harmful for the environment, then it is better to control that activity rather than to wait for actual harmful effect. This principle based on prevention is better than cure. In the Precautionary Principle, burden of proof is on those who are stating that the action is not harmful. The precautionary principle helps decision-makers to accept suitable precautionary measures when activity is proved to be harmful for the environment. 'Precautionary Principle 'and sustainable development requires that if development activity causes serious and irreparable damages to the environment, then it must be stopped and prevented.

Provisions of Indian Constitution for environment protection

Following are different constitutional provision for environment protection

Article 48[ii] "It shall be duty of the State to protect and improve the environment and to safeguard the forest and wildlife of the country." Article 51A(g)[iii] "It shall be the duty of every citizen of India to protect and develop the natural environment including forest, lake, rivers and wildlife and to have empathy for living creatures."Article 253 "Parliament has power to make legislation for the nation or any part of the nation for executing any convention, contract and agreement with another country." By this Article Parliament legislated Water Act 1974, Air Act 1981, and Environmental Protection Act 1984.Article 47[iv] it shall be duty of the State to enhance the standard of living of citizens by providing health amenities, sanitation, suitable nutrition and protecting the environment for safety life .Article 21[v]"person shall not be taken away life people or personal liberty except according to the procedure established by law." Right to life consists of living in environment which not only frees from pollution butalso free from disease.Article 19(1) (g)[vi] - It provides a fundamental right of every citizens to select trade, profession and business which is lawful. If such trade, profession and business are harmful to the healthiness of the general public, under reasonable restrictions citizens cannot exercise it.Article 32 and 226 -This article provides right to go to the Apex Court (Art.32) and High Court (Art.226)by filing a Public interest litigation (PIL) when fundamental right is violated .Maximum environmental cases are filed by the way of PIL.

Judicial Overview

The Apex Court interpreted aspect of Sustainable Development in various cases. The Supreme Court is always considered as a protector of democracy. Major push towards Sustainable Development has started by the Indian judiciary. The creditgoes to the judiciary for making Sustainable Development as vital principle of the legal system of India. The campaign for protecting the environment was headed by Justice Kuldip Singh, who is popularly known as the 'Green Judge'.

Vellore Citizen Welfare Forum vs. Union of India[vii]

The basic issue in this case was Pollution affected by release of untreated effluents by the tanneries in the state of Tamil Nadu. The Supreme Court traced that right to pollution free environment as basic jurisprudence of land and directed Central Govt. to take immediate action under provisions of Environmental Act. The court ruled that to provide remedy for the injured environment is part of the system of Sustainable Development and polluters are liable not only to the pay for individual victimbut also the cost of restoring environment as it is. Thought industries are important for the country's economic development it does not means that they use to cause pollution to the environment, the balancing concept is gist of principle of sustainable development. The concept of Polluter Pays and the concept of precautionary has been adopted as important part of the law of the country.

Narmada bachaoAndolan v. Union of India and others[viii]

Narmada BachaoAndolan is a powerful non-violence movement of mass of people against construction of a dam on river Narmada.

By applying concept of Sustainable Development, in this case the court held that mitigative step can be taken to preserve the ecological balance.

Indian Council of Enviro-Legal Action v. Union of India[ix]

This case is popularly known as H acid case.

The Court held that at the cost of ecology,economic development should not be allowed, at the same time proper balance should be maintain between ecology and development. Hence importance should be given to both environment and development.

Ambica Quarry Work v. State of Gujrat[x]

In this case the court tries to keep a balance between the exploitation of resources available in forest and preservation of ecological. In this case the concept of sustainable development was executed.

G.R.Simon and Others etc.v. Union of India and others[xi]

In this case the court held that wildlifebe preserved for future generations because it not only plays an important role in retaining ecological balance but alsois an asset and heritage of the nation.

T.N.GodavarmanThirumulpad v, Union of India and others[xii]

In this case the company approaches for starting a refinery in the area of Lanligah Tehsil. If mining is allowed it destroys flora fauna of the entire region and also affects soil erosion. Tribal people in this zone where there is no school, hospital and people are spending poor life .Concept ofsustainable developmentimplemented by Apex Court.and stated that the court not objection on the project, but it could not take a risk of ecological damage .

A.P.Polluton Board v. M.V.Nayadu[xiii]

The Supreme Court stated that whenever a state try to keep a proper balance between ecology and development then it is not proper to distract them. In such cases, it would be better to apply concept of precautionary and Polluter Pays which is considered as a basic aspect of Sustainable Development.

Himachal Pradesh v. Ganesh Wood Product[xiv]

The Apex court held that according to the concept of Sustainable Development the existing generation has no right to jeopardize the welfare and wellness of the next generation.

Kinkri Devi v. State of Himachal Pradesh[xv]

A PIL was filed against the limestone quarry which badly affect onShivalik Hill. The High Court of Himachal Pradesh stated that just keeping a balance between environment and development it's not sufficient but more than that to use the natural resources for social development it is important.

GuruprasadRao v. State ofKarnataka[xvi]

The Court held that Sustainable Development includes historical / archaeological monumental wealth should be preserved and protected for the next generation.

M.C. Mehta v. Union of India[xvii]

This case is popularly known as Taj Trapezium Case. In this case the original brightness of Taj Mahal was decreased due to environmental pollution. The Court by applying precautionary principle stated that industries which are located in Taj Trapezium zone must use natural gas instead of coal, if it is not possible for any industries then they should move to other industrial zones.

Research foundation for Science, Technology and Natural Resources Policy v. Union of India and Another[xviii]

The Supreme Court held that precautionary principle provides for protection against specific environmental threats by avoiding environmental risk before harm actually caused.

Conclusion

Ecology and development are interdependent with each other; they cannot be separated from each other. Right to a sustainable environment and the right to development are both basic human rights. There can be no development without protecting the environment and vice versa. Only wishful thinking and slogan mongering it's not sufficient but implementation in reality is necessary. Implementing concept of Sustainable Development is the proven way to achieve development without compromising the ecology . Best way to achieve Sustainable Development is to accept 3D [xix]approach.

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[i]The then Norway'sPrime Minister and chairperson of World Commission on Environment and Development

[ii]Directive principle of state policy

[iii]Fundamental Duty

[iv]Directive principle of state policy

[v] Fundamental Right
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[xvii](1997) 2 S.C.C. 353
[xviii](2005) 13 S.C.C. 156

[xix]reduction, recycle, reuse

A General study on Air Pollution – Causes, Effects andControl Measures in India

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Abstract -

Nowadays, the world is marching towards the special ization of knowledge in every field. Despite this fact, one should have an understanding of each field to a certain extent to fulfill the degree of perfection in the life. The term environment means the surroundings in which man lives, works and plays. Environment encompasses the air he breathes, the water he drinks, the food he consumes, the shelter he provides for his protection from various elements. Environment also includes the pollutants and other detrimental environmental factors which adversely influence the life and health of the man.This clearly indicates that the term 'Environment' is inclusive of varied dimensions. In most simple words, Environment is surrounding of both living and nonliving in totality. Since, environment is constituted by different elements of varied interactions, it is rather difficult to give precise inclusion of environment. Environment has two important components such as living and nonliving environment. Land, air and water constitute nonliving or physical environment, while on the other hand, plants, and animals.

Key Words: Pollution, Environment ,Air .

Introduction:

Micro webs and man constitute the living or biotic environment. Apart from this, man has created human or cultural environment with the help of his super intellectual power over the earth. Man modifies and uses his environment by best possible means to achieve the goal of progress and development. But whatever is profitable to man in short term, may become unprofitable in long run. Thus, there is a race between short term profits and long term welfare of mankind. Due to all these activities of man for progress, the environment around him is degrading continuously through the passage of time. It is desirable that man can change and modify the environment without disturbing it. But the reality is different as it is clear from the fact that it is getting consistently polluted due to smoke, dust, sewage, industrial discharges and city refuse. The composition of man's body, growth and health depends on the materials taken in. In most part of the world, people live in polluted environment with poor sanitation. As a result of it, there is a growing pressure on natural resources such as lithosphere, hydrosphere and atmosphere that together constitute Biosphere or physical environment.In spite of this, the nature has the inherent power and capacity to maintain the suitability of the supporting systems of various purification processes. For instance, water is evaporated and condensed as a precipitation. Groundwater is purified by percolation through soil. Oxygen from air absorbed by surface waters helps the decomposition of organic materials. Inorganic materials are flushed into the sea and ocean. Remains of the dead plants and animals are decomposed by microorganism and returned to the soil to provide fertilizer for vegetation growth. The particles suspended in the atmosphere washed down by precipitation. These suspended particles finally caused to settle on the surface of the earth by gravity. Microorganisms that are harmful to mankind are killed by the ultraviolet rays from the sun.The surrounding, therefore, refers to the number of substances, influences and forces around us in which all organism including man lives. Environment, therefore, refers to the sum total of all substances forces and influences around us at a given point of time and place.

In other words Environment means sum total of all the external conditions and influences that affects the survival of organisms of the earth.

Methodology :

Paper on secondary data material collect from books, magazines, journals, Google search and Google Scholar etc.

Environmental Pollution :

Pollution is the result of undesirable changes in our environment which have harmful effects on plants, animals and human beings. No doubt, the pollution is the outcome of urban industrial technologies revolution and fast exploitation of natural resources. Pollution is due to increased rate of exchange of matter and energy and ever-increasing industrial wastes, urban effluents and consumer goods. Pollution means, lowering of environmental quality at local scale caused exclusively by human activities. Some definitions of pollutions are given below.

Definition of Pollution:

1) Pollution means the presence of undesirable substance in any segment of environment primarily due to human activity discharging by products, waste products or harmful secondary products which are harmful to man and other organisms.

3) According to natural environment research council: NERC 1976. "Pollution is viewed as the release of substances and energy as a waste products of human activities which result in changes, usually harmful, within the natural environment."

5) According to D.M. Dixon (1972) pollution includes all those activities conscious or unconscious of human beings and their domestic cattle and the result there of, which detract in any way..... in the long term or short term, from enjoyment of his environment and his ability to derive full benefit there from.

Pollutants:

A pollutant can be any chemicals or geochemical substances (dust, sediment) biological organism or product or physical substances (heat radiations sound wave) that is released intentionally by man into the environment with actual or potential adverse, harmful, unpleasant and inconvenient effects.

Thus, the pollutant is defined as any farm of energy or matter that causes degradation and pollution in the existing natural balance of ecosystems.

On the basis of genesis pollutants are divided into two main types:

1. Natural Pollutats and
2. Man-made pollutants.

On the basis of visibility in two types:

1. Visible Pollutants and
2. Invisible pollutants
3. Natural Source of Pollution: This includes

Pollutants such as volcanic eruptions because volcanic dust, ashes reduce in the atmosphere air temperature, undesirable substances brought to the surface because of fracture and faults caused by seismic events. Flood water causes diseases in low lying areas.

Anthropogenic Sources of Pollution: These include

1. industrial source,
2. Urban source,
3. Agricultural source
4. Population explosion
5. Deforestation and
6. Wars.

Most of the pollutants come from industrial and urban sectors. The industrial source contributes a host of pollutants such as gaseous pollutants of nitrogen oxides, sulphar dioxide, carbon monoxides, and hydrocarbon as methane and numerous toxic gases, solid pollutants, dissolved and suspended solids, waste water having numerous chemical ingredients. Urban sources of pollution contribute sewage water, solid waste, gaseous exhausts, liquid effluents, pollutants coming out of chimneys of factories located within the urban centers. Agricultural source of pollution includes the pollutants related to chemical fertilizers, pesticides and insecticides. The population of a nation has been positively correlated with pollution as in the developed countries through industrial growth and urban expansion. Poverty and underdeveloped are yet other sources of pollution. War also creates great pollution in concerned countries.The classification of environment pollution is a difficult task because the pollutants and the media through which the pollutants are transported and diffused in air water and land are all interconnected and interrelated.

Air Pollution :

The gaseous envelope which surrounds the earth from all the sides is known as atmosphere. Mechanical mixture of several gases in the atmosphere is a air. Air is very important for all types of life in the biosphere. Without food man can prolong his life for few weeks, without water for few days but without air man cannot survive for a few minutes) The air constitutes about 80% of the total intake of all things by a person every day. Normally a person breathes, 22000 times per day, inhaling 16 kilograms of air every day which he obtains from the oxygen rich atmosphere. (Some gases like sulpher dioxide, hydrogen sulphide, carbon mon oxide, emission from volcanoes and swamps, wind blown dusts, salt spray and pollens from platns are continuously added to the air by natural processes every day, thus polluting the air.)

Definition of Air Pollution:

1. According to world health organization (WHO) air pollution is defined as the limited to situation in which the out door ambient atmosphere contains materials in concentration which are harmful to man and his surrounding environment.
2. H. Perkins (1974) has defined air pollution as the presence in the outdoor atmosphere of one or more contaminates such as dust fumes, gas, mist, odour, smoke or vapor in quantities of characteristics and of duration such as to be injurious to human, plant or animal life and to property or which unreason ably interferes with the comfortable enjoyment of life and property.

3. Air pollution is caused by a combination of gaseous and particulate pollutants such as carbon dioxide, methane, and nitrogen dioxide emitted from point sources such as factories and motor vehicles that burn fuel. Some gaseous emissions are visible to the eye and sometimes may even diffuse into the atmosphere and become invisible.

Sources :

1. Combustion of fossils,like coal and oil for electricity and road transport ,producing air pollutants like nitrogen and sulfur dioxide .
2. Emission from industries and factories, releasing large amount of carbon monoxide, hydrocarbon chemicals and organic compounds into the air.
3. AgriculturalActivities, due to the use of pesticides, insecticides, and fertilizers that emit harmful chemicals.
4. Waste production mostly because of methane generation in landfills.

Natural sources:

1. Volcanoes; such as dust, ashes, smoke, carbon diox ide and other gases.
2. From heavenly bodies such as cosmic dust, dusts produce due to collision of asteroids meteors, coments etc. with the earth from time to time
3. From green plants such as vapor through evapotranspiration, pollen of plant flowers, carbon dioxide from bacteria
4. From fungi such as fungal spores, nuses,
5. From land surface such as salt spray from seas and oceans, dusts and soil particles from ground surface.

Man-made sources:

1. gases from kitchen and domestic heating, industries, incineration of municipal and domestic garbages, automobiles, railways from coal and diesel engines, aircrafts
2. solid or particulate matter from industries, mines and urban centers,
3. radioactive substances from nuclear plants, nuclear fuel releases, nuclear explosions,
4. heat from industries and domestic kitchens etc.

combines with haemoglobine and thus causes respiratory problems, gum inflammation, internal bleeding, oxygen deficiency, pneumonia and lung cancer.

Suspended Particulate Matters (SPM) emitted from factories and automobiles during the combustion of fossil fuels cause several deadly diseases in human bodies. Sudden leakages of harmful and poisonous gases from chemicals and gas plants pollute the air to such an extent that large number of peoples dies within very short time. Sometimes, sudden leakages of harmful and poisonous gases from chemical and gas plants pollute the air to such an extent that large number of peoples dies within very short time.

The Bhopal gas tragedy (India) of 2/3 December 1984 caused death of more than 5000 people, when methyl iso-cynate gas leaked from containers which is used to manufacture pesticides by union carbide factory of the USA in Bhopal, India. The Foetus in the wombs of women weregreatly damaged. Newly, born babies suffered from cough, asthma and most of them lost their eye sight.

Control Measures For Air Pollution:

Air pollution is the legacy of economic development industrial growth and urban development in the modern world, The efforts are going on to control air pollution all over the world. Air pollution can be minimize by adopting following methods

1) Preventive Measures:

Renewable fuel and clean energy production

The most basic **solution for air pollution** is to move away from fossil fuels, replacing them with alternative energies like solar, wind and geothermal.

Eco-friendly transportation

Shifting to electric vehicles and hydrogen vehicles, and promoting shared mobility (i.e carpooling, and public transports) could reduce air pollution..

Green building

Air pollution is caused by solid and liquid particles and certain gases that are suspended in the air. These particles and gases can come from car and truck exhaust, factories, dust, pollen, mold spores, volcanoes and wildfires. The solid and liquid particles suspended in our air are called aerosols.

1. Proper selection of manufacturing site and zoning for industrial set up in order to disperse pollution source. All kind of industrial must be established for away from the residential zone.
2. Proper selection of fuel with low sulphur content to reduce the level of pollutants in emissions.
3. (iii) Modification in industrial processes by replacing

4. Suitableequipment's.
5. Forest cover should be protected by restrictingThe deforestation and afforestation programmes should adopt.
6. There must be green belt around every township and industrial areas.

New Delhi most polluted capital city in the world for third time in a row

According to the World Air Quality Report 2020 by Swiss organisation, IQAir, 22 of the world's 30 most polluted cities are in India. This includes New Delhi, which has been cited as the most polluted capital city in the world for the third year running.According to the report, while Delhi's air quality had improved by nearly 15 percent from 2019, it still ranked as the 10th most polluted city in the world, and the most polluted capital city.IQAir's World Air Quality Report 2020 gathered air quality data for 106 countries. The findings were based on a country's annual average of particulate matter PM2.5—airborne particles less than 2.5 microns in diameter. Prolonged exposure to PM2.5 can lead to deadly diseases, including cancer and cardiac problems.Meerut, Agra, and Muzaffarnagar (all in Uttar Pradesh), Faridabad, Jind, Hisar, Fatehabad, Bandhwari, Gurugram, Yamuna Nagar, Rohtak, and Dharuhera (all in Haryana), and Muzaffarpur in Bihar are the other Indian cities among the 30 most polluted cities in the world.Despite an 11 percent reduction in the annual average of PM2.5 levels due to the COVID-19 lockdown curbs imposed last year, India emerged as the world's third most polluted country after Bangladesh and Pakistan. "Air pollution in India is still dangerously high," the report said.Air pollution in cities is rising at an alarming rate, new data from the World Health Organisation has revealed, particularly in emerging economies like India, where pollutants harm human health and hastening glacier melt.Global air pollution levels rose as much as 8% in the five years between 2008 and 2013 released on 12 May. Cities in poorer regions are suffering the most. All the 300 plus cities in middle- and low-income countries reported alarming rise, often five times beyond safety limits.In Indian cities levels of larger PM10 particles (mostly dust, sand and soot) is also severe. These particles deflect heat and make urban areas warmer, contributing to climate change in lower altitudes. India has eight cities among the world's worst 30 for PM 10 levels. Gwalior and Allahabad in India are most polluted cities in the world. Patna and Raipur come in at sixth and seventh.Delhi's air quality has improved since it was ranked the world's most polluted city in the WHO's 2014 global database. The India's capital city was ranked eleventh this year.The annual average PM 2.5 levels in Delhi have fallen by 20% since 2013. "Air policy action has started kicking in – with an environment compensation charge on trucks, action against other sources. We are responding to action but the levels are still very high in the city, it only shows that action has to be sustained to meet clean targets''(Sources – Roychaoudhary , Times of India report)

IMPACT OF LOCKDOWN (25th March To 15th April) ON AIR QUALITY

The nationwide Lockdown, in effect since the midnight of 24th March in view of COVID-19 pandemic, has resulted in significant improvement in air quality in the country, as revealed by data analysis and comparison of data for time before enforcement of restrictions. The Lockdown was announced after a 14-hour voluntary curfew called Janata curfew which was observed on 22 March, and subsequently CPCB published a report titled .

"Impact Of Janta Curfew & Lockdown On Air Quality" dated 31.03.2020, describing the air quality trends in the country. This report is in continuation of the same. The major sectors contributing to air pollution are transport, industries, power plants, construction activities, biomass & refuse burning, road dust suspension and residential activities. In addition, certain activities such as operation of DG sets, restaurant, landfill fires, etc. also contribute to air pollution. Under the nationwide lockdown, all transport services – road, air and rail were suspended with exceptions for essential services. Educational institutions, industrial establishments and hospitality services were also suspended. As a result, air quality improvement has been noted in many towns and cities across the nation.

Effect Of Lockdown In Delhi

During the lockdown period, as a result of combination of reduced vehicles on the road, functioning of only essential commercial units and prevailing weather conditions, significant reduction in PM2.5, PM10 and NO2 levels were observed. Overall, 46% reduction in PM2.5 and 50% reduction in PM10 was observed during the lockdown period. Similar level of reduction in PM10 & PM2.5 primarily indicates reduction in combustion and industrial sources which are common to both fractions of Particulate matter.

Comparison before Lockdown after Lockdown The hourly comparison of average concentration values shows a declining trend in levels of PM10 and PM2.5 during the lockdown period. During the pre-lockdown period, the maximum hourly value of PM10 was 244 µg/m3 at 22:00 Hrs, which dropped to 127 µg/m3 during the lockdown period.

Similarly, the lowest concentration during the pre-lockdown period was 118 µg/m3 at 17:00 hrs, which dropped to 63 µg/m3 during the lockdown period. The drop in coarse particles may be attributed to restriction on construction activities, less road dust suspension.

The peak hourly value of NO2 during the pre-lockdown period was more than twice the peak value observed during the lockdown period. Similarly, peak hourly CO value also decreased by 55% during the lockdown period. The routine diurnal variation of NO2 and CO is twin-crested with a larger crest during night hours. During the lockdown period, the night crest is much reduced, highlighting the absence of vehicular emissions. The graphs below depict hourly concentration trend for SO2 and Benzene for pre-lockdown period (16th March 2020 to 21st March 2020) and lockdown period (25th March 2020 to 15th April 2020). Hourly Benzene levels during the lockdown period remained below the hourly values observed during the pre-lockdown period. Due to the reduced vehicular activity and restrictions on industrial operations, peak benzene levels reduced by 49% while its minimum value reduced by over 50%. However, hourly SO2 values during the lockdown period were almost similar to the pre-lockdown values in the Wind speed was higher during the lockdown period (4.7 m/s) as compared to the prelockdown period (3.9 m/s). However, with increase in temperature due to onset of summers, with high wind speed, there is an increased possibility of localized lifting of dust, thereby negatively affecting air quality. This implies that the coarser particle (dust) is playing a dominant role in Delhi's Air Quality. The ratio fell drastically after 10th April and almost reached 0.3 on 15th April, primarily due to a mild dust storm from the Gulf regions (reported by IITM) hitting Delhi, thus significantly increasing the PM10 concentration in Delhi. As reported in source apportionment study conducted by TERI & ARAI, 2018, during summers, dust & construction activities (35%), transport sector (20%) and industry (20%), and are major source of particulate matter in Delhi. As result of complete restrictions on non-essential vehicular movement and commercial activities, the emissions from construction activities and industries were stopped. The on-road vehicles were relatively sparse compared to normal days thus contribution from road dust re suspension & transport sector was much reduced. As evident from monitored data, the PM10 emissions and PM2.5 emissions were reduced by up to 50% and 46% respectively.

Control Measures:

1. By destroying the pollutants through thermal or cata lytic combustion
2. Transforming the pollutants to a less toxic form
3. Collecting the pollutants by means of equipment inorder to escape into the atmosphere.

Control Of Gaseous Pollutants : These can be controlled by the techniques of combustion, absorption and adsorption.

1. Oxidizable gaseous pollutants are entirely burnt particularly in petro-chemical, fertilizer..
2. Gaseous pollutant are absorbed in suitable adsorbent materials.
3. It is applied to control toxic gases, vapours and inflammable compounds that con not be transferred by the above techniques. Pollutants are adsorbed on large solid surface.

Control of Automobile Exhaust:

The main source of air pollution is the automobiles. Engines should be redesigned in such a way that their emissions cause minimum pollution. Apart from technological changes some steps on individual level should be taken by owners, such as:

1. Regular service of the vehicle
2. Replacement of old particles.
3. The engine should be well tuned

Conclusion:

Many time-series, case-crossover and panel studies have shown that there are consistent short-term effects of air pollution on health outcomes (hospital admissions or deaths). Some cohort studies have also shown long-term health effects of air pollution.

Measures:

1. Complete electrification of railway track.
2. Attempt should be made to develop pollution free fuels for automobiles, e.g. alcohol, hydrogen and battery power.
3. Industrial plants and refineries should be fitted with equipment for removal and recycling of wastes.
4. Rich plantation must be encouraged.
5. Awareness among all walks of people in society and government bodies and officials towards the causes and effects of air solution should be created.
6. Alternative, less harmful products such as solar power must be developed on a large scale.
7. 7) Arranged demonstrations or seminars for public awareness

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Education And Sustainable Development

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Abstract: Education is seen as a big force; a force that not only contributes to national development, but also sustainable development. It is a key to development, be it social, economic, political or environmental. Education promotes development of knowledge and skills required to achieve sustainable development (SD). It encourages promotion of economic well-being, social equity, democratic values and much more. Education for Sustainable Development (ESD) enables people and citizens to learn as to how to preserve earth resources whichare limited in availability. The ESD has the objective of empowering present and future generations to meet their needs using a balanced and integrated approach to the economic, social and environmental dimensions of SD.

Key Words :Education, Sustainable Development

Concept of sustainable development or SD emerged as a response to a growing concern for human impact on the environment. The concept of SD has been broadly defined by the World Commission on Environment and Development (1987) as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". This definition is quoted in almost all the Units of this Course. The definition acknowledges that while development may be necessary to meet human needs and improve the quality of life, it must happen without depleting the capacity of the earth's resources to meet the current and future needs.The SD movement has grown on the basis of a concept of sustainability that protects both the interests of future generations and the capacity of the planet earth to regenerate. In the 21st century, sustainability refers generally to the capacity of the biosphere and human civilization to co-exist. The Rio Declaration on Environment and Development (1992) laid down 27 principles of sustainability. One such principle is the Declaration that says: "In order to achieve sustainable development, environmental protection shall constitute an integralpart of the development process, and cannot be considered in isolation from it. Eradicating disparities in living standards in different parts of the world is essential to achieve sustainable development and meet the needs of majority of people." Sustainable development can be defined as those developmental activities that do not degrade the environment and can be carried on for a long period of time. One of the central principles of sustainable development is living within the limits of consumption of natural resources. Thus, the goals of economic and social development must be defined in terms of sustainability in all countries, developed or developing, market-oriented or centrally planned. It may be noted that UN Conference on Environment and Development (popularly known the Earth Summit) also debated in 1992 and confirmed its resolve to promote the 3 pillars of SD, namely Economy, Society and Environment, as interdependent and mutually reinforcing concepts. To achieve SD, these sectors (pillars) need to come together. The economic, social or societal and environmental sectors are all critically important and interdependent. A healthy prosperous society relies on a healthy environment to provide food and resources, safe drinking water and clean air for its citizens. This Unit discusses the role of education in achieving SD and explores the interaction among economy, society and environment.

Meaning And Importance Of Education

The role of education in sustainable development, it is imperative to understand the meaning and importance of role of education in sustainable development. Role is defined as "the function assumed or part played by a person or thing in a particular situation''. The definition of a role "is a part or character someone performs or the function or position of a person" .An example of a role is the position of the nurse in a hospital. Merrian-Webster defines role as a function or part performed, especially in a particular operation or process. Education is a process of developing the personality and creativity of the individuals so that they can in turn help in promoting a healthy society. Education is actually a process, which influences individual capabilities, social environment, economic development, ethical surroundings and above all cultural adaptability. Education is expected to evolve principles, methodologies and guidelines for the application of knowledge that could benefit society. It is also expected to provide knowledge and skills for addressing the issues of development. It must also enable people and students to develop an understanding and a perspective of the physical and social environment. The importance of education can be interpreted from the reply to the question asked to Aristotle. The question was 'How much better

educated men were than those who were uneducated'. Aristotle's reply was 'As much as the living are from the dead.' Education thus is a process to shape the quality of life of individuals and through them of the society and the world. It is an investment in the humanresources. In the present age of science and technology, it has been increasingly realised that one needs to be educated not only to become a better human and social being, but also a creative and productive being. Looking at the changes taking place around the world, it is being widely felt that the kind of world we will bequeath to our children and grandchildren may not be a better one as a result ofenvironmental degradation that results from political and economic decisions made today. A matter of grave concern is that those who reap the fruits of economic development today may be making future generations worse off by excessively damaging and destroying the natural resources and polluting the earth's environment. 'Sustainable development' was a major focus of the UnitedNations Conference on Environment and Development (UNCED) held in Brazil in June 1992. The achievement of sustainable development globally is likely to prove as one of the greatest challenges to the world community in view of the continued population growth and rising levels of consumption per capita. As the World Commission on Environment and Development observed, efforts to achieve sustainable development are being carried out amidst the additional pressure of such global difficulties as "climate change, ozone depletion, and species loss" (WCED, 1987). As we all know, legacy of the concept of sustainable development is attributed to the Report of the World Commission on Environment and Development 'Our Common Future'. In this context, sustainable development secures a balance between economic development and ecological sustainability. Both economic and environmental systems need a certain minimum threshold value to survive. In essence, sustainable development is a process of change in which the exploitation of resources, direction ofinvestments, orientation of technological development, and institutional change, are all in harmony and enhance both current and future potential to meet human needs and aspirations (Ibid.). The concept of sustainable development rejects the traditional view that economic development is a necessity, but environmental protection is a luxury. The World Commission Report (Ibid.) noted that measures of success in sustainable development must take account of the context and of the need to meet social challenges.

The Sustainability Aspect Requires That The Environmental Administrators Should Aim To:

1. Maintain ecosystems and related ecological processes essential for thefunctioning of the biosphere.
2. Preserve biological diversity by ensuring the survival and conservation of all species of flora and fauna in their natural habitats.
3. Observe the principle of optimum sustainable yield in the exploitation of living natural resources and ecosystem.
4. Prevent or abate significant environmental pollution or harm.
5. Establish adequate standards of environmental protection.
6. Undertake or require prior assessments to ensure that major law policies, projects, and technologies contribute to sustainable development.
7. Make all relevant information public without delay in all cases of harmful or potentially harmful releases of pollutants, especially radioactive releases.

Role Of Education In Sustainable Development

Education for Sustainable Development (ESD) has been defined as "education that allows every human being to acquire the knowledge, skills, attitudes and values necessary to shape a sustainable future. In other words, 'the ESD is the process of equipping students with the knowledge, skills and attributes needed to work and live in a way that safeguards environmental, social and economic well-being, both in the present and for future generations'. The key ESD issues relate to climate change, disaster risk reduction, biodiversity, poverty reduction, and sustainable consumption. Education for SD consequently promotes competencies like critical thinking, imagining future scenarios and making decisions in a collaborative way. Thus, education for SD requires far-reaching changes in the way education is often practiced today. The ESD would be meaningful when it is linked with issues that the world is facing today. It must be given a global outlook. Education thus plays an important and decisive role in sustainable development. Education for SD should include the following thrusts: Promotion and improvement of basic education related to SD; Reorientation of existing education at all levels- primary (basic), secondary, higher in order to address SD. Development of public awareness and understanding of sustainability. Learning and development of training methods in the world of sustainable development. In this way, SD depends upon the provision of specialized training programmes to ensure that all sectors of society have

the necessary skills to perform their work in a sustainable manner.Sustainable development, as already noted, was formally initiated for the world community in the year 1992. In it, education occupies an important place. It is linked with environmental themes. The tragedy triggered by the COVID-19 pandemic presents the world with an incredible opportunity to build back better. Academic institutions, be they colleges, schools or universities, must double their efforts to ensure that the world's policymakers and leaders are provided with the information they need to solve the increasingly complex developmental problems.Thus, education for sustainable development promotes research and provides information needed to solve sustainable developmental problems arising out of human-made decisions. Education as an investment in human resources plays an important role among the factors, which contribute to sustainable development.

Let us read about them now:

1. ESD promotes and encourages sustainable society

Quality education is an important key and tool for achieving a more sustainable society. This was vociferously emphasised at the UN World Summit in Johannesburg in 2002, where the reorientation of current education systems was outlined as the key to SD. It may be noted that education for SD promotes the development of the knowledge, skills, values and actions required to create a sustainable society, which ensures environmental protection and conservation, promotes social equity and encourages economic well-being. Traditionally, India has been a sustainable society. In order to promote the value of sustainable development in education, the Indian government has directed its various education departments to actively work on an Environment Education (EE) component as a part of the curriculum.

2.**Esd Aims To Develop Knowledge About Environment**

The concept of ESD developed basically from environmental education, which has sought to develop the knowledge, skills, values, and behaviour in people to give more attention to protection of environment. The aim of ESD is to enable people to make decisions and carry out actions, without compromising the planet earth. The COVID-19 pandemic has led to global crisis that is severely restrictive in nature and could hamper the ability to meet unprecedented challenges. College, school and university closures have kept most of the students worldwide out of educational institutions. Online education facilities are not accessible to those who are without technological gadgets like computers, laptops and tablets. A majority of students are managing online teaching on their mobiles but most affected have been the abject poor and resourceless.The pressure on families is intense. Jobs are being lost and incomes are down. Climate change and environmental degradation are happening much faster than expected. The consequences are being felt around the world. The wildfires in America, Australia, Europe and Siberia have broken records for their ferocity. In 2020, flooding in South Asia has forced more than 25 million people to abandon their homes. The point is that the ESD aims to broaden knowledge and behaviour of people about the human-made problems. The aim of ESD is to enable people to make decisions and carry out actions, without compromising the earth'sresources.

3. ***The*** **Esd Outlines Integration Of Principles And Practices Of Sustainable Development**

The goal of the decade (2005-2014), as outlined by UNESCO, is to integrate the principles, values and practices of sustainable development into all aspects and dimensions of education. Thus, it aims to encourage changes in behavior

that will create a more sustainable future. One of the most important aspects of the DESD is the recognition that ESD must engage a wide range of stakeholders- the government and nongovernment organisations, civil society, and general public. To promote ESD, the UN Decade of Education for SD, 2005-2014 (DESD) was adopted by the UN General Assembly with the United Nations Educational, Scientific and Cultural Organisation (UNESCO) designated as the lead agency for promotion throughout the decade. The decade pursues a global vision "of a world where everyone has the opportunity to benefit from quality education and learn the values, behaviour and lifestyles required for a sustainable future and positive societal transformation." In its International Implementation Scheme for DESD, UNESCO states that ESD is fundamentally about behaviour and values, particularly respect for others, including those of present and future generations, for the environment and for the earth's resources (UNESCO,2006).Education enables us to understand ourselves and others. It attempts to strengthen our links with the wider natural and social environment. This understanding serves as a durable basis for building respect. Along with a sense of justice, responsibility, exploration and dialogue, ESD aims to enable us to adopt behaviours and practices, which will lead us to live a full life, without being deprived of basic human needs and demands.

4. Esd Focuses On Environmental Themes And Concerns

The ESD offers a beautiful vision of future with the dominant focus on environmental concerns. It also addresses themes such as poverty alleviation, citizenship, peace, ethics, governance, justice, human rights, gender, equality, corporate responsibility, natural resources management and biological diversity. It is generally recognised that certain characteristics carry values for the successful implementation of ESD, reflecting the equal importance of both the learning process and the outcomes of the education process (adapted from 'UN Decade of Sustainable Development', 2005-2014). The focus of ESD is on curriculum to be prescribed for elementary, secondary and higher education. The curriculum is mostly interdisciplinary in nature allowing an institutional approachin policy-making. The ESD shares the values and principles that underpin sustainable development. It, in fact, promotes critical thinking, problem-solving and action-orientation, all of which develop confidence facing challenges relatedto sustainable development. It permits learners to participate in decision-makingrelated to the design and content of educational programmes.

Characteristics Of Education For Sustainable Development

1. Is based on the principles and values that underlies us tainabledevelopment;
2. Deals with the well-being of all three realms of sustainability environment, society and economy;
3. promotes lifelong learning;
4. Is locally relevant and culturally appropriate;
5. is based on local needs, perceptions and conditions, but acknowledges that fulfilling local needs often has international effects and consequences;
6. Engages formal, non-formal and informal education;
7. Accommodates the evolving nature of the concept of sustainability;
8. Addresses content, taking into account context, global issues and local priorities;
9. Builds civil capacity for community-based decision making, social tolerance, environmental stewardship, adaptable workforce and quality of life.
10. Is interdisciplinary: no one discipline can claim ES as its own, but alldisciplines can contribute to ESD;
11. Uses a variety of pedagogical techniques that promote participatory learning and higher-order thinking skills.

Principles Of Sustainable Development

The Rio Declaration on Environment and Development fleshes out the definition by listing 17 principles of sustainability.

1. People are entitled to a healthy and productive life in harmony with nature.
2. Development today must not undermine the development and environment needs of present and future generations.
3. Nations have the sovereign right to exploit their own resources, but without causing environmental damage beyond their borders.
4. Nations shall develop international laws to provide compensation for damage that activities under their control cause to areas beyond their borders.
5. Nations shall use the precautionary approach to protect the environment. Where there are threats of serious or irreversible damage, scientific uncertainty shall not be used to postpone cost-effective measures toprevent environmental degradation.
6. In order to achieve sustainable development, environmental protection shall constitute an integral part of the development process, and cannot be considered in isolation from it. Eradicating poverty and reducing disparities in living standards in different parts of the world are essential to achieve sustainable development and meet the needs of the majority of people.

Nations shall cooperate to conserve, protect and restore the health and integrity of the Earth's ecosystem. The developed countries acknowledge the responsibility that they bear in the international pursuit of sustainable development in view of the pressures their societies place on the global environment and of the technologies and financial resources they command.

1. Nations should reduce and eliminate unsustainable patterns of production and consumption, and promote appropriate demographic policies.
2. Environmental issues are best handled with the participation of all concerned citizens. Nations shall facilitate and encourage public awareness and participation by making environmental information widely available.
3. Nations shall enact effective environmental laws, and develop national law regarding liability for the victims of pollution and other environmental damage. Where they have authority, nations shall assess the environmental impact of proposed activities that are likely to have a significant adverse impact.

4. Nations should cooperate to promote an open international economic system that will lead to economic growth and sustainable development in all
5. Countries. Environmental policies should not be used as an unjustifiable means of restricting international trade.
6. The polluter should, in principle, bear the cost of pollution.
7. Nations shall warn one another of natural disasters or activities that May have harmful Tran's boundary impacts.
8. Sustainable development requires better scientific understanding of the problems. Nations should share knowledge and innovativetechnologies to achieve the goal of sustainability.
9. The full participation of women is essential to achieve sustainable development. The creativity, ideals and courage of youth and the knowledge of indigenous people are needed too. Nations should recognizeand support the identity, culture and interests of indigenous people.
10. Warfare is inherently destructive of sustainable development, and Nations shall respect international laws protecting the environment in times of armed conflict, and shall cooperate in their further establishment.
11. Peace, development and environmental protection are interdependent and indivisible.

Five Dimensions Of Sustainable Development

Ecological sustainability: Conserving critical ecological capital on which all life and economic production depends.

Economic sustainability: Generating wealth and wellbeing in a continuous way without periods of 'boom and bust'.

1) **Socialsustainability:** Meeting everyone's basic needs and reducing inequalities in ways that promote social justice and reduce social conflict.
2) **Cultural sustainability:** Drawing on culturally appropriate knowledge and promoting cultural diversity.
3) **Personal sustainability:** Promoting people's physical and mental health and fostering a state of wellbeing within them and with the rest of the world

Vision on Education For Sustainable Development

In the beginning of 21st century, the international community realised the value of education for sustainable development. It now strongly feels that we need to foster through education the values, behaviour and lifestyles required for a sustainable future. Education for sustainable development has an important role to play in our lifestyles and behaviour. Education is seen as a process of learning as to how to make decisions that affect us. It is concerned with the future of the economy, environment and social well-being of all communities. Building the capacity for such future-oriented thinking is a key task of education. This is a new vision of education. This vision helps the people of all ages to realise this aim of education in the context of sustainable development. It helps students to understand the world in which they study, play and live a little better. It enables them to address the complex problems of society and environment such as illiteracy, poverty, wasteful consumption, environmental degradation, urban decay, population growth, gender inequality, health, and violation of human rights that threaten our future. This vision of education stresses on a holistic, integrated and interdisciplinary approach to development of knowledge and skills needed for a sustainable future as well as changes in values, behaviour, and lifestyles. This requires us to reorient educational curricula to programmes, policies and practices in order to empower people (especially youth) to make decisions and act in culturally appropriate and locally relevant ways to address and redress the environmental problems that threaten our common future. This enables people of all ages to develop and evaluate an alternative vision of a sustainable future and fulfil this vision through working creatively with others. Thus, basic education is a key to nation's capacity to develop and achieve sustainability targets. The basic education can improve agricultural productivity, enhance the status of women, reduce population growth rates, increase environmental protection and generally raise the living standards. "The pandemic has firmly established the need to place sustainability towards the top of the topof India Inc's Agenda" (The Economic Times, 2020).

Conclusion:

Quality education for sustainable development is recognised as an important goal of the UN General Assembly (Resolution in 2015). "Education is the most important single factor in achieving rapid economic development and technological progress and increasing a social order founded on the values of freedom, social justice and equal opportunity. Programmes of education lie at the base of the effort to forge the bonds of common citizenship to harness the energies of the people and to develop the natural and

human resources of every part of the country." In a word, education is regarded as the key to development and the fundamental pre-requisite of social and economic justice, which are the twin pillars of the Welfare State. In a world based on science and technology, it is education that determines the level of prosperity, welfare and security of the people. The primary concern of education for SD is the improvement of the quality of life of people without damaging the environment. It offers a bold and beautiful vision of our shared future- a future in which hundreds of millions of people no longer go to bed hungry every day, where poverty no longer harms one in ten people, and where quality education and lifelong learning opportunities are available to all. The heartbreaking reality is that we have failed to follow this roadmap. In other words, we are unable to implement this vision of a better world. The underlying principles of ESD, as outlined by UNESCO, highlight the importance of respect and care for its diverse forms. This involves the protection and restoration of the earth's ecosystem, respect for the human rights, and regard for cultural diversity. In developed as well as developing countries, the diversity of programmes offered at present provides a good basis for any action plan on Education for SD and useful opportunities for inter-sectoral collaboration on common issues and areas on climate change. Some sustained efforts need to be made (involving youth, religious organisations,senior citizen associations) to campaign together for the reduction of emission of Greenhouse Gases, population control, and better sanitation programmes, etc.The climate change campaign could serve as a model of good practice forachieving sustainable development goals. Innovation and new projects, ESD and related education sectors need to be popularised and encouraged by involving youth, senior citizens' associations, religious institutions, civil society groups etc. In this way the ESD would really contribute to the country's prosperity and happiness of the people. It would also ensure the social and economic wellbeingof the people.

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A Study of the Impact of Computerized Accounting System On Small Scale Enterprises In India

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Abstract

This paper provide a review on the impact of computerized accounting system on small business enterprises in India. This system helps to evaluate a companies post performance, present conditions, and future prospects. The impact of computerized accounting system has made on accounting is the ability of companies to develop and use computerized accounting system to track and record financial transaction. This system is consisting of positive impacts on the small scale business organizations as it helps in delivering fast as well as more accurate, financial information to the management for decision making. This system is also beneficial to accountant'swhich makes the accountant's job a little easier which has helped to increase the efficiency and ability of accountant's to assess statistical values and to interpret data efficiently and effectively. Finally this paper shed light on advantages and disadvantages of using computerized accounting system in small scale enterprises in India.

Keywords: Computerized accounting system, financial transactions. Securities, decision making, efficiency, accurate, accountant's ability.

Introduction

In the ever – changing business world, where the competition is rising exponentially, the entire business organization are trying to use more efficient functional process to achieve sustainable competitive advantages. The computerized accounting system supports obtaining an automated accounting system. This system is very fast and rate of accuracy measured is much higher in comparison to the mutual system of accounting. This system is consisting of positive impacts on the small scale business enterprises as it helps in delivering fast as well as accurate financial information to management for decision making. The accountant's are also benefitted from the computerized accounting system. Some controlling measures are used in this system of accounting is to manage the system efficiently so that maximum outcomes can be obtained from it. The enhancement of this system is leading to the development of efficiency in the payroll system and has a significant impacts on building and inventory system.

Research Problems

This research focuses on the impact of computerized accounting system on small scale business enterprises, therefore the problems of research can be summarized as follows :

(1) Does computerized accounting system have good security aspects to journalize accounting transactions safety ?

(2) Does computerized accounting system help to make accounting transaction more efficient and effective?

Research Significance

The significance of this research stems from explaining of the impacts of computerized accounting system on small scale business enterprises and role of advanced information technology in enhancing the level of efficiency and effectiveness of accountant's skill. Also this research help the management in determining what best accounting software's to adopt in order to improve on performance of the firms.

Research Objectives

1. To study the present impact of computerized accounting system on small scale business enterprises in India.
2. To achieve adequate research results consisting of the problem examined and the conclusion of this study in an appropriate way.

Sources of Data Collection

This paper is an outcome of secondary data. The secondary data was collected through research journals, periodical reports and company profile, book reviews and other publications, internet on specific websites.

Impact of Computerized Accounting System On Small Scale Enterprises

Positive Impact

1. Speed

Data entry onto the computer with its formatted screens and built – in databases of customers and supplier details and stock records can be carried out for more quickly than any mutual processing.

2. Automatic document production

Fast and accurate invoices, credit notes, purchase orders, printing statements and payroll documents are all done automatically.

3. Accuracy

There is less room for errors as only one accounting entry is needed for each transaction runner than two or three for a manual system.

4. Legibility

The onscreen and printed data should always be legible and so will avoid errors caused by poor figures.

5. Efficiency

Better use is made of resources and time cash flow should improve through better debt collection and inventory control.

6. Cost savings

Computerized accounting programs reduce staff time doing accounts and reduce audit expenses as records are neat, up-to-date and accurate.

7. Staff motivation

This system will require staff to be trained to use new skills, which can make them feel more motivated.

8. Flexibility

Flexibility technology is severely needed in accounting departments. The accounting system must have the capability to adapt with change in business practices. Computerized accounting system associates with accounting creats flexibility to accommodate the changes.

9. Reliability

Computer system are immune to boredom tiredness or fatigue. Therefore, these can perform repetitive functions effectively are highly reliable as compared to human beings.

Negative Impact

1. Heavy cost of Installation

Computer hardware needs replacing and software needs to be updated from time to time with the availability of never versions.

2. Cost of Training

To ensure effective and efficient use of computerized system of accounting never versions of hardware and software are introduced. This requires special training and cost is incurred to train the staff personal as specialist.

3. Description in work

When computerized system is introduced, there might be loss in the work time and certain changes in the working environment.

4. System failure

The danger of system crashing due to some failure in hardware can lead to subsequent loss work. This occurs when no back-up is retained.

5. Hearth Danger

Extensive use of computers may lead to many heath problems such as eyestrain, muscular complaints, bachache etc. resultantly reducing working efficiency as well as increasing medical expenditure.

Conclusions:

In the ever – changing business world, where the competition is rising exponentially, information technology advancement have greatly helped the accounting systems of small business entities. Because of today's computerized accounting systems, business performance seems to improve many transaction processes were simplified thus creating efficient operations. The affordability of computer technology for small business creates great opportunities for these entities to improve their business. The computerized accounting system is consisting of positive impacts on the small scale business organizations as it helps in delivering fast as well as more accurate, effective and efficient financial information to the management for decision – making, thereby increasing the firms ability to achieve corporate and business strategy objections.

Recommendation:

According to the conclusion of the research, the researches recommended the following.

1. The use of computerized accounting system must be determined by international standard issued by relevant professional organizations.
2. All small scale business entities should invest a part of their profits in developing software for accounting system.

3. All small scale business entities must be use accounting software efficiently and effectively to obtain the highest level of advantages of this software to overcome the disadvantages of the implementation of information technology.

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Tribal Women In Politics

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Abstract
Tribals or Adivasis, as they are popularly known as a symbol of self-assertion, comprise of around 8.2 per cent of the national population. The tribals are concentrated mostly in the central belt of India and parts of the North-East.The reservation has been mandated by the Constitution of India (73rd Amendment Act), enacted in 1992. Women hailing from merged districts have urged the federal government to take practical steps for provision of conducive environment to the tribal women so that they can play active role in politics, dispute resolution and development of their areas. Empowerment of Tribal Women For the accelerated socio-economic development of any community, the active participation of women is essential. In a social set up like India's, their participation has to be ensured through tangible measures, taken at various levels, which result in their empowerment in the real sense. Empowerment of women is one of the concepts that has developed in connection with improving their status. Empowerment includes higher literacy levels, education, better healthcare, equal ownership of productive resources, increased participation in economic and commercial sectors, awareness of rights and responsibilities, improved standards of living, self-reliance, self-esteem and self-confidence.
Key Words: Panchayati Raj,Tribal, Women, Politics, Gender Equality

Introduction

Every tribal community in India has a head or leader, who is usually the man. This man is treated with honour, respect and regard and his decisions are placed above all the other tribal people in that community. The political sphere does include the Panchayati raj or other forms of local governance, however, even within these spheres, it is the men who engage in the politics and decision-making. After the introduction of the 73rd Amendment, 33% seats were reserved for women, however, women are still severely under-represented in all spheres and domains of life. Even when these women acquire the positions of power, they are usually suppressed and subjugated by the opinions of the men and do not have much say.Women's empowerment in India is heavily dependent on many different variables that include geographical location educational status, social status and age. Policies on women's empowerment exist at the national, state, and local (Panchayat) levels in many sectors, including health, education, economic opportunities, gender-based violence, and political participation. However, there are significant gaps between policy advancements and actual practice at the community level.American Indian women have a rich history of political involvement in the life of their communities.Throughout the history of India, the tribal population has been one of the most vulnerable groups and has been compromised multiple times in the name of 'national development.' Post-independence, the policies and practices undertaken by the government under Jawahar Lal Nehru, promoted the integration of the tribal population into the Hindu mainstream following the famous 'isolation vs integration' debate of the 1940s. These policies aimed to make the tribal population feel like an essential component of the Indian society without compromising on their culture and identity. However, their history and position in society today is a corroboration of the fact that the gaps in policymaking and implementation have led to their large-scale exploitation and alienation from their own lands. This behaviour towards the tribes continues till date. Something which has negligibly changed over a period of time is the number of women in the political sphere of India. Though persistent efforts are being made to push the number by providing one-third reservation for women in various legal bodies including Parliament but still the percentage of women is just 5-10% across all political parties in India. As per the Act, minimum one-third of seats for women, both as members and chairpersons, would be reserved within all of the locally elected governance bodies of India, generally known as Panchayati Raj Institutions. But simply making such Act does not guarantee the active participation of women in politics. So the problem is different and related to the role of women in society and attitude of male towards females.The decline in status of tribal women in independent India is proportionate to shifts from foraging tribes to agriculturist tribes as a result of rising influence of caste values in daily life and disintegration of the earlier communitarian systems of control, management and benefit sharing.

Key Words:

Panchayati Raj

The Panchayat raj is a political system, originating from the Indian subcontinent, found mainly in India, Pakistan, Bangladesh, Sri Lanka, and Nepal. It is the oldest system of local government in the Indian subcontinent, and historical mentions date to the 250 CE period. The word raj means "rule" and panchayat means "assembly" of five. Traditionally, Panchayats consisted of wise and respected elders chosen and accepted by the local community.

Tribal

The definition of tribal is relating to a group or community with similar ancestors, customs and traditions. According to Ralph Linton tribe is a group of bands occupying a contiguous territory or territories and having a feeling of unity deriving from numerous similarities in a culture,frequent contacts and a certain community of interests.

Women Empowerment

Empowering girls and women is powerful. Today, we know it is the key to economic growth, political stability, *and* social transformation. World leaders, experts and scholars alike are giving their voice to this critical endeavour.

Politics

Politics is the set of activities that are associated with making decisions in groups, or other forms of power relations among individuals, such as the distribution of resources or status. The branch of social science that studies politics and government is referred to as political science. A variety of methods are deployed in politics, which include promoting one's own political views among people, negotiation with other political subjects, making laws, and exercising force, including warfare against adversaries.

Gender Equality

Equal rights and opportunities for girls and boys help all children fulfil their potential.Gender equality, also known as sexual equality or equality of the sexes, is the state of equal ease of access to resources and opportunities regardless of gender, including economic participation and decision-making; and the state of valuing different behaviours, aspirations and needs equally, regardless of gender.

Methods And Materials

The research paper on 'Tribal women in Politics'. The research paper uses the descriptive method of study. The information collected from secondary sources like books and websites for this paper.

The Indian Movement

Social sciences in India have resulted from a large number of social forces in India. The first social force was colonialism, followed by feudalism in the princely states. Both these forces suppressed the masses. In rural India poorer people were made victims of several injustices and discriminations. The suffering of women were many times greater than the suffering men. Sometimes the victimization of women by their menfolk was far greater than the victimization of feudal state. Another social force, which gave rise to social sciences movements in India, was the struggle for Independence. The freedom movement provided ample opportunities to come out openly against the British Raj and the princely rulers. Gandhiji openly pleaded for the development of women. This had greater impact on the women's movement. The third force, which influenced the gender issues in our country, was the declarations made during internationalization of the cause of women. This also includes the whole history for the rights of women. For, instance the Indian National Congress passed the resolution in 1931 for the fundamental rights of freedom, justice, dignity and equality for women as essential prerequisites for building of nation. This historical force was further strengthened by the constitution, which argued 'the state would not discriminate against women on the basis of caste, creed and sex.Tribal history is proud to have witnessed brave and courageous women from indigenous communities, who have not only fought for their rights and entitlements, but have also led their communities successfully and are credited in the making of the Republic of India. Rani Durgavati, a fierce ruler of the kingdom of Gondwana fought valiantly against the Mughal armies, and was martyred in the war. Rani Gaidinliu led the movement to exorcise the colonial rulers from Nagaland and Manipur and Rani Chennamma was the Queen of Kittur and the first ruler to fight against the British Rule.

Tribal and Adivasi women activists like Dayani Barla, Kuni Sikala, Jamuna Tudu, Neidonuo Angami, Soni Sori to name a few have set an example for many young women to fight for their rights. Brilliant tribal women like Dutee Chand, Mary Kom and Dangmei Grac have also gained feats in the field of sports.

Status of Women

In tribal society women are not treated as inferior to their male counterparts. This status of the tribal women is in existence from ancient times as can be seen from rock paintings found in India. These paintings were executed as early as 5 to 50 centuries BC. In the scenes that depict everyday life, women are shown to be involved in food gathering, basket weaving, singing and dancing. Pregnant women, women giving birth, and nursing mothers are also depicted. This perhaps indicates that the women represented fertility, motherhood and were the progenitors of the tribe. In order to assess the socio-economic impact on any society it is imperative to understand the gender role and its changing elements. Therefore, it is needless to emphasize here that the status of women in tribal society is required to be assessed and it's changing perspectives. The famous novelist Saratchandra Chottapadhayay, while discussing the position of women in society remarked that the gem stones are precious because of its rarity, but the women are not rare, do not command much values. Water is essential for life, its scarcity, makes it valuable. Similarly, if for any day the women became scarce, then their importance could be actually assessed. Since, tribal society has certain distinct gross life pattern different from Indian mainstream patterns. The status of women is to be considered as a product of social status, economic ability, religious belief, spare of activity of the women, the behavioral norms, the social right and taboos and duties, now it is imperative to examine each of the elements that constitutes the status of women and the impact on it by the growth and proliferation of stone quarry and crushing unit.Despite increases in the number of women at the highest levels of political power, widespread gender inequalities persist: progression in women holding ministerial portfolios has slowed, with just a small increase to from 21.3 per cent in 2020 to 21.9 per cent in 2021; the number of countries with no women in government has increased; and only 25.5 per cent of national parliamentarians are women, compared to 24.9 per cent the year before.The population of tribal communities scheduled in the Constitution of India and known as Scheduled Tribes (STs) was 8.43 crore (1 crore = 10 million) as per 2001 census and accounts for 8.2% of the total population. 4.26 crores are man and 4.17 crores are women, accounting for 8.01% and 8.40% respectively. They are scattered over all the states/UTs, except Punjab, Haryana, Delhi and the UTs of Pondicherry and Chandigarh. Tribal's have traditionally lived in about 15% of the country's geographical areas, mainly forests, hills and undulating inaccessible terrain in plateau areas, rich in natural resources.

Role Of Tribal Women Decision-Making

In many situations, individual action cannot yield results. This is particularly true of the weaker sections of the populations as they individually lack resources, skill and strength to accomplish their own development. Therefore, a group is much more effective than an individual. The power to take decisions is extremely important from the view point of empowerment of women because it is often seen that their voice is not properly listened. The decision-making power of women should not be ignored. The real development cannot take place without active participation of women. The Relationship between Socio-Economic Status and Autonomy among Women The status of women in any society and women empowerment is closely associated with each other.These tribal women, the champions of tribal feminism have made a mark in society and have proved that women are every bit of fighters and most of all equals to their male counterparts. These achievements manifest the long way these women traversed. With what we see of momentous and bewildering revolution in their community, tribal women have now begun asserting their rights to inheritance and property.

Conclusion

If we want to develop a comprehension about the gender relations in tribal women we shall have to go in the conceptuality of the tribal society. As Empowerment is not limited to political decisions or the decisions relating to the local government. It is very necessary to increase women's capacity to participate in decision-making and leadership. It will take considerable time for the social and psychological change to take place whereby women will acquire equal status with men in the pursuit of national development.

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Use of ICT in Teaching Learning Process

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Abstract: Now a days, In Higher education, ICT based teaching is most important for effective teaching & learning process. The effectiveness of this ICT technology in teaching & learning process or classroom, there is a challenge to teachers & administrators. For the best results of ICT integration, strong desire in teaching staff & management. The ICT includes some innovations like internet, E-learning, online form, online adds, get quick information of what you need etc. Therefore, the teaching staff & management are convinced the importance of using ICT in their teaching & learning process. In this paper, we studied the uses of ICT in teaching & learning process. This paper shows positive impact of ICT but apart from this, there is some negative impact of ICT which is addiction and causes serious health issues so we should be aware about that.
Keywords- Higher education, Effectiveness, Teaching Learning, ICT

Introduction:

ICT is an electronic phenomenon which capture, process, store & communicate information. ICT is very important in the classroom because it facilitates teachers & students to collect information, retrieve & also enhance independent & active learning. The vast means of ICT includes computers, cell phones, television, audio-visual devises etc. that means ICT is any device that access, manage, evaluate, create & communicate information & any of the knowledge. Now in a modern society, ICT is one of the important building blocks in a short time (Daniel 2002). For the effective teaching learning process, ICT is one of the basic important components. According to Pelgrum &Law (2003) concluded that, in the end of 1980's, IT is the important key which is replaced with computers whose main focus on to store & retrieve information.

How ICT improves Teaching Learning process –

Several studies show that, new technologies used in classrooms are very much essential for students to add a much more knowledge in their information age. The is now from one way to two way communication & teachers students are participating in classroom discussion. Now days, the education is child centric so teachers should ready to use different technologies to make teaching learning more interesting. For effective application of some student related activities such as project based learning which push the student's active researchers & it becomes an appropriate tool for ICT. ICT has become a better thing for students because it gets softer communication, presentation of their ideas & things more effectively & better way. ICT students look for information from multiple sources & they are much informed than before, so ICT much more important for teacher education.

ICT has three Objectives-

1. It is used to teach students to their daily life.
2. It is used for skills professional or vocational purposes.
3. It is used for improving the teaching & learning methodology.

Use of ICT in learning process

Mobile Learning. ...

1. Access to Education. ...
2. Deeper Learning. ...
3. Continuous Feedback. ...
4. Unlimited and Immediate Learning. ...
5. Creation and Contribution. ...
6. Social Connectedness.
7. Global Awareness
8. Understanding Learning

How ICT improves teacher education

In our society various changes needs for our educational practices and also in our teachers education. Teachers education need latest technology and also values of skill related teaching. For teachers education now there are very much courses are arranged like orientation courses, correspondence courses, micro-teaching and team- teaching are also used. Increasing teacher's ability for specific professional

development to use ICT for individualized instruction, formative learning assessment, to collecting online resources and for speeding student interaction and collaboration.

Different ways for implementing ICT in teacher education-

1. Provide Proper infrastructure and technical support.
2. Implement all subjects as ICT based.
3. Arrangement of pre-service teacher education training program.

The Devices or Tools used in Information & Communication Technology are Cell Phones, Cell Phone Towers, Computer, Software, Radio, Video Conferencing, Laptop, Television, Internet etc.

Few are explained with figures.

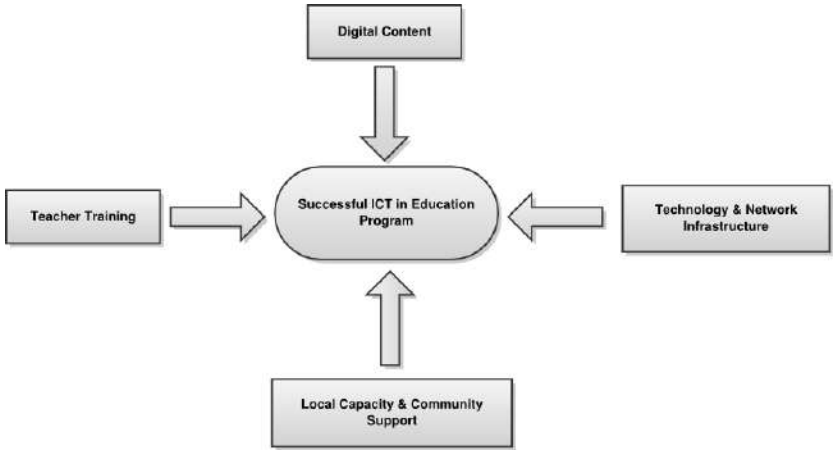
1. Internet is the most important tool of ICT based teaching learning process. The computing industry includes internet, computer hardware and software for various means. It is a worldwide system of interconnected networks useful for everyone. For example, in a class there are 5 students out of 10 using an internet facility while teacher is teaching?

Email is important service available on the internet. It sends Email attachments like pictures, documents, important files to multiple Email addresses.

Telephone on Internet is another service possible by the internet. So Internet is the most important tool in the form of complementary activity.

2. Another example of ICT tool is Telecommunications. It means, it is an electronic device through cellular phones, audio, video, radio and many more. We always know latest information and news from all these media. For example, when we call our father, who stays far away from us, we get all information of their health and many more things related to them because of this media. So it is also an important tool of ICT.

Lastly we studied that, Digital content, Technology and network infrastructure, teacher training and local capacity & community support, these four are the main key points to the successful ICT in education program.



In 21st century, ICT Role in teacher education -

1. It helps teachers to improve innovative teaching skill.
2. It helps in effectiveness of classroom.
3. Teachers have all knowledge of their subject because now a day student's minds are more competitive.
4. It helps teachers to improve their skill in classroom and make students future oriented.
5. It is important line to cover the gap between teacher and student because of communicate properly to students.
6. It helps teachers to design educational related activities and proper environment.
7. It helps teachers to identify creative mind child in classroom.

Impact of ICT:

Positive Impact:

ICT is very much important for teacher's improvement in teaching learning process. ICT teaches teachers in many important ways and teachers get support when they needed. ICT has improved teaching learning process. It is important for teachers that, teachers give attention to ICT as an important tool at school level for improving student's skill development and concentration in classroom. With the help of ICT, Teachers also have a benefit of preparing other important work with teaching learning sources such as preparing reports, some extra work etc. which saves the time. If we see that, ICT would make teachers more passionate and creative in their work over short period of time. Some ICT forms are, use of Internet, audio-visual aids, it increases the capacity to work together in a classroom which is comfortable for teachers than the direct learning, which difficult for teachers for some extent. Using ICT tool like Internet, when teacher teaches, students open same page according to that topic on Internet, it is undisturbed for teachers to explain, so they will not waste time for giving some own examples of there. In Positive point of view, ICT is very much important tool for teachers and students in their teaching learning process.

Negative Impact:

ICT affects on society specially education. In positive Impact, we already studied that, ICT is very much important tool but ICT has also a negative or very bad impact on our educational system. When are using ICT care should be taken that, this will not affect on our personnel and social domains. ICT tools which can be used that gives us information, links and news but when we are using these things, give attention on that, we may not suffer health problems. ICT cause more effect on students. Students not interested the way teachers teaches, they focused on twitter, face book. It affects results in their class and their behavior among teachers in school. The study shows that, ICT has some Negative impact also so, use ICT in a proper way.

Conclusion:

In today's fast forwarding and interconnected world, ICT is broadly used by our country and it affects on our daily life. ICT has an increasing trend towards the education based processes in our institutions. According to the study, it proved that ICT is a best communicating tool for innovative education to develop effectiveness. In today's life, ICT has many benefits for the younger generation in that specially students. Student who have done part time job can also find some time to do college work. In India, teachers now update with new knowledge, ideas, and skills to use for the effective teaching method. ICT is most important thing for rapid change in our society. It changes the overall nature of education, student's enrollment and teaching learning process.

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A Study of Indian MoneyMarket

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Introduction:-

The money market is a very important part of the Indian financial system. The financial market is the epicenter of monetary policy. As the financial markets in India evolved, special attention was paid to the increasing resource allocation capacity or financial stability. The characteristics of most financial markets before 1990 were as follows, That is, controls over financial asset prices, restrictions on flows or financial transactions, barriers to access, and high exchange transaction costs, these features were coming in the way of market development. During the post-1991 market reform, emphasis was placed on strengthening the price search process. Emphasis was placed on increasing transaction restrictions, reducing exchange transaction costs. In this financial market, the money market has an important place in the Indian economy.

MeaningofIndianmoneymarket-

The literal meaning of the word money market is money market. In resolving this misconception, it can be said that the money that is traded in the money market is not legal tender in the form of currency notes. The commodities traded in this market are the rights or entitlements of money and capital in the form of credit, such as bills of exchange. Short and long term loans are required for the development of trade, industry and business in any country. The country needs financing banks and financial institutions to meet their credit needs. This group of debt exchange institutions is called the money market. Only short-term in the money market Debt transactions are carried out. The concept of money market becomes clearer from the following definitions.

Definition of Indian Money Market

1. "The money market is a system through which short-term funds are lent and borrowed and through which the finances of a particular country or the whole world go." Completed most of the transaction. – Madden and Nadler
2. "Money market is a collective name given to the various forms and institutions that deal with the various grades of near money"- Crouther
3. "The market in which short-term lending transactions are generally conducted is called the money market.

Scope of Indian Money Market-

The scope of the money market can be explained with the help of the following factors.

1. **ShortTermCurrency** –The money market relates only to the market head fund i.e. short term monetary fund. Short-term lending usually lasts for a minimum of 90 days and a maximum of 180 days.
2. **Bothorganizedandunorganizedsectorsinclude**- lenders in the unorganized sector in the Indian money market, Includes goldsmiths, traders, etc. The organized sector, however, includes banks, foreign banks, the Reserve Bank, etc.
3. **Useoflimitedcredittools** – As the Indian money market is short-term, it deals in credit tools such as exchange certificates, treasury or government securities and short-term government bonds.
4. **Varioussub-marketsincludingIndianmoneyMarket**- Call Payable money Market, Delivery Market, Merchant Delivery Market, Merchant Deposit Certificate Market, Merchant Letter Market, money Market Mutual Funds, Reserve Bank Repurchase Agreement. This has helped in the development of the Indian money market.
5. **Commercialbankshavebeengiven** a **centralpositioninthemoneymarket**- The various components of the money market approach commercial banks for the first time to facilitate their finances, in the sense that commercial banks have a central position in the money market.
6. **The position of the central bank is the supreme** – the position of the central bank is supreme or strategic she has got the ultimate source of money supply in the money market because of her ability.
7. **Money market development- money market** development depends on the credit tools available in the market. The money market has been evolving ever since the Reserve Bank of India provided various credit instruments and its scope is growing.

Structure of Indian money market

The first visible result of globalization since 1991 was first seen in the financial markets. Significant increase in the inflow of financial capital across the country was a visible feature of

globalization. This increased flow of financial capital is an opportunity for rapid growth. But in such a scenario, the country has to face many global shocks and strategic dilemmas.Therefore, from India's point of view, it is necessary to strengthen the financial system and change it by removing the defects in the money market. Organized money market is dominated by the Reserve Bank, State Banks, Commercial Banks, Co-operative Banks, Foreign Banks, Financial Corporations, Indian Deductions and Finance Departments (DFHIs). It also includes all the above sub-markets. The following is a detailed description of all the components or sub-markets belonging to the organized group.

1. Call money market-

Is a major segment ofthe moneymarket. The money market has been used extensively for short-term financing of commercial banks. The loan period is as short as one day to seven days. The interest rate on such loans depends on the term of the loan, demand and supply. Call loans can be converted into cash immediately. These loans are like cash.

2. Bills Market-

Bills are considered to be an important part of the money market in an industrialized country. But this department has not developed in India. In this system, the responsibility of cash management rests with the banks. The lack of an active secondary market adversely affected the development of the underlying financial markets.

(A) Bills Market: Commercial dowries are produced through internal transactions. Commodity transactions are carried out with the help of Bills, the term of the trader is 90 to 180 days. These dowries are distributed by commercial banks. However, it did not become very popular as the Bills was not traded in the secondary market. Emphasis is placed on secondary market share, debt securities. The trading letter / Bills market did not develop due to the reasons like ceiling on repossession of Bills, interest rate brokerage, and payment of Bills by deducting interest etc.

(B)Treasury Bills Market- (91 days). These Treasury Bills / Bills are issued only by the government. As these Bills are movable documents / securities, their release can be extended to Bank of India. The central bank has control over this. This is also called 'promissory Note'. The 91-day Treasury bill is the oldest type. There are two types of Bills. Ordinary and temporary Treasury Bills. Ordinary bills are sold to the general public through the Reserve Bank. Its duration is 91 days. Through this, the Reserve Bank provides the work of meeting the temporary need of government funds.

1. Commercial Paper Market:

In 1990, the Reserve Bank of India allowed the issuance of commercial paper. Initially, only high-rated companies were allowed to operate Commercial Paper. The minimum amount of this trade letter was fixed at Rs. Their maturity ranged from 91 days to six months.

The working capital of the companies was added to the corresponding trade letters. But in later times, restrictions on the circulation of Commercial Paper were gradually relaxed. The minimum amount of Commercial Paper was reduced uptoRs 25 lakh and their maturity period was reduced from 30 days to one year.

2. Certificate of Deposits Market-

Is another type of short term deposit. The receipt for this deposit is called a deposit certificate. Banks raise short-term funds (three to six months) through deposit certificates at different interest rates than normal term deposit rates. The Reserve Bank of India started issuing deposit certificates in 1989.Earlier, in 1987, a Waghul committee was appointed for this purpose. These deposit certificates are made available to individuals, corporates, companies, service organizations, etc.

4. **Term Money Market:**

In the 1990s, some measures were taken to develop the term money market. In October 1993, select institutions like ICICI, IDBI IRBI, and SIDBI EXIM were allowed to borrow money from the money market for a limited period of three to six months. In April 1997, banks were relieved of the obligation to maintain Cash Reserve Ratio (CRR) and Statutory Cash Ratio (SLR) on the banking system. In 1999, the Reserve Bank of India (RBI) clarified that there would be no maximum time limit on repos.

5. **Money market due to mutual funding-**

Small investors were able to participate in the money market. In 1992, the Reserve Bank of India issued guidelines for money market mutual funds. The proposed commercial banks and public financial institutions were allowed to establish mutual funds on certain conditions. Between November 1995 and July 1996, the terms were later relaxed to make the scheme more flexible. The Reserve Bank allowed money market mutual funds to invest in institutional bonds for a period of one year.

6. **Reserve Bank's Repurchase Agreements Repo-**

On December 10, 1992, the Reserve Bank of India (RBI) introduced the repo procedure to affect short-term liquidity. In this, bonds of public institutions, co-operative bonds started to be sold without any auction. The Reserve Bank indirectly intervenes in the market to reduce the unnecessary pressure on the Call rate overnight with the help of recurring repurchases. Excess money from institutions like UTI, LIC, and IDBI started to be invested in the money market for a short period of time due to this market. The Reserve Bank conducts repurchase transactions through government securities. At the same time, the RBI has allowed bonds of interbank and public sector entities and private entities to conduct repurchase transactions.

Characteristics of Indian Money Market

1. **The Indian money Market is divided into two parts-** The Indian money market is divided into organized and unorganized. The organized group consists of central banks, merchants and co-operative banks, while the unorganized group includes moneylenders, landlords, etc. Although the organized sector is currently growing, the unorganized sector does not appear to have been eradicated. Therefore, the Indian money market has not developed as much as it should.
2. **Short-term market-** The Indian money market provides short-term funding only. Loan funds can be obtained from one day to one year. Therefore, the number of transactions in the money market remains limited.
3. **Organized but Less Dynamic**- Banking Business Modern banking system has many shortcomings. The scope of these banks is limited to a specific geographical area. Also the trend of commercial banks seems to be traditional but lacks innovation. Despite the variety of banks, they lack proper coordination. They also work independently. Therefore, they do not affect the money market.
4. **Inadequate credit instruments**- The Indian money market appears to be inadequate compared to the money market in developed economies. As the trade and commerce sectors are not organized in a modern way, there is an inadequate supply of credit instruments and various contradictory forms. Compared to the developed economy, the economy is limited in the number and scope of bills, financial statements and other short-term notes.
5. **Different interest rates-** If there is a close relationship between different sub-markets in the money market, then the interest rates in the sub-market are almost identical. In an economy like India, since the sub-markets are not interconnected, interest rates in different sub-markets. Sometimes in the money market different interest rates are charged for the same term for the same credit. As the money market is not organized and there is no trade control mechanism, two different interest rates are charged for the same type of transaction.
6. **Insufficient Currency Fund-** Another feature of the Indian money market is the low availability of funds. Because of the low level of savings, the supply of funds decreases and whatever is saved is invested in the traditional way and the newly formed institutions are not trusted by the people as they are not well established. Therefore, there is a shortage of funds in the money market.
7. **Submarkets Less developed-** money markets like London and New York are more numerous and fully developed. In contrast, the number of sub-markets in the Indian money market is low and underdeveloped. The Bills market does not have adequate supply of Bills. Due to limited number of brokers and lack of debentures, sub-markets appear to be underdeveloped.
8. **Imbalance in demand-** supply of Indian money market is not fully developed. In this Money is raised with help of credit card. Here short term loan demand is high and supply is low.

ReformsinIndianMoneyMarketafter1991-

In order to increase the depth and liquidity of the money market, the money market instrument was introduced in the mid-1990s, with the introduction of new instruments and some complementary improvements. After the economic reforms of 1991, two committees, the Narasimham Committee and the Sukhmay Chatterjee Committee, were appointed to review and examine the financial system in India. The money market was reformed according to his guidelines.

Also, **the RBI suggested some measures as follows:**

1. Introduction of new members in the money market-

Demand in the money market. As a result, money from such institutions began to be used in the money market. Also in 1999, the Reserve Bank re-entered the government money market. Banks have more money left over as cash reserves have been reduced by one percent. As a result, credit supply remained secure in the demand-pay market and helped in strengthening the money market.

2. **Introduction of new credit instruments-**

The money market is successful if the credit instruments used in the money market are well available. The main drawback of the Indian money market is the scarcity of credit instruments. The majority of the

tools were used as per the recommendations of the Waghul Executive Group. The Reserve Bank of India (RBI) has recently issued a deposit certificate for the use of credit instruments. Under certain conditions, in 1992, scheduled commercial banks and public financial institutions were allowed to set up money Market Mutual Fund (MMMF). Later mutual fund transactions were brought under the purview of SEBI.

3. **Reserve Banks Repurchase Agreements-**

As a solution to short-term liquidity, the Reserve Bank introduced repo procedures. The repo market helped in the development of the money market. In this, bonds of public institutions, co-operative bonds were not sold by auction but were sold at fixed rates. With the help of this recurring repurchase, the Reserve Bank of India (RBI) began to indirectly control the rate of overnight occupancy to reduce unnecessary pressure.

4. **Interest Rate Control** –

The Reserve Bank of India (RBI) had tightened controls on interest rates, interest rates on deposits, rates on short and long term loans for the purpose of expanding Indian economic policy. Market related interest rates were accepted as per the recommendation of Narasimham Committee. Bank rate policy was restructured and interest rates were relaxed. The period of stable and high banking came to an end.

5. **Equal transaction methods-**

The interest rates of many institutions in the money market differed greatly in terms of loan. The Reserve Bank reduced this gap and insisted on a similar procedure. The open market process led to an increase in credit. Banks and financial institutions have been able to follow the same procedure due to the e-market scheme.

6. **Establishment of Finance Deposits-**

The Reserve Bank of India has set up Indian Deposits and Finance Deposits to facilitate short term loan transactions which are unbalanced in the money market. One of the objectives of the establishment was to facilitate short term funds by promoting credit instruments in the secondary market. Due to the above measures, the Indian money market has improved a lot.

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Education As A Means of Empowerment of Women

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Introduction

There are always a number of components in the society which are underprivileged of their basic rights in every society, state and nation, but these components lack in the awareness of their rights. If we enlist such components from the society, then women would top this list. In fact, women are the most important factor of every society. Even though everybody is aware of this fact, yet nobody is ready to accept this fact. As a result, the importance which used to be given to women is declining in today's society. As a significance of this growing tendency of underestimating women such as to make them occupy a secondary position in society and to deny them of their basic rights, the need for empowering women was felt. Today we enjoy the benefits of being citizens of a free nation, but we really need to think whether each of the citizens of our country is really free or enjoying freedom, in the true sense of the term. If we consider our country, each Indian citizen is given certain basic rights. The Structure of our nation doesn't discriminate between men and women, but our society has destitute women of certain basic rights, which were bestowed upon them by our Constitution. Due to such current situation, it was needed to make women free from all the fetters and to empower them as well. This is nothing but empowerment of women. Women's empowerment is not limited only for the Indian society. If we deliberate the global aspect in this regard, we see that women are being given equal treatment in developed nations. In fact, if we take a recollection of history, we come to know that women have always been given secondary position in society, but the difference between men and women created by the Nature is but natural. It is education through which we realize this fact. When American women realized this, they opposed this unfairness which was meted out to them by way of a huge movement, through which they asked for equal rights. For eliminating this injustice, the UNO (United Nations' Organization) framed an agreement which is called 'The Convention on the Elimination of all Forms of Discrimination against Women' (CEDAW), which further led to the formation of Women's Commission. Taking an account of this background, we come to know that women's empowerment has now become a topic of global discussion. Seeing all theaspects of this discussion, we will realize that education is the only means for empowerment of women. Therefore, literacy should spread amongst women. The literacy rate amongst the women in the post- Independent Era is not as per the expectations. We, as a nation, dream of becoming a Super Power by 2021. For becoming a Super Power, each element of our society/ nation should contribute in the nation building process. But women, who are a major factor of this society, aren't literate then we can't expect to become a Super Power. Therefore, it is urgent for us to know the importance of women's education, which would, in turn, give a motivation to the process of women's empowerment.

Objectives

The main objectives of this article are:

1. To measure empowerment between educated and uneducated women with thehelp of some indicators.
2. To analyse the role of education in empowering women.

A Brief Review Of Literature

There is a number of uncountable national as well as international literature regarding women empowerment and education. In the present study, a brief review of literature is pointed out. Paranjape (1989) revealed in his study entitled "Women's Education status in Women and Development" that there is a link between the empowerment of women and their educational and economic status. At present women are not empowered in the economic, social, political areas and in the field of education. Hence, there is a need to empower them socially, economically and politically through education, capacity-building, skill development and improving awareness regarding various issues. Mira Seth (2001) depicted from her study entitled "Women and Development, the Indian Experience" and concluded that future of the girl child gets further endangered if her mother is illiterate, for an educated mother will always educate her daughter but an illiterate mother may not. Lakshmi Narayana and Rajesh (2002) pointed out from their study entitled "Curbing social Evils through Empowerment of women" that one of the strategies for the empowerment of women in education that build a positive self-image and boosts self-confidence among them and develops their ability to think critically. Padmanabhan (2002) conducted a study on "Literacy: Gateway to Women Empowerment" and found that the women movements are the outcomes of their awareness to seek secure and protect their rights. Literacy is the only source of their empowerment and even to learn to put signature is considered to be a source of empowerment because it enhance their self-image and their selfconfidence.

He concluded that women self-help groups are women organizations aimed at creating awareness among women. The members of SHG are bold enough to open account in the banks, approach officials in the government departments. Ramanujam andThenmozhi (2006) stated that as education is a major source of power, women should be given proper education, It develops the personality of women exposing them to the word of books, peers, teachers and public at large. It is being increasingly felt that empowerment of women will enable a greater degree of self- confidence, a sense of independence and capability to resist discrimination imposed by the male dominated society. A study conducted by Surekha Rao (2007) revealed that the socioeconomic and demographic background of women is needed to be developed in order to improve their family standards. To improve the family standards, more enrollments of girls in schools must be ensured. This will improve their educational background. Efforts should be made by the municipalities and the NGOs to control the school drop-outs among the girls. Matheswaran (2008) explored in his study "Women Empowerment for Sustainable Development through SelfHelp Group Movement in Tamilnadu" that self-help groups through education plays an important role to change the quality of life of the women. Education for women is necessary for an understanding and control over social, economic and political force and also to improve their quality of life. Education helps women to know of themselves and their children and understand the society as a whole. Based on his discussion, he concluded that education particularly distance education is an enabling factor for women's empowerment and sustainable development. From the above review of literature it is found that education plays an important role for empowering women. There are two reasons behind selecting the topic "Role of Education in Empowering Women" for the present study. Firstly, there has been no found any comparative study in the review of literature regarding the measurement of the empowerment between educated and uneducated women. Secondly, no literature has been found on education and women empowerment in the study area.The present paper fulfills this research gap.

Women Empowerment

Empowerment can be viewed as means of creating a social environment in which one can make decisions and make choices either individually or collectively for social transformation. The empowerment strengthens the innate ability by way of acquiring knowledge, power and experience (Hashemi Schuler and Riley, 1996). Empowerment is the process of enabling or authorizing individual to think, take action and control work in an autonomous way. It is the process by which one can gain control over one's destiny and the circumstances of one's lives. There are always a number of elements in the society which are deprived of their basic rights in every society, state and nation, but these elements lack in the awareness of their rights. If we enlist such elements from the society, then women would top this list. In fact, women are the most important factor of every society. Even though everybody is aware of this fact, but nobody is ready to accept this fact. As a result,the importance which used to be given to women is declining in today's society. As a consequence of this growing tendency of underestimating women such as to make them occupy a secondary position in society and to deprive them of their basic rights, the need for empowering women was felt. . Empowering women has become the focus of considerable discussion and attention all over the world. Today we enjoy the benefits of being citizens of a free nation, but we really need to think whether each of the citizens of our country is really free or enjoying freedom, in the true sense of the term. The inequalities between men and women and discrimination against women are an age-old issue all over the world. Thus women quest for equality with man is a universal phenomenon. Women should equal with men in matters of education, employment, inheritance, marriage, and politics etc. Their quest for equality has given birth to the formation of many women's associations and launching of movements. The Constitution of our nation doesn't discriminate between men and women, but our society has deprived women of certain basic rights, which were bestowed upon them by our Constitution. Empowerment allows individuals to reach their full potential, to improve their political and social participation, and to believe in their own capabilities.

Importance Of Women Education

"If you educate a man you educate an individual, however, if you educate a woman you educate a whole family. Women empowered means mother India empowered". PT. JAWAHARLAL NEHRU. Women education in India plays a very important role in the overall development of the country. It not only helps in the development of half of the human resources, but in improving the quality of life at home and outside.

1. If it is said that education is the key to all problems, then it won't be improper. Thinkers have given a number of definitions of education but out of these definitions, the most important definition is that which was put forth by M. Phule. According to M. Phule, "Education is that which demonstrates the difference between what is good and what is evil". If we consider the above definition, we come to

know that whatever revolutions that have taken place in our history, education is at the base of them.

2. Education means modification of behavior in every aspect, such as mentality, outlook, attitude etc. Educated women not only tend to promote education of their girl children, but also can provide better guidance to all their children. Moreover educated women can also help in the reduction of infant mortality rate and growth of the population. Obstacles: Gender discrimination still persists in India and lot more needs to be done in the field of women's education in India. The gap in the male-female literacy rate is just a simple indicator. While the male literary rate is more than 82.14% and the female literacy rate is just 65.46%. (b). the women were consider only house wife and better to be live in the house

Women Empowerment Through Education

Women empowerment is the pivotal part in any society, state or country. It is a woman who plays a dominant role in the basic life of a child. Women are an important section of our society. Education as means of empowerment of women can bring about a positive attitudinal change. It is therefore, crucial for the socioeconomic and political progress of India. The Constitution of India empowers the state to adopt affirmative measures for prompting ways and means to empower women. Education significantly makes difference in the lives of women.3 Women Empowerment is a global issue and discussion on women political right are at the fore front of many formal and informal campaigns worldwide. The concept of women empowerment was introduced at the international women conference at NAROIBI in 1985. Education is milestone of women empowerment because it enables them to responds to the challenges, to confront their traditional role and change their life. So we can't neglect the importance of education in reference to women empowerment. To see the development in women education India is supposed to upcoming super power of the world in recent years. The increasing change in women education, the empowerment of women has been recognised as the central issue in determining the status of women. for becoming super power we have mostly to concentrate upon the women's education. By which it will force on women's empowerment. As per united national development fund for women (UNIFEM) the term women's empowerment means:

1. Acquiring knowledge and understanding of gender relations and the ways inwhich these relations may be changed.
2. Developing a sense of self-worth, a belief in one's ability to secure desired changesand the right to control one's life.
3. Gaining the ability to generate choices exercise bargaining power.
4. Developing the ability to organize and influence the direction of social change, tocreate a more just social and economic order, nationally and internationally.

Thus, empowerment means a psychological sense of personal control or influence and a concern with actual social influence, political power and legal rights. It is a multi level construct referring to individuals, organizations and community. It is an international, ongoing process centered in the local community, involving mutual respect, critical reflection, caring and group participation, through which people lacking an equal share of valued resources gain greater access to the control over this resources.5 Let's see the difference in the literacy rate between men and women in given table are as under :

Year	Persons	Males	Females
1901	5.3	9.8	0.7
1911	5.9	10.6	1.1
1921	7.2	12.2	1.8
1931	9.5	15.6	2.9
1941	16.1	24.9	7.3
1951	16.7	24.9	7.3
1981	36.2	46.9	24.8
1991	52.1	63.9	39.2
2001	62.38	76.0	54.0
2011	74	82.1	65.46
2021	80	88.5	71.34

On observing the above table, we come to know that at no point could the literacy rate of women match that of men. As a result, even after 65 years of independence, women occupy a secondary position in our social hierarchy. Inspire of being aware of her position, women can't transform the situation due to lack of education. Therefore, women's empowerment can't be effected unless we persuade the importance of

women's education.

2. Hypothesis Of The Study

H01: There is no significant difference exist between educational qualifications with regards to different types of empowerments.

H02: Different level of empowerments don‟t play significant role in predicting overall empowerment.

Methodology

An official Census 2020 detail Faridabad, a district of Haryana has been released by Directorate of Census Operations in Haryana. In 2021, Faridabad had population of 6,082,252 of which male and female were 2,426,475 and 3,011,777 respectively. Average literacy rate of Faridabad in 2021 were 83.45 compared to 77.82 of 2011. If things are looked out at gender wise, male and female literacy were 89.72 and77.16 respectively. This study is basically descriptive in nature. Faridabad district comprises thirteen revenue blocks, from those 455 women respondents between 20-50 age group were selected for the study. Researcher used convenient sampling method for data collection and well-structured questionnaire was used data collection tool. Using survey method researcher collects the questionnaires with help of well-trained research associates. Respondents were asked to select the options based on their opinions in 5 point Likert scale (1-Strongly disagree to 5- Strongly agree). The research instrument includes questions related with different type of empowerment like personal empowerment, educational empowerment, economic empowerment, social empowerment, psychological empowerment, technical empowerment, political empowerment and demographic characteristics
like age, educational qualification, family income, employment type and maritalstatus.

Findings Of The Study

Table 1: Demographic characteristics of the respondents

Demographic characteristics	Options	Frequency	%
Age	20-29 Years	251	55
	30-39 Years	109	24
	Above 40 Years	95	21
Educational Qualification	Arts & Science (UG)	206	45
	Arts & Science(PG)	75	16
	Professional(UG)	101	22
	Diploma	48	11
	Illiterates	25	5
Marital Status	Married	231	51
	Unmarried	185	41
	Widow	39	9
Employment type	House wife	243	53
	Employed	212	47
Monthly Income	Below Rs.20000	323	71
	Rs.20001-Rs.40000	96	21
	Rs.40001-Rs.60000	36	8
	Total	455	100

Table no 1 concludes that 55 percent respondents were between 20-29 years old, 45 percent responders were have under graduation level education qualification in the field of art and science. 51 percent respondents were married and 41 percent respondents were unmarried. 53 percent respondents were housewives and 47 percent respondents were employed in government, private industries. 71 percent respondents‟ monthly income was less than Rs.20000.

Table 2: Descriptive statistics and Cronbach alpha coefficients

Different type of empowerment	Mean	SD	Cronbachalpha
Personal **Empowerment**	3.26	0.94	0.763
Social empowerment	3.28	0.95	0.754
Economic empowerment	3.36	0.92	0.811
Educational empowerment	2.96	1.19	0.879
Psychological empowerment	3.07	1.13	0.759
Technical empowerment	3.18	1.00	0.915
Political empowerment	3.23	1.17	0.785
Overall empowerment	3.86	0.94	0.704

Table no 2 shows that "Economic empowerment" and "Social empowerment" are the top ranked empowerments with the mean value of 3.36 and 3.28. "Psychological empowerment" and "Educational empowerment" are the last ranked empowerments with the mean value of 3.07 and 2.96. Cronbach alpha coefficient ranges from 0.704 to 0.915; it shows that reliability coefficients for above factors are more than 0.60, which is an acceptable value (Malhotra, 2004). So, the items constituting each variable under study have reasonable internal consistency

Table 3: Effects of educational qualifications on different types of empowerment

Different types of empowerment	F value	p value	Result
Personal empowerment	3.50	0.008**	H0 Rejected
Social empowerment	2.11	0.078*	H0 Rejected
Economic empowerment	6.26	0.000**	H0 Rejected
Educational empowerment	5.74	0.000**	H0 Rejected
Psychological empowerment	4.96	0.001**	H0 Rejected
Technical empowerment	5.05	0.001**	H0 Rejected
Political	4.13	0.003**	H0 Rejected
empowerment			
Overall empowerment	7.29	0.000**	H0 Rejected

** Significant at 1 percent
* Significant at 5 percent
Since p value for all type of empowerment is less than 0.05, hence null hypothesis is rejected and it concludes that there is significant difference exist between educational qualifications with regards to different types of empowerments.

Table 4: Impact of different empowerments on overall empowerment

Different types of empowerment	Beta	t	Sig.
Personal empowerment	0.12	1.62	0.105
Social empowerment	0.06	0.84	0.404
Economic empowerment	-0.16	-1.85	0.065
Educational empowerment	0.42	6.70	0.000**
Psychological empowerment	0.54	5059	0.000**
Technical empowerment	0.10	1.30	0.195
Political empowerment	-0.33	-4.52	0.000**
Multiple R	0.773		
R 2	0.598		
Adjusted R2	0.592		
F value	94.973		
P value	0.000**		

Significant at 1 percent

From that above table, it was observed that the overall empowerment explained 60 percent of the variance for the criterion measure. It entailed that 40 percent of overall empowerment was explained by something other than above mentioned empowerment types. Summary of Regression Analysis shows that different types of empowerment were treating as predictors and overall empowerment as criterion variable. It was observed that the overall regression model was significant ($F=94.973$, $p<0.000$). Hence null hypothesis is rejected;educational empowerment, psychological empowerment and political empowerment are the main and significantpredictors for overall empowerment

1. Discussion And Conclusion

Women play an imperative role in making a nation progressive and guide it towards development. They are essential possessions of a lively humanity required for national improvement, so if we have to see a bright future of women in our country, giving education to them must be a pre-occupation Empowerment means moving from a weak position to execute a power. The education of women is the most powerful tool to change the position of society. Education also brings a reduction in inequalities and functions as a means of improving their status within the family. To encourage the education of women at all levels and for dilution of gender bias in providing knowledge and education, established schools, colleges and universities even exclusively for women in the state. The education develops the idea of participation in government, panchayats, public matters etc for elimination of gender discrimination.The above study was carried out in Faridabad (Haryana), one of the fast developing districts in the state. From the above findings, overall empowerment and other related empowerment types are also relatively influenced by the respondents‟ educational qualification. Regression analysis shows that educational empowerment, political and psychological empowerments were the significant predictors for overall empowerment. The process of empowering entails much more than awareness of alternative, women‟s rights and the nature of the requirements. With more education women have greater access to employment opportunities and increase the ability to secure their own economic resources.This study helps to create the awareness about empowering women. During the data collection most the respondents don't have any awareness about empowerment, even though they are educated. Since education is the primary avenue for empowerment and there are other dimension that is also have impact on empowerment. Present study suggest that General awareness programme should be taken among the women of rural area to sensitizes them about the

modern development of science and technology so that they could give up superstitious believes and attitudes. Women of rural areas should be trained up in different vocational courses like handloom and textile, poultry farms, fish farming, piggery, dairy farm, food and nutrition, fashion and designing, beauty parlor etc. Women reservation policy should strictly be maintained in all aspects like appointment in govt. and semi govt. offices, admission in to the educational institutions, participating in the politics etc. This study concludes that mostly gender barriers still continue particularly on rural area. Research area covers more number of rural areas. Due to current socio economic constrains in rural area, the potential of women have not been fully utilized and further pushed back into the social hierarchy. Most of the educated women feel that, they can able to achieve more than men. But inbuilt idea that women are capable of doing less work than men and less efficient than men. The lack of education becomes the obstacles in getting empowerment. Taking an overview of all the above aspects, we come to know that the transformation is very much needed, accepting at the same time that its pace may be less than the desired pace. For giving this process a momentum, education is indispensable. Hence, if women's empowerment is to be effected, it can be carried out only through the medium of education. Hence, it is of foremost importance to raise the level of education amongst women.

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War and Literature: A Study of Selected Twentieth-Century WarNovels

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Abstract:-

Literary works and many other things spanning centuries from the classical period remind us that war is a constant in society and a subject that will continue to ensure serious debate. It is as universal as love or death or time or human weakness. Literature is one of the cultural areas most affected by the war. World War First and World War II literature often reflects and critically refers to the horrors of war, as well as provide a dramatic transition to the changes taking place in society and to pre-and post-war operations. Wars destroy countries and volumes, which has a serious effect on both the whole person and society. Some events have a profound and devastating effect on society and individuals, such as war, and novelists are inspired by the struggles of history, using fiction to share their experiences, honor them, and learn from them. The frustrations created by the war contributed to the rise of modernism, a style that broke with traditional methods of writing, abandoned romantic scenes of nature and focused on the inner world of the characters. War is causing social upheaval which has left an immediate and lasting impression on every aspect of society and culture. War literature often reflects and critiques the horrors of war, as well as provides a drastic transition to the changes taking place in society and to pre-war and post-war work. During the war many social, political, and economic changes took place and any writer of that time felt the need to speak out against the flaws in their society, sometimes even risking their lives in the trenches. Authors came from many lands to express their views on war through fiction. Although many great novels and memoirs have been written about the war, excerpts from four great novelists for research are included here.

Keywords: - War, Literature, Society, Struggle, Civil War, Horror.

Objectives:

The present research work will explain the vital ideas of the concept of war novels to the readers, scholars, and researchers and they will be enabled by such ideas to understand the importance of the concept of war novels. This research work also explains how human social, economic, physical, psychological conditions. There are some following aims and objectives:

1. To study the form of the war novel with its history.
2. To study the concept of 20th-century war novels.
3. To study the impact of war on the 20^{th}.
4. The Civil War and its aftermath will be studied.
5. To trace the reflection of war on the selected war novels of Selective authors.
6. To analyze the undiscovered issues in the selected war novels of Eric Maria Remark andErnest Hemingway.

Hypothesis:

The hypothesis is a temporary answer to this research problem. Therefore, the current research Work assumes the following.

1. It is assumed that the war novels of Erich Maria Remarque and Ernest Hemingway indicatethe hidden issues of society.
2. It is strongly believed that these novels deal with the issues of civilians, blame, revenge,Loss of innocence, distracted society mental disturbance, and so on.
3. These war novelists strongly depict these kinds of issues in society through their warNovels.

Research methodology:

Analytical, comparative, and explanatory methods will be used for the present study. A close reading of primary and secondary sources will be explained. Discussions will be held with researchers conducting similar studies. Authors and witnesses to enhance primary resources If possible war interviews will be conducted or interviews from genuine media sources will be used for this purpose. The research method will be followed by the MLA handbook.

Introduction:

War literature has existed since the first literary works were written. Scholars have quickly recognized that war is a major force in the work of the three ancient cultures of Greek, Roman, and Hebrew. Homer's *"The Iliad"* and the *"Odyssey"* reflect the culture of war, as in Virgil's *"The Enid"* and

the *"Hebrew Bible"*. Even the most ancient Sumerian epic, Gilgamesh, contains an epic battle with an enemy army that must be defeated. This Literature and many other things spread over the centuries from the classical period remind us that war is a constant in society and a subject that will continue to ensure serious debate. It is as universal as love or death or time or human weakness. The recent proliferation of Research on war reminds us that war is still a contemporary subject and a popular subject for publishing war literature. Since 1890, war literature has produced nearly 23,000 books, Essays, dissertations, dissertations, and other materials – many to be counted in this select article – as well as specialized collections of war materials on various universities, journals, and journal issues, and several conference sessions. After the first century of research, especially in the 1980s and 1990s, a growing number of researchers began to write passionately about war and literature, and their efforts continued into the 21st century. The Wars they treat are often known to the general public. For examples, the American Civil War, the Spanish American War, the First World War, the Second World War, the Holocaust, the Cold War, the Atomic Age, the Korean War, the Vietnam War, India-Pakistan War, India-China War, Kargil War, and so on. Ongoing conflicts in Iraq, Syria, Afghanistan, and Ukraine-Russia War. Scholars have also treated lesser-known conflicts, Such as the Boer War, the Hundred Years War, the English Civil War, the American Revolution, the War of 1812, and the US-Mexican War, as well as the Chaco War, Zimbabwe's Liberation War, and the New Zealand Wars. War literature takes a variety of Approaches to understand war experiences and includes research in a variety of genres, including poetry, plays, short stories, novels, journals, diaries, oral histories, memoirs, and Letters. While the initial study focused only on white male soldiers, it gradually included Gender and minority studies, trauma studies, bi-cultural studies, the effects of war on the home front, the importance of the human body, and even graphic novels. In the United States, on September 11, 2001, terrorist attacks on the World Trade Centre in New York City, The Mumbai terror attack in 2008 as well as other acts of terrorism around the world, created a new chapter in the literature on the war on terror. Traditionally, the subject of war has been used by the artist as a framework for examining personal consciousness about the environment and other persons, like any other. TheConcept of war as part of the natural growth of mankind was accepted by novelists before The First World War in general, a contradiction in works such as Stephen Crane's The Red Badge of courage and Leo. Tolstoy's War and Peace, these books, despite the wide variety of treatments, were firmly traditional in the treatment of war as a narrative Framework and precisely, as a descriptive tool, the atmosphere of war, especially in the Novel, has advantages: the qualities of intensity, pathos, dramatic paradoxical action and crisis were ready-packaged. Critics, however, were free to focus on the aesthetic composition of certain books, as long as the authors themselvesused war as a standard literary theme.

The war novel came of age during the 20th century, with works like Erich Maria Remarque's *"All Quiet on the Western Front (1929)"*, which features World War First, Ernest Hemingway's *"For Whom the Bell Tolls (1940)"*, about the Spanish Civil War (1936-39), which deals with identity and humanity and reality of life, and Reality of war. All of These works feature realistic depictions of major battles, scenes of wartime horror and Atrocities, Honor, Duty, Heroism, Loss of Innocence, Blame, Revenge, Justice, and Significant insights into the nature of heroism and cowardice, as well as the exploration of moral questions.

Selected War Novelists and Their Works:

Erich Maria Remarque

He was a German novelist. He was born on 22 June 1898, died on 25 September 1970. During World War I, Remark enlisted in the German Imperial Army at the age of 18. On June 12, 1917, he was transferred to the Western Front, Second Company, Reserve, Field Depot, and 2nd Guards Reserve Division at Hem-Langlet. On June 26, 1917, he was assigned to the 15th Reserve Infantry Regiment, 2nd Company, Engineer Platoon Bethe, and fought in the trenches between Torhout and Houthalst. His landmark novel is *"All Quiet on the Western Front" (1929)*.

This book is to be neither an accusation nor a confession, and least of all an adventure, for death is not an adventure to those who stand face to face with it. It will try simply to tell of a generation of men who, even though they may have escaped shells, were destroyed by the war. (Prologue of the novel).

This classic World War I war novel was written by a young German soldier in the first person. Paul Boer is just eighteen years old when he was pressured by his family, friends, and community to sign up for the front and fight. He enlists in the army with six school friends, each full of optimism and patriotism. In a few months, they are all old men, not physically but mentally. They have witnessed such horrors and endured so much pain and suffering that they could not talk aboutit with anyone but each other.

Concepts of death, wisdom, trust, and authority disturbed by Paul Bäumer:

We often made fun of them and played jokes on them, but in our hearts we trusted them. The idea of authority, which they represented, was associated in our minds with greater insight and more humane wisdom. But the first death we saw shattered this belief. We had to recognize that our generation was more to be trusted than theirs. They surpassed us only in phrases and cleverness. The first bombardment showed us our mistake, and under it, the world as they had taught it to us broke into pieces. (All Quiet on the Western Front, Chapter 1)

"All Quiet on the Western Front" (1929), the book describes the extreme physical and mental stress of German soldiers during the war and their detachment from civilian life when many of them return home. This novel's aspect of horrors and so much pain and suffering that could not talk about it with anyone.

Ernest Hemingway

He was an American author. He was a short-story writer, novelist, journalist, sportsman, and ambulance driver in World War I. He was born on July 21, 1899, died on July 2, 1961. He was awarded the Nobel Prize in Literature in 1954 and Pulitzer Prize for Fiction in 1953. He published six collections of short stories, seven novels, and two nonfiction works. And three of his novels, four short-story collections, and three nonfiction works were published posthumously. Many of his works are considered classic in American literature.His Selected War Novel *"For Whom the Bell Tolls" (1940)* This novel is about a young Americanvolunteer, who was inspired by his experiences as a journalist during the Spanish Civil War (1936 -1939), Bell Tolls tells the story of Robert Jordan, an American volunteer in the International Brigade who fought against Franco to defend the Spanish Republic. After being ordered to work with guerrillas to destroy a bridge, Jordan finds himself in love with a young Spanish woman and struggles with a guerrilla leader over the risks of their mission.

"For Whom the Bell Tolls" was published after the end of the Spanish Civil War (1936-1939), the general lines of which were famous at the time.

"How little we know of what there is to know. I wish that I were going to live a long time instead of going to die today because I have learned much about life in these four days; more, I think than in all other time. I'd like to be an old man to really know. I wonder if you keep on learning or if there is only a certain amount each man can understand. I thought I knew so many things that I know nothing of. I wish there was more time." (For Whom the Bell Tolls, 78)

This assumes that the reader knows that the war took place in the government of the Second Spanish Republic, which many foreigners had gone to Spain to help, and which was supported by the Communist Soviet Union and the nationalist group, which was supported by Nazi Germany and fascist Italy. . In 1940, the year the book was published, the United States had not yet entered World War II, which began on September 1, 1939, when Nazi Germany invaded Poland.

I have watched them all day and they are the same men that we are. I believe that I could walk up to the mill and knock on the door and I would be welcome except that they have orders to challenge all travelers and ask to see their papers. It is only orders that come between us. Those men are not fascists. I call them so, but they are not. They are poor men as we are. They should never be fighting against us and I do not like to think ofthe killing. (For Whom the Bell Tolls)

"For Whom the Bell Tolls" (1940) Ernest Hemingway's novel tells the story of Robert Jordan, a young American volunteer who joined the Republican Guerrilla unit during the Spanish Civil War.

As a dynamiter, he has been tasked with blowing up the bridge during the attack on the city ofSegovia.

This novel said about risk and humans' painful struggling life in the Spanish Civil War.

Conclusion:-

War has been an important subject of analysis throughout the ages. In the late 20th century, after the two world wars and in the shadow of the nuclear, biological, and chemical Holocaust, more was written on the subject than ever before. It is very important to create some research to try to understand the nature of war, its causes, conduct, and prevention, as research shapes human expectations and determines human behavior. The various schools of research are generally aware of the profound effects on their lives, and their writings usually contain a strong standard factor, because when accepted by politicians, their ideas can take on the characteristics of self-fulfilling prophecies. Analysis of war can be divided into several categories. Philosophical, political, economic, technological, legal, sociological, and psychological approaches are often separated. These differences represent different centers of interest and different analytical categories assigned by the researchers, but most of the actual researches are mixed because war is a very complex social phenomenon that cannot be explained by any one factor or any one point of view. As far as the selected novels of Erich Maria Remarque and Ernest Hemingway are concerned, they talk about the 20th century's war novels, but their way of expression is different. Erich Maria Remarque explains that the selected war novel is about horror, pain, suffering, and the correlation between war and human

development. Earnest Hemingway talks about the selected novels about the brutality of the Spanish Civil war, demolition of internal warfare, risk, and stressful life.

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A Literature Review Of Impact of Interaction On Student Satisfaction In Swayam-India's Technology Enabled Higher Education Programme.

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Abstract
SWAYAM platform (Study Webs of Active Learning for Young Aspiring Minds, is a program under the Ministry of Human Resource Development (MHRD)). It uses internet technology and has achieved considerable success in terms of number of student enrollments. However,it also has a large dropoutrate. This study studies as to what contributes to engagement and satisfaction of the students enrolled in SWAYAM program so that the dropout rate can be reduced and retention rate can be improved. This study, through a literature review finds out that there are mainly 5 types of interactions of students within the distance education program that contribute to the engagement and satisfaction of the students.
Keywords: SWAYAM, education, distance, interaction, satisfaction, effectiveness
Wordcount:2885

Introduction

SWAYAM, is an initiative started by the government of India for technology enabled distance education which uses the internet technology. It has the potential to enable lifelong learning and education for the Indian people. Although the enrollment rate is very high, so is the dropout rate and hence many students who enroll in the course fail to give exams and get certified. (https://SWAYAM.gov.in/nc_details/, Viewed 02/03/2020).

Literature review

Effectiveness of distance education:

Many studies have focused on the learning outcomes of the distance learning program as anindicator of effectiveness. This was used to justify the high costs of implementing distance education courses. These studies have been carried out over multiple technologies over the years.However, they are not an effective indicator of the sustainability of the distance education program. The Sloan Consortium states that student'sengagement and satisfaction mirror the effectiveness of the learning experience. Students expressed satisfaction about the rigor and fairness of the course, interaction with faculty,interaction with peers and IT student support services. It also states that online students value positive, suitable and substantive interaction with the faculty and other students.Student satisfaction is the key to ensure that the student continues in the learning process.(Moore, J. C.,2005).However, most research emphasizes on achievement outcomes instead of satisfaction parameters(Zarghami & Hausafus, 2002). In case of distance education, student satisfaction can be defined, in management terms, as a perception of the student, who is also the customer of the distance education programme. It includes views about the experience and value of the education received while attending the academic organization. Herbert (2006) states that retention of students in case of distance education has been one of its greatest weaknesses. Dissatisfaction or disengagement leads to dropping out of the students, which leads to wastage of resources and may threaten the sustainability of the entire educational program,Academic institutions should be concerned about this and should monitor student satisfaction. The importance of student satisfaction in India, in case of higher education, especially distance higher education which is enabled by technology is important due to the following reasons:

1. The government has to justify the budget allocation to education as compared to other sectors.
2. Students pay for the education in case of open universities and technology enabled distance education programs.
3. Academic organizations are obliged to enhance student satisfaction.
4. Studies of student'ssatisfaction can provide important clues as to how the students perform in the education system.

(Source: Reference URL: http://ignoustudentsatisfactionsurvey.blogspot.in/ Accessed March 12, 2012)
The attrition or dropoutrate in open and distance education is high worldwide and it is due to dissatisfaction of the students.
From a management point of view, managers rely on the feedback that is usually obtained from customer surveys. DeShields Jr et al. (2005) state that the customer surveys of satisfaction, intention torepurchase

the service and intention to recommend the service or the product leads to loyal customers. They have higher retention rates and have a better chance ofinfluencing others to become customers of the business.(Keiningham et al,2007).The main effect of satisfaction is customer loyalty. In our case of technology enabled distance education program, the customers are the students. The key indicator of student satisfaction is whether they are happy with the learning experience in online education. This includes interaction with instructors and peers and experiencing learning outcomes that equal expectations. Student satisfaction leads to intentions to continue in the program, which influences student retention and reduces the drop rate in the institution. The course satisfaction can be measured in terms of following parameters:

1. Whether the students were satisfied with the current distance learning experience
2. Whether the students would like to take a course in similar settings again
3. Whether the students would recommend any course in similar settings to their friends or others

This is important in an educational program, especially distance education program, as it depends on the satisfaction outcome. Students will return to the programs that they perceive as effective and dropout of the courses that they think are ineffective. However, satisfaction outcomes are less studied in distance education especially those enabledby technology.Student satisfaction increases the retention rateof the students and leads to higher level of motivation, more commitment to complete the course and better learning outcomes. There is a need for conducting research in the area of satisfaction of students who engage in distance education as it is important to the success and effectiveness of many distance education program This study aims to add to the growing area of research in distance learning in the area of student satisfaction. It attempts to investigate the various aspects which affect the satisfaction level of the student in case of distance education program enabled by technology with a focus on SWAYAM, which is an online education program offered by the government of India

Interaction

Parker (1999) states are interaction is the key to the learning process. Today's distance education process should empower students to question and modify their beliefs and encourage formation of new personal knowledge. Without interaction, teaching simply becomes transmitting subject content, as if it was dogma, and it prevents critical thinking and development of other skills in the student.

Disagreements and Diversityof views:

There are many disagreements in this world e.g.

1. choice of food,
2. should taxes be raised
3. do we have the freedom of the will?
4. is the universe infinite

Kelp, C., & Douven, I. (2012) state thatscientific theories and practices continue to be improved as research progress and it is sometimes disagreements, which lead to the progress of knowledge. The progress of the variability of judgment, expressed by scientists is crucial to scientific advance. Diversity of views held by the scientists actually promote scientific advance. All knowledge is provisional, flexible and open to doubt.Disagreements can be brought to light through interaction and not one way narration.The objective of education is to think independently and to be original (Abhedananda, 2008). It is not to accept parrot like the doctrines and dogmas, but to examine and accept those which appeal to one's reason.

Friere (1970) stated that the communication method adopted in one-way narrative teaching, without the facility for interaction or dialogue, is faulty. It encourages passive compliance and discourages students from asking questions which can change or improve the status quo of the world. Friere (1970) statesthat the main aim of teaching is to stimulate thinking and cognition and not transfer data, information, and knowledge. The narration method of teaching where teachers treat students as empty containers waiting to be filled with truth or knowledge, completely disregard the complex states of wisdom, tacit and explicit knowledge that each individual possesses. This is known as the banking concept of education where the instructor is the depositor and the student is treated as a depository. Friere (1970) stated that instead of engaging in dialogue, the instructor dictates andmakes deposits of knowledge with the students. To encourage critical thinking, use of interaction and dialogue is very essential to be adopted by the instructor. There is a need for an interactive approach to learning rather than the narrative style of teaching. The students must recognize that the teacher is not the only source of knowledge in the world and they too are capable of constructing and creating knowledge.

Interactions:

Sutton (2001) and Moore, M. G. (1989) states that there are five types of different interactions that take place in a technology enable distance education process:

1. student content interaction
2. student instructor interaction
3. student interaction with other students
4. student interaction with technology
5. vicarious interaction: that is indirect interaction that takes place in the classroom.

1. student content interaction:

This is the process through which student obtains understanding from the course material.Common forms of such content include text, audio,video, CD's, computer programs, online communications and sometimes interactive games.It is said to be the most fundamental of all interactions and the process traditionally defined as learning takes place when student interact with the subject matter of the course. Sometimes, in case of distance education courses, a student interacts only with the content and never interacts with the other students, or the instructor or even the interface.

Student engages in mental conversation about the material. The important thing about video and audio is that the students can exercise control over the learning, using the controls.

2. student instructor interaction

This includes the teacher providing information and motivating the student bygiving feedback. It also includes the students asking questions to the instructor to clarify the doubt about the content of course activities in the learning process. It is mainly to stimulate the students' interest and motivate the participation in the learning process. It can be oneto many or one to one interaction. In student-instructor interaction, the instructor gives new information to motivate the student to increase self-directionon how to access the learning. Instructors' role has been expanded to include the role of the facilitator, in an environment where students are expected to challenge ideas, and negotiate meaning through multiple interactions among all the participants.

3. Student-Student interaction

Student-Student interactionis the exchange of knowledge, views and ideas among students of a particular course(Vrasidas, 2000). This type of interaction can take place in the form of group projects or discussions in students(Sher, 2009). Interactionamong students is necessary to solve problems. They also debate the material present in the course. It leads to cognitive alertness and active development of new knowledge. It can increase learning through collaboration and knowledge sharing among the students. This also serves the purpose of developing social skills, such as communication skills and group work, in a distance education. However, in case of distance education, there are very limited opportunities for such student-student interaction(Navarro & Shoemaker, 2000). Such interactions can be extremely valuable and sometimes and even an essential learning resource for the students (Friere,1970)

4. Student interface orStudent technology interaction:

Student technology interaction is a reciprocal action or mutual influence between student and student's surroundings that assist for student's learning. This is the interaction with technology servicesand computer terminals and the software, microphones in regular classrooms and ICT enabled virtual classrooms.(Gunawardena, C. N., & McIsaac, M. S. (2001).

5. **Vicarious interaction:**

The last type of interaction is the vicarious interactionwhich takes place when a student actively observes and understands all aspects of a direct interaction among other students or between the instructor and other students(Webb & Palincsar, 1996; Sutton2001). In this case,the studentsdo not necessarily directly interactfor a variety of reason. Such reasons include

1. They may be anxious about communicating
2. students may not be confident about their learning
3. to conceal their lack ofknowledge from the students and instructors

Many motivated students lack confidence and hence do not directly participate in the interactions that may improve their learning experience. For such students, to get the benefits of learning, direct interaction may not be required. They may interact vicariously where inactive students observe, understand and processes the interaction between other participants such as the peers and the instructor. Such students can enjoy the same benefits that the students participating in direct interaction enjoy. Shy,withdrawn students who do not directlyparticipate in the communication and interaction process tend to benefit the most in such a vicariously interactive process. This may have the following impact on students who participate in vicarious interaction:

1. They may have achievement scores and satisfaction scores approximately equal to those participating in direct interaction
2. However,it depends on the quality of the interaction that others have during the learning experience

3. It may help the weak and diffident students to absorb the course content.
4. The student processes and formulates his or her response to the interaction in anticipation that he or she may be called to contribute to the interaction actively. However vicarious interaction excludes the powerful and mentally demanding process of creatingand expressing a response.

Hence student achievement may not be as great as that of a student who engages in direct interaction. When the transmitter is aware that his or her response in speech and writing will be available for review by a critical audience, the student will be more cautious in formulating and expressing the response. In case of vicariousinteraction, this processing and reformulation does not take place, since the student does not contribute to the response directly.Fulford & Zhang (1993) found that astudent's perception of overall interaction of the five types influences satisfaction more than the actual interaction. It is also found that students who perceive high level of interaction were more satisfied,without regard to as how much their individual interaction was.

Conclusions and directions for future research:

The satisfaction of students in technology enabled distance education is very important and the sustainability of SWAYAM depends on the satisfaction experienced by the students. In turn, the satisfaction depends on the interaction experience perceived by the students which can be indirect or indirect. Interaction has many forms: content, instructor, student, technology and vicarious. The most interesting is the concept of vicarious interaction where student learns from interaction among students and instructors. There needs to be more research which can anempirically verify the above concepts in case of SWAYAM.

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A Study of Unicorn Start-Ups And Its Impact On Indian Economy

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Abstract: Startup India is a major new national program of Government of India designed to motivate the entrepreneurs to start their own business. The platforms like startup inspires new aspiring minds to start their business by some innovative ideas and to create employment opportunities by becoming job providers rather than being job seekers. Startup programs are very important for economic growth of India as it aims at utilizing the existing Indian talent base, creating employment opportunities and increasing standard of living of people. Startup India is an initiative of the Government of India. The campaign was first announced by Indian Prime minister Narendra Modi during his speech in 15th August 2015. After that this plan was launched by central government on January 16th 2016. According to this plan startups are the businesses which should be located in India , which has less than 10 years of age and has an annual turnover of less than 100 cr rupees. So in another words startup are the businesses that starts their businesses with some innovative and creative ideas which will help the society in giving something it needs but hasn't created yet . Ola cabs , Zomato , Paytm , Flipkart , swiggy, lenskart Quikr, meesho ,nykaa , pharmaeasy etc. these some of the well known startups businesses operating in India and increasing their market valuation by capturing most of the customers in their respective fields.

Introduction :

India is becoming the world's fastest growing Startup ecosystem with atleast 99 unicorn startups as of 2022. Unicorn startup is a term used to describe the businesses which has more than one billion dollar valuation. This unicorn startup term was propounded by Aileen Lee who is a venture capitalists.Startups that entered in the unicorn club in 2021 in India were – Droom, BharatPe, Moglix, Flipkart, Meesho, Gupshup, CoinDCX, upGrad, Groww, BlackBuck, OfBusiness, Chargebee, CRED, Digit, Infra.Market, MindTickle, Five Star Business Finance, Innovaccer, Pharmeasy, Sharechat, Urban Company, Zeta, Eruditus, Zetwerk and BrowserStack, Apna, Vedantu, Licious, CoinSwitch Kuber, Rebel Foods, CarDekho, Mobikwik, Acko, The Good Glamm Group, Cure.Fit, Mensa, NoBroker, Spinny, Upstox, Slice, Pristyn Care, GlobalBees, Mamaearth,etc.In the previous year there were 44 total unicorn Startups in India. Since 2016, total 60000 startups established. And also startups creates over 6.5 lakh job opportunities in India. These startups work across 60 different sectors of the country.In the beginning of 2022 India has been starting to see unicorn Startups with Mamaearth as first unicorn in 2022. There are another examples of unicorn Startups in 2022 like –fratal, Darwinbox, LEADschool, Analytics, Livspace, Dealshare, Amagi, etc.

Objectives:

1. To study the concept of unicorn Startups.
2. To know the list of unicorn Startups in India in 2022.
3. To study the impact of startups on Indian economy.

Methodology

The data for this research paper is collected by secondary sources like – Journals, research papers, newspapers, websites & books, etc. An exploratory research is chosen in order to develop profound understanding of the research topic & obtain in depth data about research objectives.

Launch of Startup India Action Plan

The Startup India Action Plan was unveiled by Prime Minister Narendra Modi on 16th January, 2016 to highlight several initiatives and schemes proposed by the Government of India to build a strong eco-system to nurture innovation and empower Startups across India. The 19-point Action Plan envisages several incubation centres, easier patent filing, tax exemptions, ease of setting-up of business, a INR 10,000 crore corpus fund, a faster exit mechanism, among others. Over 1500 CEOs, Startup founders and investors who attended the Startup India. The 19-point Action Plan envisages several incubation centres, easier patent filing, tax exemptions, ease of setting-up of business, a INR 10,000 crore corpus fund, a faster exit mechanism, among others.

Over 1500 CEOs, Startup founders and investors who attended the Startup India launch included:

1. Mr. Masayoshi Son, CEO of SoftBank
2. Mr. Travis Kalanick, founder of Uber
3. Mr. Adam Nuemann, CEO of We Work
4. Mr. Sachin Bansal, founder of Flipkart
5. Mr. Kunal Bahl, founder of Snapdeal

6. Mr. Bhavish Aggarwal, founder of Ola
7. Mr. Vijay Shekhar Sharma, founder of Paytm

List of unicorn Startups in 2022 in India :

1. InMobi : InMobi has its headquarter at Bangalore, Karnataka, India. It is an advertising and digital media operating industry, founded by Abhay Singhal, Amit Gupta, Mohit Saxena, etc. InMobi established in the year 2007 and the current valuation of this industry is $12 billion.
2. Flipkart : Another one of the most successful unicorn Startups in India is Flipkart. The headquarter of Flipkart is situated in Bangalore, Karnataka, India. It provides virtual marketplace for online shopping through e-commerce. The current valuation of Flipkart is $37.7 billion.
3. BharatPe : It is a payment platform, fintech, and financial services providing industry. This is situated in New Delhi, India. The founder of BharatPe is Ashneer Grover and it is established in the year 2018. The current valuation of BharatPe is $ 2.85 billion.
4. Dream11 : This is a fantasy game IT industry established in the year 2008 and has current valuation of $ 6 billion. Dream11 is situated in Mumbai, Maharashtra, India. The founders of this industry are Bhavit sheth and Harsh Jain.
5. PhonePe : It is a fintech mobile payments application with $ 5.5 billion valuation. Phonepe was established in the year 2015 in Andheri, Maharashtra, India. The founder of phonePe is Burzin Engineer, Rahul Chari, Sameer Nigam.
6. Byju's : This is a distance learning providing and m-leaning providing organization. Byju's were started in the year 2011 in Bangalore, Karnataka, India. It has its current valuation of $ 16.5 billions. Byju Raveendran & Divya Gokulnath are the founders of this organization.
7. OLA Cabs : This is a transportation industry. Which is established in the year 2010. With valuation of $6.8 billion. The founding members of OLA Cabs Bhavish Aggarwal & Ankit Bhati. Headquarter of ola cabs is in Bangalore, Karnataka, India.
8. OYO Rooms : The main office of OYO Rooms is in Gurgaon, Haryana, India. This is a hospitality industry which is started in the year 2013 with current valuation of $ 9 billion. Ritesh Agarwal is the founder of Oyo rooms. OYO is among the top travel startups in India.
9. Swiggy : This is a most valuable andtrustworthy online food ordering and delivery platform. Which is established in the year founder of swiggy is 2014. The Handan Reddy, sriharsha Majety & Rahul Jaimini.The current valuation of swiggy is $5.5 billion.
10. zomato : zomato is Indian Food delivery startup organization established 10 the Zomato year 2008. The valuation of on 2021 is $8 billion. Zomato has its headquarter in Gurgaon, Haryana, India. The founder of Deepinder Croyal, pankaj chaddah.
11. make my trip :- make my trip is an online travel industry founded by Deep Kalra, in 2000. make my trip provides facilities like booking tickets for shows, movies, frights, hotels, holidays, buses, trains, etc.
12. Policy bazar : It is an insurance company established in the year 2008 with the valuation of $ 2.5 billion. This is founded by Yashish Dahiya, Alok Bansal and Avaneesh Nirjar. The company initially started out as an insurance comparison website, but later on started providing different types of insurance plans like Life insurance, Health, Motor and even Travel.

Impact of startups on Indian economy :

1. Creation of employment :
   Startups in India are providing large employment opportunities to the youth of. India.Unemployment is one of the most important issues in India and that problem is solved by the help of these newly established startups. In 2021Created 60000 near about jobs opportunity.
2. Create ideas and more work :
   Startups helps to generate new idea and through this new organization is established. A new idea always create new work and opportunities in the market. Due to some innovative and creative idea new businesses are started and that ultimately helps to create new work as well.
3. Increases flow of foreign money :
   Now a days startups in India are attracting more and more foreign investors to engage in their businesses. Some startup organization also expanding their business operations in foreign countries. This helps to increase the flow of foreign money in India.
4. Increases demand in the market :
   Startups provides goods and services to the customers but with something innovative and creative. It actually boosts the demand in the market by attracting more and more customers. The expectations of the customers are satisfied by startups that why it creates more demand in the market.

5. Decrease imports :
   The goods and services India used to import form foreign countries are now manufactured in India by the help of these new startup organizations. That impact on that overall imports of the country. In these last few years India has experienced a decrease in the imports. It ultimately helps the country to maintain the balance of payment of the country.
6. Increase exports :
   There are certain startup organizations in India which manufactures innovative and creative goods and also renders services to its customers. These startups are also exporting it's products to the foreign countries and also attracting foreign investors. Which ultimately boosts the overall export of the country.
7. New investments :
   New investments and job opportunities are created by most of the unicorn Startups in India in recent times. Startups provides new investments options to the investors in order to diversify their investments.
8. Increases GDP :
   Startups creates employment opportunities. Due to this employment generation poverty of the country is reduced. The population of India is getting job opportunities and get paid for that which ultimately increases the standard of living of the society. Startups also helping in increasing the GDP of the country.
9. Improve standard of living :
   Employment opportunities created by these startups for sure helps to increase the standard of living of society. As well as Startup provides more options and innovative products to the society which make their living more comfortable and easier.

Economic Survey 2021 on Start-ups

1. Indian Government has recognized 41061 startups.
2. In India more than 470000 jobs are created by 39000 startups
3. Startup jobs rose to 1.75 lakhs in 2020 from 1.52 lakhs in 2019 due to an increase in the number of active recognition of startups to 14784 from 11694 in the same period.
4. 319 Startups were granted income tax exemptions till November 2020.
5. 38 unicorns in India, 12 added last year.
6. 40 startups are working in India's space sector.

Findings

1. India is becoming the world's fastest growing Startup ecosystem with at least 99 unicorn startups as of 2022. Unicorn startup is a term used to describe the businesses which has more than one billion dollar valuation.
2. In the previous year there were 44 total unicorn Startups in India. Since 2016, total 60000 startups established. And also startups creates over 6.5 lakh job opportunities in India. These startups work across 60 different sectors of the country.
3. India needs to be self-sustainable in every field such as medical, education, technology, for these startups are very necessary, That's why governments are implementing many schemes for a start-up.
4. When more outsourcing comes to India more foreign money is circulated and distributed in India which is good for the growth of the Indian economy and this is possible due to startups in India.

Conclusion

India is third largest startup ecosystem still India falls to 23rd spot surprisingly below some countries. Even India continues to improve its annual ease of doing business ranking, still it is lacking in providing proper financial assistance to startups. There are numerous startup organizations working in India and a lot of them are unicorn startups which has a total valuation more than one billion dollars at present. So these organizations are working to solve a problem where is answer is not definite and success is not guaranteed. That's why startups are considered as most risky business ideas.

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A Study of Impact of National Education Policy- 2020 on Related Factors

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Abstract: This research paper examines the current educational policy and the new educational policy from a comparative point of view. In order to provide a quality and quality education, the new education policy 2020 has been studied in a positive way. This research paper seeks to provide detailed information in order to examine the responsibility and knowledge of the factors that affect the new Education Policy 2020. Higher education is important in the economy of a country. The current policy seems to lack practical education. Proper use of technology in industry, manufacturing, services, research, etc. to make up for the lack of knowledge in the new educational strategy focuses on determining the curriculum based on skills.

Introduction

India has adopted three major education policies since independence, the first of which was adopted in 1968. Congress MP *Siddheshwar Prasad* was the first to point out that there should be a comprehensive structure to guide India's educational development. He stressed the need for a comprehensive approach and philosophy in education. Therefore, there was a need for an education policy in India. During the same period, a 17-member Education Commission was set up under the chairmanship of UGC Chairman DS Kothari. The main purpose of this establishment was to make national education useful to the society. Parliament first approved the first education policy in 1968 on the basis of the commission formed by him.Then in 1986, under the leadership of Rajiv Gandhi, a second education policy was approved and many changes were made. These same educational policies were revised in 1992 when *PV Narasimharao* was the Prime Minister.

This was followed by a discussion on a new education policy under the chairmanship of *Subramaniam* in 2015. The report of this committee was presented in June 2017 by a panel headed by ISRO chief *Krishnaswamy Kasturirangan*. The draft new education policy was released by the Ministry of Human Resource Development after 2019, after which the views of many thinkers at the national level were taken into consideration.More than two lakh suggestions regarding new education policy were received from 2.5 lakh Gram Panchayats, 6600 blocks, 6000 urban local bodies and 676 districts. The National Education Policy 2020 was released on Wednesday, July 29, 2012 by *Shri Narendra Modi* as the Prime Minister. That is, the National Education Policy 2020 replaces the National Education Policy of May 1986.

The salient features of this policy are as follows:

1. The Union Ministry of Manpower Development will now be renamed as the Ministry of Education.
2. Multidisciplinary Courses: Different subjects can be learned simultaneously. It will have a division of major and minor subjects. This will reduce dropouts due to financial or other reasons. Moreover, those who are interested in a subject can learn it.
3. Multilingual Education - Teaching children can use different regional languages without teaching through a single language,
4. Attempts to downplay the importance of board exams.
5. Till now the structure of the school was 10 + 2, now it will be 5 + 3 + 3 + 4. Kindergarten to 2nd, 3rd to 5th, 6th to 8th and 9th to 12th will be the structure from now on.
6. There will be a four-year degree course for students who want to pursue higher education for research, and a three-year degree course for students who want to pursue a job after graduation.
7. This means that for researchers, the degree will be a four-year degree plus a one-year master's course. After that they can do PhD directly, To them m. Phil. Will not be required.
8. The target is to increase the gross enrolment ratio to 50% by 2035.
9. Investment in education will account for 6 per cent of GDP, up from 4.43 per cent at present.

Literature Review

Aithal S. and SubraJyothsna A.analysed the elements of achieving the objectives of the new Education Policy 2020 in a very in-depth manner, in their study underlined the key elements of the National Education Policy 2020. He also compared the prevailing education policy. There are several flaws

in the existing education policy and the new education policy 2020. In this study, important suggestions such as publishing articles for the academic departments related to the implementation of the new education policy 2020, providing proper training to the professors and making research work compulsory were given.

Praveen J. And Pooja P. He analysed the previous three educational policies of the government and also criticized these educational policies in his research article. It also criticized various factors that contribute to the overall development of the education sector. The study focused on the changes to be adopted by educational institutions, universities, colleges, etc. for the effective implementation of the National Education Policy 2020.

L. Devi and Cheluvaraju in their study compared the current National Education Policy and the new National Education Policy 2020. They have also pointed out a number of errors. It was suggested that educational policy is important to meet the global industrial demand. He also suggested that it would affect the growth of the Indian economy and the youth. He also said that he should start analysing the various components of the new National Policy 2020 in his research articles and start identifying skills. He also suggested that researchers in the field of education should carry out various researches to enhance their knowledge. He was of the view that the new National Policy 2020 would lead to faster growth and economic growth.

B. Venkatavarlu in his research paper studied how to improve the quality of private sector higher education by competing with the private sector as well as achieving its objectives through strict control. He studied the new educational strategy 2020 among his researchers. He studied many aspects of educational policy, such as issues, challenges and opportunities. He also said that the teaching methods should be adopted by observing them using this technology and by 2030 there are many problems.

Statement of the Problem

The new Education Policy 2020 will be implemented from 2023 and includes universities, colleges, schools, teachers, students and all concerned in the country. Since many are unaware of the new Education Policy 2020, it is important to understand the changes between the old Education Policy 1986 and the new Education Policy 2020. It is important to examine whether the changes made in the new Education Policy 2020 are beneficial to the society so that the benefits listed in the new Education Policy 2020 need to be understood by the concerned parties. The purpose of this study is to analyse the benefits obtained. Therefore, the new education policy 2020 can work in a positive way.

Research Methodology

The present research work depends on Primary data and Secondary Data. Information collecting from Questionnaire, newspapers articles, government reports, journals, magazines, web etc.For the purpose of the study convenience sampling was used to select the respondents of the study.

Analysis of Data

The data collected has been analysed using simple percentage analysis. The study also analysed the data using Chi-square test to find the effectiveness of the new education policy among the teaching faculties and students.

Objectives of the Study

The main objectives of the paper are as follows:

1. To understand the National Education policy 2020.
2. To analyse the effect of NEP 2020 on related factors.
3. To compare the outcome of existing NEP and NEP 2020
4. To suggest the based on the Structure design.
5. To understand the design of NEP 2020.

Hypothesis of the study

Two hypotheses have been framed to identify the relation between dependent and independent variables.

H_0: There is no significant impact of New Education Policy 2020 on related factors.

H_1 there is a significant impact of New Education Policy 2020 on related factors.

Limitation of the Study

1. Lack of secondary source of information
2. The present research is limited to Nanded District
3. The present research is restricted to only 100 respondents.

Data Analysis and Interpretation:

Educational qualification of the respondents

S.N.	Particulars	Respondents	Percentage
1.	Illiterate	01	01.00
2.	Primary	02	02.00
3.	Secondary and Higher Secondary	05	05.00
4.	Graduate	42	42.00
5.	Post Graduate	51	51.00
	Total	**100**	**100.00**

Source: Field Survey

Education level leads to knowledge and self-confidence. Education level plays a vital role in New Education Policy 2020. With the help of education, people can understand difference between existing education policy and New education Policy 2020. The above table shows that majority of respondent's educational qualification is post graduate 51 per cent and it is followed by the educational qualification graduate i.e. 41 per cent and 5 per cent of respondents are secondary and higher qualification. 02 per cent of respondents are primary and only 01 per cent respondents are illiterate. So, here it is identified near about 93 per cent per cent people education qualification is graduate and post-graduation.

Are you aware and working about New Education Policy 2020?

S.N.	Particulars	Aware about NEP 2020		Working with NEP 2020	
		Respondents	**Percentage**	**Working**	**Not working**
1.	Yes	95	95	52	43
2.	No	5	5	3	2
	Total	**100**	**100.00**	**55**	**45**

Source: Field Survey

The abovetable represents the opinion of respondents regarding awareness of NEP 2020 and working with NEP 2020. Among 100 respondents 95 respondents are aware about the National Educational Policy 2020 out of which 52 respondents feel the working with NEP 2020 is easier than Current NEP. The 5 respondents who are not aware of NEP 2020 even among these 3 respondents have an opinion working with NEP 2020 may be easier but still 45 respondents overall feel difficult with NEP 2020.

Opinion about Current NEP is not much concentrating on the carrier growth of students

Particular	Respondents	Percentage
Strongly agree	13	13
Agree	14	14
Neutral	15	15
Disagree	28	28
Strongly Disagree	30	30
Total	**100**	**100**

Source: Field Survey

Above table shows opinion about current NEP is not much concentrating on the carrier growth of students. 13 per cent of respondents strongly agree and 14 per cent of respondents agree that current NEP is not much concentrating on the carrier growth of students. 15 respondents are neutral with the fact. 28 per cent of respondents dis-agree that and 30 per cent of respondents strongly disagree with the fact. So here it is identified that 58 per cent of respondents disagree and strongly disagree with the current NEP is not much concentrating on the carrier growth of students.

New Education Policy 2020 has significant impact on related factors.

Particular	Observation	Expected	O-E	(O-E)2/E
are you satisfied about new education policy 2020	51	49	2	0.08163
is carrer oriented New Education Policy 2020	54	49	5	0.5102
develop analytical skill	51	49	2	0.08163
meets industrial demand	50	49	1	0.02041
NEP 2020 gives global level education	39	49	-10	2.04082

	245			2.734694

H_0: There is no significant impact of New Education Policy 2020 on related factors.
H_1 there is a significant impact of New Education Policy 2020 on related factors.
The above table shows analysis NEP 2020 has significant impact on related factors. Here, with the help of chi square test, researcher tested the hypothesis. It is found that the calculated value of chi square is 2.7346 whereas 04 degree of freedom at 5% level of significance in the critical value is 0.711 hence $H_0$is rejected.The above Table represents the chi square analysis a non-probability test which is conducted to test the hypothesis of independent variables. The chi square analysis proved that NEP 2020 is going to impact the related factors majorly. Hence all the related factors must undergo study to enhance the knowledge of NEP 2020 working so that they can adopt the NEP 2020 easily without much error and work effectively for the growth of Indian economy.

Suggestions

The current education system needs to change. Relevant elements need to handle the skills required. Skills based courses should be chosen to meet the needs of the industrial sector. Only then can goals be achieved quickly. Also, the new education policy 2020 is not yet enough to attract the attention of the people. However, the research shows that the new education policy 2020 has the potential to lead the country towards faster development if skills are developed with a view to the industrial sector in modern times.

Conclusion

India has opened the National Education Policy 2020 to higher education for the private sector- To work out strategies for skill development and to achieve long term goals- To work in every higher education institution by promoting quality based admissions including free ships and scholarships- It is also determined to make significant use of technology to increase efficiency-While studying the new National Policy 2020] research on the components of this new education policy has certainly led to a knowledge oriented approach- Educational policies are influencing the youth to achieve a certain goal for the growth of the Indian economy- The new Education Policy 2020 is important for achieving long-term objectives while meeting future global demand as well as for forecasting the future- Therefore] along with educational development] economic development of the country will also take place- At the same time] it will raise the living standards of the people- The new Education Policy 2020 has both positive and negative consequences] but more focus needs to be placed on the positive outcome and it should be readily accepted- We must work efficiently for the welfare of the country- Education is an important factor in ensuring that every country's economy adopts social status technology and ensures healthy human behaviour-

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Optimization of Process Parameters For Improved Productionof Biomass Protein From Saccharomyces Cerevisiae Using Saccharifiedbanana Agro-Waste

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Abstract:

World population has been increasing continuously and therefore new source offoods, particularly proteins, are in demand. This situation demands exploration of new unconventional protein sources to suffice the human food. In recent years, single cell protein has been considered as an acceptedsubstitute for animal and plant proteins. The present study was planned to appraise practicability of using agro-wastefor production and to optimize the process parameters for improved production of biomass protein using the yeast Saccharomyces cerevisiae.Agitation speed, inoculum size and glucose supplementation in the production media were considered to be key parameters for the optimization of the process of single cell protein production in the formulated production media. The 1.5% supplementation of glucose in banana agro-waste formulated media, 150 rpm agitation speed 10% (v/v) active inoculum size for *Saccharomyces cerevisiae* at pH 5.2 and Temperature 30^0Cgave highest biomass yield compared to other conditions.

Keywords: *Saccharomyces cerevisiae*, biomass protein, banana agro-waste, substrate,optimization

Introduction:

Protein deficiency is one of the major key challenges especially in the developing countries (Umesh et al., 2017).The main reasons behind this issue are a fast increase in population growth rate, scarcity of agricultural land, as well as changes in lifestyle. The demand forprotein-rich food against its supply is quite high due to increasing world population, which creates insufficiency in the supply chain (Rajoka*et al.*,2012). About 25% of people have been suffering from protein deficiency, which is an alarming example of protein gap worldwide (Azam *et al*.,2014).Therefore, it is essential to search for alternative or novel protein sources in order to bridge this gap (Rajoka*et al.*,2012). Production of bio-protein through microbial fermentation of agricultural wastes is one of the most promising approaches for increasing the availability of proteins (Saheed*et al*., 2016)Almost 50% of the agricultural productsare not used as a food or feed (Foyle *et al*., 2007), whichare often improperly disposed causing enormous environmental disorders (Essien *et al*., 2005). Bioconversion ofagro-industrial wastes into valuable components by fermentation is a standard approach to utilize resources which in turn can play a significant role to achieve food supply stability (Jamal *et al*., 2005;Yunus*et al.*,2015). Moreover, the transformation of these by-products using microbial fermentation can be a promising energy source for the production of value-added products, e.g.single cell protein (SCP) at a reasonable cost. It can also reduce the encumbrance of environmental pollution (Ghori*et al*., 2011).In the recent years, several agro-industrial wastes suchas papaya waste, rice husk, potato residue, wheat bran,poultry fodder, pineapple waste, orange peels etc. havebeen used to produce SCP (Nwufo*et al*., 2014; Rajoka*et al*., 2004; Rosma*et al*., 2005; Shipra and Diksit, 2017;Umesh *et al*., 2017; Yunus*et al*., 2015). Theimproved production of bio-protein might possible byselecting suitable strains and substrates as well as optimalprocess conditions (Jamal *et al*., 2008).

Therefore, the present study was intended to explorefeasibility of using banana agro-wastefor production and to optimize the process parameters for improved production of biomass protein from*Saccharomyces cerevisiae*.The results of this study might open a new horizon for a widerange of industrial applications of microbial protein andcould contribute to satisfying the present demand forprotein.

Materials and Methods:

Materials:

Banana agro-waste i.e. leaves, pseudostem and rhizome was collected from the plantation area of Nanded district where it was thrown after harvesting of fruit. It was saccharified by indigenous microorganisms of the same field and the saccharified component rich with cellulose, hemicellulose, lignin and minerals used as substrate for formulation of production media.

Microorganism and inoculum: Saccharomyces cerevisiae was procured from NCIM Pune.

Methodology:

Formulation of SCP production media:

The minimal media without carbon and nitrogen source was prepared and the media was sequentially diluted with the saccharified agro-waste of leaves, pseudostem and rhizome by replacement of the minimal media so as to fortify the media with carbon and nitrogen source. The addition of the

saccharified agro-waste was carried out in a gradual increasing order as 20%, 40%, 60%, 80% & 100%. Active culture of *Saccharomyces cerevisiae* was inoculated into the respective media at a concentration of 5%. The flasks were incubated on orbital shaking incubator at 30^0C and 150 r.p.m. for 48 hours. Percent yield of biomass was determined by harvesting the cells and calculating the dried biomass. All the trials have following composition of minimal media.

Potassium Di-hydrogen phosphate (3.0 gm), Di-sodium hydrogen phosphate (6.0 gm), Sodium chloride (5.0 gm), Magnesium sulphate (0.1gm) and pH- 5$\pm$0.2, Distilled water (1L)

Optimization of SCP Production Process:

Various parameters like agitation speed, inoculum size and glucose supplementation in the production media were studied for the optimization of the process for production of single cell protein in the formulated production media. The biomass from respective media was harvested and the percent yield of biomass was calculated accordingly.

Results and Discussion:

The saccharified banana leaves, pseudostem and rhizome supported the growth of *Saccharomyces cerevisiae*. For maximum production of SCP different media were formulated by using different quantity of saccharified banana agro-waste and minimal media (w/o C and N). The 40% minimal medium (w/o C and N) and 60% saccharified banana agro-waste (leaves, pseudostem and rhizome) gave the best formulated medium for *Saccharomyces cerevisiae* growth. The percent biomass yield obtained for leaves, pseudostem and rhizome was (41.66, 44.67 and 42.09g %) respectively (Table 1, 2 and 3). These results suggest that hydrolyzed agro-waste of banana will prove as a best substitute for carbon and nitrogen source in the formulation of *Saccharomyces cerevisiae* (SCP) production media and reduce the cost of production media thereof. Similar study was carried out by Adoki, (2008) also who studied growth of *Candida sp.* in the media with orange, plaintain and banana wastes. Khan *et al*., (1992) reported the growth of *Penicillium javanicum*(SCP) on the media containing pretreated rice husk. Oshoma and Ikenbomeh, (2005) produced *Aspergillus niger*biomass for SCP on the rice bran media. The maximum SCP production of *Saccharomyces cerevisiae* could be achieved by supplementing additional carbon source in banana agro-waste based media and maintaining optimum upstream processing conditions viz. agitation speed and inoculum size. The 1.5% supplementation of glucose in banana agro-waste formulated media, 150 rpm agitation speed and 10% (v/v) active inoculum size of *Saccharomyces cerevisiae* gave highest biomass yield compared to other conditions (Table.4, 5 and 6). Oshoma and Ikenebomeh, (2005) reported 2.03g/lit of biomass of *Aspergillus niger* (SCP) in the glucose supplemented media whereas glucose unsupplemented media gave the yield of 0.97g/ lit.

The biomass of *Saccharomyces cerevisiae* obtained from the optimized production medium was analyzed for the protein, RNA and essential amino acid contents to assess whether the agro-waste based media produced nutritionally rich SCP.The results obtained were fascinating indicate that there is increase in contents of essential amino acids viz. isoleucine, methionine, phenyl alanine, tyrosine, valine and lysine of SCP obtained from agro-waste containing formulated media whereas the protein content was found to be almost similar obtained from minimal media. The RNA content was found to be lowered in the SCP obtained from agro-waste formulated media indicating it as the best substitute for the formulation of production media. Hence the banana agro-waste formulated medium is the feasible alternative to reduce the SCP production cost from *Saccharomyces cerevisiae* and obtain nutritionally rich SCP and help to solve environmental problem.

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Observation Tables:

Table 1:Formulation of SCP production media by using saccharified Banana leaves.

Sr. No.	Composition of Media		Biomass Yield (g %)
	Minimal Media without C&N (%)	Saccharified leaves (%)	
1	80	20	21.24
2	60	40	30.01
3	40	60	41.66
4	20	80	26.98
5	0	100	18.30

Table 2: Formulation of SCP production media by usingsaccharified Banana pseudostem

Sr. No.	Composition of Media		Biomass Yield (g %)
	Minimal Media without C&N (%)	Saccharified pseudostem (%)	
1	80	20	25.54
2	60	40	34.67
3	40	60	44.67
4	20	80	27.45
5	0	100	24.50

Table 3: Formulation of SCP production media by usingsaccharified Banana rhizome.

Sr. No.	Composition of Media		Biomass Yield (g %)
	Minimal Media without C&N (%)	Saccharified rhizome (%)	
1	80	20	22.17
2	60	40	26.89
3	40	60	42.09
4	20	80	27.72
5	0	100	20.60

Table 4: Effect of glucose supplementation on SCP production in formulated media.

Sr. No.	Media	SCP production (g %)			
		Glucose supplementation % (w/v)			
		Control	0.5	1	1.5
1	Media I[a]	40.03	45.12	46.92	46.98
2	Media II[b]	33.67	37.45	44.12	44.23
3	Media III[c]	40.2	43.72	46.59	46.61
4	Media IV[d]	36.22	41.23	45.21	45.24

Legend :

a = Minimal media.
b = Minimal media (w/o C&N) and saccharified leaves.
c = Minimal media (w/o C&N) and saccharified pseudostem.
d = Minimal media (w/o C&N) and saccharified rhizome.

Table 5. Effect of agitation speed on SCP production.

Sr. No.	Agitation Speed (rpm)	SCP production (g %)			
		Media I[a]	Media II[b]	Media III[c]	Media IV[d]
1	50	35.28	37.52	39.21	38.13
2	100	40.21	42.14	44.12	43.23
3	150	44.89	43.13	46.80	45.11
4	200	44.92	43.92	46.80	46.02

Table 6. Effect of inoculum size on SCP production.

Sr. No.	Inoculum Size (%) v/v	SCP production (g %)			
		Media I[a]	Media II[b]	Media III[c]	Media IV[d]
1	2	30.24	24.39	34.62	26.2
2	4	40.16	33.76	40.41	34.51
3	6	44.82	37.28	44.12	42.69
4	8	45.16	42.71	46.83	44.13
5	10	47.28	44.52	47.91	45.89
6	12	47.43	44.59	47.90	45.88

Importance of Ecosystem In Environment: A Review

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Abstract : Ecosystems are essential and important to the environment because they provide many benefits like regenerating soil and recycling nutrients not only that but it serve as food sources for animals all over the world.All of the Earth's plants and animals depend on ecosystems which provide food and habitatThe ecosystem is only system that includes every single living species of plant life,animal life along with air and soil.Ecosystems must maintain a delicate balance in order to stay vital.That's why it's necessary to take care of the environment by protecting ecosystems.This paper deals with the concepts of the Ecosystem and its importance in the environment with different ways that help in conserving ecosystem.
Key words: Ecosystem, Environment, Important,Conservation.

Introduction

A biological community of living beings that communicates with the physical environment and other non-living components is known as an ecosystem.It is also known as the interaction between living creatures and their surroundings.India, a mega diverse country with only 2.4 % of world's land area, includes 7-8 % of all recorded species, including over 47,000 species of plants and 96,000 species of animals. Of the 34 global biodiversity hotspots, four are present in India. However, country's ecosystem face a variety of threats ranging from land-use changes in natural habitats to overexploitation of natural resources, proliferation of invasive species, pollution and climate change. We depends on nature for our survive without healthy ecosystems, our drinking water isn't clean nor is the air we breath. An ecosystem is a stable, interactive system that forms as a result of numerous organisms interacting each other and the environment's non-living components. For an ecosystem to be successful, it needs all the other components work together and in balance. These includes producers, consumers and decomposers.
In this systems, multiple food web, biogeochemical cycles are highly involved. The various organisms tend to adapt to the environment in search of food and need for energy in a particular ecosystem.

Role of Ecosystems in environment

An ecosystem is a discrete structural, functional and life sustaining environmental system. The main points that include the role of ecosystems in the environment are as follows

1. It is essential for ecological processes and regulation of the energy flow for supporting life systems thus providing stability.
2. Plays critical role in regulating climate, soil, water and air quality.
3. It is helpful in maintaining a proper balance among different trophic levels of the ecosystems.
4. It is important for nutrient cycling,where nutrients in the form of energy and matter are exchanged between biotic and abiotic components.
5. It produces plenty of organic compounds that help in exchanging energy among various different levels of organisms.
6. The ecosystem is significant for weed control,crop rotation,grassland,forest management,biological surveys,soil conservation and wildlife conservation among other things.
7. It offers food, fiber, paper, medicines to people as well as conventional and non-conventional energy sources.

Importance of Ecosystem

An ecosystem is a stable,interactive system that forms as a result of numerous organisms interacting with each other and the environment's non-living components. All of Earth's plants and animals depends on the ecosystems to provide food and habitat.Human beings also depended on ecosystems to obtain food and natural resources.
The biodiversity of an ecosystem is very important because it stabilizes the whole system where life is present.When any severe impact is there for a particular species on the ecosystem,other several plant species performing similar functions can help the survival of the plants and ecosystem sustenance.That's why it is important that a variety of organisms interact with each other to help sustain lives in an ecosystem.

Causes of the destruction of ecosystem

Ecosystems consist of the biotic and abiotic factors of an area. Grassland,rainforests,deserts are some examples of ecosystems.Ecosystems maintain a very delicate balance but due to various human

activities threaten to disturb the balance and destroy the world's ecosystems. Following are some factors responsible for creating disturbances among ecosystems.

1. **Pollution**:
   Pollution is one of the main causes of ecosystem destruction, it is responsible to deplete resources and migrate away local animal species. Important sources of pollution include carbon emissions,oil spills and pesticides.
2. **Climate Change**:
   Climate change continues to play a significant role in the destruction of the ecosystems.Due to Global warming there is continuous increase in temperatures, sea levels and ocean acidity that disturb an ecosystems natural balance.As per a research study published by Forbes in February 2020, over the next 20 years,scientist estimate about 70% to 90% all coral reefs will disappear due to warming ocean waters, ocean acidity and pollution.
3. **Population decline**:
   The ecosystem's animals are vital sources of food and population control.Many animal populations are decreasing due to overfishing and hunting.Animals are often hunted for their valuable skins, horns and for meat.
4. **Land Clearing**:
   Ever increasing human population need to develop more land so many ecosystems are destroyed in order to clear land for housing, industry development,agricultural uses and raising livestock. As per Food and Agricultural Organization(FAO),the area of primary forest worldwide has decreased by over 80 million hectares since 1990
5. **Resource Exploitation:**
   Many ecosystems are rich in natural resources like nutrient-rich soil,water,trees and fossil fuels. Excessive efforts to extract these resources like mining,logging and drilling responsible for ecosystem destruction.

Impact of ecosystem destruction

The impact of ecosystem destruction are as follows

1. Increased flooding due to the erosion of soil and lack of trees.
2. Climate change causes the sea levels rising due to the melting of the glaciers.
3. Natural disasters such as tsunamis,earthquakes,droughts will be common.
4. Disruption of the food chain when the top predators become extinct.
5. Water shortage as supply of fresh drinking water is limited with only few water bodies being fit for human consumption.
6. Food shortage as the lands become barren .
7. Loss of biodiversity as whole species of living.

Protecting the Earth's Ecosystems

The ecosystems of the Earth can be protected through responsible use.

1. Heavily cultivated lands planted in single crops can be replaced with diverse cropping systems that help maintain soil productivity and prevent erosion.
2. Humans can plant native species that provide food and shelter to animals.
3. As consumers, humans can buy sustainably grown goods, use fewer disposable products and purchase products with minimal packaging or recyclable packaging.
4. Each act of conservation in our homes and workplaces reduces the stress on our ecosystems and helps maintain the necessary balance to maintain them.
5. Forming volunteer groups working to preserve local ecosystems .

Conclusion

Ecosystems are the most critical aspect of our environment.They are responsible for maintaining the balance of nature and without them,the Earth will not be able to support life.

Ecosystems perform biochemical cycles that convert matter from one form into another such as carbon dioxide is converted into oxygen through photosynthesis by plants.Whether we live in rural area or city our dependence on ecosystem is same. We depend on healthy ecosystems to do many things and to provide the necessities essential to survival. We all want to leave the planet in a good condition for our successors.Hence,it becomes essential for us to conserve our ecosystems for the continuous sustenance and living of organisms on this planet.

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Green Synthesis of 2-Substituted Benzimidazoles

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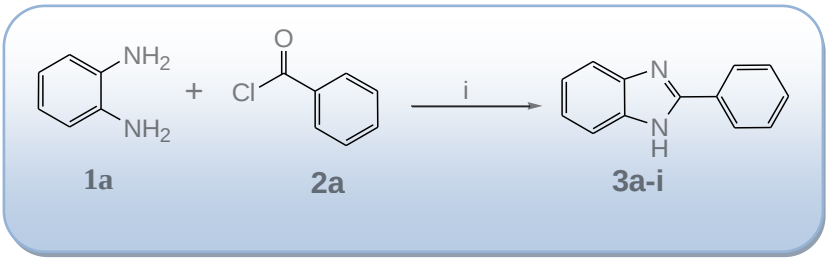
Abstract: -
Green synthesis of 2-substituted Benzimidazoles in the presence of molecular iodine(10mol%) the mixture of *o*-phenylenediamine in I_2 was added benzoyl chloride at room temperature and reaction mixture was grind at room temperature after 20 minutes reaction was completed. The reaction giveshigh yield.The short reaction time, clean reaction, and easy workup make this protocol green and efficient.
Keywords: -molecular iodine, benzimidazoles, benzoyl chloride, o-phenylenediamine

Introduction: -

Substituted Benzimidazoleis a bicyclic compound having imidazole ring fused to benzene.The compounds that exhibit the functionality of benzimidazole have been extensively employed in the area of pharmaceuticals. Benzimidazole nucleus is a part of the nucleotide portion of vitamin $B_{12,}$ in some drugs such as proton pump inhibitors, anthelmintics agents[1] and antirhino/enteroviral agents.[2] Benzimidazoles also exhibit significant activity against several viruses including HIV,[3] herpes (HSV-1),[4] RNA,[5] influenza[6] and human cytomegalovirus (HCMV). In recent years benzimidazoles have been reported to act as topoisomerase I inhibitors,[7] selective neuropeptide Y Y1 receptor antagonists,[8] angiotensin II (AII) inhibitors,[9] inhibitors of HCMV replication, potential antitumour agents,[10] antimicrobial agents,[11] smooth muscle cell proliferation inhibitors,[12] a treatment for interstitial cystitis,[13]antihistamine (astemiazole),[14] antifungal (chlorfenazol), anti-ulcerative (omeprazole)[15],anti-inflammatory activity[16]and in diverse areas of chemistry.[17] Interest in these structures stems from their widespread occurrence in molecules that display a wide range of useful biological properties. Widely used traditional methods for their preparation involve the reaction of a carboxylic acid or its derivative with an appropriate *o*-phenylenediamine, *o*-aminophenol or *o*-aminothiophenol in the presence of a strong acid or cyclodehydration of mono-acylated product under acidic conditionor by pyrolysis at 200–350 ^{0}C.2-substituted benzimidazoles by condensing a variety of carboxylic acids with *o*-aminophenols or *o*-phenylenediamines in presence of PS-PPh_3 resin[18], Zeolite[19], trifluoroacetic acid and difluoroacetic acid[20] and by Lewis acids in ethanol[21].Recently *Siddiquiet al*[22-23] reported the method of the synthesis of these heterocycles by using ionic liquids as a part of green chemistry.

Survey of literature reveals that methods for the synthesis of above heterocycles have been suffer from several drawbacks such as low yield, more reaction steps, tedious manipulations in the isolation of products and utilization of toxic reagents. These reactions require harsh dehydration conditions such as strong mineral acids, which have limited the viability of many starting materials. The development of simple, efficient and environmentally benign chemical processes or methodologies for widely used organic compounds from readily available reagents is one of the major challenges for chemists in organic synthesis.

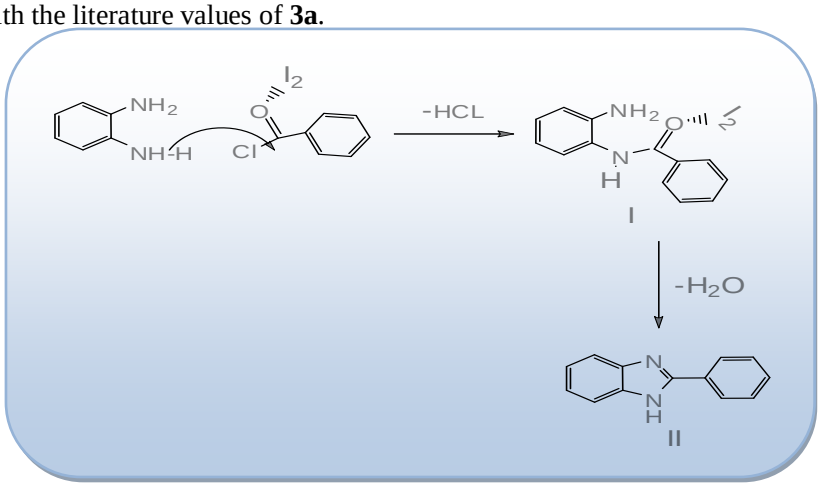
Results and discussion: -



Scheme 1. Reaction conditions I_2 (10 mol%) ,RT

Molecular iodine reagent has found broad application in organic chemistry and now a days frequently used in synthesis[109]. Therefore, the development of simple, efficient, inexpensive, nontoxic and readily available reagents providing convenient procedure with improved yield. Owing to its unique catalytic properties iodine has been extensively used for an organic reaction [110-112.]From previous study we found that I_2 gives the best result compare to other catalyst. To a clean mixture of *o*-phenylenediamine**1a** in I_2 was added benzoyl chloride **2a** at room temperature and reaction mixture was vigorously stirred, after addition is over reaction mixture was precipitate out as a solid product (reaction was completed in 20 min.

which was checked by TLC). After completion of reaction, mixture was diluted with water and filtered and wash with sodium thiosulphate iodine remove with filtrate. The isolated product was further purified by column chromatography give pure product **3a** in 93% yield which was fully characterized. The IR spectrum of **3a** shows absorption at 1640 & 3420 cm^{-1} corresponds to C=N and –NH functional group respectively. The ^{1}H-NMR spectrum of **3a** showed broad singlet at δ 4.5 for –N*H* and multiplet of nine protons in the region of 7.32-8.19 for aromatic region. The elemental analysis and physical constant concerned with the literature values of **3a**.

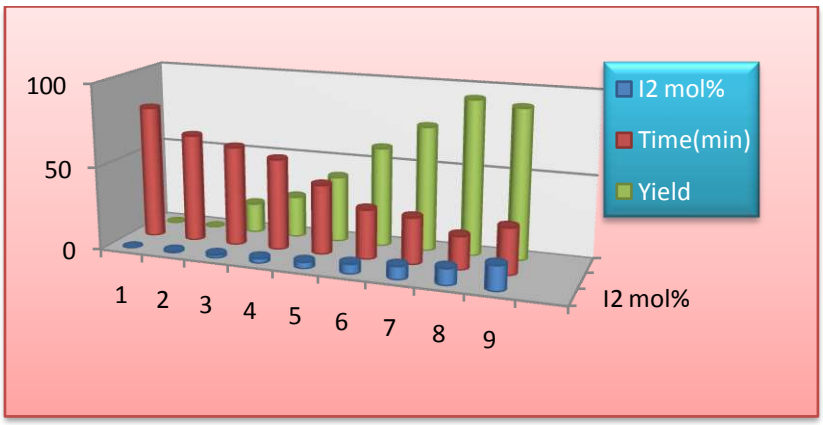


Scheme:-2 Systematic mechanism of the synthesis of Benzimidazoles

Generally, the synthesis of benzimidazole is proceeding through two step process. First is the acylation followed by cyclization .In first step hydrochloric acid is liberated as by product during the reaction, we thought that this liberated hydrochloric acid may facilated the further cyclization to delivered the target 2-phenyl benzimidazole **3a (II)**, to check this we performed the reaction of **3a** in molecular solvent (acetonitrile) without any added catalyst, we got mono-acylated product exclusively with no sign of benzimidazole, this indicates that liberated hydrochloric acid is not taking part for further cyclization.

Table 1.Catalytic study of I_2 for formation of3a

Entry	I_2 (mol %)	Time (min.)	Yield [a] (%)
1	No iodine	80	00
2	1	65	traces
3	2	60	18
4	3	55	25
5	4	42	40
6	6	30	60
7	8	28	75
8	10	20	95
9	15	28	92



[a]: Isolated yield after column chromatography

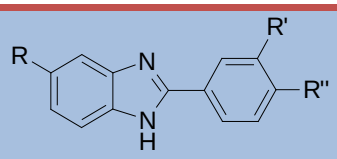
The effect of mole ratio of the I_2 with respect to the formation of **3a** was investigated (Table 1). It can be observed that a minimum of equimolar proportion of the I_2 is required for optimum result.As we wish to explore here the I_2 as promoter for this heterocyclization, A mixture of *o*-phenylenediamine (4.6 mmol) and benzoyl chloride (4.6 mmol), by addition of iodine however reaction proceed to gave the 2-phenyl benzimidazole as sole product. These results confirmed that I_2 due to its large electrochemical window promoted this heterocyclization for the formation of target molecule 2-phenyl benzimidazole in excellent yield in short span of reaction time.It becomes evident from above results (Table 1), the I_2 afforded the best results. Consequently, all further studies were conducted at room temperature using I_2 to synthesize different 2-susbtituted benzimidazole.

Experimental: -

Typical procedure for synthesis of 2-phenyl benzimidazole (3a) in I_2:

A mixture of *o*-phenylenediamine (4.6 mmol) and benzoyl chloride (4.6 mmol) in I_2 (10 mol%) was stirred at room temperature. After completion of the reaction (progress of reaction was monitored by TLC). Reaction mixture was diluted with water (10 mL) and the separated product was filtered and washes with sodium thiosulphate. The product, thus isolated, was pure enough. It was subjected to further purification by column chromatography using 20% EtoAc in petroleum ether as eluent and fully characterized.

Table 2. Synthesis of Benzimidazoles**3a-i**

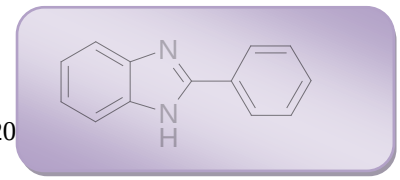
Entry	 3a-i			Time (min.)	Yield [a] (%)
	R	R'	R''		
3a	H	H	H	12	92
3b	H	H	NO_2	21	88
3c	H	F	CF_3	17	90
3d	Me	H	H	14	92
3e	Me	H	NO_2	20	93
3f	Me	F	CF_3	18	95
3g	CoPh	H	H	20	94
3h	CoPh	H	NO_2	22	89
3i	CoPh	F	CF_3	24	92

Conclusion: -

In conclusion we have synthesized substituted Benzimidazoles in the presence of molecular iodine at room temperature. The reaction gives high yield.The short reaction time, clean reaction, and easy workup make this protocol green and efficient.

Acknowledgment: -Author is thankful to Department of Chemistry,B.Raghunath ACS College,Parbhani.

Characterization data for compound
2-phenyl-1H-benzimidazole (3a)



M. P. (^{0}C) **:** 294-295

IR ($CHCl_3$, cm^{-1}):υ_{max} 735, 810, 1035, 1140, 1310, 1463, 1643, 3420

^{1}H NMR (200 MHz, $CDCl_3$) :δ 4.3 (brs, 1H), 7.32-8.19 (m, 9H).

^{13}C NMR **:δ** 112, 115.3, 121.7, 122.5, 126.4, 129, 130, 130.3, 134.9, 143.6, **(50 MHz, $CDCl_3$)** 151.6.

Elemental Analysis : $C_{13}H_{10}N_2$ Calcd. C, 80.39; H, 5.19; N, 14.42.

Found C, 80.19; H, 5.05; N, 14.23.

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Synthesis, Characterization, and Antibacterial activity of Schiff`s base,2[(E)(4- methyl phenyl imino methyl) Phenol] Metal (II) complexes and their Environmental Application

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Abstract:
A series of Mn (II), Co (II), Ca (II), Mg (II), and Zn (II) complexes of the Schiff base ligand,2[(E) (4-methyl phenyl imino methyl) Phenol] was synthesized in a methanolic medium. O-amino benzoic acid and salicylaldehyde compounds are capable to form a complex with transition metal ions in the form of Schiff base. Their antibacterial activity towards some clinically important bacteria was evaluated. Schiff base in the prepared complexes Cd (II) Schiff base complex showed greater antibacterial activity. Cu (II), Co (II), and Zn (II) metal complexes of new heterocyclic Schiff base derived with salicylaldehyde have been prepared and investigated by elemental analysis, mass, electronic, IR, and 1H NMR spectra. Octahedral geometry was suggested for all complexes. The Schiff base ligand and its metal (II) complexes were tested in vitro to evaluate their bacterial activity against Gram-negative bacteria (Escherichia coli and Pseudomonas aeruginosa) and Gram-positive bacteria (Bacillus subtilis and Staphylococcus typhi) using the disc diffusion method. The antibacterial evaluation results revealed that the metal (II) complexes exhibited higher antibacterial activity than the free Schiff base ligand.
Keywords:Schiff base, Metal complexes,Salicylaldehyde, Antibacterial activity.

Introduction:

Co-ordination compounds exhibit different characteristic properties which depend on the metal ion to which they are bound. The nature of the metal as well as the type of ligand etc.These metal complexes have found extensive application in various fields of human interest.Their antibacterial activity towards some clinically important bacteria was evaluated. Cu(II), Co(II)and Zn(II) metal complexes of new heterocyclic Schiff base with salicylaldehyde have been prepared and investigated by elemental analysis, mass, electronic, IR and 1H NMR spectra. All the complexes were suggested to possess an octahedral geometry. The complex investigated using different chemical techniques, such as elemental analysis, electronic spectra.Cu(II) complex of Schiff base have been tested against some pathogenic microorganism, a comparative study of the ligands and complexes indicate that the complexes exhibit higher antibacterial activity than the free ligand and control. Cu (II), Ca (II), Co (II) and Zn (II) complexes as well as ligand were tested for their antibacterial and antifungal properties against some pathogen.The obtained chemical analysis data showed the formation of 1:1 [M: L] ratio. All the complexes were suggested to possess an octahedral geometry. The synthesized ligands have been investigated by IR, 1H and 13C NMR Spectra. An octahedral geometry was suggested for all complexes, prepared some Schiff base complexes derived from Salicylaldehyde and Histidine with some divalent transition metal ions. The results of antibacterial activity, Cd(II) Schiff base complex showed a great activity

Methods and Materials:

Preparation of Schiff Base:

2[(E) (4- methyl phenyl imino methyl) Phenol] Take Salicylaldehyde (M. wt.=122.12) 1.2 ml in one beaker, then add ethanol to dissolve it. In another beaker take the P – toluidine (M. wt.=107.16) then adds ethanol to dissolve it. Then mix the two solutions and continuously stirring up to two hrs. The formation of precipitate is takes place. This is known as Schiff base. Filter the precipitate and dry it. Then recrystallize the precipitate. This is used for the Schiff base characterisation.

Preparation of complex by using Metals and Schiff Base:

1. Cobalt: - The 0.2 gm ligand (Schiff base) dissolve in ethanol and 0.2 gm cobalt (II) chloride (CoCl2.6H2O) dissolve in water. Then add ligand solution in metal solution with continuously stirring up to 2 hrs. Then the formation of complex is takes place. Use this complex for characterisation.
2. Calcium: - The 0.2 gm ligand (Schiff base) dissolve in ethanol and 0.2 gm Calcium chloride dissolve in water. Then add ligand solution in metal solution with continuously stirring up to 2 hrs. Then the formation of complex is takes place. Use this complex for characterisation.
3. Manganese: - The 0.2 gm ligand (Schiff base) dissolve in ethanol and 0.2 gm manganese chloride dissolve in water. Then add ligand solution in metal solution with continuously stirring up to 2 hrs. Then the formation of complex is takes place. Use this complex for characterisation.

4. Zinc: - The 0.2 gm ligand (Schiff base) dissolve in ethanol and 0.2 gm Zinc sulphate dissolve in water. Then add ligand solution in metal solution with continuously stirring up to 2 hrs. Then the formation of complex is takes place. Use this complex for characterisation.
5. Magnesium: - The 0.2 gm ligand (Schiff base) dissolve in ethanol and 0.2 gm magnesium chloride dissolve in water. Then add ligand solution in metal solution with continuously stirring up to 2 hrs. Then the formation of complex is takes place. Use this complex for characterisation.

Cadmium: - The 0.2 gm ligand (Schiff base) dissolve in ethanol and 0.2 gm Cadmium chloride dissolve in water. Then add ligand solution in metal solution with continuously stirring up to 2 hrs. Then the formation of complex is takes place. Use this complex for characterisation.

Antimicrobial Activity

Objective: To determine antibiotic sensitivity of bacterial strains and minimal inhibitory concentration of antibiotic to bacterial strain.

Background:

Antibiotics are commonly used for the treatment of infectious diseases. Once the causative organism is identified for specific disease and is isolated, it is important to test the sensitivity of the organism to the effective antibiotics. In the clinical laboratories antibiotic impregnated discs are commonly used to identify the antibiotic sensitivity of the causative organism. The effectiveness of the antibiotic in this test is based on the size of the zone of inhibition. The zone of inhibition also depends on the diffuse ability of antibiotic, the size of the inoculum, type of medium and other factors. The concentration of the antibiotic at the edge of zone of inhibition represents Minimal Inhibitory Concentration (MIC) of antibiotic. Alternatively, the antibiotic disc with different concentration of antibiotic could be employed in the test. The minimal inhibitory concentration is the lowest concentration of antibiotic that exhibits the zone of inhibition on the assay plate.

Material required: Antibiotic discs, Nutrient agar, Bacterial cultures, Petri plates.

Procedure:

Antibiotic sensitivity test

1. 1.Select and label the cultures that are to be used for antibiotic sensitivity assay (E. coli, Bacillussubtilis).
2. 2.Prepare nutrient agar plates.
3. Aseptically take a swab of the test culture and inoculate surface of the nutrient agar plate completely so as to make a lawn.
4. Allow at least 5 minutes for the agar surface to dry before applying disc.
5. Take a forceps and sterilise the tip by dipping in alcohol and then flaming. Allow to cool.
6. Carefully take the antibiotic disc and place over the agar plate at least 15 mm from the edge of the plate. Gently press disc to give a better contact with the agar.
7. Place at least six different antibiotic discs at the same distance apart from each other in the agar plates.
8. Incubate the plates in inverted position for 16 to 18 hrs at 37◦c.
9. Observe the plates in inhibition around the antibiotic discs.
10. Indicate whether test organism is resistant or sensitive to the antibiotic.

Determination of Minimal Inhibitory concentration of antibiotic:

1. Prepare four nutrient agar plates.
2. Select a test organism (E. coli, Bacillussubtilis) and an antibiotic from the previous experiment that showed good inhibition zone.
3. Inoculate the nutrient agar plate with the selected test organisms as lawn culture.
4. Allow the plate to dry for 5 minutes.
5. Place a disc impregnated with different concentrations of antibiotic.
6. Incubate the plates for 12-18 hrs.
7. Measure the zone of inhibition on the plate by a ruler.
8. Tabulate the result concentration of antibiotic verses diameter of zone of inhibition.

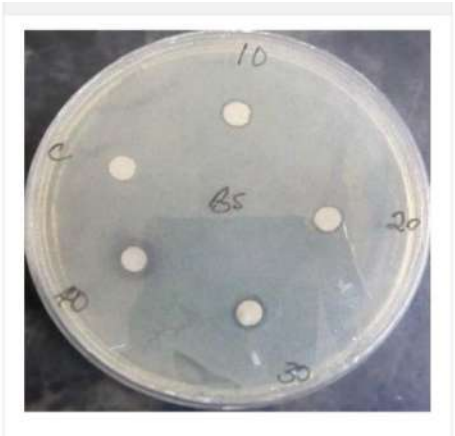


Fig-1 Zone of inhibition of [tri(E) (4- methyl phenyl imino methyl) Cadmium (II)] against B. subtilis.
Fig-2 Zone of inhibition of [tri(E) (4- methyl phenol imino methyl) Cobalt (II)] against E.coli.

Characterization:

IR and UV-Visible Spectroscopy:-The ultraviolet and visible spectra are associated with transition between electronic energy levels. The transitions are generally between a bonding or alone pair orbital and an unfilled non- bonding or antibonding orbital. The wavelength of the absorption is then a measure of the separation of the energy levels of the orbitals concerned. The highest energy separation is found when electrons in 6- bond are exited.

Instrument: -PC based on double beam spectrophotometer.

Operation Mode:

1. Single Wavelength
2. Multi Wavelength
3. Scan- Range
4. Time Scan
5. U.V spectra of this complex are taken a scan mode.
6. Base width.

The IR spectra of the 2[(E)(4- methyl phenol imino methyl) Phenol] are recorded in the region 3500-700 cm^{-1} on the Shimadzu FTIR Spectrophotometer.

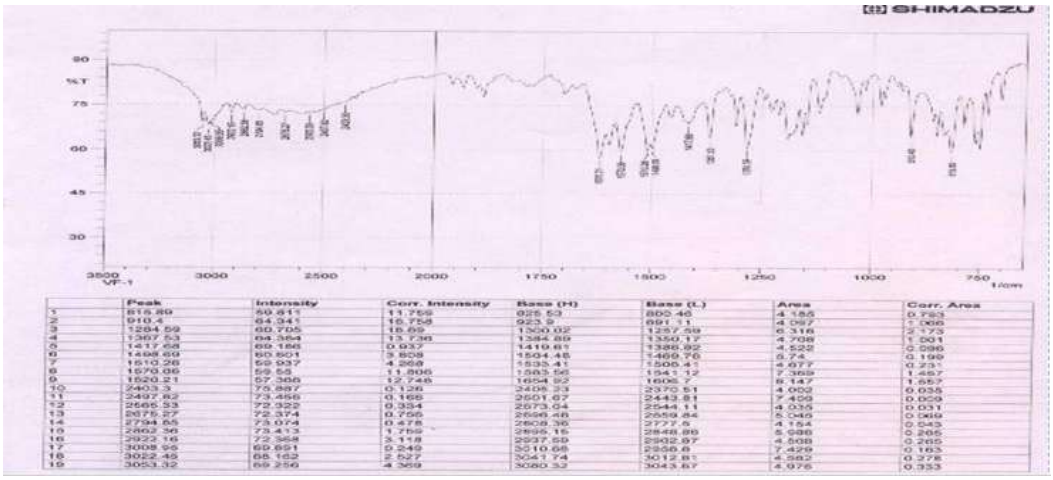
Results:

The IR spectra and their band assignment of the fundamental frequencies are given in table:

Frequencies	Ligand assignment
3053.32	(O-H)
1620.21	C = C stretching
1570.06	C = N stretching
1284.59	C – O

Frequencies	Ligand assignment
462	Ca-O
1620.21	C = C stretching
1570.06	C = N stretching
1284.59	C – O

tri [(E)(4- methyl phenyl imino methyl) Calcium III)]



The Schiff Base and transition metal complexes were characterized by using different instrumental techniques. All the metal complexes are amorphous solids. The characterization is done with elemental analyser FT- IR. The synthesized ligand and metal complexes were subjected to antibacterial studies.

Conclusion:

The preparations of Schiff base by using metals are made and the chemical analysis of these metals is done to calculate the percentage of the metals in the complex.By testing the antimicrobial activity of the complex, the complex shows microbial activity. Then study of UV spectroscopy the spectra shows above 300nm and IR spectra shows C = C stretching frequency 1620 cm^{-1}, C = N stretching frequency 1570 cm^{-1}, C-O bond 1284 cm^{-1} and M-O are observed below 700 cm^{-1}.

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A Study of the Financial Problems of Gram Panchayat in Latur district of Maharashtra State

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Abstract: The purpose of this study was to point out the financial problems of Gram Panchayats and to suggest the possible ways to minimise these problems. The study also aimed to assess how effectively the entrusted financial resources to these bodies have been utilized. This has been done by making an empirical study of 30 selected Gram Panchayats – Administratively the district is divided into five subdivisions namely Latur, Nilanga, Ausa, Ahmadpur and Udgir, and further divided into ten talukas & ten Panchayat Samitis. There are around 945 villages & 786 Gram Panchayats in the district. Researcher has selected 30 gram Panchayats as sample, 3 gram Panchayats had selected from each Panchayat samiti. With complete rural background, due to lack of adequate funding for the basic facilities development work in the state, villagers have to face many problems. For this, there is a demand for funding from the public representatives for basic facilities.
Keywords: Gram Panchayat, Financial Problems and Financial Sources

Introduction:

The sarpanch and gram panchayat are responsible for the overall development of the village and play a key role in providing basic services vital for the health and well being of rural people, like, drinking water. The gram panchayat is the key local government institution responsible for fulfillment of the community's aspirations with respect to development of the village. In the spirit of the principle of decentralization listed in the Seventy-third Constitutional Amendment Act, 1993, The 73rd Amendment was amended by the Central Government to enable the Gram Panchayats to become self-reliant and empowered as an autonomous body. Therefore, the Gram Panchayat has got constitutional status. Various schemes are being implemented by the Central Government for the overall development of the country. Zilla Parishad Committees and Gram Panchayats were empowered by decentralization of power so that the benefit of the development plan could reach the people at the very bottom and for their upliftment / progress. As local government is a State subject, State legislatures have a critical role in determining various aspects of Panchayati Raj in their States. States are keys as far as devolution of powers to Panchayats is concerned. The Constitution envisaged that Panchayats will function as institutions of local government and prepare plans and implement schemes for economic development and social justice, but leaves the precise devolution of powers and authority to Panchayats to the States. The State legislatures are to consider the 29 matters illustratively set out in the Eleventh Schedule for devolution to the Panchayats for the planning and implementation of schemes for economic development and social justice. Powers to impose taxes by and provisions of funds to the Panchayats are determined by State. Moreover, States play a critical role in building Panchayat capacities and in creating an appropriate framework for accountability and transparency as well.

Central Finance Commissions Grants

Article 280(3) (bb) of the Constitution inserted vide the 73rd Amendment Act States that "the measures needed to augment the Consolidated Fund of a State to supplement the resources of the Panchayats in the State on the basis of the recommendations made by the Finance Commission of the State". Accordingly, Union Finance Commissions are required to make recommendations to augment the Consolidated Fund of a State to supplement the resources of the Panchayats in the State on the basis of

the recommendations made by the Finance Commission of the State. The status of actual allocation and release of grants to the rural local bodies under 13th and 14th Finance Commission is as under:

Funding of Panchayati Raj Institutions

The District Fund consists of money received from the Central Government grants for centrally sponsored schemes through State budget funds for plan and non-plan state schemes, assigned tax and non-tax revenues, receipts of ZPs, interest on investments, etc. The cash grants are released to the ZPs through Budget Distribution System (BDS) by the respective administrative departments in accordance with Government resolution dated 15-10-2008. Introduction of distribution of cash grants however does not dispense away with the system of assessment of grants of different departments in ZPs by the administrative departments.

Review of literature:

This section summarizes some key studies conducted to understand the utilization of financial grants to GPs as well as other related issues. Most of the studies summarized here were regional studies conducted in different states.

Barnabas and Bohra (1995) studied the finances of Panchayati Raj Institutions in three selected states namely Maharashtra, Gujarat and Rajasthan and found that adequate finances are not available for performing the functions allotted to the PRIs. They also noted that the GPs do not have the freedom to tap and tilizi the resources according to their needs, nor do they have funds for discriminatory expenditure. It was mentioned that about 70 to 80 per cent of the grants were spent on establishment (salaries, maintenance, transport etc.) in all the three states. The study suggested that if PRIs were to be effective there was a need for greater delegation of powers in planning, tilizingo of resources and adequate administrative set up with greater control.

H.S.Praveen Kumar (2016) artical on Finance and Fiscal Power of Grama Panchayat in Chitradurga in Karnataka State, he examined grama panchayat have to perform functions as envisaged in Karnataka panchayat raj act 1993, fund are released to grama panchayat under various schemes in addition government provide rupees six lakhs as statutory grant grama panchayat also mobilize their own revenue by levying taxes, rates, fees.

Dr. V.Govindu (2015) Financial Assignments to Panchayat Raj Institutions in India- A Perspective, financing of the functions, Article 243H of the 73rd Amendment act states that the state may be law (a) authorize a Panchayat to levy, collect and appropriate such taxes, duties, tolls, and fees; (b) assign to a Panchayat such taxes, duties tolls, and fees; and (c) provide for making such grants-inaid to the Panchayats from the Consolidated Fund of the State Jatanta Dutta (2013),Financial Management of Panchayats, an overview of west Bengal, this study conclude that As far as the maintenance of accounts and records are concerned, it may be said that the Various types of irregularities have been noticed in the functioning of the Panchayats. The West Bengal Panchayati Raj budget and works rules which are meant to guide the Panchayats in the mobilization and management of financial resources, have not been implemented in most of the Panchayats .management of financial resources have practiced in accordance procedure ruled by panchayats west Bengal, then Panchayats should properly utilize their funds.

Statement of problem

The entire Gram Panchayats of the Latur district had facing financial problems. Due to lack of adequate funding for the basic facilities development work in the state, villagers have to face many problems. For this, there is a demand for funding from the public representatives for basic facilities.

Objectives of the study

1. To know financial sources of gram Panchayats in Maharashtra

2. To find out the financial problems of Gram Panchayats in Latur district. 3. To offer suggestions base on the problems.

Research Methodology

The present study related to the investigation of the conditions and consequences of the problems of gram panchayats in Latur district of Maharashtra. Administratively the district is divided into five subdivisions namely Latur, Nilanga, Ausa, Ahmadpur and Udgir, and further divided into ten talukas & ten Panchayat Samitis. These are Latur, Udgir, Ahmedpur, Ausa, Nilanga, Renapur, Chakur, Deoni, Shirur Anantpal, and Jalkot. Latur city is the administrative headquarters of the district. There are around 945 villages & 786 Gram Panchayats in the district. Researcher has selected 30 gram Panchayats as sample, 3 gram panchayats had selected from each Panchayat samiti.

Result and Discussion

Sources of Finance

Generally the sources of funds of G.Ps may be divided into internal and external sources. Internal sources represent those that are generated by the G.Ps from within the local resources and include tax, fees, rates, donations etc. Revenues from such sources are raised by G.Ps themselves. External sources include funds received from government and higher authorities, loans (if any) etc. The capacity of G.Ps to generate internal

resources depends much on the government policy and the operational efficiency of the G.Ps

As internal sources alone are not sufficient for meeting the ever growing needs of G.Ps external sources are required for doing the functions efficiently. External sources include funds received from government and other authorities, loans (if any) etc. External sources may be classified into following two heads : External sources for administrative purposes and External sources for development purposes

Table -1 Gram Panchayats facing inadequate financial problems

Facing inadequate financial problems	No. of respondents (GPs)	Percentage
Yes	29	96.66
No	1	3.33
Total	30	100.00

(Source Field Survey)

It was noted from above table-1 that out of 30 gram Panchayats participant in the survey out of these (29) 96.66 per cent Gram Panchayats has faced inadequate financial problems while only (1) 3.33 per cent Gram Panchayats were not faced inadequate financial problems. It was concluded that entire GPs had facing inadequate financial problems in the Latur district. (Figure 1)

Figure 1- Gram Panchayats facing inadequate financial problems

150

100 50

0

96.66

3.33

Yes NoTable- 2 Dependency on sources of finance

Sources of finance	No. of respondents (GPs)	Percentage
Internal	4	13.33

External	26	86.66
Total	30	100.00

(Source Field Survey)

It is found from table-2 that the 86.66 per cent of Gram Panchayats were depend on external sources of finance, while only 13.33 per cent Gram Panchayats were depend on internal sources of finance (figure-2)

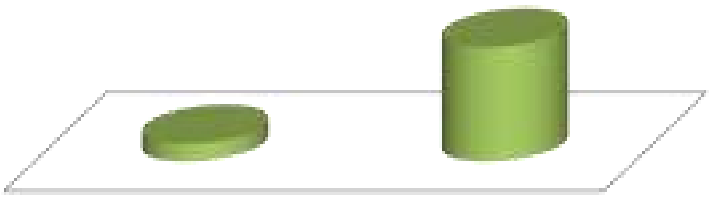


Figure- 2 Dependency on sources of finance
86.66
13.33
Internal Sources External Sources
Internal Sources of Finance

Internal sources of finance, however small that may be, should be developed gradually so that G.Ps may be ultimately self-financed. But even though such self sufficiency is a remote possibility, we are to analyse the components of internal sources and their relative proportions, so that means of enhancing funds from these sources may be found out. The major internal sources of finance are tax fees etc. income from government properties vested in the hands of G.Ps, special donation for village development etc. Since economic conditions of these areas are at a miserable state it is difficult to raise funds from these sources. However, once the economic conditions of these areas are developed, it would ' be easier to raise funds internally.

Table-3 Proportion of different sources within the internal sources of finance of selected G.Ps taken together

Sources of Fund	No of respondents	Percentage	Rank
Tax, fees etc.	30	100.00	I
Donation	12	40.00	II
Income from property	3	10.00	V
Service charge	7	23.33	IV
Miscellaneous	8	26.66	III

(Source Field Survey)

From table -3 it is revealed that among internal sources tax revenues constitute an important and significant role (100.00% of the total) and ranked one. Then donation (40.00%) and miscellaneous items (26.66%) occupy important position and rank second and third respectively. service charges from

transport company (23.33%) rank fourth and Income from government property vested in the hands of G.Ps (10.00%) occupies fifth rank.

Figure-3 Proportion of different sources within the internal sources of finance of selected G.Ps taken together

Miscellaneous	23.33
Service charge	10.00
Income from property Donation	40.00
Tax, fees etc.	100.00
26.66	

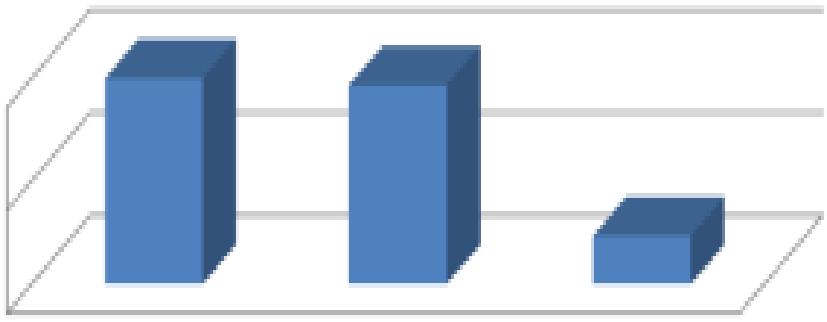
Table- 4 Sources of External Sources of All the Selected G.Ps taken together

Sources of Funds	No of respondents	Percentage	Rank
Government Grant for Adm. Exp.	30	100.00	I
Govt. Grant for development works	29	96.66	II
Loan from Government	7	23.33	III

(Source Field Survey)

It is described from table-4 components of external sources of all the selected G.Ps taken together it is found that 100.00% Gram Panchayat depended on Government Grant for Adm. Exp. 96.66% Gram Panchayat depended on Govt. Grant for development works and 23.33 % Gram Panchayat had taken loan from Government. (Figure-4) Figure- 4 Sources of External Sources of All the Selected G.Ps taken together

100
50
0



Government Grant Adm. Exp. | Govt. Grant for development works | Loan from Government

Conclusion

From the above discussion of the present study it may be concluded that at present Gram Panchayats are in financial crisis. Intensity of the crisis of the GPs is almost the same irrespective of their proximity to rural or urban areas. Financial resources are very scanty. They are not sufficient to meet the growing need of the G.Ps. Moreover, financial strength of the G.Ps largely depends on the Central Government grants particularly the grants. On the other hand, even the meager funds available at the disposal of the G.Ps are not properly utilised.

Suggestions

1. Gram Panchayat members should be alert in assessing and collecting taxes timely. Permanent assets like shops, markets, houses, fisheries, ponds etc. should be created. Since contribution from internal

sources is essential part of development from below, efforts should be made to mobilise such contributions.

2. A State level Panchayat Finance Commission should be constituted once in every five years to deal with the different aspects of finances of Panchayati Raj Institutions. Till the date of functioning of the prescribed commission, the resource gap can be bridged by the State Finance Commission which appears to be essential after the 73rd constitution (Amendment) Act has been passed. Similar

24 view was given by Bohra and Panth (1996) in their article, "Finances of Panchayati Raj Institutions"

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Role In The Study Of Various Medicinal Plants Found In Mukhed Area Dist. Nanded Maharashtra

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Abstract: - The present work investigation deals with the study of the various medicinal plants species are as a herbal drugs are used in the Ayurvedic medicinal formulations. The medicinal plants sample data were collected to found in the local place mukhed area Dist. Nanded in Maharashtra.The studies were different samples of medicinal plants as a herbal drug used in Ayurvedic medicine can be used in effective way for the treatments on the human health. The different medicinal plants as a herbal drugs whole parts from root, steam, leaf, flower and fruits are used in the Ayurvedic medicinal formulation. No side effect of the herbal drugs on human health. The studies were sample in a medicinal use of various plant species such as Adulsa, Neem, Bel, Sitaphal, Aghada, Kavath, Mehndi, Pudina, Kala Datura, Yellow Datura, Shtavari, Karanja, Agave, Ruchiki, Patri, Ranbhendi, Gulwel, Til, Methi, Spinach.
Keywords: - Medicinal plants, herbal drugs, Ayurvedic, health, etc.

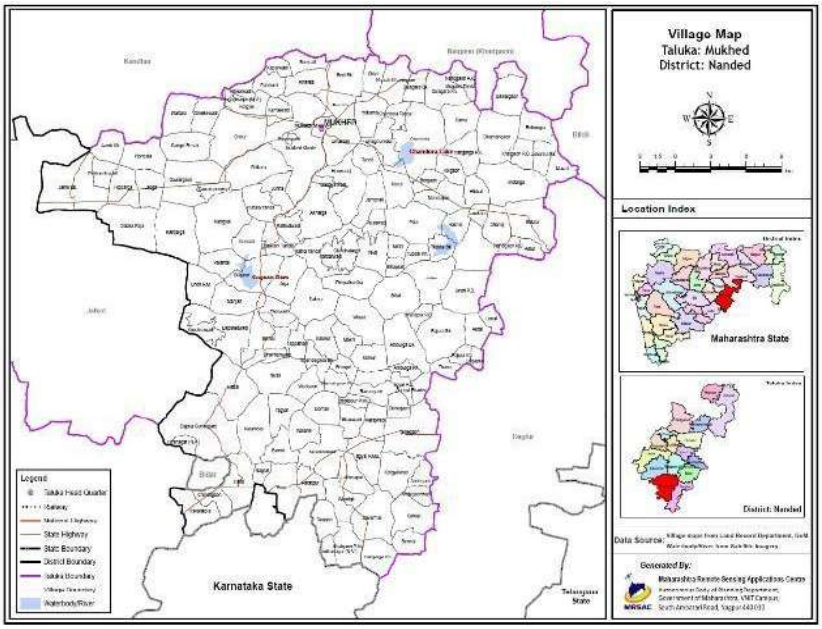
Introduction: -

All living organisms need to study of the known local medicinal plants.
medicinal plants are useful for everyone. list of local medicinal plants found in mukhed area. the present paper has been written related with various medicinal plants found in mukhed area. in the recent fast there is a rise in various medicinal plants studied before rainy season. the study was made in the month of january 2021 to april 2021. these medicinal plants sample were not much polluted. the present paper work investigation deals with the study of the various medicinal plant samples were collected in local mukhed area. the studies of sample of medicinal plants herbal drugs as a ayurvedic medicine used in the effective way for the treatment human health.

Locatio:

The study of the medicinal plant data sample was collected from the mukhed area for the monitoring variety of various medicinal plants sample. The medicinal plan sample were collected from the different area location before rainy season between early in the morning 7.30 AM to 09.00 AM in the month of January 2021 to April 2021.

Location map of the study area Mukhed Dist. Nanded
Figure 1.1



Materials and methods: -

The sample data was collected during the month of January 2021 to April 2021. The samples are identified and collected in the polythene bags. The following samplesof various medicinal plants was collected are used for as a medicinal plant as a drug and Ayurvedic medicine. The different medicinal plants as a herbal drugs whole parts from root,steam, leaf, flower and fruits are used in the Ayurvedic medicinal formulation.

The list of the following local medicinal plants found in mukhed area.

NO.	NAME	SCIENTIFIC NAME
1	Adulsa	Justica adathoda l
2	Neem	Azadirachta Indica L
3	Sitaphal	Anona Squamosa L
4	Bel	Aegle marmelos L
5	Kavath	Feronia Elephuntum
6	Mehndi	Lawsonia inermis
7	Pudina	Mentha piperita
8	Kala Datura	Datura metal L
9	Yellow Datura	Argemone Mexicana l
10	Ruchiki	Calotopis procera
11	Patri	Abutilon indicum l
12	Ranbhendi	Kydia calycina
13	Gulwel	Tinospora cardifolia wil
14	Tilli	Withania somnifera dunal
15	Karanja	Pongamia pinnata
16	Shatavari	Asparagus racemosus wil
17	Aghada	Achyranthes aspera

Uses of the various medicinal plants-

1. Adulsa - Its leaf juice is the most common home remedy for cough, respiratory diseases and bleeding disorders. It is also a highly effective natural medicine forrespiratory infections.
2. Neem – Neem leaf is used for leprosy, eye disorder, bloody nose, intestinal worms, stomach upset, loss of appetite, skin ukers, diseases of heart and bloodvessels, fever, diabetes, gum diseases and lever problem.
3. Sitaphal – Custard apple leaves help in the regulation of sugar in the body dueto the presence of fibres and antioxidants. This prevents aging of skin.
4. Bel – bel is a plant. The unripe fruit, root, leaf and branch are used to make medicine. it is used for constipation, diarrhea, diabetes and other conditions.
5. Kavath – kavath is one of the most important herbs in Ayurvedic medicine system. The unripe fruit is used as remedy to trat diarrhea and dysentery. Theripe fruit is used in treatment of hiccups and throat problem.
6. Mehndi – Traditional medicine used for Heena include being used as acoagulant for open wounds and a poultice to sooth burns and eczema.
7. Pudina – pudina contains menthol that can help relax muscles and ease the pain. Also, pudina is effective in curing headache.
8. Kala datura – though a strong narcotic plant, datura offers umpteen health benefits and is extensively used for hair and skin health.
9. Yellow datura – datura is a source of narcotic, acrid, anodyne, intoxicating properties. It can reduce vomiting, headache, uterine stimulation.
10. Ruchiki – colotropis procera is well known plant and has traditionally used for diarrhea, stomatic, sinus.
11. Patri – it is useful in gout, ulcers, bleeding disorders and worms. It can be usedas digestive, laxative and inflammatory.
12. Ranbhendi - the leaves of ranbhendi are applied in poultices for skin diseasesand body pain.

13. Til – Til is an anti-aging property. It boosts skin health, hair growth, dental health, digestion, bone health. It is a good source of energy and it stabilizesblood pressure.
14. Karanja – Karanja is medicinal herb mainly used for skin disorders. It is used for managing constipation as it helps to improve gut motility.
15. Shatavari – it is an antioxidant and antiviral. It boosts immune system. It helps hormone balancing reduce symptoms of menopause.
16. Aghada – aghada has excellent appetizer and digestive properties because of which it helps improve digestive strength and reduce ama in the body.

Results and Discussion

The list of the local medicinal plants found in mukhed area is shown in the table no. 1.The following samples of medicinal plants are collected and used for as a Ayurvedic medicine.these plants are herbal drugs are used in Ayurvedic medicine effective way for treatment of typhoid fever. There is no side effect of the ayurvedic medicine drugs on human health of the treatments.The ayurvedic herbal drugs formulation which maybe better than option over allopathic formulations. The different medicinal plants parts are used as a herbal drugs for using as a ayurvedic medicine such as root, steam, leaf, flower and fruits are used in the Ayurvedic formulation. A number of different medicinal plants species are used in Ayurvedicmedicine. There is no any side effect of herbal drug on human health.

Conclusion: -

The study of the medicinal plants sample data was collected and useful for herbal drug used as a ayurvedic purposes. The study of the above list of local plants are found in mukhed area useful for everyone as a medicine.

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Employee Engagement And Industrial Relations In Textile Mill With Reference To Kolhapur District

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Abstract: - Employee relationships refer to how dedicated an employee is to the firm. Staff involvement improves employee output at the Factory. (Saxena, 2019) The foundation of any industrial relationship is mutual understanding between labour and management. It is contingent on both parties' social, psychological, and financial pleasure. Higher levels of satisfaction resulted in a healthier relationship, and vice versa. (Shrivastava, 2012) The purpose of this research is to identify employee engagement and industrial relations actions in thetextile sector to lower labour turnover. The research is organized descriptively. The data is collected via interview with a sample size of 100 employees.The study created a model to aid in the adaptation of employee engagement and industrial relations strategies for improved performance and lower attrition rates. For a better understanding of the bottom and intermediate levels of management, the survey includes all employees. This is the first time that both management and employees of the textile business have collaborated on a study.

Keywords: - Employee involvement, Industrial Relation, Employee engagement

Introduction: -

Employee Engagement:

Every firm requires an engaged workforce to achieve high performance and success. Employee Engagement provides a thorough understanding of how to develop an effective employee engagement plan that is in line with the company's overall goals. Employee engagement has become commonplace in the workplace. Enhancing workforce and employee engagement initiatives is one way to raise an organization's productivity. (Bridger, 2014)[1]

Definitions:"Employee engagement, often known as 'commitment' or motivation,' refers to a psychological situation wherein the workers get a vested interest in the organization's growth and perform to a high stand ard, that might surpass the stated requirements of a job,"

Industrial Relation: - It is essential to understand the concept of industrial relations. An industrial relationship is a relationship that persists among employees and management in the course of the management of a company. Industrial relations are crucial to the formation and management of labor relations.Employees were hired and fired prior to the Declaration of Independence. After World War, the concept of Industrial Relations took on a different dimension. (Monnapa, 1985)[2] Let's see some definition about Industrial Relation

V. Agnihotri stated that, "Industrial relations can be defined as the interactions and relationships that exist in the workplace, particularly between labor and management, for the benefit of not only for management and workers but the industry and the economic system as a whole." (Google, n.d.)[3]

Statement of problems and need for study: - There is a scarcity of research on employee engagement and industrial relations in textile mills, with only
a few scholars studying their impact. This is critical for the textile industries long- term performance because employees are the mills most respected assets, and they must be well cared. Their output and satisfaction increase when they are healthy. These workers will be more productive and loyal, and they will play an important role in achieving Textile Mill's goals.

Objective of the study: -

1) To investigate employee engagement and labor relations at a textile factory.
2) To learn how employee engagement affects staff productivity.
3) 3. Determine whether employees are happy with their jobs.
4) 4. To learn about the textile mill's overall work culture.

Literature Review: -

1. Employee Engagement

As firms invest resources in cultivating a more engaged workforce, the field of employee engagement is

[1](Bridger, 2014)
[2](Monnapa, 1985)
[3](Google, n.d.)

expanding. Many Textile Mills feel that employee engagement is a major source of competitiveadvantage and that it has the power to handle difficult Textile Mills issues like enhancing workplace performance and productivity in the face of broad economic recession.(Schneider, 2008,2009)[4]
Employee engagement is a new philosophy that has gained popularity in recent years. Engagement is a good thing that has a measurable result. Employee involvement is a necessary but not sufficient idea. (Byrne, 2015)[5]

Literature Review on Industrial Relation

Effective utilization of labour resources is required for the proper operation of the industry company. Non human resources are used more efficiently when human resources are used efficiently. This is dependent employee relationship; a positive relationship between them ensures continued productivity. He will be accountable for maintaining strong connections in the industry as a human resources manager.
The above review shows that most of the studies on Employee engagement, Industrial relations, Employee performance, employee effectiveness, etc. None of the studies covered Employee Engagement and Industrial relations in textile mills.
The present study is an attempt to fill the gap in this area. This study covers the areas of textile mills, namely focuses on employee engagement and industrial relation problems, and employees' level of satisfaction.

Research Methodology: -

The theological components used for the information are made up of an interview. In this study the number of people targeted by the employees in the Textile Mill. Researcher has collected response from the non-probability sample techniques and sample size is 100 employees.
Overall staff interaction based on 5 points. A rating scale from 1 (strongly disagree) to 5 (strongly agree). 1 = strongly disagree, 2 = strongly disagree, 3 = impartial, 4 = agree, 5 = strongly agree.
The SPSS mathematical software was used to analyse the data. The replies and information gathered from the study was evaluated using mathematical methods such as alpha cronbach, which were used for standardised testing, followed by the Kolmogoravsimirnov test to investigate the hypothesis, and finally across table to assess correlations between variables.

Sr. No	Particular Research Plan Heading	Method Adopted
1	Research Design	Analytical Research Design
2	Population/Universe	100 Employees
3	Sources of data	Primary and Secondary Data Collection
4	Sample size	Employees including Managers 100
5	Respondents/Subjects/Participants	Employees and Management textile mills in Kolhapur district.
6	Research Instruments	Survey Questionnaire, Observations and One onOne discussion with respondents
7	Area of Research	Kolhapur District
8	Status of Area	District

Hypothesis of the study

1) Hypothesis 1
2) H0: Employees are not satisfied with the overall Industrial Relation at the Textile Mill
3) H1: Employees are satisfied with the overall Industrial Relation at the Textile Mill
4) Hypothesis 2
5) H0: Employees at the Textile Mill does not receive increment / any rewards after performance assessment.
6) H1: Employees at the Textile Mill receive increment / any rewards after performance assessment.
7) Hypothesis 3
8) H0: Managers at the Textile Mill do not have proper work place culture.
9) H1: Managers at the Textile Mill have proper work place culture.
10) Hypothesis 4
11) H0: Employees at the Textile Mill does not have any employee engagement activities.
12) H1: Employees at the Textile Mill have any employee engagement activities.

[4](Schneider, 2008,2009)
[5](Byrne, 2015)

13) Hypothesis 5

H0: Employees are not satisfied with the overall performance of the Textile Mill.

H1: Employees are not satisfied with the overall performance of the Textile Mill.

Data Analysis and Interpretation

Category Percent	Frequency	Percent	Cumulative Percent
Strongly Agree	60	59.4	60.0
Agree	33	32.7	93.0
Neutral	7	6.9	100
Total	100	99.0	

Source- Primary Data

The above data indicates that, 60% employees were found highly satisfied with the overallrelations at the Textile Milland 33% employees were found satisfied only 7% neutral and no employee were found dissatisfied as no respondent disagreed to the statement of satisfaction byindustrial relations.

Hence, by the responses it can be said that employees at textile mills are satisfied with the industrial relation at the Textile Mill.

Table 1

Kolmogorav-Smirnov Test

		Mean	S.D	K.S.Z	Sig
Industrial Relation	100	1.30	0.482	5.3666	0.000
Rewards	100	1.47	0.627	4.935	0.000
Work place culture	100	1.53	0.540	7.798	0.000
Employeeengagement activities	100	1.71	0.715	4.428	0.000
Overall performance	100	1.76	0.571	4.334	0.000

Source: - Primary Data

Table 2: - Reward after performance

		Strongly Agree	Agree	Neutral	Total
Employees at the Textile Mill receive increment / any rewards after performance.	Strongly Agree	33	30	3	66
	Agree	5	21	3	29
	Neutral	0	2	3	5
	Total	38	53	9	100

Source:- Primary Data

Interpretation: -The above table states that 33 employees strongly agreed followed by 21 agree and 3 Neutral that Textile Mill receive increment / any rewards after performance simultaneously strongly agreed that it helps them to set and achieve meaning full goals.

Table 3:- Work place culture

		Strongly Agree	Agree	Total
Managers at the Textile Mill have proper work place culture	Strongly Agree	45	17	62
	Agree	6	31	37
	Neutral	0	1	1
		51	49	100

Source:- Primary Data

Interpretation: It is observed that 45 employees who strongly agreed that managers at the Textile Mill have proper work place culture. however, 31 employees and again none of the employees disagreed to any of the statement stated above.

Table 4: -Employee Engagement Activities

		Strongly Agree	Agree	Neutral	Total
Employees at the Textile Mill have employee engagement activities	Strongly Agree	33	11	1	45
	Agree	19	28	2	49
	Neutral	2	4	0	6
	Total	54	43	3	100

Source: - Primary Data

Interpretation: -

The above table states employee's agreement towards Employees at the Textile Mill have good employee engagement activityas all employees are treated equally. It is observed that 33 employees strongly agreed for both the terms whereas 28 employees agreed as all employees at Textile Mill have employee engagement activity.

Finding and Conclusion: -

Above study stated following findings

1. Employees were found highly satisfied with the overall wellness at the Textile Mill.
2. Employees are regularly awarded and recognized for doing good work.
3. Employees receive increment/hike in salary after performance assessment.
4. Managers at the Textile Mill maintained appropriate workplace culture.
5. Employees are comfortable working at the Textile Mill.
6. Employees have all the safety equipment to do work efficiently.
7. Managers at Textile Mill are trained and provide proper training to the employees.
8. Employees have a clear understanding of the goal of the mill/industry.
9. Employees receive from time to time positive as well as negative feedback from the managers.
10. An employer provides engagement activities to his employees and also maintains a grievances-free climate.
11. The study indicates that employees' engagement and industrial relation is nicely developed and it helps them to set and achieve meaningful goals.

Conclusion: -

It is concluded that Employees are fully satisfied with the employee engagement and industrial relations of the textile mill.Organizations can provide engagement activities, healthy relations, strategies, policies to th e employees.

By applying the cross-tabulation test, I found that there is a significant relationship between the variables.
Organization regularly carried out employee engagement activities,
employees are agreed that employee turnover is reduced because of good compatibility.
In the textile mill, all employees are treated equally.

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Digital Banking - A New Paradigm In Banking Sector

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Abstract: *Banking and financial institutions have been playing a crucial role in the economic development of country. Banks are the institutions which are constituted to accept deposits from public and lending loans to public. Digital banking is the information technology which has revolutionized the way of doing banking at local, national and international level. There are many benefits that digital banking provides to customer; there are also number of major concern and challenges for marketers in online banking system.Security, Technical issues, transaction difficulties are some major challenges in online banking system. Now we are in the era of digital or internet banking. Online banking has proved successful in the international banking sector in many countries and has revolutionized the e-commerce industry. In India, also online banking is fast emerging as favorable. Digital banking system is the movement of banking services over the internet facility. The advantages of digital banking is for banks as well as customers, it is faster and convenient. In this research paper, we are emphasizing on the digitalization of banking sector and relevant aspect of it. After reading this paper the reader can understand the basic aspect of digitalization & its benefits and it helps to gain the knowledge regarding innovations in digital banking sector.*

Keywords: Digital Banking, Technology, Banking in India, Innovations

Introduction:

Technology has its own importance in today's scenario.Technology taken his own place in each and every sector of economy. In the banking sector also we have seen many upgrading in respect of digitalization. Digital banking also known as internet banking, e-banking, online banking or virtual banking, is an electronic payment system that enables customers of a bank or other financial institutions to conduct a range of financial transactions through the financial institutions websites. Digital banking system moves the banking services through internet. It provides the ability for users to access financial data through desktop, mobile and ATM services. Recently, Finance Minister Nirmala Sitharaman has also focuses on Digital Banking in Union Budget 2022. The Central government takes initiative and makes one proposal regarding to be set up seventy-five (75) digital banking units in 75 districts in the country by Schedule Commercial Banks. This system would enable a large base of customer to be introduced to digital banking. The financial support for the digital payment system will continue in 2022-23 year also which announced in the previous budget. This will encourage for further adoption of digital payments. One more initiative taken by finance minister, Post offices to be connected with Core Banking System. SBI Research Report said, In Union Budget 2022, Finance Minister has also proposed that all 1.5 Lakh post offices in India be brought under the core banking system. It will enable financial inclusion and this will be make access to accounts through Mobile Banking, ATMs and Net Banking and also provides online digital transfer of funds between post banking accounts and banks accounts. As well asIntroduction of Central Bank Digital Currency (CBDC) would be issued by Reserve Bank of India which will give big boost to digital economy.

Statement of the problem:

The digitalization is the main element of the current scenario. Central Government also focuses on digitalization. This research paper is based on the some facts which are related to digitalization in the Indian Banking System. There is need to understand the concept of digitalization in baking system and how it is helpful to its customers. If customer fails to understand the aspects of digitalization then the revolution in the banking system may be collapse and hence this study is important.

Review of Literature:

K. Hema Divya and K. Suma Vally (2018) said in his research paper titled "A Study on Digital Payments in India with Perspective of Consumer's Adoption". The paper emphasis on the analysis of the adoption level of the digital payment systems used by the customers. This study is founded that, the digital payments have improved the performance of banking sector and able to achieve the objective of cash less country.

Santiago Carbo - Valverde (2017) stated in his article titled "The Impact on Digitalization on Banking and Financial Stability" that digitalization is an opportunity to reduce marginal costs and increase productivity in financial services. This paper discuss about the impact of digitalization on banking activities and challenges that imposes for financial stability.

Objective of Study:

1) To gain the knowledge related to various aspect of Digitalization of Bank.
2) To study the various payment methods of online payment system and other function of Digitalization
3) To know the advantages of digitalization in banking system.
4) To study a differentiate between traditional banking &Digital banking.
5) To suggest the customer to take benefits of online banking system.

Scope &Limitation of study:

The scope for this study is widely related to the digital banking system in India. The digitalization is wider concept. In Modern era, all sectors are emphases on digitalization. Technology plays a vital role in the today's banking environment. Now currently we are passing through a phase wherein changes in all sphere of life taking place by the technology. The revolution in the information technology has be so fast and so effective that focuses almost on the factors of Human activities.

Research Methodology:

This research paper is Descriptive in Nature. Secondary data is used forthis descriptive study. Secondary data is collected through various online websites, books, magazines, newspapers, Journals.

Digital Banking

Digital Banking is technology based product. Digital banking allowsviewing recent transaction, printout statement and transferring funds between accounts and making payments. The internet banking is changing the industry and having the major effects on banking relationship. Internet banking system involves use of internet for delivering of banking products and services.

Indian banks are still in the process of exploring the potential of internet as a medium of revolution in Indian Banking System. Indian Banking system not only provides the traditional services to the customer but also it provides e-banking services efficiently.

Before LPG (1991) biggest challenge for Indian Banking System is that of changing their functions and operational activities online with internet and information technology based. The recent liberalization trend and globalisation has brought various changes in business practices and economic system in the world.

The digital banking has some drivers which may be focused by the bank:

Increase the customer loyalty
Improve customer access
Attract new customers
Facilitate the offering of more services
Provide services offered by competitors
Reduce customer attrition

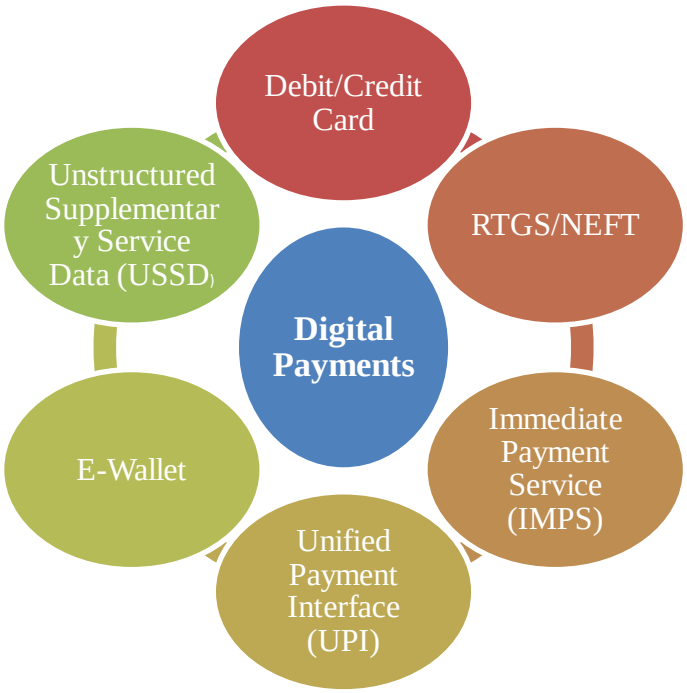
Traditional Banking v/s Digital Banking (e-banking):

The main purpose of banking system is to kept safe customer money. While keeping the money safe, customer can also earn a certain amount of interest on the money deposited in the bank. Traditional banks as well as online bank have been doing this same function. There is only difference in the way the transactions are made. Digital banking cannot exist without traditional banking. If you see there is difference between each other but these both are inter-dependent and inter-related. In the traditional banking method, the customer want to visit the branch of bank to perform the basic banking transaction or operations like enquiry of account, withdrawals of cash, transfer of funds etc. Digital banking refers to a system allowing individual to perform banking activities at home via internet. Digital banking customers also perform all routine transactions such as - Account transfers, bill payments, enquiry of account, transfer of funds, stop payment request. Digital banking allows to customer's access all of their account information through a secure bank created website or software or mobile application.Traditional banks also face geographical barriers. It requires geographical location of banks for customer convenience but in online banking geographical boundaries doesn't matter.

Digital Payment System: We know that central government also aggressively promoting digital transaction. The introductions of Unified Payments Interface (UPI) and Bharat Interface for Money by National Payment s Corporations of India (NPCI) are important steps for innovations in the payment system. By using the UPI mobile interface people can transfer instant funds between accounts in different banks on the basis of virtual address. In Current scenario banks aim to provide superfast, accurate and quality experience to its customers. All the banks are emphasis on digitalization. As a part of encouraging the digitalization and cashless transactions there are various modes of digital payments are available_

Debit/Credit Card: Debit and Credit card holder can use the card at online as well as offline merchant sale. Card number details should be required.
RTGS/NEFT: Transaction limits minimum 2 Lakh, no upper limit. Account number, password, beneficiary registration, IFSC code are required.Suitable for high value online transactions.

1. **Immediate Payment Service (IMPS):** Transaction limits up to 2 Lakh per day. Account number, password, beneficiary registration, IFSC code are required.Suitable for instant transfer
2. **Unified Payment Interface (UPI):** Transaction limits up to 1 Lakh. Virtual payment ID (VPA) of recipient is required.Suitable for instant transfer.
3. **Unstructured Supplementary Service Data (USSD):** Aadhar number, IFSC or code allotted by banks on registration is required.This is useful for feature phones without internet connectivity.
4. **E-Wallet**: E-wallet is usefulfor small ticket transactions. The Transaction limits for E-wallet is 20,000 per month (1 Lakh for KYC compliant wallet holders. Login ID is required



for the transactions.

5. **Bharat Interface for Money (BHIM):** BHIM is an application that lets you make simple, easy and quick payment transactions by using Unified Payments Interface (UPI)

Advantages of Digital Banking

1. **Easier Transactions:** Digital banking allows you to conveniently conduct your banking activities online. You can view your account statement and balance status from your any digital system like Mobile, PC.
2. **Instantfund Transfersystem**: If you hold multiple accounts within the same bank and need to transfer money between them, by taking the benefit of digital banking it makes simple.
3. **Bill Pay:**Paying the bills is a service that bank offer to help pay the bills on time without any delay.

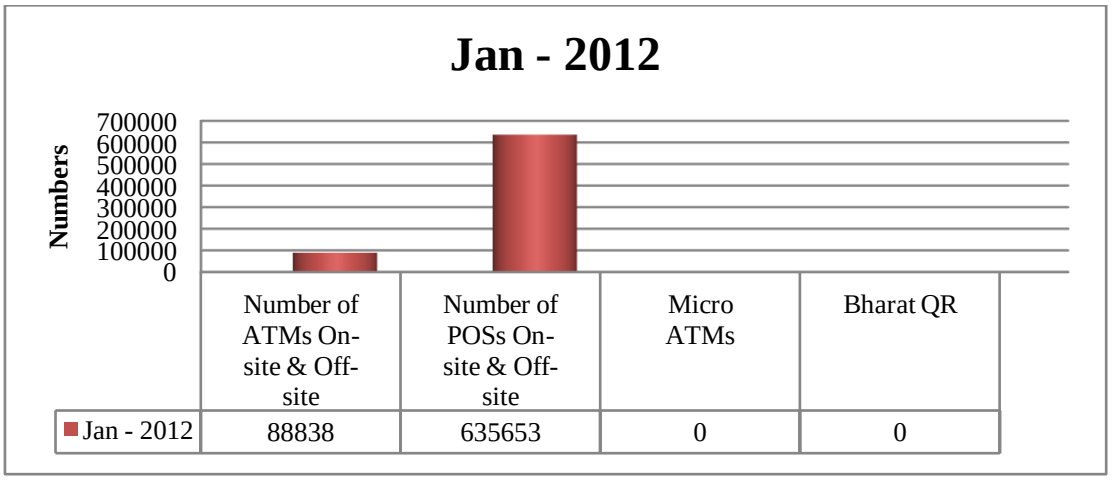
4. Instant payment acknowledgement and 24 Hours Access
5. Convenient monitoring of all transactions
6. Saving Money and time spent on traveling to banks and post office.
7. To avoid late bill payments
8. Flexibility in transactions of finance
9. Proper EMI Payments, Track due dates
10. In addition to this you don't have to deal with queue at bank or conversations with bank employees in front of any other people.

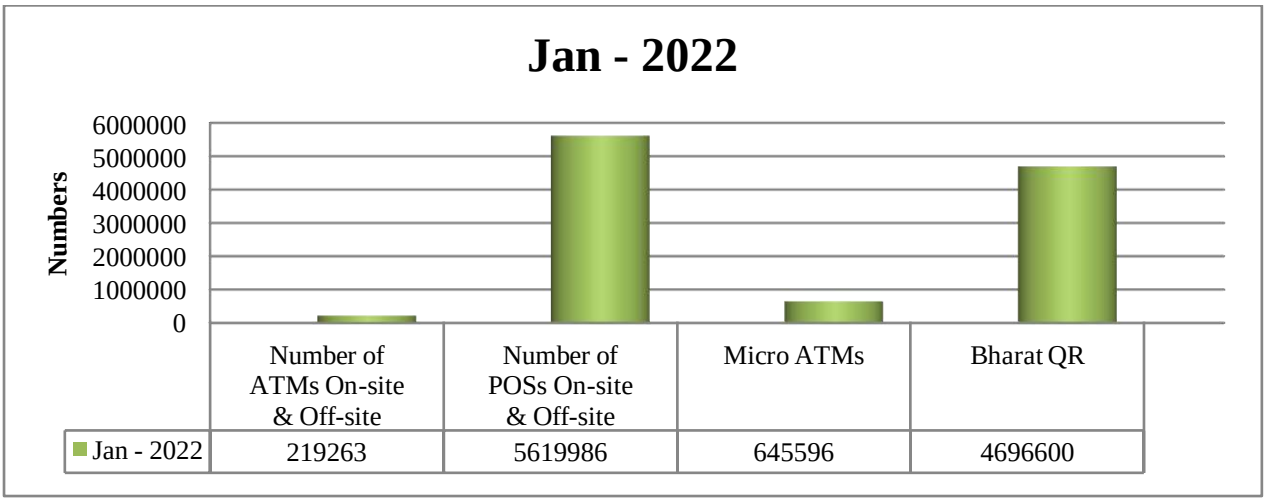
Statistical Information of Digital Banking

If you see the following Tables and Graphs we can conclude that the trend of Digital banking is changing in nature. If we look at 10 years trend from 2012 to 2022, we can make some conclusions like in these 10 years Number of transaction through ATM and POS, Micro ATM and Bharat QR is rapidly increasing in nature. Debit and Credit card number of transactions as well as value of transactions are also in growing in nature.

No. of ATM, POS, Micro ATMs, Bharat QR	Number of ATMs On-site & Off-site	Number of POSs On-site & Off-site	Micro ATMs	Bharat QR
Jan - 2012	88838	635653	**0**	**0**
Jan - 2022	219263	5619986	645596	4696600

(Source: rbi.org.in)





Credit Cards	No. of outstanding cards as at the end of the month	No. of Transactions (Actuals)		Value of transactions (Rupees Lakh)	
		ATM	PoS	ATM	PoS
Jan - 2012	17739500	188208	29812268	1089.362001	88676.98647
Jan - 2022	70252069	548917	195805022	26941.20765	8776849.907

(Source: rbi.org.in)

Debit Cards	No. of outstanding cards as at the end of the month	No. of Transactions (Actuals)		Value of transactions (Rupees Lakh)	
		ATM	PoS	ATM	PoS
Jan - 2012	268000217	434051835	30673852	1209807.879	50611.02003
Jan - 2022	940928583	553495182	318760886	26182897.2	5949476.782

(Source: rbi.org.in)

Summing up:

Banking sector plays a dominant role in the economic development of a country. Now a days it is at the center stage of discussion and among it important topic i.e. E-Banking. The reason is quite strong because digital banking services completely changed the banking atmosphere. Development of digital banking system, security, vast operational areas etc. were challenges that banks and RBI faced. But finally overcoming all these hurdles, today Indian public sector bank are almost 100% computerized and offering newer and innovative services to their customers. Government of India also came in the focus when it enacted Information Technology Act, 2000 which provides legal base to all electronic transactions and contracts.

Suggestions:

Internet use is increasing day by day; almost all the banks are using e-channels to offer products and services to their customers. However, customer should have knowledge related to digital aspects to save from frauds and online threats. Here are some suggestions for bank customers regarding proper and systematic way of doing internet banking.

1) Digital or e-banking need technological knowledge. If customer wants to use it, they should take proper knowledge to operate computer or internet. Only sufficient knowledge can make their transactions secure from cyber threats.
2) It is observed that lot of frauds are happened in recent years about of withdrawal of money by using ATM Cards. So customer should aware about it and while doing online transaction never expose Card details like PIN number or OTP to other person.
3) People should be aware about the all aspects of the digital banking system as it is important innovation in today's era.
4) Banks must be careful about the online security. Banks should be prepare to handle cyber security threats and frauds.
5) People should be aware about the guidelines which are published by Reserve Bank of India in respect of Digital Transactions and Security.

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IMPACT OF PANDEMIC ON MEDIA AND ENTERTAINMENT SECTOR

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Abstract: In this research work, I study the impact of the coronavirus pandemic on the media and entertainment industry. Basically, the media and entertainment industry of India is very large and provides huge employments to millions of people and includes internet, TV, radio, newspaper, magazine, photography, cinema, publishing, etc. During a time of social distancing and limited contact with others, social media became an important place to interact. Social medias are the platforms through which peoples was connected and helped the world remain connected, largely increasing usage during the pandemic situation. As a result of pandemic our social lives have shifted on digital platform as individuals have been more restricted to their homes, and entertainment consumption has increased,
Keywords- (Covid19 Pandemic, Media industry, Entertainment industry)

Introduction

At the end of the year 2019 the novel coronavirus disease outbreak that was originated from the city Wuhan, Hubei province, of the country China. In India the first case of COVID-19 pandemic was reported on 30 January, 2020. COVID-19 was the pandemic which infectious the disease caused by new strain of the coronavirus. In which, 'CO' will stand for corona, 'VI' will stands for virus, and the ward 'D' stands for disease. It will effect on the human beings upper respiratory tract i.e. (sinuses, nose, and the throat) or the lower respiratory tract. Such virus was spreads throughout the simple touch of two persons.
The recent lockdown highlighted the importance of the media and entertainment sector, as it plays a vital role in elevating public morale. The coronavirus pandemic is heavily impacting on near about all the sectors and industries across India, entertainment as well as media industry being no exception amongst that. As a result of such virus, there must be deployment of curfews and lockdowns across all the states over India. Gatherings of persons have not only prohibited but also cinemas halls, clubs, funfair festivals, music festivals, shows are also closed or cancelled for indefinite period of time. With the implementation of lockdowns across all over the states in India, film industry was hit immediately as movie theatres across the country were closed and major releases were delayed.

Later on as & when the quantum of spreading such disease is minimizes, lockdowns was lifted slowly phase wise, but the norms like social distancing, limitation on number of peoples for an event, 50% capacity bindings etc. have consequence effects creates varieties of obstacles in front of entertainment and media industry.

Delayed or cancelled movie releases, lowered attendance at cinema halls, film festivals and curtailed on-location film shoots are some of the major consequences of the pandemic faced by these industries. Even more Producers, filmmakers, theatre owners felt affected financially for couple of months or even years.

Objective: To know the impact of pandemic on Media & Entertainment Sector

Review of Literature

1. Pandemic causes irrevocable shift in media, entertainment sectors: Simone Liedtken. In his article he states that the global media, like as the arts and the entertainment industries will have experienced one of the most dangers shift as the result of the pandemic of Covid-19 and the related other lockdown measures. It will badly result on these industries & are now will dominated by the digital distribution.
2. As per the report prepared by the Dr Raul Katz, published on 26 June 2020, economic impact of covid 19 on digital infrastructure, according to him, pandemic would an almost immediate impact on some of the financial performance of the digital infrastructural companies. The present conditions of such digital economic sector would lead to the industry liquidation, especially among the lower-cost telecommunication operators belongs to the developing world, and also the public cloud, in-flight Internet access sectors & in satellite TV.

Research Methodology

For the present write up, I was collected the data from both the sources
Primary data
Secondary data

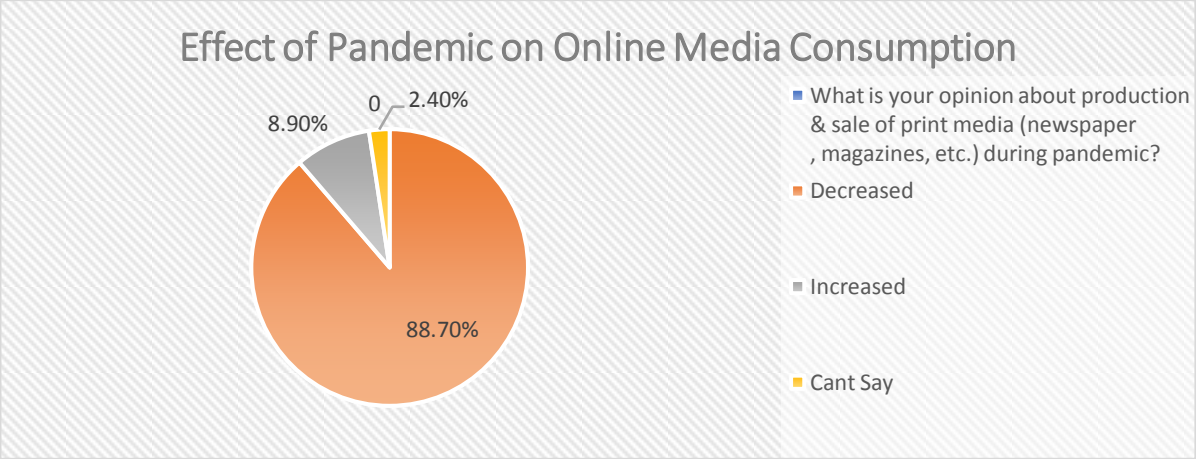
Primary data represents the first-hand data whereas, secondary data will be collected by various ways like as internet sites, magazines, newspapers, news blogs etc. For this research paper data must be collected from the 64 respondents of Latur City having the age group of 18 to 25 years and also studied some research papers and the News articles which was publish in the earlier period, informal discussion was held with the friends and the relatives in this regard. Percentage Method are preferred for data analysis.Some of the different approaches have been worked on to know the Impact of pandemic on the Media and on the Entertainment Sector.

Data Analysis which shows Impact of Pandemic on Media & Entertainment Sector

Following are some of the key points which indicates the impact of pandemic on media & entertainment.

1) Increased Online Media Consumption:

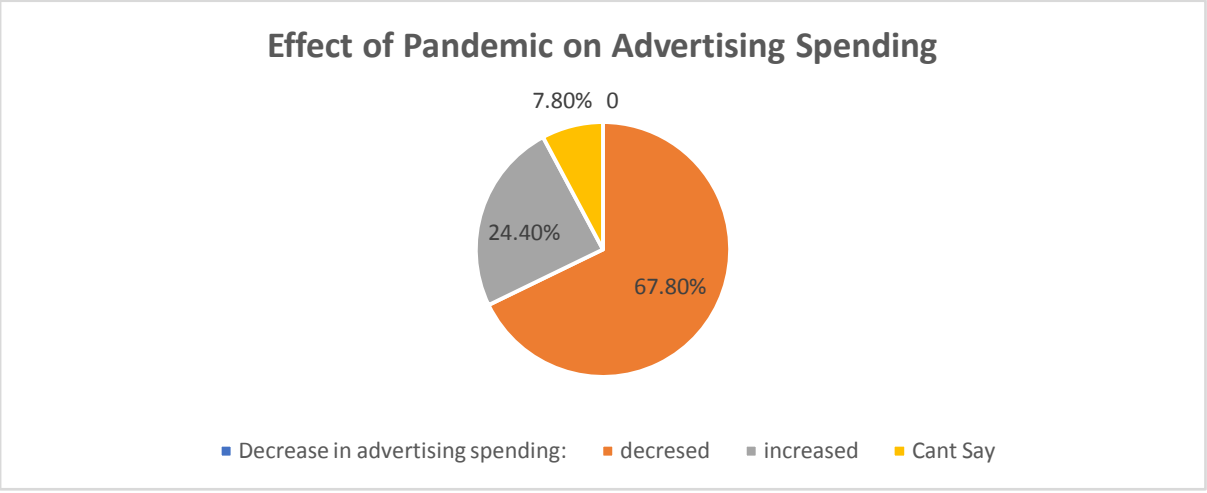
During the period of lockdown majority of the peoples were homebound or stay at home, in self-isolation and under quarantine measures. TV consumption has actually increased, Peoples may regularly watch news to stay up-to-date with the latest developments in the mid of the crisis. In other words, majority of the peoples are looking for information about coronavirus; further peoples are entertaining themselves with audio video medias like Television. Smart Phones, Laptops, Netflix, etc., may have direct impact on use of media consumption. Media consumption may increases.



Above pie chart, indicates that out of 64 respondents, near about 59 respondents says that during pandemic use of online media consumption was increased**,** whereas only 04 participants says that that during pandemic use of online media consumption was not increased**.**

2) Decrease in Advertising Spending:

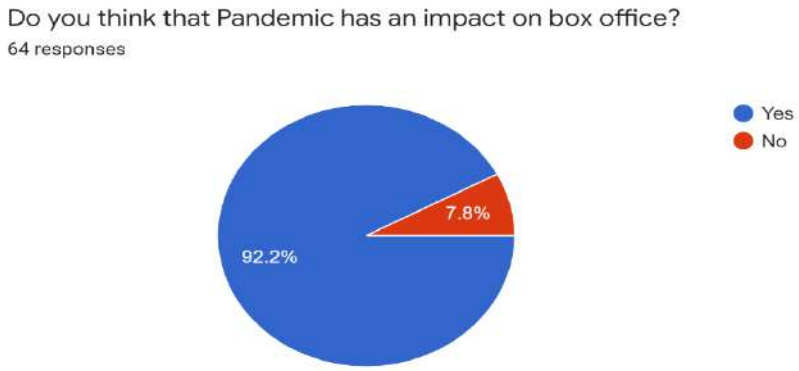
Due to lockdown situations, up to some extent peoples may lose their jobs results in unemployment as well as underemployment situations and even majority of the peoples are struggling for basic needs like food, cloth, shelter, education, medicines, etc. Peoples may also reduce spending on non-essential as luxurious items. As reduction in sales effect on major products. Majority of popularized, well reputed companies could decide to lower their advertising expenditures too.



Above pie chart, indicates that near about 67.80% respondents says that during pandemic advertising spending was decreased**,** whereas only 24.40% participants says that that during pandemic advertising spending was increased, while 7.80% of participants unable to say the exact effect of pandemic on advertising spending.

3) Impact on Box Office:

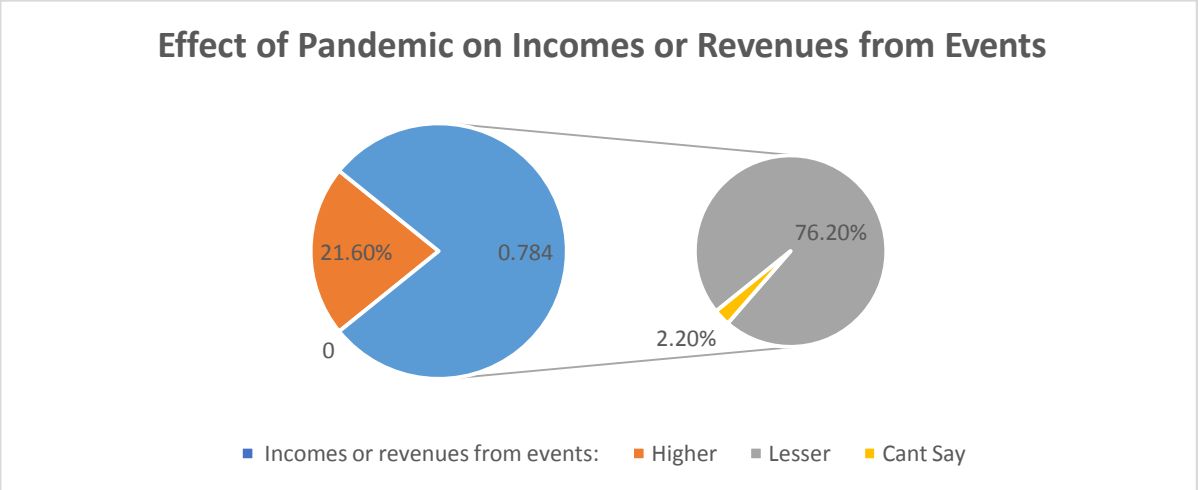
Due to pandemic period, film release process was postponed, shooting was on hold, and near about all cinema halls was closed completely, absolutely everything was uncertain. Even when relaxation was given up to some extent cinema halls were open but with strict norms like social distancing, weakened livelihoods. These are likely to prevent peoples from watching movies. With large-budgeted films competing and struggling very hard for release dates, smaller productions may stopped and lose out. Production houses, keen on anticipated revenues, will have to put future projects on hold.



From the above pie chart, it will reveal that out of 64 respondents, near about 59 respondents says that pandemic has an great impact on box office during pandemic period where as only 05 participants says that pandemic has no impact on box office.

4) Lesser Incomes or Revenues from Events:

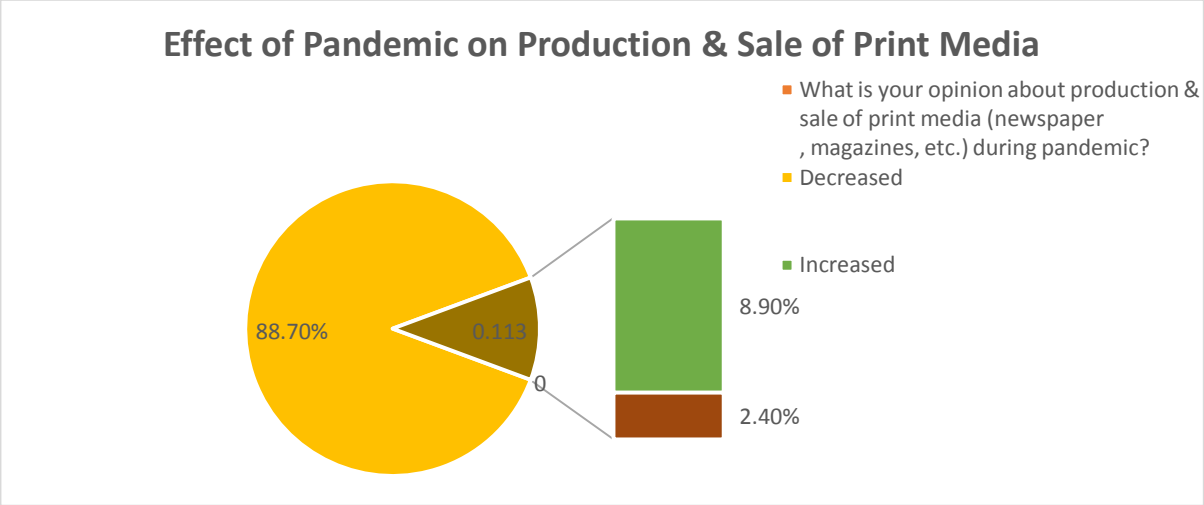
Due to pandemic situations, majority of events were postponed or cancelled which may lead to decline in revenues for the event organizers as well as for media that broadcast them. Cable operating companies are partly dependent upon advertising. Any decline in revenue will impact profitability. Even though as tax collection was stopped, the government also suffers from concerned issues.



Above pie chart, indicates that out of 64 respondents, 76.20% i.e. near about 49 respondents says that during pandemic incomes or revenues from events are lesser whereas 21.60% i.e. 14 participants says that incomes or revenues from events are higher,and only 2.20% respondents was constant in this regard.

5) Production & Sale of Print Media was Decreased:

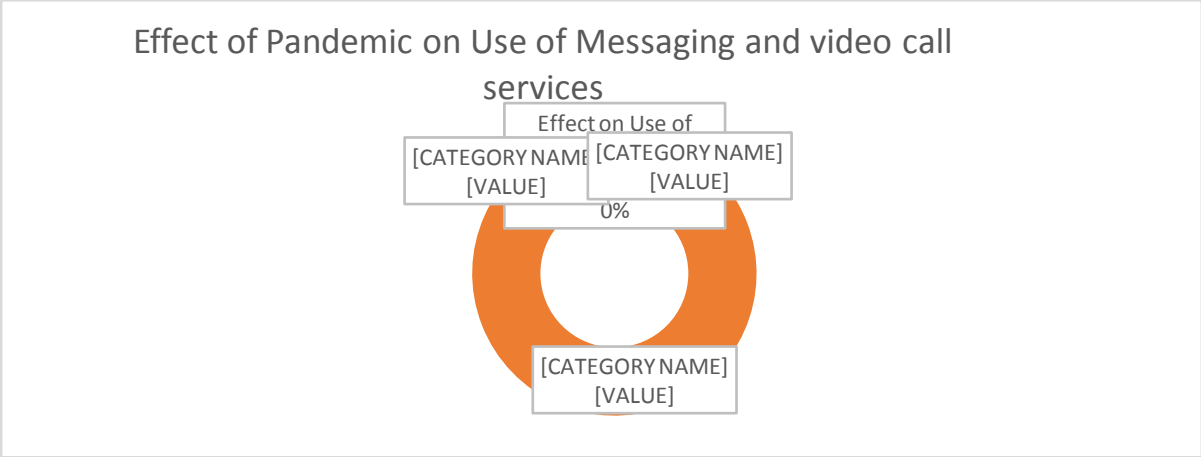
Beside with the above, print media was also got effected due to pandemic. The print media which include newspapers, magazines, and publishing houses have decreased production and decreasing sales. During pandemic situation very few or small percentage of peoples are reading newspapers & magazines. As a fear of virus spreading society switching towards digital news platforms and entertainment websites. Shutting down of book stores is also one of the problems faced during pandemic situation.



From the above pie chart, near about 88.70% of respondents says that production & sales of print media are decreased during pandemic whereas only 8.90% of participants says that production & sales of print media were increased during pandemic.

6) Use of Messaging and Video Call Services are Increases:

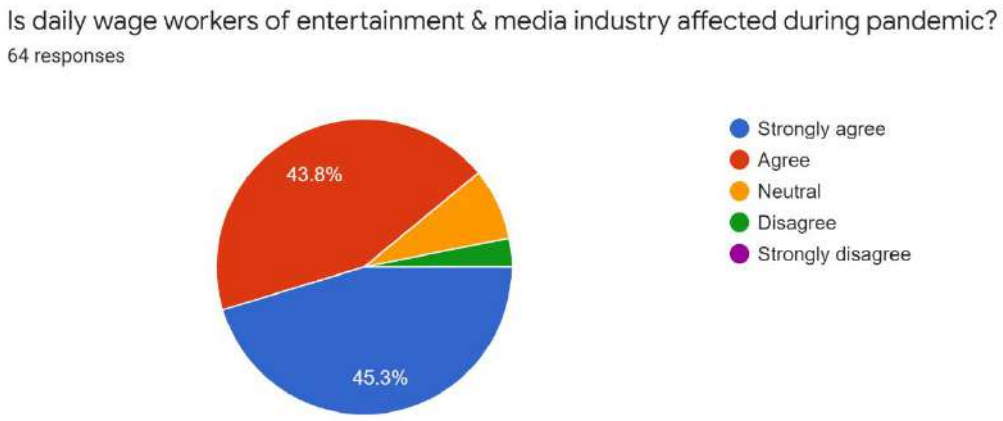
Peoples meet with each other was completely restricted during the pandemic period as a fear of spreading of corona viruses, People may remain in home for a long time.so the only alternative option is telephonic calls and massages which keeps the peoples interconnected. Multiple social media websites reported a sharp increase in usage after social distancing measures were put into place. Since many people cannot connect with their friends and family in person, for the time being, social media has become the main form of communication to maintain these valuable connections. Examples: Facebook, What's App, Zoom, etc.



Question was asked to the participants about the effect of pandemic on use of messaging and video call services.94.10% of the respondents says that use of messaging and video call services are increases during pandemic period whereas 4.40% of the respondents says that use of messaging and video call services was not increases during pandemic period.

7) Daily wage workers of entertainment & media industry affected:

The pandemic will badly effects on the daily wages of the workers who working under the media as well as entertainment industries. As the daily shooting was remained closed hence such workers don't get any work & hence as a result, they unable to earn their daily wages and satisfy daily needs.



Question was asked to respondents about, is daily wage workers of entertainment & media industry affected during pandemic. From the above pie chart, it indicates that near about 45.3% respondents are strongly agree, 43.8% participants are agree that daily wage workers of entertainment & media industry affected during pandemic, where as 10.9% i.e. only 09 participants feels neutral or disagree with daily wage workers of entertainment & media industry affected during pandemic.

Findings:

1. From the above, it was observed that, pandemic have been inversely affected on the media, on the entertainment and also on the cultural industry.
2. Demand for knowledge and entertainment has increased but revenues from advertisement and content production was impacted.
3. It was also observed that most of the people were started to use digital platforms of entertainment such as Netflix, Hot Star, Amazon Prime,etc.
4. Production of new content is mostly on hold since it typically involves larger gatherings of people.
5. I observed during this pandemic period many of the viewers was started using the latest app with their smart phones, as under this situation the use of smart phone was increased tremendously & such viewers was started using such apps to watch their favorite movie, serials, gaming & so on,
6. The Suicide rate were increased during this pandemic period due to the fear and caused psychological stress.

Conclusion

The Covid-19 pandemic has greatly affected not only the Media and Entertainment sector but also on the entire business community. Even after the lockdown comes to an end there are many changes that the media industry will need to implement in order to look after the health and safety of the human asset so that they are able to resume their work. Use of smart phones and digital technologies by citizen as well as peoples was increased tremendously & was started using latest apps to watch their favorite movie, serials, gaming & so on, which was badly impacted on the Media & the Entertainment industries. As a result of pandemic situation our social, traditional lives have shifted towards digital platform as individuals have been more restricted to their homes, and entertainment consumption has increased,

Suggestion:

It will be also suggested that the government would needs to provide some of the financial assistance to the needy market players. Such type of assistance will be in direct & indirect in nature. The direct funds were released for the support to such market players. Whereas, the government will provide some relief to the enterprises of the media & entertainment industries, which may be in terms of delegation of the taxes, tax concession and or in even tax waivers.

More Set up the National Centre of Excellence (NCOE) (Centre for animation, visual effects, gaming and comics)

It is also be suggested that some innovative plans are to develop in the area of Animation, Visual Effects, Gaming and Comic Centre for Excellence (AVGC)

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Yoga and exercise are the remedial measures to overcome stress among the students

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Abstract:
Today's Era is a competitive era. In modernity and competition student faces physiological stresses more over body and mind cannot meet the demand made upon them, stress arises. There are main causes of psychological stress like, major life changes, syllabus pattern, standard and pattern, personality factor etc. Stress can cause anxiety, depression, and fatigue. Exercise and yoga are the best remedy to control psychological stress among students.

Introduction:
Yoga is an ancient art based on an extremely suitable science. That of the body, mind and soul. The regular practice of yoga will in time, lead the student to a sense appease and feeling of being at one with his or her environment.

Exercise:
Exercise is probably most effective method of stress management. The main reason for this is that stress is sincerely physical response. It is ' fight or flight ' mechanism that student to deal with physical threats in our environment by triggering a multitude of event in our bodies.

Stress:
Stress is defined as an internal state which can be caused by physical demands on the body or buy environmental and social situation which are evaluated as potentially harmful, uncontrollable or exceeding our resources of copying.

Aims and objectives of study
1)study the cause of Stress
2) To study, yoga as a remedial measure to release stress.
3) To study, exercise as a remedially measures to overcome stress.
Methodologies: Secondary sources search as published and unpublished books Robin used in this research paper collected methodologies have been appropriately presented in the research paper.

Hypothesis:
1) More students are Suffering from stress now a days.
2) practicing yoga is Useful to overcome Stress.
3) Regular exercise Minimizes and reduce the stress.
Modern society has made technological and professional changes the lifestyle of the people the main output of the changing lifestyle and companioned. Professional pattern is stress, and it is a main cause of unhealthy behavior. We all are stand on the age of volcano named, competition preparation which corrupt treat of failure stress. Pressure first ration which affect mental dislike stress, depression, and anxiety.
No one's life is without
stress regardless how sensible, intelligent or privilege. Sincere prompt and active you are? You will be challenged at times by frustration, losses, changes and conflicts stress is an integral element in the lives of all pupils and it plays an important role in service. i. e. study, adjustment, competition, profession etc.
Stress is defined as the response to events that threats, or challenges challenged a person whether it be a paper, studies, exams, deadline of family problems, friends problems or even a compulatives series of small events.

Causes of stress:
competition 2) modern lifestyle 3) daily hassle 4) environmental stresses 5) vast syllabus of study pattern 6) social stressors 7) professional, personal problem. Stress is main reason for numeral health issues. It imbalance all harmful system and disturb the functions of organs. Excessive stress causes some several health issues. The most recollect way to lower down the level of stress is practicing exercise. Exercise is the best from alleviation stress.
* exercise is probably the most effective method of stress management.
* exercise allows you to simulate the physical response to the threat that your body has prepared you for.

* routine and regular exercise you will also benefit from an improved immune system and be able to fend off illness. Exercise can help you stay healthy so you can have a better chance at keeping your job

Yoga is a light which, once lit will never dim. The better your practice the brighten the flame. Yoga is more than just a form of exercise; it is a blastic experience that benefit the body, mind, and spirit. Yoga is for everyone. The strain of modern life can lead to physical pain and illness. The stress of modern life can also lead to mental suffering. Feeling of isolation of powerlessness. Yoga helps to illustrate the mental and physical fitness. Plan bringing about a sense of inner and outer balance aur term alignment. Yoga is a highly practical since and no amount of verbose the critical lecturing will be effective unless one practice, experience and feds personality the transformation it brings about at various levels i. e. Physical, mental, emotional, Intellectual and spiritual. It is General observation that Pupil losses healthy for money and after that he loses money for healthy. The physical and mental health while roaming after the money. Yoga is the most reliable, cheap, and time-tested techniques to cope up with above mentioned problem. It has become the need of the hour.

Conclusion:

While concluding it may be started that yoga exercise are useful for improvement of physical and mental fitness as required for human being to extend their life smoothly. Yoga and exercise are stress-free way of life of students. It is since which teaches to pupils how to lead peaceful, happy, concentrated, energetic, enthusiastic life enriched which abundant qualifies, both of mind and body such as physical fitness, perfect health free from any diseases, sense abdication, devotions, determination, intrepidity, fearlessness, fate, self-confidence, courage and boldness.

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Queer Students and Discrimination in Academia

Anagh
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Abstract: The interventions taken by the Government of Kerala, including the recent case of Aneera, a transgender teacher who applied for euthanasia, are encouraging. Special emphasis should be placed on the education, rehabilitation, employment, reservation and health of queer individuals. Violence against transgender people is on the rise. It is also important that justice be done to all the queer men who committed suicide under mysterious circumstances, including Sweet Maria, Gauri, Shalu, Ananya and Anjana.

Introduction

The queer can be explained in many ways. In general, the term refers to a group of people who are referred to as gender-sexual minorities. Our society is built on male-female binary. The queer includes pumice bodies, gender expressions and loves. Also commonly referred to as LGBTIQ +. Each letter in LGBTIQ + represents a separate category, including lesbian, gay, bisexual, transgender, intersex, and queer. The + symbol indicates the as yet undiscovered potential of gender expression and sexuality. Although the acronym LGBTIQ + seeks to maximize diversity, the term 'queer' has been widely used in recent years. The word queer was originally used as a very abusive word to mean isolated and strange. Later, the word was adopted by gay, lesbian, and trans liberation movements. In the broadest sense, the choir is one that has more political content.

Observation

People do not have a proper understanding of this subject. People often receive extremely misleading information on social media and elsewhere. Because of this, society is largely phobic. They see it all as a disease. Many bogus doctors still claim that this is a disease and that it can be cured. There are so many gay people getting married and living under the compulsion of the family. The queer sections do not even receive consideration as human beings. Intersex babies are killed before they are born. The violence faced by transgender people is horrendous. Last year, a 21-year-old trans man was beheaded by his own brother in Pathanamthitta. People are so disgusted. Therefore, the risk of disclosure is very low. It is a condition of living in one's own identity only if one has some kind of economic and social privilege. It is because of the attitude of the society itself. It is important to change the attitude of the society. It will not happen so easily. There should be a variety of interventions and awareness on this issue. This must be recognized as a human rights issue.

Police in riot gear stormed a rally on June 28, 1969, removing hundreds of protesters by truck. Pride was celebrated in June 1970 as the anniversary of the Stonewall liberation struggle. The history of queer pride in India is related to the struggles surrounding IPC 377. On July 2, 2009, the Delhi High Court for the first time upheld the partial quashing of IPC 377 by Justice Ajit Prakash Shah. In July 2010, Kerala also celebrated Queer Pride as the anniversary of this historic verdict. In general, queer prides keep the nature of a carnival. There are so many types of people coming together. Queer Pride does not spare anyone. Various intertwined and intertwined political slogans and flags are hoisted at the Queer Pride March. Placards against state terrorism and racism are common in Kerala Pride. Ayyankali and Ambedkar are the faces of Queer Pride. Anyone can take part in the Pride March, talk about their own politics, dance and wear their favorite shirts. It is a world of possibilities.

In 2019, Kerala celebrated the 10th Queer Pride Parade. Pride venue was Ernakulam. These ten years have seen significant changes in the nature and content of Kerala Queer Pride. The most important of these is the transition from festive to academic seminars and political and literary discussions. The major crisis created by Kovid also affected the Kerala Queer Pride organization. The queer pride has not taken place for two years. The queer community of Kerala is anticipating that Pride Parade is expected to be held this time. The question of what kind of people are protected by the law is important. It has been four years since IPC 377, which criminalized homosexuality, was partially repealed. The destiny was to raise the self-esteem of the queer men. On July 2, 2009, the Delhi High Court for the first time upheld the partial quashing of IPC 377 by Justice Ajit Prakash Shah. In July 2010, Kerala also celebrated Queer Pride as the anniversary of this historic verdict. None of these celebrations lasted long. The verdict was overturned by the Supreme Court in the December 11, 2013 case of Suresh Kumar v. Nass Foundation. There were opinions that it was Parliament, not the courts, that should cut and add sections of the Penal Code. Back in 2018, a five-member bench of the Supreme Court headed by Chief Justice Deepak Mishra decriminalized homosexuality. This verdict was received in many ways within the queer community itself.

Humans in the Queer community face many forms of injustice. The problems of every human being are unique. The truth is that it is not discussed at all. I like to believe that the new generation will be a little more inclusive. For that, change must first take place, including in educational institutions. At present such discussions take place only on university campuses. This, in turn, is more or less academic in nature. Teachers and students do not properly understand what gender is, what gender differences are, and what sexuality is. All of this needs to be included in the curriculum, albeit on a long-term basis. Special classes should be arranged for teachers in these subjects.

The interventions taken by the Government of Kerala, including the recent case of Aneera, a transgender teacher who applied for euthanasia, are encouraging. Special emphasis should be placed on the education, rehabilitation, employment, reservation and health of queer individuals. Violence against transgender people is on the rise. It is also important that justice be done to all trans people who have been murdered and committed suicide under mysterious circumstances, including Sweet Maria, Gauri, Shalu, Ananya and Anjana.

Many of the teachers could not contain the boy who had grown his hair, his eyes, and his earrings. Many colleges have such unwritten rules. In many colleges, girls are required to wear saris. The shawl is mandatory in campuses and the management of colleges and educational institutions are untouched by leggings. Teachers treat students who criticize them with extreme hostility. They want the silent, not the responsive. The order of the Department of Higher Education is welcome. According to the order, students will be required to wear decent clothing during the teacher training period. But there is a problem with this order. It is up to the management to decide what this 'decent' dress is. For them, a decent dress is almost a sari. Government college students have at least the freedom to dress as they please. But that is not the case with self-financing institutions. There, queer students face great discrimination in the name of dress, including my friends.

Conclusion

There is a an urgent need for sensitisation in the academia for the society to change. Everyone's rights are to be protected.

Mobile Banking Services In Selected Public Sector Banks In Latur

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Introduction : Mobile communication devices are revolutionizing banking transactions over wireless network at the internet. To attract and retain customers, banks need to extend their full range services across a wide range of mobile wireless devices without having an impact on their current infrastructures and the delivery channels it currently supports. Wireless network mobile gateway, WAP (Wireless Mark-up Language) all play an important role in bringing mobile banking strategy to the market. Bank in today's market now offer e-banking strategy array of services and convenience. Banking sectors plays a vital role in economic development of the country.

Development of Public Sector Banks :

The central government entered the banking business with the nationalization of the imperial bank in 1955. A 60% stake was taken by the Reserve Bank of India and the new bank was named as the State Bank of India the seven other state banks became the subsidiaries of the new bank when nationalized on 19th July the next major nationalization of bank took place in 1969 when the government of India under PM Indira Gandhi. The total deposits in the banks nationalized in 1969 amounted to 50 crores.

Review of Literature:

Donner & Tellez (2008) concluded that the emergence of mobile banking affects various discussions in the developing world. First of all, it emphasizes on the manner in which the mobile banking unclear the productive and social spheres as they are generally affected by structural position of people. Secondly, the innovations in mobile banking must go hand-in-hand with the other capabilities as innovations crop up at unexpected places and events which could force to reconfigure the nuts and bolts of technology to the final users.

Sharma (2013) revealed that there is a significant variance in perception of the customers in which they are not satisfied with the public banks in terms of quality of services offered and with private banks in terms of cost of the services offered. So the former need to pull up their socks in order to improve their technology and offer variety of M-banking products the high quality service as per the customer fit and the latter needs to lower their cost, additionally they need to instruct and update their customers while offering new product or service.

Objectives of the Study :

1. To assess the level of customer satisfaction of the quality of services provided by public sector banks.
2. Find out the problems and prospects of security of mobile banking system.

Hypothesis to be tested :

1. H1-Mobile banking process is easier to the customers.
2. H0-Mobile banking process is not easier to the customers.

Research Methodology :

The present article is prepared using primary as well as secondary sources of data. The researcher has collected information from various sources like books, journals, reports etc.

Primary Data :

For the purpose of the study primary data were collected with help of the well-structured questionnaire, filed survey, interview with the customers.

Secondary Data :

Secondary data were collected from the government publications. Journals, published data, books, magazines, articles, banking websites, research studies and other relevant documents, various banks reports.

Sample Design :

The present study is related to public commercial bank in India and its selected branches for more convenient study. The sampling process approved for the study was convenience sampling for selected 5 public commercial bank in Latur. 15 branches of 5 public commercial bank are working satisfactory. For the present study primary data were collected from Latur.

Tools and Techniques : The data is classified, analyzed by using various statistical tools and techniques; the data is calculated with the help of SPSS technique. Various method is like weighted average method,

percentage analysis, co-relation regression analysis and chi-square test were used as per the requirement of the study.

Scope of the study :

A forward looking multichannel strategy will help to provide the flexibility ability required to incorporate the delivery channel of tomorrow. Market opportunity security and consumer decision making the E-payment propositions new trends smart card mobile banking, technology and security, SMS banking, etc.**Table No.1 : Distribution of Respondents as per sex wise**

Sr. No.	Particulars	No. of Respondents	Percentage
1.	Male	250	83.33
2.	Female	50	16.67
Total		**300**	**100.00**

Source : Field survey 2020-21.

Table No. 2 : Bank Provide Information to Customers about Mobile Banking Systems

Sr. No.	Particulars	No. of Respondents	Percentage
1.	Yes	225	75.00
2.	No	25	8.33
3.	Some Time	25	8.33
4.	Neutral	25	8.34
Total		**300**	**100.00**

Source : Field Survey 2020-21

Table No. 2 indicate that maximum 75.00 % respondents replied that yes about bank provide information of mobile banking systems 8.33% respondents replied that no and sometime about it and remaining 8.34 respondents replied that tes about it. The majority of respondents replied yes about bank provide information of mobile banking systems.

Hypothesis Testing 1 :

H1 : Mobile banking practices is easier to customers.

H0 : Mobile banking practices is not easier to customers.

Table No. 3 : Customers Opinion about core banking practices

Sr. No.	Particulars	No. Of Respondents	Percentage
1.	Good system	275	91.67
2.	Need to changes	25	8.33
3.	Neutral	00	0.00
Total		**300**	**100.00**

Source : Field Survey 2020-21.

Table No. 4 : Customers Opinion about Mobile Banking Systems

Sr. No.	Particulars	No. of Respondents	Percentage
1.	Excellent	250	83.33
2.	Good system	25	8.33
3.	Need to changes	10	3.33
4.	No better system	10	3.34
5.	Neutral	5	1.67
Total		**300**	**100.00**

Source : Field Survey 2020-21

Table No. 4 indicate that maximum 83.33 % respondents replied that excellent opinion about mobile banking system 8.33 % and 3.33 % respondents replied that good system and need to change opinion about it remaining both 3.34% and 1.67% respondents replied that no better system and neutral opinion about mobile banking system.

Table No. 5 : State Bank group provides optimum level services and facilities to the customers

Sr. No.	Particulars	No. of Respondents	Percentage
1.	Strongly satisfied	225	75.00
2.	Satisfied	50	16.67
3.	Satisfied	15	5.00
4.	Strongly satisfied	5	1.66
5.	Neutral	5	1.67

Total	**300**	**100.00**

Source : Field Survey 2020-21

Conclusion :

Banks and the mobile service providers need to bring together a revolution in the field of mobile banking. It study find out that majority of respondents were male. Above study the majority of respondents replied yes about bank provide information of mobile banking systems and also opinion about mobile banking and practices and about services and facilities through mobile banking system currently innovations in the telecommunication have confirmed to be a bank for the banking sector and its customers one of these is mobile banking were customers interrelate which the bank through mobile phones and bank provide service like small message services, issue of check book fund transfer accounts details etc. currently approximately all the banks in the world have started providing their customers mobile banking services.

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An Analysis on Export of Information Technology Enabled Services and Software from India

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Abstract: *For the development of every economy export should exceed imports. Information technology sector is a rapidly growing services sector in India. The role of IT enabled services and softwares export from India is ever discussing topic. Information Technology enabled services and softwares contribute the most to the Indian GDP, BOP etc. This paper tries to analyse the export of Information technology enabled services and softwares from India. It is a descriptive study based on secondary data. By analysing the data we can find a steady growth in the volume of Information technology enabled services and softwares exports from India.*

Keywords: ITeS, BPO

Introduction

IT enabled Services (ITeS) also known as web enabled services covers the entire operations which exploit information technology for improving efficiency of an organization and provides a wide range of career options. IT enabled services has improved the quality of services of the business. The value addition of IT enabled service could be Customer relationship management, improved database, improved look and feel, etc. The outcome of an IT enabled service may be Direct Improved Service and Indirect Benefits. India is regarded as the back office of the world owing mainly to its IT and ITeS industry. The sector in India grew at 3-4 times higher than the global IT-ITeS spend, and is estimated to expand at a greater speed in future. India is also the world's largest out-sourcing destination for the information technology (IT) industry. With the rising influence of online shopping, social media and cloud computing, this trend will only further increase. In this preview this study tries to analyse the export of Information technology enabled services and softwares from India.

Statement Of Problem

The changing economic and business conditions, globalization and technological innovation has created rapid competitive environment. The role of information technology has evolved from supporting corporations to transforming them. Year by year the export of information technology enabled services and softwares are increasing. This study tries to analyse the volume of information technology enabled services and softwares export from India. The analysis focus on the industry wise and organisation wise distribution of information technology enabled services and softwares export from India and Software Business by Foreign Affiliates of Indian Companies

Objectives

1. To analyse the volume of information technology enabled services and softwares export from India
2. To identify the industry wise and organisation wise distribution of information technology enabled services and softwares export from India
3. To analyse the Software Business by Foreign Affiliates of Indian Companies

Research Methodology

This study is descriptive in nature. Secondary data from RBI bulletins are used for the analysis.

Data Analysis

Table 1 : Software Services Exports from India

Activity	2016-17	2017-18	2018-19	2019-20	2020-21
	Share (%)	Share (%)	Share (%)	Share (%)	Share (%)
A). Computer Services	**68.2**	**68.2**	**67.7**	**66.6**	**65.3**
i) IT services	64.9	64.9	64.6	62.7	62
ii) Software Product Development	3.4	3.3	3.1	3.9	3.3
B). ITES/BPO Services	**31.8**	**31.8**	**32.3**	**33.4**	**34.7**
i) BPO Services	24.7	24.7	24.8	25.9	28.1
ii) Engineering Services	7.1	7.1	7.5	7.5	6.6
Total Export of Software Services (A+B)	**100**	**100**	**100**	**100**	**100**

(Source : Secondary data from RBI)

India's exports of software services (excluding exports through commercial presence) are estimated at US$ 133.7 billion during 2020-21, registering 4.0 per cent growth over the previous year. India's export of software services stood at US$ 128.6 billion during 2019-20, registering 9.1 per cent growth over the previous year. India's export of computer and ITES services (excluding overseas commercial presence) increased by 8.8 per cent during 2018-19. India's total exports of software services (excluding exports through overseas commercial presence) increased by 11.6 per cent to US $ 108.4 billion in 2017-18. From the table it is evident that outsourcing services role in India's exports of software services is sharp growing.

Table 2 : Industry-wise Distribution of ITES/BPO Services Exports

Activity	**2016-17**	**2017-18**	2018-19	2019-20	
	Share (%)	**Share (%)**	**Share (%)**	**Share (%)**	**Share (%)**
BPO Services	**76.8**	**77.6**	**77**	**77.6**	**81**
Customer interaction services	5	8	6.6	10.1	10
Finance and Accounting, auditing, book keeping and tax consulting services	10.3	12.3	13.6	13.7	12.6
HR Administration	0.6	0.6	0.5	0.5	0.5
Procurements and logistics	0.4	0.4	0.3	0.4	0.3
Medical transcription and document management	0.8	0.8	0.3	1.4	1.6
Content development and management and publishing	0.8	0.8	1.4	0.7	0.6
Other BPO services	58.6	54.8	54.3	50.8	55.4
Engineering Services	**23.2**	**22.4**	**23**	**22.4**	**19**
Embedded Solutions	3.7	3.5	2.7	2.4	3.1
Product Design Engineering (mechanical, electronics excluding software)	7.7	7.1	7.9	8.3	8.7
Industrial automation and enterprise asset management	0.1	0.5	0.5	0.6	0.5
Other Engineering services	11.7	11.3	11.9	11.1	6.7
Total	**100**	**100**	**100**	**100**	**100**

(Source : Secondary data from RBI)

BPO services were the dominant component of exports of IT enabled services. Among the BPO services exports, the share of business consulting services including public relations services increased during the year. Computer services remained the dominant component of total exports of software services; there has been a marginal increase in the share of BPO services.

Table 3 : Organisation-wise Distribution of Software Services Exports

Types of Organisation	**2016-17**	2017-18	2018-19	2019-20	2020-21
	Share (%)	**Share (%)**	**Share (%)**	**Share (%)**	**Share (%)**
Private Limited Company	49.2	51.7	51.5	52.3	52.9
Public Limited Company	50.3	47.5	47.6	46.6	44.8
Others #	0.5	0.7	0.9	1.1	2.3
Total	**100**	**100**	**100**	**100**	**100**

(Source : Secondary data from RBI)

Private limited companies accounted for more than half of the total export of software services. Exports of software services by private limited companies exceeded those of public limited companies from 2017-18 onwards.

Table 4 : Software Services Exports – Major Destination

Activity	**2016-17**	**2017-18**	2018-19	2019-20	2020-21
	Share (%)	**Share (%)**	**Share (%)**	**Share (%)**	**Share (%)**
USA & Canada	**60.3**	**61.4**	**61.2**	**58.1**	**56.2**
Europe	**23.1**	**24**	**25.6**	**27.6**	**30.1**
of which UK	11.1	11.5	11.7	13.4	14.4

Asia	**10.7**	**8.5**	**6.8**	**7**	**6.7**
of which East Asia	8.1	6.9	5.7	5.9	6
West Asia	1.1	0.8	0.8	0.8	0.6
South Asia	1.5	0.7	0.3	0.3	0.1
Australia & New Zealand	**3.3**	**3.4**	**3.4**	**3**	**3.1**
Other countries	**2.6**	**2.7**	**3**	**4.3**	**3.9**
Total	**100**	**100**	**100**	**100**	**100**

(Source : Secondary data from RBI)

The United States was the major destination for software exports accounting for 54.8 per cent; Europe had 30.1 per cent share, nearly half of which was in the UK. USA and Canada remained the top destinations for software exports, followed by Europe in which UK was the top destination.

Table 5 : Software Services Exports - Currency Composition of Invoice

Currency	**2016-17**	**2017-18**	**2018-19**	**2019-20**	**2020-21**
	Share (%)	**Share (%)**	**Share (%)**	**Share (%)**	**Share (%)**
USD	73	72.7	72.1	71.6	72
EUR	7.2	7.8	9.6	9.4	9.3
GBP	8	6.9	6.7	7.3	6.6
INR	3.6	4.6	4.5	4.8	5.5
AUD	2.9	3	2.9	2.6	2.7
Other Currencies	5.3	5	4.2	4.3	3.9
Total	**100**	**100**	**100**	**100**	**100**

(Source : Secondary data from RBI)

The US dollar was the principal invoicing currency for software exports with 72.0 per cent share; Euro and Pound sterling together accounted for another 15.9 per cent. The US dollar was the invoicing currency for nearly three-fourth of the exports of software services, followed by the euro and the pound sterling in every year under study.

Table 6 : Software Services Exports – Type of Services-wise

Type of Services	**2016-17**	**2017-18**	2018-19	2019-20	2020-21
	Share (%)	**Share (%)**	**Share \(%)**	**Share (%)**	**Share (%)**
On-site Services	17.2	15.7	15.5	15.1	12.9
Off-site Services	82.8	84.3	84.5	84.9	87.1
Total	**100**	**100**	**100**	**100**	**100**

(Source : Secondary data from RBI)

The share of off-site mode of exports of software services has increased gradually to 87.1 per cent in 2020-21 from 80.1 per cent five years ago. The off-site mode remained the preferred mode of delivery of the total export of software services. The share of on-site mode of delivery has come down from 25.5 per cent in 2007-08 ttto a little lower than a sixth of total software and ITES exports in 2018-19.

Table 7: Mode-wise Exports of Software Services

Type of Mode	**2016-17**	**2017-18**	**2018-19**	**2019-20**	**2020-21**
	Share in Total (per cent)				
Mode 1 (cross-border supply)	66.5	69.5	74	75.1	78.4
Mode 2 (consumption abroad)	0.2	0.1	0.03	0.1	0.1
Mode 3 (commercial presence)	19.4	17.4	12.4	11.4	9.8
Mode 4 (presence of natural person)	13.9	13	13.6	13.4	11.7
Total	**100**	**100**	**100**	**100**	**100**

(Source : Secondary data from RBI)

The share of mode-1 (cross-border supply) in India's exports of software services increased further to 78.4 per cent in 2020-21: this share of mode-1 has been increasing over the years from 38.8 per cent in 2002-03 to 64.

6 per cent in 2009-10 and further to 75.1 per cent in 2019-20, at the cost of the other three modes of delivery {*viz.*, mode-2 (consumption abroad); mode-3 (commercial presence); and mode-4 (presence of natural persons)}.The share of cross-border supply in exports of software services by India increased substantially at the cost of the overseas commercial presence mode of delivery in the last four years.

Table 8 : **Software Business by Foreign Affiliates of Indian Companies -Activity Distribution**

amount in ` crore)

Activity	2016-17			2017-18			2018-19			2019-20			2020-21		
	Locally	To India	Other Countries	Locally	To India	Other Countries	Locally	To India	ther Countries	Locally	o India	Other Countries	Locally	To India	Other Countries
IT services	51	5.2	6	51	6.1	20.1	7,852	657	1,074	9,083	722	1,203	12,641	548	3,104
Software Product Development	0.8	0.6	14.9	13.8	0.8	6.2	173	1	167	511	59	92	448	62	149
BPO Services	70.1	2.3	12	87.9	1.5	8.9	8,349	1,020	1,550	8,526	263	1,910	14,756	515	1,533
Engineering Services	5.6	0.3	0.1	5.8	0	0	520	33	71	549	31	2	2,534	19	186
Other services	1,440.30	93	112	1,326.70	96.2	128.9	99,623	15,865	17,043	98,993	18,450	26,455	77,652	31,342	13,927
Total (` billion)	1,567.80	101	145	1,485.10	104.6	164.1	1,16,517	17,576	19,905	1,17,662	19,525	29,662	1,08,031	32,486	18,899
Total (US $ billion*)	23.4	1.5	2.2	22.8	1.6	2.5	16.7	2.5	2.8	16.6	2.8	4.2	14.6	4.4	2.5

(Source : Secondary data from RBI)

Total exports of software services, including services delivered by foreign affiliates of Indian companies, recorded 2.1 per cent growth during 2020-21 and stood at US$ 148.3 billion. Foreign affiliates of Indian companies continued to augment cross-border services provided by their parent companies in India, although software services provided through commercial presence of foreign affiliates declined by 21.5 per cent in 2018- 19.

Table 9 : Software Business by Foreign Affiliates of Indian — Country Distribution

Table 9 : Software Business by Foreign Affiliates of Indian — Country Distribution												
(Amount in ₹ crore) Country	2016-17				2017-18				2018-19			
	Share in Total Software business by foreign affiliates (%)		**Software business by foreign affiliates**		**Share in Total Software business by foreign affiliates (%)**		**Software business by foreign affiliates**		**Share in Total Software business by foreign affiliates (%)**		**Software business by foreign affiliates**	
		Locally	**To India**	**Other Countries**		**Locally**	**To India**	**Other Countries**		**Locally**	**To India**	**Other Countries**
USA	65	1064.8	73.9	39.8	64.2	1,011.70	77.7	35.5	48.3	55,525	14,374	4,431
United Kingdom	6.7	101.3	2.4	18.2	7.2	68.7	1.6	56.1	11.4	11,614	354	5,568
Canada	3.6	62.5	0	1.9	3.5	57.9	0.3	3.8	4.8	6,754	93	577
Germany	3.3	48.6	7.2	4	4	57.5	7.1	5.1	5.3	6,863	68	1,196
Singapore	2.9	40.4	1.1	11.9	2.6	36.1	1.3	8.5	3.5	4,023	231	1,065
Netherlands	2.7	40.1	0.1	9.4	3.9	50.3	0.8	17	5	6,546	39	1,059
Other Countries	15.8	210.1	16.7	59.9	14.6	202.9	15.7	38	21.7	25,192	2,417	6,009
Total	**100**	**1567.8**	**101.4**	**145.1**	**100**	**1,485.10**	**104.6**	**164.1**	**100**	**1,16,517**	**17,576**	**19,905**

(Amount in ₹ crore) Country	2019-20				2020-21			
	Share in Total Software business by foreign affiliates (%)		**Software business by foreign affiliates**		**Share in Total Software business by foreign affiliates (%)**		**Software business by foreign affiliates**	
USA		**Locally**	**To India**	**Other Countries**		**Locally**	**To India**	**Other Countries**
United Kingdom	47.1	55,980	16,261	6,296	44.9	51,341	16,811	3,462
Canada	14.3	12,222	351	11,352	15.2	9,039	14,208	999
Germany	5.1	7,528	109	943	4.9	7,070	11	808
Singapore	5	6,670	117	1,608	4.3	5,530	22	1,329
Netherlands	4.8	6,621	48	1,350	4.2	5,981	139	507
Other Countries	3.9	4,515	352	1,634	3.9	4,681	267	1,246
Total	19.8	24,126	2,287	6,479	22.6	24,389	1,028	10,548
	100	**1,17,662**	**19,525**	**29,662**	**100**	**1,08,031**	**32,486**	**18,899**

(Source : Secondary data from RBI)

Software exports by foreign affiliates through commercial presence, where the USA is a major destination, stood at US$ 14.6 billion in 2020-21. Software exports by foreign affiliates through commercial presence, where the USA and the UK were major destination, stood at US$ 16.6 billion in 2019-20 and total exports of software services by India, including the services delivered by foreign affiliates are estimated at US$ 145.2 billion.Almost half of the software business by foreign affiliates of Indian companies was provided in the USA, followed by the UK.

FINDINGS

1. Computer services and BPO services are the major components in india's export of Information Technology Enabled Services and Software. More than half percent is IT services.
2. In the Industry-wise Distribution of ITES/BPO Services Exports BPO services were the dominant component. The role of engineering services is below 20 percent in the last year.
3. Private limited companies accounted for more than half of the total export of software services.
4. USA and Canada remained the top destinations for software exports, followed by Europe in which UK was the top destination.
5. The US dollar was the principal invoicing currency for software exports from India
6. The off-site mode remained the preferred mode of delivery of the total export of software services.
7. The share of cross-border supply in exports of software services by India increased substantially at the cost of the overseas commercial presence mode of delivery in the last four years.
8. Foreign affiliates of Indian companies continued to augment cross-border services provided by their parent companies in India
9. Software exports by foreign affiliates through commercial presence, where the USA is a major destination.

CONCLUSIONS

Advancement of Information Technology has changed every aspects of life and business. The role of information technology enabled services and software has great impact on India's GDP. From this study it is evident that there is steady growth in the India's export of information technology enabled services and software. Business Process Outsourcing attracts foreign companies to India. Computer services and BPO services are the major components of information technology enabled services and software. Majority of the services are provided by Private companies. The share of cross-border supply in exports of software services by India increased substantially at the cost of the overseas commercial presence mode of delivery in the last four years. Software exports by foreign affiliates through commercial presence, where the USA is a major destination. Really the export of information technology enabled services and software boosted the growth of Indian economy.

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Optical and Structural Properties of Cadmium Sulphide (CdS) thin film by using spray techniques

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Abstract: Cadmium sulfide (CdS) thin films have been prepared by chemical spray pyrolysis. A clean glass substrate was used. The substrate was held at 400°C and the film was characterized by XRD by means of the X-ray diffraction. Identification of crystal structures, phase transitions and dimensional growth of CdS materials. The optical properties of the 2.40-2.30 eV linear bandgap material were obtained from light absorption measurements. The thickness of this film was determined by the weighing method and was within the limits of t=2289 µm, t=2989 µm and t=4379 µm.

Keywords: optical and structural properties, X-ray diffraction analysis, aerosol methods.

1. Introduction

CdS is an important II-VI semiconductor and has been a subject of active research over the past three decades. Stanley [1] cited the applications of CdS in photocells and other photoconductive devices, light amplifiers, image intensifiers, vidicons, phosphors and electroluminescent devices, radiation detectors, thin film transistors and diodes, piezoelectric ultrasonic transducers and amplifiers, piezoelectric acoustic resonators and electronbeam-pumped lasers. However, the sustaining interest in CdS over the past two decades has been due to the photovoltaic effect discovered by Reynolds and Leies [2] CdS thin films are regarded as one of the most promising materials for hetero junction thin films solar cells. Wide band gap CdS (Eg=2.4eV) has been used as the window material together with several semiconductors such as CdTe[3], Cu2S[4], InP[5] and CuInSe2[6] with 14-16% efficiency [7]. However due to high cost of such a material, studies were developed towords polycrystalline compound semiconductors and particularly thin polycrystalline films. The deposition of CdS films has been studied using different methods. Thermal evaporation [8,9], chemical bath deposition (CBD) [10], molecular beam epitaxy [11] and spray pyrolysis [12] Several methods have been described to fabricate thin CuInS2 layers, such as electrodeposition [13], pulsed laser deposition [14], physical vapor deposition [15], vacuum deposition [16] and indoor sublimation [17]. There are complex requirements for precise control of temperature, high pressure, etc. In addition to all the above methods, the spraying method is simple, convenient and economical.

2.Materials And Methods

1.1. Experimental :

Sputtering technology is a simple technique in which an ionic solution containing compound components in the form of soluble salts is sprayed onto a heated substrate using a stream of clean, dry air. A CdS thin film was prepared by spraying an aqueous solution of cadmium chloride (CdCl2) and thiourea [(NH2) 2CS] onto a glass substrate maintained at 300 °C. Automatic conversion of chemical solutions into tiny spray droplets is accomplished by a spray nozzle that uses compressed air as a carrier gas. The sputtering speed was about 15 cc/min. Uniform film thickness using an atomizer. The substrates are glass substrate The temperature of substrate was maintained by an iron constantan thermocouple. After deposition, the films were allowed to cool at room temperature. Spray techniques through is expensive, requires the use of difficult materials and overall, it is not impressive, now good quality semiconductors which allows fabrication of solar cells with reasonable efficiency. Cadmium sulphide thin films have received considerable attention due to their applications in thin film solar cells [18], electrochemical cells [19] and semiconductor metal schottky barrier cells [20]. CdS is a technologically useful material, as many devices based on CdS, including sensors have come up in the recent years. Thin-film cadmium sulfide flotation elements have been considered a promising alternative to the more widely used silicon elements for several years. One of the most promising methods to fabricate low-cost, large-area CdS films for terrestrial solar applications is sputter pyrolysis, where CdS films have been synthesized using this method. The structural characterization of this film was carried out by X-ray diffraction and optical investigations in the UV-visible region of a spectrophotometer. The aim of this study is to obtain thin films of CdS by spray pyrolysis and

to study their structural and optical properties. Optical properties were obtained from the transmission spectrum. (TS).

2. Results And Discussion

2.1. Structural and Morphological Properties:

Films are prepared at 400^0c as substrate temperature and the concentration of the precursor aqueous solution as .01 M. Golden yellow coloured film is obtained and the X-ray diffraction (XRD) patterns were recorded first for the spray deposition film. As an example, X-ray pattern for the film prepared at 4000 c as the substrate temperature, .01M as Cadmium chloride and .01M thiourea in the volume ratio of 1:1. From the XRD, the films are found to be in the single phase of CdS and the identification of the peaks indicate that the films are polycrystalline. The average grain size was calculated from the scherrer formula, which involve the width of the X-ray diffraction line [20] showed that the mean dimension, D, of the crystallites is related to the X-ray diffraction broadening β by the equation, (1) Where K is constant approximately equal to unity and related to the crystalline shape, β is FWHM of the diffraction peak. In this work, structural studies were performed on a powder X-ray diffractometer (model: Shimadzu, XRD-6000 / Bruker AXS, D8 Advanced, Germany). The wavelength of the X-ray source used is 1.54056 Å (copper Kα) and the photon energy is 8 keV. The XPA peaks are recorded in the 2θ angular range of 10–80°.

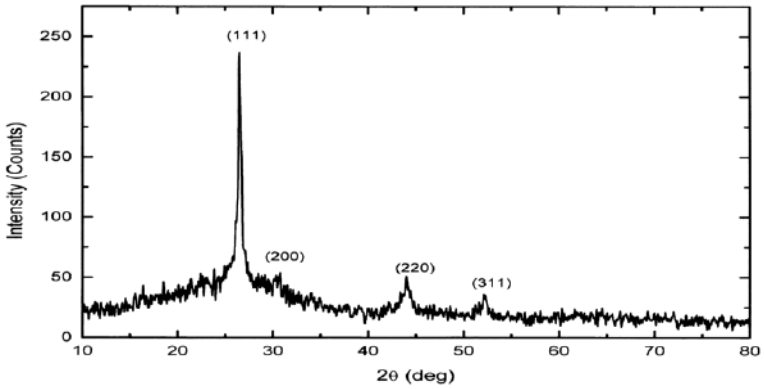

Fig. 1 X-ray diffraction pattern of sprayed CdS film at substrate temperature, 400^OC

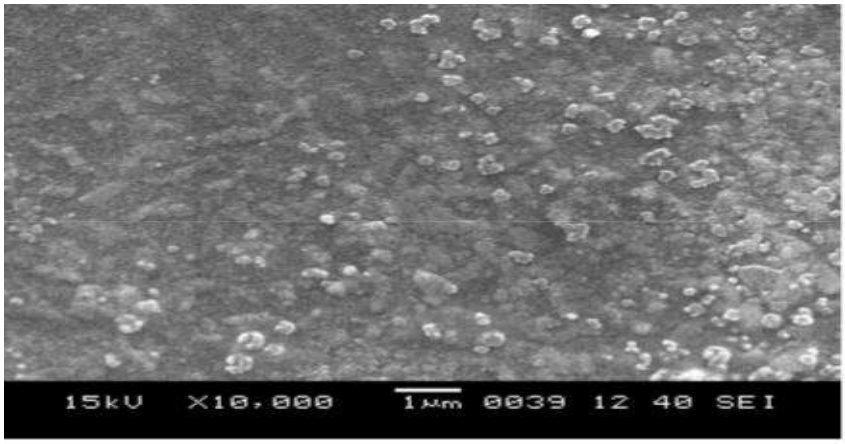

Fig. 2 Scanning Electron microscopy as deposited CdS on glass substrate at 300^0C sprayed CdS film

Optical Properties:

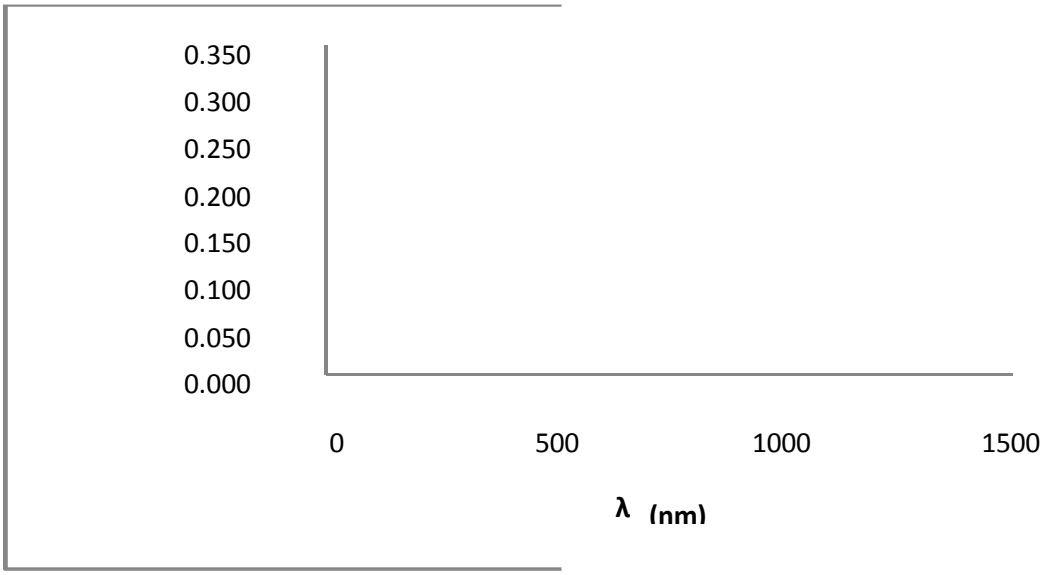

Fig : 3a The absorption spectra of CdS thin Film as a function to the wavelength t=2289µm

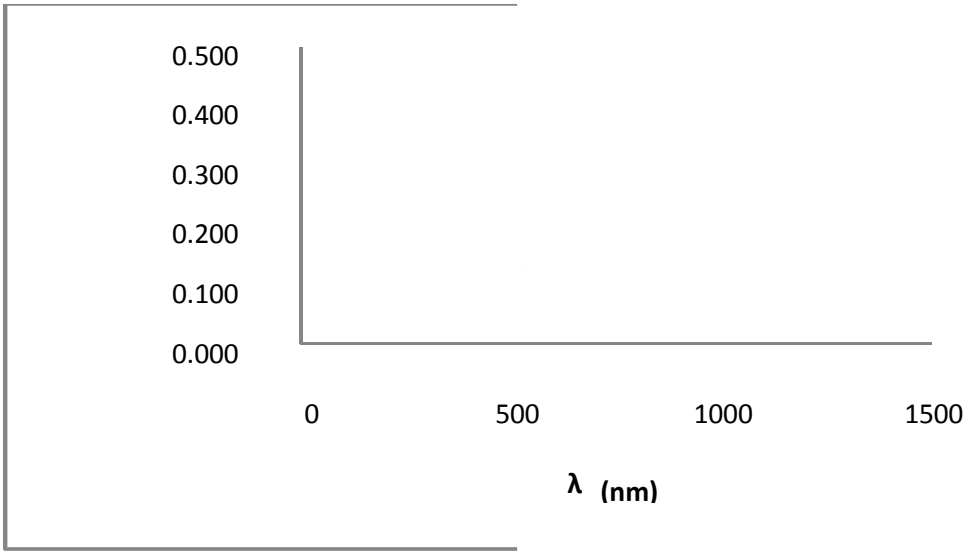

Fig : 3b The absorption spectra of CdS thin Film as a function to the wavelength t=2989µm

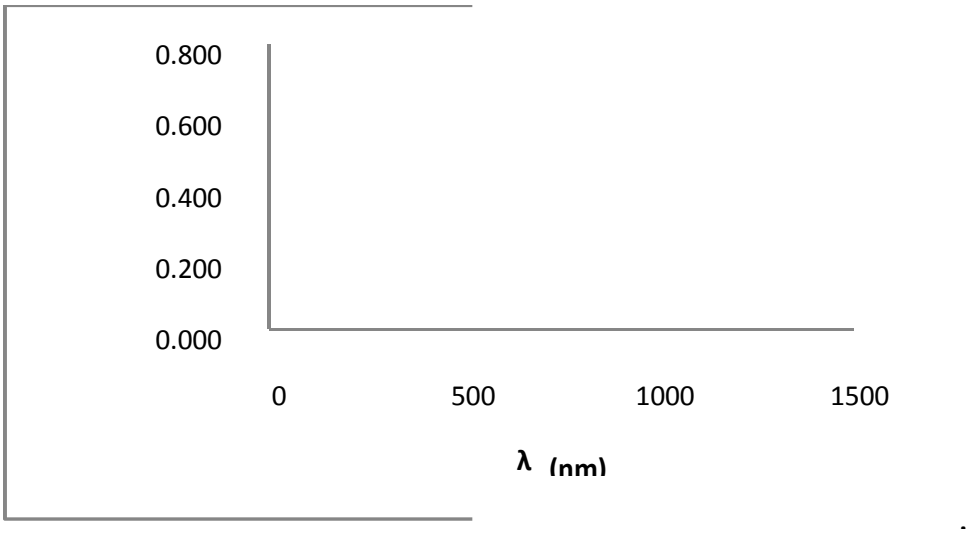

Fig : 3c The absorption spectra of CdS thin Film as a function to the wavelength t=4379µm

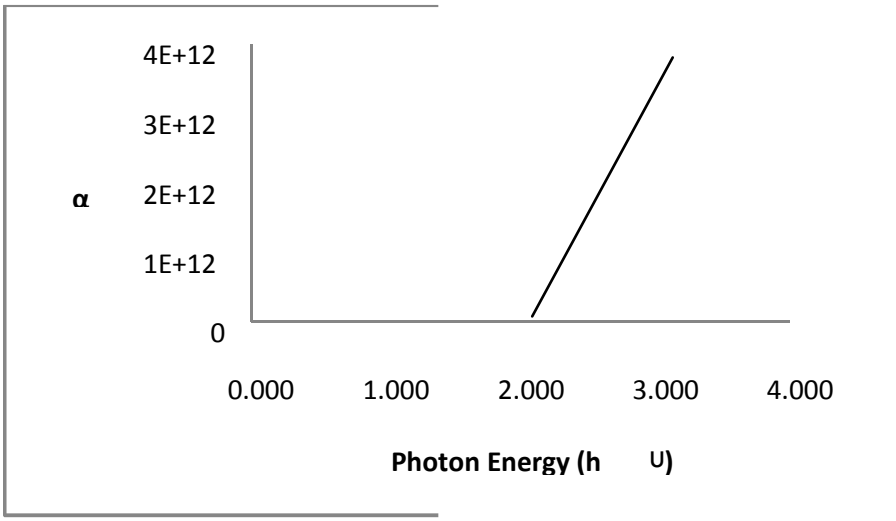

Fig. 4a The optical energy gap for the direct allow transition of CdS thin Film t=2289µm

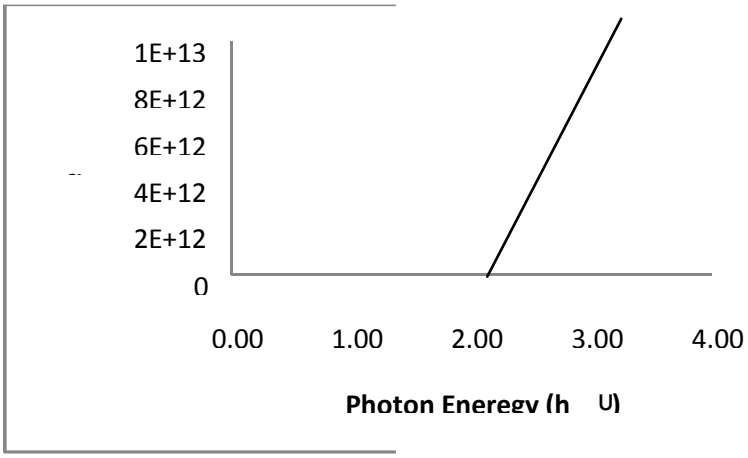

Fig. 4b The optical energy gap for the direct allow transition of CdS thin Film t=2989µm

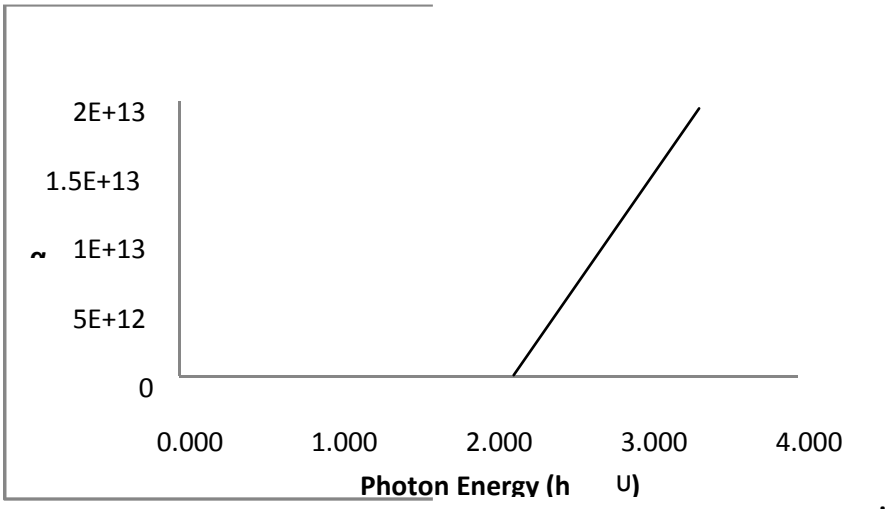

Fig. 4c The optical energy gap for the direct allow transition of CdS thin Film t=4379µm

The optical absorption spectra of CdS thin films deposited by sputtering are shown in FIG. 1 and FIG. Referring to Figures 3A, 3B and 3C, the optical band gap can be estimated using the ratio. $\alpha h\upsilon = A (h\upsilon - Eg)^n$ where Eg is the bandgap corresponding to a particular transition occurring in the film, A is a constant, υ is the transition frequency, and the exponent n is the characteristic of the band transition. Diagram between hυ vs. $(\alpha h\upsilon)^2$ is shown in FIG. Extrapolating a straight line to the $(\alpha h\upsilon)^2 = 0$ axis in Figures 6a, 6b and 6c gives the energy bandgap of the thin film CdS. The thin film band gap was 2.42 eV for the thin film with a thickness of t = 2289 µm, 2.39 eV for the thin film with a thickness of t = 2989 µm and 2.36 eV for the thin film with a thickness of t = 2. 4379 µm per deposited film. This shows that the deposited semiconductor film is a direct bandgap material (Sze 1969) [21].

3. Conclusion

The CdS films were deposited by spray pyrolysis using a solution of cadmium sulfide and thiourea. Glass substrate at 400^{0}°C with film applied. The temperature of the substrate during deposition was found to affect the phase. The film has good optical properties and is compatible with solar modules. The films showed direct transitions at 2.42 eV, 2.39 eV and 2.36 eV. These results suggest that the spray pyrolysis method for thin film deposition of CdS should be further explored for application in solar cell fabrication. The optical properties of the CdS thin films were studied from absorption spectra, and the optical band gap of the material can be controlled by the deposition conditions.

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Construction Of Physical Fitness Norms For 12 Mints Ran And Walk In High School Students Of Latur District

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Introduction: Physical education has been accepted by State Government is an integrated part of the general education system. It is also recognized that physical education plays no less an important part than education in academic subject in the coordinated development of the personality of the child to make him a physically fit, mentally acceptable citizen. In our country there has been spirit in youth activities since independence. Youth development programs under the state and privet auspices came into being. All these schemes like physical education the boys scouts and girls guides the national discipline scheme N.C.C. etc. make their distinct contribution towards the school found it difficult to administer of India constitute a committee in May 1959 under this Charmin ship of Pt. H.N. Kunzrud to. 1)Evaluate the respective merits and to define role of various scheme for physical education. 2)Recommend measure for the proper coordination of approves schemas in order to duplication and wastage of resources. 3)Examine ways and means of developing the most use full schemes and activities for the promotion of physical education recreation character building and discipline among students. There are many benefits students receive from high school physical education classes that contribute to students becoming responsible adults who are aware of the importance of a healthy lifestyle. High school students retain a higher level of knowledge related to overall health that help them make educated decisions regarding their own health, safety and well-being.

Statements of the Problem:

Construction of the Physical Fitness Norms for children is acquired importance as physical education is an important aspect of general education. Considering the importance and needs of the study the investigator has decided to "CONSTRUCTION OF PHYSICAL FITNESS NORMS FOR HIGH SCHOOL STUDENTS OF LATUR DISTRICT"

Need and Significance of the Study:

The present study will be a premier effort in establishing standards of evaluation of physical fitness in the school. Piece of research will help in analyzing the transaction of physical education curriculum in these schools and the learning outcome of the student till date no effort had been taken to standardize and establish Norms in the assessment of fitness. The study will help student, teachers, and even the parents to be aware of the level of students and fitness front. As the undertaken study takes into account the entire population the norms developed can be generalized for the performance of the entire school.

Students will be able to know their status of physical fitness. They will gear up to achieve high performance provided they know the targets, this study will help them understand that targets and keep them physically active and motivated.

The teachers will find it easy to evaluate the students. Thus, this evaluation will be scientific and standardized.

Objectives of the Study:

To measure physical fitness components of School going students of 9th and 10th standard.

To prepare Age wise norms of physical fitness components of School going students.

Assumption:

The student will take part actively and enthusiastically

It is assumed that students of school dame from similar socioeconomic background.

Delimitation:

- The present study is limited for 9th & 10th std. students.
- The age group was restricted to 15 to 16 years.
- The present study is limited to Latur District Student only.

Limitation:

The daily routine of Students will not be in investigator's control.

The Economic and Social background of student behind the control.

Type of Research:

The descriptive method of survey (normative method of survey) as a mechanism by which the researcher has obtained the data.

Methodology of Research Design:

This is a normative study that has been carried out using a survey research method. The characteristic of survey research includes systematic collection, analysis, and interpretation of data. The present investigator administered the standard test for measuring physical fitness and ability skills as the aim of this study was to develop standards (Norms) related to physical fitness and abilities in 9th and 10th standers school going student of Latur district. The scholar was conducted the selected physical fitness test on selected population (students). After collecting a data, Scholar made the marks.

Sample:

The purposive sampling method[1,2] was used to select the sample for the current study. The data collection was done for 9^{th} and 10^{th} standard details of data collections are presented in table 1.The data was collected from total of 250 boys and 250 girl's samples.

Table 1.1

Sr. No.	Standard	Boys	Girls
1	9^{th}	250	250
2	10^{th}	250	250

Population:

The girls and boys from $9^{th}$and 10^{th} standards, from Latur district population for the current study. In this study researcher took a data from Latur district.

Reliability of Data:

The authenticity of information was assured by creating the reliability of the instrument, competency of the tester, test reliability.

Reliability of Instrument:

The instruments used in the study were obtained from standard companies that satisfy the needs of different research laboratories in India as well as abroad have been approved as specific and their measurement enough for the intent of the study. To establish the reliability of the instruments were reported with the measurements on each of the variables using the same instruments twice in identical circumstances.

Competency of Testers:

To guarantee that the researcher was well deeply involved in the methodology, the investigator had a number of practices to perform the test, session under the expert's guidance in the testing process. The competence of the tester was also measured jointly by test reliability.

Test's reliability:

The test retest approach was used to assess the accuracy of the test of Physical Fitness Elements. The experiments have been repeated over two days with an interval of one day between each day.

Tools used for the Study:

Table 1.2

Tools of the Study

Sr. No.	Name of test items and measurement unit	Tools used	Recommended measures
1.	12 minute Run & Walk Test	Measuring tape Stop watch	Cardiovascular Endurance

Statistical Tools:

The collated data was analyzed using the statistical Tools by SPSS software.

1. Mean
2. Standard Deviation
3. Percentile Norms

.

Procedure of Collection of Data:

Data collected by standardprocedure**.** Researcher has prepared the test equipment as well as their sequence with the help of their school PET and volunteers. While conducting the test, the accompanying teachers and assistants (volunteers) were trained on the test. Researcher Give the information about the entire test of their syllabus of 9^{th} and 10^{th} std.. With the help of their school PET and volunteers all the test was demonstrated to all students. After that researcher conducted the test and collected the data.

1.15 Procedure of the Study:

The detailed procedure of above stages has been explicitly presented as follows:

1.16 Test Items:

The investigator, on the basis of several research reports, has considered following physical fitness test Table3.1,

Table 1.3

Details of test 9^{th} standard

Sr. no	Test	Criterion Measure
1	12 minute Run & Walk Test	Cardiovascular Endurance

Table 1.4

Details of test 10^{th} standard

Sr. no	Test	Criterion Measure
1	12 minute Run & Walk Test	Cardiovascular Endurance

Administration of Test:

The direction about the process of test-administration researches has conducted tests.

Instrumentation:

Standard test were administered to measure the items of each physical fitness test and criterion measures, the investigator collected proper equipment's. However, these equipment's were thoroughly checked and their functional status has been verified to ensure accuracy in data collection. The checklist of the equipment's has been presented as follows:

Table 1.5

Checklist of the equipment's/ instruments

Sr. No.	Item	Quantity	Status
1	Electronic spilt stopwatch	5	Functional
2	Measuring tape	3	Usable
3	Measuring tape (Tailor)	4	Usable
4	Portable weighing machine	2	Usable
5	Pencils	15	Usable
6	Pens	18	Usable
7	Pads	8	Usable
8	Chalk Box	1	Usable
9	Score Sheets	800	Usable

12 Minute Run and Walk :

Purpose: The purpose of the timed distance run is to measure maximal function and endurance of the cardio-respiratory system.

Instruction:

Players are instructed to run as far as possible in 12 minutes. A signal, "ready, go," or a whistle is used to begin the test.

A loud signal such as a whistle or gun is used to stop the test. Participants continue to run or walk until they hear the signal to stop.

Equipment: A level floor or smooth surface ground, a stop watch, measuring tape, score cards or recording sheets, pencil, and whistle.

Scoring: The distance covered during the allotted time (12 min.) is recorded (to the nearest 0.5 meter) as the score.

Organizational Hints:

The distance of course should be measured so that the number of laps completed can be counted and easily multiplied by the course distance.
Marking the course at 0.5-meter intervals enables the test participants or partners to easily calculate distances less than a full lap.
On the signal to finish all runners stop and partners immediately run to the spot where their runner stopped and calculate laps run multiplied by the distance per lap, adding meters covered on the last lap.
This distance recorded on the scorecard.
Scoring : The Distance covered in 12 minutes measured in meters.

9th Standard Boys

Table 1.6

The Descriptive Statistics of 12 m R/W

Statistics	Score
N Valid	250
Mean	1779.1080
Median	1711.0000
Mode	1629.00
Std. Deviation	242.90954
Skewness	.878
Kurtosis	-.002

From the table 4.1 it is clear that the Mean of 12 MIN Run and walk is 1779.1080. The standard deviation is 242.90954. The Skewness is 0.878.and kurtosis is -0.002. So from the scores of skewness and kurtosis it is known that the scores is normal.

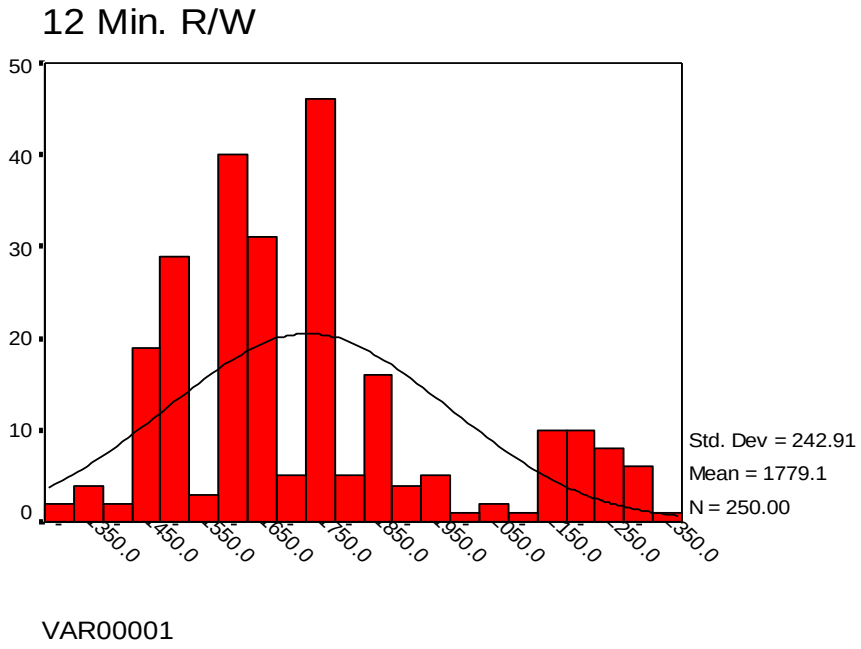

Fig.1.1

Histogram of the 12 m R/W test

Conclusion: The norms in physical fitness for 9th and 10th std Boys and Girl in Latur District were prepared which could be used for grading students in this aspects of required program of physical education in curriculum.
The fitness variable of students of 9th and 10th are measurable.
These norms develop criteria's for testing the fitness of the students.
The grading tale prepared is useful to differentiate the students.
Recommendation: Physical fitness test may be included in physical education syllabus to evaluate physical fitness of boys and girls in all junior colleges.

The percentile norms may be used to evaluate the physical fitness of athlete and sportsmen as they cover bigger range.

A similar study can be conducted to assess and evaluate the physical fitness of the physical education teacher. Physical education teacher can be requested to give more practice in those physical fitness items. This will improve their physical fitness. To study and to conduct the test, the parents reluctant in this stream will also be interested. There, they themselves can conduct these test and evaluate their ward.

By good health one can do their work with accuracy and with perfection.

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A Study on The Impact of Influencer Marketing on Gold Purchase In New Normal`

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Abstract: Influencer marketing is a recent phenomenon in marketing in the new normal life. Influencer marketing helped the business units to focus a lionshare portion of audiences through social media regardless of the type of products and brands. This study tries to measure the level of effectiveness of influencer marketing on gold purchase in new normal and to find out the role of social media on gold buying behavior. For this purpose we conducted a descriptive as well as analytical study with sample size 100.The research findings confirms that the influencer marketing have more impact than traditional advertisement. And social media plays a virtual role in customer buying behavior .It acts as a smooth sales stimulator. For statistical processing of results we used chi-square test-test.
Key words: Influencer marketing, Buying behavior

Introduction

Influencer marketing is a type of social media marketing involving endorsements and product placement from influencers, people and organizations who have expert level of knowledge or social influence in their field. Influencers are someone with the power to influence the buying habits of persons by uploading some original sponsored content to social media platforms. Influencer marketing deals with brand enrolled influencers who have an established credibility and audience on social media platforms to discuss or introduce the brand in a social media post. Influencer content may be framed as testimonial advertising. A marketer utilizes the credibility gained over time to promote a wide variety of products or services. Success in influencer marketing is measured through earned media value, impressions and cost per action Most influencers are paid before the start of a marketing campaign, and others are paid after it ends. In addition to the payment the marketers provide free products or services. For influencers with smaller followings, free products or services may be the only form of compensation Businesses pursue people who aim to lessen their consumption of advertisements, and are willing to pay their influencers more. Targeting influencers is seen as increasing marketing's reach, counteracting a growing tendency by prospective customers to ignore marketing. Marketing researchers Kapitan and Silvera find that influencer selection extends into product personality. This product and benefit matching is key. For a shampoo, it should use an influencer with good hair. Matching an influencer with the product's purpose and mood is very important. Influencers are not only working with brands, but also governments. Countries like Egypt and the United Arab Emirates have been using these influencers to spread a positive image of them and cover the bad press over human rights. In Dubai, many such influencers have been working to promote the city's tourism by acquiring an expensive license or through agencies. The socialmedias have a set of brand content policies for influencer marketing and endorsements. Branded content may only be posted through particular social media, and require the business relationships between influencers and endorsers to be tagged when promoting branded content.

Objectives of the study

Adoption of influencer marketing in gold purchasing was an experimental strategy among customers. Especially customers within the age gap of 25 to 45 spend a lot of time in social media and positively react with the influencers' contents and endorsements. This study helps to identify how influencer marketing plays a vital role in stimulating the sales volume and new customer acquisition. However due to time constraint the present study only emphasizes on

1. To measure the level of effectiveness of influencer marketing on gold purchase.
2. To find out the influence of social media on gold buying behavior.

Statement of the problem

Due to advancement of technology marketing sector is also in the path of change as compared to traditional marketing. Gold dealers offer more advanced services to their customers through their online platforms. But due to lack awareness, increased number of frauds in online platforms and lack of courage to experiment a new technique, the customers in the age group between 25 to 45 are not properly uses these platforms. This may create some customer dissatisfaction and reluctance to purchase gold via online platforms. The purpose of this study is to explore and identify the role and effectiveness of influencer

marketing on gold purchase. This study also aims to understand the attitude of people towards influencer marketing in gold purchase.

Scope of the study

This study is conducted among the age group of 25 to 45 of Thrissur district who recently purchased gold. Through this study the persons who deal with gold business can easily identify the attitude towards influencer marketing on gold and its effectiveness. The gold dealers can use this as reference and strategy to enhance the sales volume and for public it will be a proof for the success of new strategies in new normal life.

Limitations of the study

Sample size of the study is limited to 100.The sample size may not represent the senior citizens all over the world

The study is limited to only 100 younger people of Thrissur district .Therefore the influence cannot be generalized.

Review of Literature

A general scanning of the literature available in India from different published sources indicates that very few detailed studies have been conducted in India in the field of influencer marketing on gold. This section reviews empirical literature on influencer marketing conducted in India as well as abroad.

Saima and Muhammed altaf khan (2020) conducted a study on effect of social media influencer marketing on consumers purchase intention and mediating the role of credibility. The findings shows that the trustworthiness, information quality and entertainment value have significant effect on the credibility of influencers .And the trustworthiness and credibility of influencers have an indirect and direct effect on purchase intentions of the customers .

Sanjana Thakker (2021) conducted a study on the impact of influencer marketing on customers buying behavior across different generations. The findings of this study contributes a better understanding toward influencer marketing with respect to different customer sements and it helps them to understand the needs of different segments.

Anjali chopra ,Vrushali Avhad,Sonali jaju (2020) has made an exploratory study to identify the antecedents of consumer behavior of millennial with regards to influencer marketing. The study states that the attitude towards influencers and perceived behavior control had a favorable impact on consumers buying behavior but the influence of peers has no effect.

Janusz weilki(2020) has made an attempt to analyses the role of digital influencers and their impact on the functioning of the contemporary online promotional system and its sustainable development. The results reveal that there is a great acceptance for the activities involving the digital influencers. This acceptance primarily related to the effective transmission of contents and the impact on sales level of products and services offerd by the companies .And this study also identified the significant threats to influencer marketing that might be faced in the near future.

Research Methodology

Research Design

For obtaining complete and accurate information, descriptive and analytical research is chosen. Descriptive research includes survey and fact finding enquiries.

Research Approach

The approach adopted in this study is survey approach.

Research Instrument

The research instrument used in this study is google forms and personal interview method.

Data Source

Both primary and secondary data used for the study. Primary data is collected for the purpose of the study by the samples taken. Primary data was collected by conducting a personal interview through a structured questionnaire.

Sampling Area

Thrissur district is selected for taking the samples for the study.

Sample Size

The sample size of the study is limited to 100.

Sampling Procedure

The sampling procedure used in the study is Random sampling

4. Analysis and Interpretation

The data collected for the study showed in this chapter. The results are show in the form of tests conducted and necessary explanations are given below.

Table 4.1 Factors influenced from social media influencers on gold purchase

Factors influenced	Gender	HS	S	N	D	HD	Total
Information quality and presentation	Male	20	16	12	0	0	48
	Female	13	15	20	0	0	52
Product quality	Male	20	18	10	0	0	48
	Female	18	8	20	6	0	52
Reliability	Male	32	12	4	0	0	48
	Female	7	20	12	13	0	52
Offers	Male	15	14	19	0	0	48
	Female	13	9	20	10	0	52
Subject knowledge and entertainment value	Male	7	33	5	3	0	48
	Female	8	10	32	2	0	52

Ho : There is no significant relationship between male and female in factors influenced from influencers on gold purchase

H1: There is significant relationship between male and female in factors influenced from influencers on gold purchase

Table 4.2 Table of calculation T -Test

Factors influenced	Gender	Frequency	Mean	SD	CV	TV	Decision
Information quality and presentation	Male	48	3.83	1.82	1.006	1.96	Accept
	Female	52	3.5	1.43			
Product quality	Male	48	4.2	0.806	2.56	1.96	Reject
	Female	52	3.72	1.09			
Reliability	Male	48	4.5	1.07	5.31	1.96	Reject
	Female	52	3.4	1.01			
Offers	Male	48	3.9	0.91	2.16	1.96	Reject
	Female	52	3.48	1.06			
Subject knowledge and entertainment vale	Male	48	3.9	0.78	2.80	1.96	Reject
	Female	52	3.4	1.02			

Source: Primary data

$t=\frac{x1-x2}{SE}$

Level of significance 1%

Degrees of freedom ∞

Inference: There is significant difference between factors influenced from social media influencers and gender .Especially in the case of product quality, reliability, offers and subject knowledge and entertainment value. It differs according to the perspective of male and female.

Table 4.3 Post purchase opinion

Post purchase opinion	Gender		Total
	Male	Female	
Satisfied	47	43	90
Not satisfied	1	9	10
Total	48	52	

Source : primary data

H0: There is no association between male and female in post purchase opinion

H1: There is an association between male and female in post purchase opinion

Chi square = $\frac{(ad-bc)^2 N}{(a+b)(c+d)(a+c)(b+d)}$ = 6.428

Degrees of freedom = (r-1)(c-1)

Level of significance 5%

Table value =3.841

Inference: calculated value is greater than the table value there for we reject the null hypothesis. There is an association between male and female in post purchase opinion.

Findings

There is an association between male and female in post purchase opinion.

There is significant difference between factors influenced from social media influencers and gender .Especially in the case of product quality, reliability, offers and subject knowledge and entertainment value. It differs according to the perspective of male and female.

It has become the most preferred and trusted method for gaining information

Suggestions

Customers have a positive attitude towards influencer marketing .So the brands should ensure more online screen presence and campaigns to boost up the sales.

The brands should conduct more awareness programs about online purchase of gold, especially regarding safety and security measures

Introduce more offers and discounts on making charge to accelerate the rate of purchase through online.

Conclusion

Partnering social media influencers are very familiar today. Now the pandemic has accelerated the changes such as trend towards less scripted contents. Social media coverage influencers became vital intermediaries who help to connect brand with customers in an easier way. Influencer marketing is highly effective on gold purchase. It helps to know the trends and purchase related information in a creative way. And influencers marketing have high influence on customers purchase decision and in post purchase opinion

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