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Editorial.....

It is heartening to note that our journal is able to sustain the enthusiasm and covering various facets of knowledge. It is our hope that IJMER would continue to live up to its fullest expectations savoring the thoughts of the intellectuals associated with its functioning .Our progress is steady and we are in a position now to receive evaluate and publish as many articles as we can. The response from the academicians and scholars is excellent and we are proud to acknowledge this stimulating aspect.

The writers with their rich research experience in the academic fields are contributing excellently and making IJMER march to progress as envisaged. The interdisciplinary topics bring in a spirit of immense participation enabling us to understand the relations in the growing competitive world. Our endeavour will be to keep IJMER as a perfect tool in making all its participants to work to unity with their thoughts and action.

The Editor thanks one and all for their input towards the growth of the **Knowledge Based Society**. All of us together are making continues efforts to make our predictions true in making IJMER, a Journal of Repute

Dr.K.Victor Babu
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AN OVERVIEW OF MUDRA SCHEMES IN INDIA

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ABSTRACT

Realizing the contribution of the micro enterprise sector in the economy in terms of employment generation and national income and the need for providing financial support to this sector through formal way, Government of India has set up the Mudra Institution in 2015 to look after exclusively the credit needs of the micro enterprises all over the country. An attempt is made in this chapter to present role played by this institution in developing micro enterprises. This chapter is divided into six sections. The first deals with the profile of the MUDRA, the second describes the products/schemes offered by MUDRA, the third concentrates on organization network of the Mudra, the fourth talks about terms and conditions upon which assistance is rendered, the fifth provides details of implementing agencies and the last provides summary of the chapter.

Key words: Mudra, Loan, Self employed, Finance, Scheme

1.1 INTRODUCTION

Keeping the limitations of agricultural sector in generating employment opportunities and the need for converting agrarian economy into industrial economy, Government of India has taken several initiatives since independence. One of the key steps taken by the government is enactment of Micro, Small & Medium Enterprise Development Act 2006. Prior to 2006, industries were classified as small scale industry, medium scale industry and large scale industry. After the enactment of MSME Development Act 2006 the term 'industry' has been changed as 'enterprise' and the enterprise is classified into two categories namely manufacturing enterprise and service enterprise.

“The millions of Micro, Small and Medium Enterprises (MSMEs) in the country are India’s mainstay in providing employment outside agriculture. The pyramidal distribution of MSMEs by number of enterprises with the large ones towards the top also consists of micro units engaged in manufacturing, processing, trading and services making up its broad base. Rural areas account for half of all MSMEs in the country. At least 80 percent MSMEs are micro enterprises. As one of the largest disaggregated business ecosystems in the world, these micro enterprises engage nearly 10 crores people in the country, offering livelihood to five times that number. Micro enterprises comprise of myriad low scale activities such as clay pot making, basket weaving, jhadoo making, fruits and vegetable vendors, transport (three wheelers tempos and autos), food-service units, repair shops, machine operators, welders, cottage industries, small industries, handlooms, handicraft workers, food processors, retailers, beauticians and street vendors, etc. These are collectively referred to as the Non-Corporate Small Business Sector (NCSBS)”¹.

1.2 STATEMENT OF THE PROBLEM

For quite long period, financial problem has been one of the major problems faced by the MSE Sector. Despite this obstacle, this sector continuous to grow. It is relevant here to note down that as per National Sample Survey Office (NSSO) Survey (2013), there are around 5.77 crores small /



micro units in the country, engaging around 12 crores people, mostly individual proprietorship/ own account enterprises. Over 60% of units are owned by persons belonging to scheduled caste, scheduled tribe or other backward classes. But the sad news is that this sector has been underserved by the formal finance source. They have to rely upon informal sources (friends, relatives and money lenders) for funding their business. In order to bring them under the formal credit channel and provide credit facility up to 10 lakhs without demanding collateral security, the MUDRA Institution and MUDRA Scheme were launched on 8th April 2015. But even after 3 years from the date of inception, it seems that there is no much improvement in the financial problems of Micro and Small Enterprises (MSEs) Sector. This means that still considerable number of MSE is suffering from the financial problem. Year wise comparative analysis of refinance extended to Commercial Banks (main partner of MUDRA), under the MUDRA loan schemes, reveals that there is a decrease in the assistance². It is also clear from the statistics on number of accounts assisted under the scheme that still there are considerable number of micro enterprises not covered under the schemes³. In this context the present study makes an attempt to throw light on the following issues.

1. Whether the MSEs/the self-employed, are aware of the MUDRA Scheme?
2. Whether they are aware of the features of the schemes?
3. Whether they come across any difficulty in getting benefit under the scheme?

To find out answers to these questions, the present study titled “A Study on awareness towards MUDRA Scheme (with special reference to Coimbatore city)” is undertaken.

1.3 OBJECTIVES OF THE STUDY

The objectives of the study are presented below:

1. To study the profile of MUDRA and its schemes.
2. To analyze the awareness of the sample respondents towards MUDRA and its schemes.
3. To analyze the difficulties faced by the sample respondents in getting financial assistance under this scheme.
4. To study the marketing problems faced by the sample respondents.
5. To offer suggestions for effective implementation of the scheme.

1.4 HYPOTHESES OF THE STUDY

The following are hypotheses of the study:

1. There is no association between demographic factors and overall opinion towards Mudra Schemes with reference to the self-employed in Coimbatore.
2. There is no association between Age of the Unit and overall opinion towards Mudra schemes with reference to the self-employed in Coimbatore.
3. There is no association between Nature of Activity and overall opinion towards Mudra schemes with reference to the self-employed in Coimbatore.

These are tested in the respective sections of the fourth chapter.

1.5 IMPORTANCE OF THE STUDY

It is hoped that the introduction of MUDRA scheme will help the unemployed to become self employed and assist the existing unit to grow. As there is no much improvement in the micro enterprise sector, this study attempts to make an empirical investigation taking a few units in Coimbatore as sample. Among others, the study tries to find out answer to the following questions.

1. Whether the micro units/the self-employed are aware of the schemes of the MUDRA?
2. Whether the micro units/the self-employed are aware of the features of the scheme?
3. Whether the micro units/the self-employed are aware of the implementing agencies?



Finding answer to these questions based on opinion of micro units/the self-employed and data collected from Annual Report of MUDRA will be helpful to understand the problem and to find out a solution for better implementation of the scheme. This will lead to a far – reaching implication in the development of micro units/the self-employed. Thus this empirical study finds its relevance in this context.

1.6 SCOPE OF THE STUDY

Scope of the study includes studying the role of the Mudra and its schemes, analyzing the awareness of the sample respondents towards the schemes of the Mudra and also towards features and the implementing agencies of the Mudra scheme. It also includes analysis of the problems faced by the sample respondents in getting benefits under the scheme and their suggestions for the effective implementation of the scheme. Though there is scope to conduct this study at National level/at State level, for want of time and resources, the study covers the micro units/self-employed in Coimbatore District alone. In this way, the scope was somewhat limited.

1.7 RESEARCH METHODOLOGY

This is an empirical study. It is based on primary data collected from sample respondents and secondary data collected from journals, articles and websites. The primary data was collected by issuing questionnaire to sample respondents. To avoid language problem, Tamil version of questionnaire was used to collect data.

Sample size

Selection of sample is the most important step for any kind of survey based research. The sample should be large enough to fulfill the needs of the research. As it is not always possible to survey the entire population, it is essential to survey a sample of the population as an alternative to formulate predictions about the entire population.

Statistical Tools of Analysis

The following statistical tools were employed to analyse the data:

1. Simple percentage analysis
2. Chi-square Analysis
3. Garrett Ranking Technique

Descriptive / Simple percentage analysis:

It is mainly applied to identify distribution of the respondents from various categories. As the values are expressed in percentage, this can be used for comparison also.

Chi-square analysis:

The chi-square is a statistical procedure which examines the relationship between two categorical variables. The test is based on the discrepancy between the observed number of observations in each category and the expected number of observations in each category.

Garrett Ranking Technique

This technique was used to rank the preference of the respondents on different aspects of the study. The order of merit given by the respondents were converted into ranks. The percentage position of each rank thus obtained is converted into scores by referring to the table given by Henry E.Garret.



1.8 PERIOD OF STUDY

The primary data needed for the study were collected from the respondents during three months period from May to July 2018. Apart from this, Annual report of the Mudra for the year 2015-16 and 2016-17 were also referred.

1.9 LIMITATIONS OF THE STUDY

The present study is subject to the following limitations:

- The findings of the study disclose the condition prevailing during the study period. Hence no attempt was made to generalize the findings.
- Due to time constraint, the geographical area of the Coimbatore district alone was considered. Since other regions and divisions were not covered, the cross sectional analysis would not be made. But the data collected were analyzed systematically to present a fair and unbiased picture of the study.

REVIEW OF LITERATURE

Raju K.D (2008)1, in his research paper has analyzed the growth and development of the Indian Small Scale sector from opening of the economy in 1991. The paper examined the present scenario of SMES and the problems they face and also examined the provisions of the MSMED Act 2006. The paper observed that shortage of capital, marketing, lack of information on the areas of technology upgradation, high competition due to economic liberalization are problems of SMEs. The study concluded that concerted effort is needed from the government and small industries to imbibe technological dynamism.

Satyanarayana, (2011)2, in his study stressed that increasing unemployment in the country the Promotion of Self-Employment and decentralized manpower planning have been adopted during the sixth Five Year Plan as the main planks of its policy to tackle the unemployment problem in the coming years by putting special emphasis on promotion of Self-Employment. It has also been emphasized by different groups/Committees that in order to make the Self-Employment Programme more effective, it is essential that the potential entrepreneurs are identified, motivated and informed of the various facilities and incentives available for taking-up such ventures. The genuine entrepreneur has some specific characteristics which are required to be assessed.

Jayammal (2012)3, conducted a study on problems of women entrepreneurs in Coimbatore. It is an empirical study based on primary data. Average Risk Analysis is applied to analyze the data. The study concluded that problem of finance as first in order followed by the problem relating to sales, competition from other sellers, and purchase of raw-materials, technical problems and labor related problem. The study suggested that a separate women's organization can be formed to meet their requirements at District Level.

Rajib Lahiri (2012)4, in his study attempted to examine the changing pattern of definition of the micro, small and medium enterprises (MSMEs) in India and critically analyzing the impact of MSMED Act 2006. The other objectives of the study are analyzing the opportunities and threats of MSMEs in India during the liberalization period and analyzing the performance of MSMEs in India during the pre and post liberalization period. The study observed that the performance of MSMEs in globalization period has not been satisfactory and MSMED Act has not put smaller firms on safe side.

Shyla et al., (2014)6, carried out a study titled "A Study on Problems of Women Entrepreneurs in Urban Area with Special Reference to Thiruvananthapuram in Kerala" with the purpose of



identifying the major problems faced by women entrepreneurs in Thiruvananthapuram and also find the impact of these problems on the working efficiency of these women entrepreneurs. The data collected was subjected to quantitative analysis Total, Average and Percentage/frequency to find the major problematic factors and test is applied to find the statistical significance through the respondents demographic variable statistical percentage analysis of the hypotheses for possible acceptance or rejection is used in the study.

Sumit Kumar Gupta et al., (2017)18 in their study found that the promotion of financial inclusion is an important need of Indian economy and also in order to promote financial inclusion Government of India launched several schemes like Pradhan Manthri Jan Yojana, Pradhan Manthri Jeevan Jothi Beema Yojana, Pradhan Manthri Mudra Yojana, Atal Pension Yojana, Varishtha Pension Bima Yojana start up India scheme, financial literacy scheme etc. The study observed that Pradhan Manthri Mudra Yojana (PMMY) is one of the important schemes of promotion of financial inclusion in India. Under this scheme people can take loan up to 10 lakhs to start the business.

MUDRA AND ITS PRODUCTS –AN OVERVIEW

INTRODUCTION

Realizing the contribution of the micro enterprise sector in the economy in terms of employment generation and national income and the need for providing financial support to this sector through formal way, Government of India has set up the Mudra Institution in 2015 to look after exclusively the credit needs of the micro enterprises all over the country. An attempt is made in this chapter to present role played by this institution in developing micro enterprises. This chapter is divided into six sections. The first deals with the profile of the MUDRA, the second describes the products/schemes offered by MUDRA, the third concentrates on organization network of the Mudra, the fourth talks about terms and conditions upon which assistance is rendered, the fifth provides details of implementing agencies and the last provides summary of the chapter.

3.1 GENESIS OF MUDRA

According to the NSSO survey of 2013, there are 5.77 crore (57.70 million) small business units, mostly proprietorship, which run small manufacturing, trading or service activities. Most of these 'own account enterprises' are owned by people belonging to Scheduled Caste, Scheduled Tribe or Other Backward Classes. Majority of such units do not get institutional finance. Providing access to institutional finance to such micro/small business units would turn them into strong instruments for GDP growth and also employment generation. Mainstreaming these enterprises will not only help in improving the quality of life of these entrepreneurs but will also contribute substantially to job creation in the economy leading to income distribution and reduction in poverty.

Micro Units Development and Refinance Agency Ltd., (MUDRA) set up as Non Banking Financial Institutions (NBFIs), with the objective of providing refinance to Banks, extending financial support to NBFCs/MFIs and regulating and developing Micro-Finance Institutions (MFIs), with a view to expand the reach of institutional finance to micro/small business entities engaged in manufacturing, trading and service activities. The Bank would also partner with State/Regional level co-ordinators to provide finance to Last Mile Financier of small/micro business enterprises.

MUDRA, launched on April 08, 2015 by the Honorable Prime Minister Shri Narendra Modi, is setup as a subsidiary of SIDBI.

3.2 PRODUCTS/SCHEMES OFFERED BY THE MUDRA

Refinance product for the micro units having loan requirement upto Rs. 10 lakh (Rs.1 million) with special focus on micro credit. MUDRA is providing refinance to micro businesses funded under Pradhan Mantri MUDRA Yojana. The other products are for development support to the sector. The offerings are targeted across the spectrum of beneficiary segments. The bouquet of offerings of MUDRA is depicted in figure 1.1.

Figure 1.1
Products/Schemes of Mudra



Under the aegis of Pradhan Mantri MUDRA Yojana, MUDRA has already created its initial products / schemes. The products have been named 'Shishu', 'Kishor' and 'Tarun' to signify the stage of growth/development and funding needs of the beneficiary micro unit/entrepreneur and also provide a reference point for the next phase of graduation/growth to look forward to:

- **Shishu:** covering loans upto Rs.50,000/-
- **Kishor:** covering loans above Rs.50,000/- and upto Rs. 1 lakh
- **Tarun:** covering loans above Rs.5 lakh and upto Rs.10 lakh

It is the endeavour of MUDRA that atleast 60% of the credit goes to Shishu Category Units and the balance to Kishor and Tarun Categories.

Within the framework and over all objective of development and growth of Shishu, Kishor and Tarun Units, the products being offered by MUDRA at the rollout stage have been designed to meet requirements of different sectors/ business activities as well as business/entrepreneur segments. Brief particulars are as under:

3.2.1. Schemes for MFIs/NBFCs

Micro Credit Scheme (MCS)

Financial support to MFIs for on lending to individuals/group of individuals/Joint Liability Groups (JLGs)/Self Help Groups (SHGs) for creation of qualifying assets as per RBI guidelines towards setting up/running micro enterprises as per MSMED Act and also carrying out non-farm income generating activities.



Mahila Uddyami Scheme

Financial support to financial intermediaries for on lending to individuals for setting up/running micro enterprises as per MSMED Act and carrying out non-farm income generating activities with beneficiary loan size ranging between Rs.50000 and Rs. 10 lakh per enterprise/borrower.

Micro Enterprise Loans

Timely and adequate financial support to the MFIs, for on lending to women/group of women/JLGs/SHGs for creation of qualifying assets as per RBI guidelines towards setting up/running micro enterprises as per MSMED Act and non-farm income generating activities. Interest concession is being provided.

3.2.2. Refinance Scheme for Commercial Banks/ Regional Rural Banks (RRBs)/ Scheduled Co-operative Banks

- The salient features of the schemes and innovative products, being worked upon, which are offered by MUDRA going forward, are as below:

Sector/Activity Focused Schemes

- To maximize coverage of beneficiaries and tailor products to meet requirements of specific business activities, sector/activity focused schemes would be rolled out. To begin with, based on higher concentration of businesses in certain activities/sectors, schemes are being proposed for:
- **Land Transport Sector/ Activity:** which inter alia supports units for purchase of transport vehicles for goods and personal transport such as auto rickshaw, small goods transport vehicle, three wheelers, e-rickshaw, passenger cars, taxis, etc.
- **Community, Social & Personal Service Activities** such as saloons, beauty parlours, gymnasium, boutiques, tailoring shops, dry cleaning, cycle and motor cycle repair shop, DTP and Photocopying Facilities, Medicine Shops, Courier Agents, etc.
- **Food Products Sector:** Under this sector support is available for undertaking activities such as papad making, achar making, jam/jelly making, agricultural produce preservation at rural level, sweet shops, small service food stalls and day to day catering/ canteen services, cold chain vehicles, cold storages, ice making units, ice cream making units, biscuit, bread and bun making, etc.
- **Textile Products Sector/Activity:** To provide support for undertaking activities such as handloom, power loom, chikan work, zari and zardozi work, traditional embroidery and handwork, traditional dyeing and printing, apparel design, knitting, cotton ginning, computerized embroidery, stitching and other textile non garment products such as bags, vehicle accessories, furnishing accessories, etc.

Mudra Card

MUDRA Card is a yet another innovative product designed for the purpose of providing flexibility and easy accessibility of credit. MUDRA card is an overdraft limit which could be operated by a RuPay based debit card. The card could be issued directly by the banks or in association with MFIs. The MUDRA card would be co-branded card between MUDRA, the banks, and the MFIs. MUDRA would provide credit guarantee and credit enhancement support to the product.

Pradhan Mantri Mudra Yojana (PMMY)

In order to implement Mudra Schemes, GOI also launched Pradhan Mantri Mudra Yojana (PMMY). Accordingly all banks viz, Public Sector Banks, Private Banks, Regional Rural Banks,



State Cooperative Banks, Urban Cooperative Banks, Foreign Banks and NBFCs/MFIs are required to lend to non farm sector income generating activities below Rs.10 lakh, which is classified as MUDRA loans under PMMY. The PMMY loans include Rs.5000 being given as overdraft under Pradhan Mantri Jan Dhan Yojana [PMJDY]. MUDRA provides refinance/credit guarantee support to PMMY also.

3.3. TERMS AND CONDITIONS

The following are the terms and conditions of the scheme:

3.3.1 Eligible borrowers

List of eligible borrowers consist of Individuals, Proprietary concern, Partnership Firm, Private Ltd. Company, Public Company and any other legal forms.

The applicant should not be defaulter to any bank or financial institution and should have a satisfactory credit track record. The individual borrowers may be required to possess the necessary skills/experience/ knowledge to undertake the proposed activity. The need for educational qualification, if any, need to be assessed based on the nature of the proposed activity, and its requirement.

3.3.2 Purpose of Assistance/Nature of assistance.

Need based term loan/OD limit/composite loan to eligible borrowers for acquiring capital assets and/or working capital/marketing related requirements. The MUDRA loans are provided for income generating small business activity in manufacturing, processing, and service sector or trading. The Project cost is decided based on business plan and the investment proposed. MUDRA loan is not for consumption/personal needs.

For the purpose of working capital limit, MUDRA has launched a new product called “MUDRA Card”, which is a Debit card issued on RuPay platform, and provides hassle free credit in a flexible manner.

3.3.3 Margin/Promoter’s Contribution

Margin/Promoter’s Contribution is as per the policy framework of the bank, based on overall guidelines of RBI in this regard. Banks may not insist for margin for Shishu loans.

3.3.4 Interest rate

Interest rates are to be charged as per the policy decision of the bank. However, the interest rate charged to ultimate borrowers is reasonable. Scheduled Commercial Banks, RRBs and Cooperative Banks wishing to avail of refinance from MUDRA have to peg their interest rates, as advised by MUDRA Ltd., from time to time.

3.3.5 Upfront fee/Processing charges.

Banks may consider charging of upfront fee as per their internal guidelines. The upfront fee/processing charges for Shishu loans are waived by most banks.

3.3.6 Security

- ✓ First charge on all assets created out of the loan extended to the borrower and the assets which are directly associated with the business/project for which credit has been extended.
- ✓ Demand Promissory Note (DPN) (wherever applicable).
- ✓ Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE) (wherever felt desirable)/MUDRA Guarantee cover (as and when introduced).



In terms of RBI guidelines issued vide Master Circular on lending to MSME Sector (para 4.2) dated July 01, 2014, in respect of loans upto 10 lakh, banks are mandated not to accept collateral security in the case of loans upto 10 lakh extended to units in the Micro Small Enterprises (MSEs) Sector. Banks are required to encourage their branch level functionaries to avail of the Credit Guarantee Scheme Cover, wherever felt desirable.

3.3.7 Tenor of Assistance

Based on the economic life of the assets created and also the cash flow generated. However, MUDRA's refinance assistance is for a maximum tenor of 36 months which is also aligned to terms of allotment of MUDRA funds by RBI from time to time.

3.3.8 Repayment

- ✓ Term Loan: To be repaid in suitable installments with suitable moratorium period as per cash flow of the business.
- ✓ OD & CC Limit: Repayable on demand. Renewal and Annual Review as per internal guidelines of the Bank.

3.3.9 Documents required for MUDRA Loan Scheme

The following documents are required for getting financial assistance under this scheme:

1. Proof of identity - Self certified copy of Voter's ID card / Driving License / PAN Card / Aadhar Card/Passport.
2. Proof of Residence - Recent telephone bill, electricity bill, property tax receipt (not older than 2 months), Voter's ID card, Aadhar Card & Passport of Proprietor/Partners/Directors.
3. Proof of SC/ST/OBC/Minority.
4. Proof of Identity/Address of the Business Enterprise -Copies of relevant licenses/registration certificates/other documents pertaining to the ownership, identity and address of business unit.
5. Applicant should not be defaulter in any Bank/Financial institution.
6. Statement of accounts (for the last six months), from the existing banker, if any.
7. Last two years balance sheets of the units along with income tax/sales tax return etc. (Applicable for all cases from Rs.2 Lacs and above).
8. Projected balance sheets for one year in case of working capital limits and for the period of the loan in case of term loan (Applicable for all cases from Rs.2 Lacs and above).
9. Sales achieved during the current financial year up to the date of submission of application.
10. Project report (for the proposed project) containing details of technical & economic viability.
11. Memorandum and articles of association of the company/Partnership Deed of Partners etc.
12. In absence of third party guarantee, Asset & Liability statement from the borrower including Directors& Partners may be sought to know the net-worth.
13. Photos (two copies) of Proprietor/ Partners/ Directors.

3.4 ORGANIZATION NETWORK OF MUDRA

It consists of 15 Regional Offices (RO) and 83 Branch Offices (BO)/Nodal Offices (NO). Network of Nodal Offices of MUDRA is presented in the figure 1.2.

SUMMARY OF FINDINGS, CONCLUSION AND SUGGESTIONS

In order to know the awareness among the self-employed/micro enterprises towards Mudra Scheme and the problems faced by them in getting benefits under the scheme this study was



carried out, data were collected and analysed. An attempt in made in the chapter to recapitulate the main findings of the research to draw conclusion, and offer suggestions based on the findings.

5.1 FINDINGS OF THE STUDY

Findings of the study are presented under the three sections namely, findings based on simple percentage analysis, findings based on chi-square analysis and findings based on Garrett Ranking Technique.

FINDINGS BASED ON SIMPLE PERCENTAGE ANALYSIS

- It is observed that the most of the respondents (62 per cent) are male.
- It is inferred that the most of the respondents (37 per cent) are in the age group of 36-45 years.
- It is inferred that the majority of the respondents (36.5 per cent) have no formal education.
- It is observed that most of the respondents (78 per cent) are married.
- Majority of the respondents belong to Nuclear family (67.5 per cent).
- It is inferred most of the respondents 68 per cent have opined that interest in self-employment is reason for their entry in to this career.
- It is observed that the most of respondents (73 per cent) have not undergone training programme.
- It is observed that the most of the respondents (31.5 per cent) annual income are Rs.75,000 – Rs.1,00,000.
- It is observed that most of the units (39.5 per cent) are upto 5 years old.
- It is inferred that most of the units (44.0 per cent) are engaged in service activity.
- It is inferred that most of the (52.0 per cent) respondents have said that their staff's strength is below 5.
- It is observed that most of the 56.5 per cent respondents have invested above Rs.50000 in their venture.
- It is inferred that the most of the respondents (81 per cent) have owned and borrowed funds.
- It is inferred that the most of the respondents (91.5 per cent) have not availed of any bank loan.
- It is observed that most of the respondents (Shishu 74 per cent, Kishor 80 per cent and Tarun 80 per cent) are unaware of the three components of the Mudra Scheme.
- It is observed that majority of the respondents (maximum loan amount 74 per cent, rate of interest 94 per cent, security 94 per cent, repayment period 94 and promoter's contribution 95 per cent) are not aware of details about maximum loan amount available, rate of interest charged, security needed, repayment period granted margin money brought under the Shisu scheme.
- It is observed that majority of the respondents (maximum loan amount 80 per cent, rate of interest 97 per cent, security 97 per cent, repayment period 97 percent and promoters contribution 98 per cent) are not aware of the features of the Kishor scheme.
- It is observed that majority of the respondents (maximum loan amount 80 per cent, rate of interest 97 per cent, security 97 per cent, repayment period 97 percent and promoters contribution 98 per cent) are not aware of the features of the Tarun scheme.
- It is observed from the analysis of the overall general opinion of the respondents towards Mudra Scheme that majority of the respondents are well aware of the scheme.
- It is observed that majority of the respondents are well aware of the scheme.
- It is observed that majority of the respondents have suffered from lack of guidance problem while getting loan from bank.
- It is observed that most of the respondents don't have marketing problems.



- It is observed that the respondents of the majority of the respondents (84 per cent) are 'undecided'.

FINDINGS BASED ON CHI-SQUARE ANALYSIS

- It is clear that, the p-value is greater than 0.05, the null hypothesis is accepted at 5 per cent level of significance. The null hypothesis "there is no significant relationship between opinion of respondents coming under various educational background on the overall opinion towards Mudra Schemes" is proved.
- It is clear that, the p-value is greater than 0.05, the null hypothesis is accepted at 5 per cent level of significance. The null hypothesis "there is no significant relationship between marital status on overall general opinion towards Mudra Schemes" is proved.
- It is clear that, the p-value is less than 0.05, the null hypothesis is rejected at 5 per cent level of significance. The null hypothesis "there is no significant relationship between nature of the family on overall general opinion towards Mudra Schemes" is disproved.
- It is clear that, the p-value is greater than 0.05, the null hypothesis is accepted at 5 per cent level of significance. The null hypothesis "there is no significant relationship between Reason for entering into the self-employment and overall general opinion towards Mudra Schemes" is proved.
- It is clear that, the p-value is greater than 0.05, the null hypothesis is accepted at 5 per cent level of significance. The null hypothesis "there is no significant relationship between participation and non-participation in Self Employment Training Programme /Entrepreneur Development Programme and overall general opinion towards Mudra Schemes" is proved.
- It is clear that, the p-value is less than 0.05, the null hypothesis is rejected accepted at 5 per cent level of significance. The null hypothesis "there is no significant relationship between annual income from self employment venture and overall general opinion towards Mudra Schemes" is disproved.
- It is clear that, the p-value is greater than 0.05, the null hypothesis is accepted at 5 per cent level of significance. The null hypothesis "there is no significant relationship between opinion of respondents under the different age group on the level of awareness" is proved.
- It is clear that, the p-value is less than 0.05, the null hypothesis is rejected at 5 per cent level of significance. The null hypothesis "there is no significant relationship between opinion of respondents (units) engaged in different activities on the level of awareness regarding Mudra Schemes" is disproved.
- It is clear that, the p-value is greater than 0.05, the null hypothesis is accepted at 5 per cent level of significance. The null hypothesis "there is significant relationship between opinion of respondents number of persons employed on level of awareness regarding Mudra Schemes" is proved.
- It is clear that, the p-value is less than 0.05, the null hypothesis is rejected at 5 per cent level of significance. The null hypothesis "there is no significant relationship between opinion of respondents (units) with different investment slabs on the level of awareness regarding Mudra Schemes.
- It is clear that, the p-value is greater than 0.05, the null hypothesis is accepted at 5 per cent level of significance. The null hypothesis "there is no significant relationship between opinion of the respondents (units) with different sources of funds towards Mudra Schemes", is proved.
- It is clear that, the p-value is greater than 0.05, the null hypothesis is accepted at 5 per cent level of significance. The null hypothesis "there is no significant relationship between opinion of the respondents (units) with or without bank loans on overall general opinion towards Mudra Schemes", is proved.



- The empirical results of chi-square test reveals that there is no significant relationship between age, educational qualification, marital status, reason for entry, training background, age of the units, number of persons employed, sources of fund and availment of bank loan and opinion of the respondents on the level of awareness towards Mudra Schemes and the null hypotheses are accepted at 5% of level of significance.
- The empirical results of chi-square test reveals that there is significant relationship between gender, nature of the family, income from self employment, nature of activity and investment amount and opinion of the respondents on the level of awareness towards Mudra Schemes and the null hypotheses are rejected at 5% of level of significance.

FINDINGS BASED ON GARRETT RANKING TECHNIQUES

- It is observed that most of the respondents ranked the problem 'Shorter Repayment period' first and the problem 'more Formalities' last among the kinds of problem faced in getting financial assistance under the scheme.
- It is observed that most of the respondents ranked the problem 'unaware of modern marketing and others' first and the problem 'competition' last among the marketing problems faced by them.

5.2 CONCLUSION OF THE STUDY

Based on the findings of the study, it is concluded that awareness among the self-employed/micro enterprises towards the Mudra Scheme is low.

5.3 SUGGESTIONS OF THE RESPONDENTS

The following suggestions are given to implement the Mudra Scheme in an effective and better manner:

- The results of the study reveal that the level awareness of the respondents towards various aspects of the scheme is low. Hence, awareness campaign may be undertaken not only in letter but also in spirit.
- As per the direction of the RBI, Banking Institution should not demand collateral security from the borrower of the Mudra loan scheme. This is only in paper. The researcher had discussion with the respondents regarding terms and conditions of the scheme. Almost all the respondents said that they cannot get loan without collateral security. This means that officially collateral security is not required but unofficially it is required for getting loan. As a result, most of the genuine, deserving and enthusiastic self-employed are not able to enjoy the fruits of Mudra scheme. In this regard, there is also another instruction from the RBI that is Banks can accept Credit Guarantee Insurance Cover as an alternative to collateral security.

In this case also, the borrowers of the loan scheme have to undergo so many roadblocks. In this context, it is suggested that viability and profitability of the project, credit worthiness of the borrower, bank dealings of the borrower, may be considered as parameters and based on which loan may be sanctioned without demanding collateral security. It is also suggested that in the case of Credit Guarantee Cover arrangement, the terms may be relaxed in favour of the borrowers.

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A STUDY OF INTERPERSONAL PROBLEMS IN MASS MARRIAGE AND LOVE MARRIAGES IN INDIA

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Abstract

Mass Marriage is often considered to be the cornerstone of a healthy social structure. The stronger the quality of a marriage, the healthier the social structure of society. The present research investigated the interpersonal problems among Mass marriage and love marriages. The sample of this study comprised 100 couples who had married for love, and 100 couples whose marriage had been Mass marriage by their families. The age range of participants was 20 to 40 years (Mean = 28, SD = 5.2). Inventory of Interpersonal Problems-32 (Horowitz, Alden, Wiggins, & Pincus, 2000) was administered to assess the nature of interpersonal problems experienced by the sample. The findings of present study revealed that the couples whose marriage was Mass marriage by their families were more domineering and vindictive, compared to couples who had married for love... However, couples in love marriages were more socially inhibited, non-assertive and intrusive when compared to Mass marriage couples. This research has important implications for social psychologists, marital counselors and families.

Keywords: Interpersonal Problems, Marital Quality, Mass Marriage, Love Marriage.

Introduction

Marital quality is an important, desirable and significant domain in human life. It allows natural growth of the society by creating family units. Apart from its impact on the society, better quality Mass marriages have a significant impact on the life satisfaction, health and productivity of individuals (Madathil & Benschhoff, 2018). Better marital quality is associated with lower depression (Williams, 2003), better self-rated health and fewer physical illnesses (Umberson, Williams, Powers, Liu, & Needham, 2016). Thus it is not surprising that troubled mass marriage leads to greater vulnerability to infection, illness and delays in recovery times of an individual (Coon & Mitterer, 2018).

In order to reflect on the quality of mass marriage, one way would be to study love and arranged mass marriages and their affective quality. Batabyal and Beladi (2018) differentiated love and Mass Marriages in the following manner, "In "love marriages", men and women who wish to get married search for a bride/groom and this activity is generally conducted by the two individuals who are interested in getting married. In contrast, in "mass marriages", the individuals who wish to get married typically do not conduct any search activities by themselves. Instead, the process of searching for a suitable bride or groom is conducted by parents, family, and, in recent times,



increasingly by matchmaking firms". In love marriage, the basis is mutual attraction and affection whereas; in mass marriage the basis is the selection of most appropriate match from the options available. Each type of mass marriage has its pros and cons. The question that needs to be addressed here is to find out the type of mass marriage which leads to lesser interpersonal problems among married couples.

According to Sullivan (2019), the interpersonal theory deals with the characteristics of individuals and in determining their interaction patterns accordingly. The first development of the interpersonal theory was based on the principle of complementarity in which the people involved in dyadic interactions. The second development of the interpersonal theories occurred on the principle of vector length in which the persons have interpersonal circle and these people generally have inflexible and rigid personalities.

The Inventory of Interpersonal Problems 32 (IIP- 32) was developed by Horowitz, Alden, Wiggins and Pincus (2019) with the focus of assessing the problems in the relationships over a range of eight domains. These domains were originated from the works of neo Freudians forming the interpersonal circumflex model. The model purposes that interpersonal problems vary on a circular continuum as follows,

The first domain of interpersonal problems on the scale is of domineering or controlling. Controlling partners of the married couples feel difficulty in giving up control and tend to be hostile over other. Furthermore, the loss of control (even though temporarily) is considered to be a loss of dignity while is likely to make them feel threatened. They are also likely to tarnish the relationship by arguing too much over the validation and stand of their perspective without effectively realizing that of the others (Horowitz, et al., 2019).

The second domain of interpersonal problems is vindictiveness or self-centeredness. Vindictive individuals show hostile dominance, high agency and very low communion. They experience irritability and anger very quickly and these feelings are coupled with revengeful thoughts. They do not take care of the feelings or needs of other person and do not forgive any insults from their companion (Horowitz, et al., 2019).

The third domain of interpersonal problems is cold attitude of partners. Cold and / or distant individuals are those who have low communication because of which they feel minimally attached or connected to any other person including their spouse. They are unable to maintain a long term commitment as they enjoy their solitary existence and freedom. The main personality issue with these individuals is that they lack warmth or connection that the spouse requires and this deficit leads to interpersonal problems (Horowitz, et al., 2019).

The fourth domain of interpersonal problems is social inhibition of partners. A socially inhibited partner will be low on agency as well as communion. They tend to be lonely and hypersensitive. They maintain minimal social interactions because they are unable to express their feelings and are often termed as introverts. They try to avoid humiliation and in order to do so, they avoid any social activity. As a result, their companion might think lowly of them or might take them for granted which is likely to hurt their feelings as a result (Horowitz, et al., 2019).

The fifth domain of interpersonal problems is non-assertiveness of partners. Individuals rating high on the non-assertive scale lack self-confidence and self-esteem. They face



difficulty in taking initiatives and avoid being the centre of attention especially in situations where their authority is required. They also have pressing their stand position even if they are right. Consequently, they are likely to have a dependent personality. Therefore they assign leadership role to their companions (Horowitz, et al., 2019).

The sixth domain of interpersonal problems is intrusive attitude of partners. They consider themselves to be friendly, social and extraverted. At the same time they are ready to adopt to leadership position. The problem with these people is that they are likely to open up too much and have a problem in maintaining their intimate relationships (Horowitz, et al., 2019).

The seventh domain of interpersonal problems deals with the self-sacrificing attitude of partners. They are overly-affiliated with one another; however they consider themselves to be warm and generous. They easily connect to people both socially and emotionally and are ready to help other people. The issue with these individuals face is that they cannot set and maintain boundaries while empathizing with other people. As a result, it becomes difficult for them to feel angry for their own reason and express it (Horowitz, et al., 2019).

The eighth domain of interpersonal problems is the intrusive attitude of partners. They consider themselves to be friendly, social and extraverted. At the same time they are ready to adopt a position of leadership. The problem with these people is that they are likely to open up too much and have a problem in maintaining their intimate relationships (Horowitz, et al., 2019).

Existing literature has indicated that many couples face a multitude of social and personal problems in life when they could not find the right ingredients for a successful and happily married relationship (Ali, Israr & Janjua, 2019). Some common problems include depression, domestic abuse and lack of financial support. Wiseman (2017) noted that difficulties in establishing satisfying romantic relationship for a longer term are a major issue for young adults which inhibit the effective mutual relationship development. Torppa (2019) noted that interpersonal problems in adults lead to communication issues which further give rise to misunderstandings.

According to Rubio (2016), more than 72% of the marriages in Asia and Africa were arranged by the families or the social set up of the concerned individuals. Unfortunately, Mass Marriages are not turning to be happy and successful marriages. In a report by Hussain (2014), it was noted that only in the 1st quarter of 2014, over 2300 women approached the courts for the dissolution of their marriages. Upon further inquiry, Hussain (2014) found that over 11000 cases for divorce were already pending with the family court in Pakistan. More statistical data reveals that from the year 2005 to 2008, more than 75000 divorce cases were registered in Pakistani courts and then from 2008 to 2011, the same figure rose to 124,141 that is an almost 65% rise in those seeking to end their marriages.

The amount of literature available with reference to interpersonal problems in marriage is significantly missing thus creating a gap in understanding this topic. Hence the present study was designed to investigate the interpersonal problems of love and arranged marriage couples in Pakistan.

Research Hypothesis

Keeping in view the above literature, the following research hypothesis was developed.



- Individuals in Mass Marriages would show more interpersonal problems as compared to those in love marriages.

Methodology

Sample

The questionnaire based survey was conducted using a sample size of 200 married couples in which 50% married for love and the remaining 50% had their mass marriage by their family. The sample was recruited using snowball sampling. Homogeneity of the sample was ensured in terms of religion, socio-economic background, and family system; the sample was predominantly associated with the Islamic faith, belonged to middle socioeconomic background and lived in a joint family system. The demographic values for the research have been presented as under:

Table I. Demographic Information of the Study (N = 200)

Variable	f	%
Age groups		
20-25 years	44	22.0
26-30 years	66	33.0
31-35 years	40	20.0
36-40 years	50	25.0
Marriage type		
Mass Marriage	100	50
Love	100	50
Gender		
Men	100	48.5
Women	100	51.5

Table II. Psychometric Properties of the Interpersonal Problems Scale (N = 200)

Variable	α	M(SD)	Skew
Domineering/Controlling	.66	7.93 (3.47)	-.23
Vindictive/Self centred	.63	9.12 (3.43)	-.8
Cold/Distant	.62	8.09 (3.48)	-.9
Socially Inhibited	.72	8.81 (3.57)	-.44
Non-assertive	.61	8.58 (3.20)	-.48
Overly accommodating	.60	8.01 (3.24)	-.04
Self-sacrificing	.61	8.88 (3.45)	-.06
Intrusive/Needy	.70	8.50 (3.75)	-.10

Instrument

In order to collect data from the sample, a demographic sheet was used. The demographic sheet collected information about the age, gender, socio-economic background, family system and type of marriage.

In order to assess the interpersonal problems faced by the couples, the Inventory of Interpersonal Problems (IIP-32; Horowitz et al., 2000) was used. A self-report instrument, IIP-32 consists of 32 items addressing eight different types of interpersonal problem domains. The present study included six domains (6 sub-scales) e.g. domineering, vindictive, cold, socially inhibited, non-assertive, and intrusive behaviours



comprising 24 items. Two domains (overly accommodating, self-sacrificing) were not included as these domains are not perceived as interpersonal problems in Pakistani culture (Akhtar, Suhail, Rana & Singh, 2013). The instrument has good reliability ranging from $\alpha = .60- .80$ (Horowitz et al., 2000). The scoring for each item on a 5-point Likert-type scale that ranges from “not at all” (0) to “always” (4).

Research Design

We used a cross sectional two group design to examine six interpersonal problem domains (Horowitz et al., 2000) between love married and arranged married couples.

Procedure

Prior to data collection, informed consent was obtained from the participants. Couples who agreed to participate in the research were informed about the purpose of the research and assured about the confidentiality of their responses. Questionnaires were administered in order to compare interpersonal problems among couples in love and Mass Marriages.

Table III. Interpersonal Problems in Arranged and Love Marriages (N = 200)

Variables	DVs	SS	df	MS	F	P	η^2	Power
Gender	Dominating	6.34	1	6.34	.54	.46	.003	.11
	Vindictive	1.20	1	1.20	.11	.73	.001	.06
Mass Marriage Type	Cold	.050	1	.050	.004	.94	.000	.05
	Social Inhibition	3.34	1	3.34	.28	.59	.001	.08
	Non-Assertive	1.19	1	1.19	.12	.73	.001	.06
	Intrusive	10.18	1	10.18	.78	.37	.004	.14
	Dominating	67.47	1	67.47	5.70	.01	.028	.66
Gender* Marital Status	Vindictive	241.81	1	241.81	22.68	.001	.103	.99
	Cold	6.69	1	6.69	0.54	.46	.002	.11
	Social Inhibition	204.70	1	204.7	17.23	.001	.080	.98
	Non-Assertive	46.92	1	46.92	4.65	.03	.023	.57
	Intrusive	226.98	1	226.9	17.42	.001	.081	.98
Error	Dominating	.095	1	.095	.008	.92	.000	.05
	Vindictive	19.43	1	19.43	1.82	.17	.009	.26
	Cold	.72	1	.72	.06	.80	.000	.05
	Social Inhibition	3.72	1	3.72	.31	.57	.002	.08
	Non-Assertive	17.42	1	17.42	1.72	.19	.009	.25
Total	Intrusive	9.06	1	9.06	.69	.40	.004	.13
	Dominating	2317.13	196	11.82				
	Vindictive	2088.87	196	10.65				
	Cold	2397.93	196	12.23				
	Social Inhibition	2328.27	196	11.87				
	Non-Assertive	1977.13	196	10.08				
Total	Intrusive	2553.75	196	13.02				
	Dominating	2391.02	199					
	Vindictive	2347.12	199					
	Cold	2405.55	199					
	Social Inhibition	2541.39	199					
	Non-Assertive	2040.87	199					
Total	Intrusive	2802.00	199					



Results

Table 2 shows that reliability of different domains of the interpersonal problems was satisfactory and it ranged from moderate ($\alpha = .60$) to high ($\alpha = .72$) Two factor MANOVA was computed to examine the impact of Mass marriage type and gender on interpersonal problems of married couples. Findings, Table 3 shows that the main effect of mass marriage type on interpersonal problems was significant, $\lambda(6, 191) = 14.44, p < .001$. Post-hoc analysis indicates that individuals in Mass Marriages were more domineering ($M = 8.51, SD = 3.61$) and vindictive ($M = 10.21, SD = 3.39$), when compared to those who had love marriages. Findings also indicate that individuals who had married for love had high social inhibitions ($M = 9.82, SD = 3.01$), were non-assertive ($M = 9.05, SD = 2.85$), and indicated intrusive behaviours ($M = 9.57, SD = 3.48$), when compared to individual's whose marriage had been mass marriage. However, individuals in love as well as Mass Marriages do not differ significantly on cold behaviors. Results also indicate that the main effect of gender on interpersonal problems was non-significant, $\lambda(6, 191) = .38, p = ns$. Furthermore the interaction effect of gender and mass marriage type was also found non-significant, $\lambda(6, 191) = .88, p = ns$.

Discussion

The main aim of this research was to compare the interpersonal problems of couples in mass marriage and love marriages. The research hypothesis proposed that individuals in Mass Marriages would show more interpersonal problems as compared to those in love marriages. The hypothesis was partially supported with significantly higher existence of domineering attitude and vindictive interpersonal problems in arranged marriages. The finding related to higher level of domineering in Mass Marriages is consistent with those of Allendor and Ghimire, (2013) who conducted a research of Mass Marriages in Dutch families and concluded that the dominance of father over the daughter in Mass Marriages is substituted by the dominance of the husband and thus the relationship is likely to sustain with the husband having an interpersonal problem of domineering behaviour. Findings of this study also indicated that individuals in Mass Marriages tend to be vindictive towards each other. One possibility for this finding could be that individuals in Mass Marriages try to comply with social and familial traditions rather than fostering genuine care and positive feelings for each other. Hence, they sustain their marital relationship even if they lack psychological satisfaction and mental compatibility which ultimately results in poor marital quality. The finding of this research showed that social inhibition levels are higher in love marriages. One possibility for this finding might be that in some cases, family members try to hide if their son or daughter had a love marriage. Consequently they discourage the love married couple to socialize more with other relatives of the family. Whereas couples in mass marriages had less socially avoidant behaviours than love marriage couples. They take part in their family gatherings and allowed to socialize with others. Non-assertiveness was also found higher in individuals in love marriages. In Karnataka culture, the couples entering in a love marriage have to prove themselves as a right choice for each other for their families. In the process of gaining social approval for both families, they are likely to depict non-assertive behaviours and compliance with the wishes of the family. Rubio (2014) indicated that partners in love marriages know each



other before the wedding and therefore they develop a greater need of each other than couples in mass marriages. Thus this finding of more intrusive behaviour in love marriages is justified.

Conclusion

Positive social relationships are fundamental in the establishment of a healthy and sustainable society; harmonious marital relations are a cornerstone of these social relationships (Silvera& Seger, 2004). Results of the present study indicate that couples in both love and mass marriages experience interpersonal problems in their marital relationships. The nature of these interpersonal problems however differs according to the type of marriage. Partners in Mass Marriages experience more domineering and vindictive behaviours towards each other, whereas partners in love marriages face greater social inhibition, non-assertive and intrusive behaviours.

Limitations

The results of the present study should be considered keeping in view the following limitations:

1. The present study was a cross sectional survey and it is recommended for future researchers to conduct a longitudinal research to investigate impact of the types of mass marriages on interpersonal problems; as love is a phenomenon that is dynamic in its approach and is influenced by time and domestic circumstances.
2. As the present research is a survey study, future research could focus on a mixed method study. This will help researchers understand the intricate problems married couples face in Northeast Karnataka.

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PERCEPTION AND PREPAREDNESS OF NURSING STUDENTS REGARDING COVID-19

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Introduction:

Coronavirus (CoV) infections are emerging respiratory viruses and are known to cause illness ranging from the common cold to severe acute respiratory syndrome (SARS).¹CoV is a zoonotic pathogen that can be transmitted via animal-to-human and human-to-human interaction.² Novel coronavirus leading to disease called as COVID-19, stepped into the world through gateway of Wuhan, China in December 2019. From that point forward, it has shaken all almost all the spheres of society including our health care system and our routine way of living. Wearing masks, frequent sanitization of hands, social distancing, lockdown are few new 'NORMAL'. As per the data on 23rd July 2020, more than 15 million people are affected with nearly 6.3 lac deaths across countries.³ India has seen an alarming slide in recent days amid relaxations being rolled out following eight weeks lockdown.

Since Mid March 2020, India closed its schools and colleges as one of the immediate measures to contain the spread of Virus, with nursing colleges remain no exception. An extended period of lockdown is creating some psychological and emotional changes in people of every age. Nursing students, usually who remained to be busy with completing their assigned theoretical and clinical instruction, were clinged to their smart devices to attend online classes. The topic of virtual classrooms, as a concept which used to had little attention earlier in nursing education, suddenly became a grand reality. All this changed way of living had a strong influence on the physical, emotional and overall health of the nursing students. These social, academic changes are largely determined by nursing students' perception toward all these happening around them in this pandemic of COVID-19. As nursing students are also the future workforce in providing health care services and they could be even seen working actively with COVID-19 patients if the number of cases proportionally increase in upcoming weeks/months, therefore it is important to assess their perception and preparedness regarding COVID-19. The present study was planned with the objective to identify Nursing students perception and preparedness regarding COVID-19. The findings of the study will generate empirical evidences about the lacunae and deficits in improving their perception and also to prepare them better for facing such challenges both physically and emotionally.

Material and Methods : The study was a descriptive survey carried out through an online survey. A questionnaire was created by using Google forms, with a consent form



appended to it. The link of the questionnaire was sent to professional whatsapp groups all over India, in which nursing faculty were enrolled. The nursing faculty were urged to roll out the survey to as many conceivable nursing students. On receiving and clicking to the online link, nursing students got directed toward instructions to fill up the questionnaire. After nursing students agreed to participate in the survey they were directed to fill up the demographic details. Then a set of thirty questions appeared sequentially, which the participants were to answer to assess their perception and preparedness toward COVID-19. All the questions were to be answered as 'Yes' and 'No'. It was an online study. Participants with access to the internet could participate in the study. Participants with age more than 18 years, able to understand English and willing to give informed consent were included. The socio-demographic variables included professional course of study, year of study, habitat, whether living in containment zone. There were 22 questions related to perception and 8 questions related to preparedness regarding COVID-19. Descriptive statistics was used to analyze the findings.

Results : The data was coded and analyzed through SPSS17.0. There was an overwhelming response from 15 states across India. Table 1 reveals basic profile of nursing students, where 82.6% of students were from B.Sc. Nursing and only 4% were M.Sc. Nursing. A greater number of the nursing students (60.3%) were from rural background and more than half (53.4%) were either in their first or second year of training. Regarding their current stay in containment zone, 36.2% were living in containment zone at the time of data collection.

Table 2 depicts perception of nursing students regarding COVID-19. Majority of the nursing students (91.4%) reported COVID-19 as a big challenge to tackle in current scenario and 88.2% of the students felt uncomfortable with rising cases of COVID-19 in India. Nearly 80% nursing students feel anxious after watching/reading news about COVID-19. More than three fourth (77.2%) of the nursing students perceived that post pandemic their way of living is significantly affected. Regarding academics, 88.1% of the students feel that their study is affected due to lockdown, while 63% were comfortable with virtual mode of learning. Another 67.3% of nursing students feel that lockdown has provided them more time for self-study. Majority (87.3%) of the students feel that their clinical skills related to nursing care are affected during lockdown, 89.4% of the students reported their perception as challenges and pressure on study will increase after lockdown. Physical exhaustion and emotional discomfort during lockdown were felt by 65% and 59.8% students respectively. More of family attachment was reported by 88.5% of the students, 77.3% of the students reported that social media is helpful to fulfill gap of face to face communication. Nearly 80% of the nursing students feel that lockdown has provided them opportunity to spend some time in solitude or meditation to keep themselves calm. Majority (89.3%) reported to have become more sensitive about social problems like poverty, helplessness etc, 70% of the students feel that this experience has turned them more towards spirituality. Half (48.6%) of the students feel that it will stay with us like any other disease, while 61% feel that it is going to affect our Indian population significantly in upcoming days.



Majority, 77.3% and 78.3% respectively feel optimistic that effective treatment and vaccine will be available in near future to combat the problem of COVID-19. Only 63.4% students reported their satisfaction with current control measures taken by the government. Nearly three fourth of the nursing students perceived that COVID-19 patients or suspects are facing social discrimination.

Possession of sufficient knowledge and skills regarding COVID-19 were reported by 85.3% and 79.4% nursing students respectively. Regarding preparedness to deal with situation, majority of the nursing students reported to be prepared with almost all the aspects of change i.e hand hygiene (96.9%), practice social distancing (95%), wearing mask (97.2%), avoiding social gatherings (92%). Nearly three fourth (74.3%) of the nursing students perceived themselves to be adequately prepared to live with 'NEW NORMAL'. Majority (82.7%) of the students felt motivated to care for COVID-19 patients (Table 3).

Discussion:

Perception of nursing students plays a very important role in determining their priorities, whereas preparedness determines nursing student's readiness to combat with the give situation. The present study was conducted to ascertain perception and preparedness of nursing students towards COVID-19. Majority (90%) of the nursing students in the present study perceived COVID-19 as a big challenge, Likewise 95% of the students at Gaya considered Corona as great challenge.⁴ All epidemics and pandemics have their unique characteristics in terms of causality, progression and control measures. Lock down and prevailing pandemic of COVID -19 has significantly affected student's academics and especially with acquisition of their clinical skills , for which nursing students also raises their concern. Only 37% students cited their comfort with virtual mode of learning, the findings could be attributed to the network/internet issues posing as major challenges to success of online sessions in India which also highlights digital divide across the country. There is considerable percentage of the respondents all over India who have used the e-learning mode of education for the first-time during lockdown phase which affects the perception of the students towards e-learning as well as effectiveness of the sessions.⁵ Perkins A et al indicated that the COVID-19 pandemic has changed the way student paramedics learn, forcing them to adjust and adapt to studying in isolation and learning online. These dramatic changes to paramedic learning, although untimely and inconvenient, have presented several opportunities in developing professional skills such as adaption and improvisation; skills required by paramedics.⁶

Another common expression among students was anxiety, 78% in the present study, similar findings were also reported by Roy D. in which more than 80 % of the participants were preoccupied with the COVID-19 pandemic over the past week. Approximately 40 % of the participants were paranoid with the thought of contracting the Novel Coronavirus infection over the past week.⁷ Optimism was also demonstrated by most of the nursing students 77.3% and 78.3% reported to have impression that



COVID-19 treatment and vaccine will be available shortly, the hope and optimism among Chinese residents was also reported by Zhong BL et.al.⁸

Johanson and Hariharan reported that it is crucial to provide health education and create awareness during such situations for effective prevention of disease spread.⁹ Acharya S et al revealed 17.7% nurses responses were having good awareness and 26.2% responses were in favour of satisfaction.¹⁰ It has been seen in a previous study that health professionals often have better awareness, positive attitudes towards epidemics/pandemics.¹¹ In the present study 85.3% and 78.4% of the nursing students reported to have sufficient knowledge and skills related to COVID-19, similar finding was quoted by Kant R, where 99.2% students of Central University of Gaya were aware about general symptoms of Corona. which could be attributed to readily accessible information of COVID-19 through print and electronic media. Even government agencies are also playing an important role in disseminating the factual information about COVID-19.⁴ Related study by Saqlain M et al found that the majority of HCWs have good knowledge 93.2%.¹² Kumar H et al reported that health professional 50.4% had good, 41.8 excellent and 7.8% adequate knowledge on covid19.¹³

The present study showed that 96.9% students used hand sanitization, 95% maintained social distancing, 97.2% were wearing face mask, 74.3% prepared to live with “NEW NORMAL”. Similarly, study by Roy D. et.al reported frequent use of sanitizers, hand wash, and masks during the past one week by the participants. This indicates the increasing concern of participants towards personal hygienic measures to avoid COVID-19 infection.⁷ Kumar H et al has also shown that 31.4% health professional were agreeing and 17.9 strongly agreeing for hand hygiene, 70% were agreeing about social distancing and 47.7% were agreeing and 44.2% strongly agreeing to wear a face mask.¹³ Similar finding were also reported by Bhagavathula AS et al¹⁴ and Elhadi M et al.¹⁵

Conclusion:

During this coronavirus pandemic, most of the nursing students are aware of this infection, possible preventive measures, the importance of social distancing and were optimistic about control measures related to COVID-19. The pandemic has turned them more sensitive toward social members and spirituality. However, there are increased worries and apprehensions about effect of COVID-19 on academics and clinical skills. Nursing educators can play a significant role to innovate education technologies and help the nursing students to cope up effectively with these concerns so that nursing students feel empowered so that they can work effectively in upcoming challenging situations.

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Table1: Basic Information of Nursing Students. N=1200

Sr. No.	Characteristics	f (%)
1.	Professional Course of Study	
	BSN/Post Basic BSN	991 (82.6)
	GNM	161 (13.4)
	MSN	048 (04.0)
2.	Habitat	
	Rural	724 (60.3)
	Urban	476 (39.7)
3.	Year of study	
	First Year/Second Year	652 (54.3)
	Third Year/Final Year	548 (45.7)
4.	Are you currently living in containment zone	
	No	766 (63.8)
	Yes	434 (36.2)

NB: BSN= B.Sc. Nursing, GNM= General Nursing and Midwifery, MSN= M.Sc. Nursing.

Table 2 : Perception of Nursing Students regarding COVID-19. N=1200

Sr. No.	Items	Yes f (%)	No f (%)
1.	Do you feel COVID-19 has become a great challenge to tackle	1097 (91.4)	103 (08.6)
2.	Do you feel uncomfortable with rising cases of COVID-19 in India	1058 (88.2)	142 (11.8)
3.	Do you feel your way of living is significantly affected by COVID-19	0926 (77.2)	274 (22.8)
4.	Do you feel your study is affected during lockdown	1057 (88.1)	143 (11.9)
5.	Do you feel comfortable with virtual mode of learning	0444 (37.0)	756 (63.0)
6.	Do you feel lockdown has provided you more time for self-study	0807 (67.3)	393 (32.8)
7.	Do you feel clinical skills related to nursing care are affected during lockdown	1048 (87.3)	152 (12.7)
8.	Do you feel challenges and pressure on study will increase after lockdown	1073 (89.4)	127 (10.6)
9.	Do you feel/ had felt physical fatigue while being in house for an extended period of time during lockdown	0790 (65.8)	410 (34.2)
10.	Do you feel/had felt emotional discomfort during lockdown	0717 (59.8)	483 (40.3)
11.	Do you feel anxious after watching/reading news about COVID-19	0936 (78.0)	264 (22.0)
12.	Do you feel more attached to your family during lockdown as it was earlier	1062 (88.5)	138 (11.5)
13.	Do you feel social media is helpful to fulfill gap of face to face communication	0927 (77.3)	273 (22.8)
14.	Do you feel to spend some time in solitude or meditation to keep yourself calm	0955 (79.6)	245 (20.4)
15.	Do you feel COVID -19 experience has made you more sensitive about social problems like poverty, helplessness	1072 (89.3)	128 (10.7)



	etc		
16.	Do you feel yourself to be more spiritual as it was earlier	0849 (70.8)	351 (29.3)
17.	Do you feel COVID-19 will stay with us like any other disease	0583 (48.6)	617 (51.4)
18.	Do you feel optimistic that COVID-19 will not affect Indian population significantly in upcoming days	0464 (38.7)	736 (61.3)
19.	Do you feel optimistic that effective treatment for COVID-19 will be available in near future	0927 (77.3)	273 (22.8)
20.	Do you feel optimistic that effective vaccine for COVID-19 will be available in near future	0940 (78.3)	260 (21.7)
21.	Do you feel satisfied with the current control measures taken by our central/state government in effective containment of COVID-19	0761 (63.4)	439 (36.6)
22.	Do you feel that COVID-19 patients/suspects are facing social stigma	0923 (76.9)	277 (23.1)

Table 3: Preparedness of Nursing Students regarding COVID-19.

N=1200

Sr. No.	Items	Yes f(%)	No f(%)
1.	Do you feel to possess sufficient knowledge about sign/symptoms of COVID-19	1024 (85.3)	176 (14.7)
2.	Do you feel to have sufficient skills about protecting yourself while providing care to patients	0941 (78.4)	259 (21.6)
3.	Do you feel yourself to be prepared for frequent hand-washing/sanitization	1163 (96.9)	037 (03.1)
4.	Do you feel yourself to be prepared to practice social distancing	1140 (95.0)	060 (05.0)
5.	Do you feel yourself to be prepared to make use of mask at public places	1166 (97.2)	034 (02.8)
6.	Do you feel yourself to be prepared to avoid social gatherings till the pandemic continues	1104 (92.0)	096 (8.0)
7.	Do you feel yourself to be sufficiently prepared to live with 'NEW NORMAL'	0891 (74.3)	309 (25.8)
8.	Do you feel yourself motivated to care for COVID-19 positive patients	0992 (82.7)	208 (17.3)



SIDDHAS AND SOCIAL JUSTICE IDEAS IN MEDIEVAL TAMILAKAM

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Abstract:

The Siddhar in Tamil tradition is a perfected individual, who has attained spiritual powers called siddhi. In fact, they were knowledgeable in science, technology, astronomy, literature, fine arts, music, dance, drama and provided solutions to common people in their illness and advice for their future. There are eighteen Siddhas in the Tamil Siddha tradition. They wrote their findings in the form of poems in the Tamil language on palm leaves. This paper tries to unravel the social justice ideas preached by them through their poems.

Key words: Siddhas - medieval Tamilakam - their poems - social justice ideas

The medieval South India witnessed a group of Scholars, who attacked caste system and idol worship; they worked for the upliftment of women and condemned superstitious beliefs. They preached the ideas of social justice through their poems. Known as the Siddhas, they were eighteen in number. They were vehement critics of caste system and rituals who spearheaded a storm in the intellectual front in Tamilnadu. They were iconoclasts who were opposed to temple worship and Brahmin priesthood¹.The present article tries to explore the ideas of social justice from the writings of the Siddhas.

A Siddha was a person who attained siddhi, a magical occult power. There were two things to be noted regarding the Siddhas, viz,(1) they have been invariably Saivites and one cannot hear of Vaishnava Siddhas,(2) they are non-Brahmins and are noted for their pronounced anti-brahminical stand.²

The Siddhas were in a sense rebels; they pooh-poohed idol worship and preached to the common folk that the God could not be found in temples or in the sanctum sanctorum or in the stone images installed in temples. God can be known and realized only by intense concentration of the mind, weeded of all its grossness of desire and attachment. They rebelled against the nauseating caste system, sickening superstitions, foolish fanaticism, repelling rituals and the launching interpretations of the Vedas. Agamas and Mantras by the Brahmins and the intimidating tales they wove to admonish any free thinker.³The Siddhas like Tirumular, Sivavakkiyar, Pattinattar and Baddaragiriya, belong to the period that stretches from the sixth to the tenth century AD.⁴

Even Hindu Saints began to raise their voice against the caste system and the lead in this regard could be found in the utterance of Tirumular. Saint Tirumular is the earliest and greatest of the Tamil Siddhas. He is considered to be the “father of Tamil Siddhas”.



His proclamation, “there is one God and one community” had played a vital role in the field of social reform of the Tamil Country.⁵ It is implicit in this stanza, a disapproval of the fight for supremacy among the religion that prevailed during Tirumular’s time; caste system and differences based on race do not find support in Tirumular. He openly denounced Brahmin’s priesthood. He even questioned the caste marks of the Brahmins.⁶

The tenth Tirumular had mentioned about Brahmins. He believed that if Brahmins were allowed to work as priests in the temples, it would bring misfortune to the king and it would be followed by famine in the country.⁷ “The rolling hair and sacred threads could not make a Brahmin; we should cut off the hair and sacred thread of the Brahmin”⁸ –he said. The Brahmins would certainly cheat the people and the king. The king should check the Brahmins’ supposed knowledge and restrict them if they act like prodigy.⁹ The Brahminshad no sense of reality, no knowledge and no rational thinking; they were mad and fools, he felt.¹⁰

A revolutionary to the core, Sivavakkiyar in the five hundred and eleven stanzas of his poem, revolted against religious orthodoxy and sectarianism. In a very sharp language he repudiated the authority of the Vedas and agamas, the sanctity of temples and the value of worship in them. Regarding idol worship he asked: “why should you garland a stone God and makes rounds and rounds around the planted stone all the time murmuring mantras?. How do you expect the stone to speak when God himself is within you”¹¹. And again, in another stanza, he quipped: “Neither a real temple nor a sacred pond exists in the outer world. Listen to me, O! ignoramus. They in reality exist within you”.¹²

Philosophic in outlook, the whole poem is written in the language of the common people. Sivavakkiyar was a critic and worth his robust common sense and scientific bent of mind, raised the following, “The offspring as the result of consummation between a cow and a he-buffalo does not belong to any of the parental species but to a new cross species. But the baby of an untouchable Pulaichi woman fused by a Brahmin does not differ from the human species. Does this not expose the fallacy of the caste system”.¹³

A typical verse of his, which attacked the Brahminic priesthood, goes as follows

**Then and now, O! Priests, you ate no fish,
Are there not fish in the water?
Where you bathe and drink?
Then and now, O! Priests
You ate no venison
Is not the thread on your bosom?
Made of deer skin¹⁴**

Sivavakkiyar ridiculed the recitation of Sanskrit couplets from the Sastras and spoke disparagingly of those who emphasized caste divisions

Who is an untouchable woman and who is Brahmin woman?

Is there any mark put on their flesh, skin or bone?

Is sexual desire of the untouchable different from that of Brahmin woman?

The difference between an untouchable woman and Brahmin woman is only in your mind.¹⁵



Sivavakkiyar's use of the common speech and his frequent reference in a contemptuous tone to sex and biological facts of human birth constitute the basis for the charge of vulgarity against him. To the modern mind these may produce a feeling of indecency.

Another great Siddha, Pattinathar attacked idolatry as follows.

**“My God is not a chiseled stone...
Nor is the cleansed with tamarind
Like images of bronze
I cannot worship such as these...
But in my heart, I place the feet
The Golden feet of God”¹⁶**

Perhaps the best human metaphors representing social transformation in Tamil Nadu as Pattirahiriyar. In matters of religion, rituals and caste he is nearer to Sivavakkiyar than to Pattinathar. Pattirahiriyar is known as 'people's poet'. His lamentation (Pulambal) were well known to the common people of Tamilnadu. Two of his verses are as follows.

**When my thoughts be
fixed alone on Him
Who is Himself all sweetness,
Made all things
Whom all the Vedas sought,
though seeing dim.
Who save him that to his mercy clings?
When shall we be one great brotherhood?
Unbroken by the tyranny of caste
Which Kapila in early days withstood
And taught that men were one in times
now passed?**

In the first, one discovers a provisional acceptance of the Sanskritic Vedas although they saw only dimly. There was, however a cry to Siva who would offer his compassionate grace (arul) to those who clung to him in love (anbu). The second verse was even more important. Anbu or love is extended to the social structure in the deal of casteless 'brotherhood'. A future hope is expressed in terms of what is claimed to be past reality. A casteless society is longed for not as good for which one strives, but as return to an original condition.¹⁷

Pattirahiriyar made an appeal for burning the Sastras and to dispense with Varnashrama. He was also for rooting out the sudrahood¹⁸. Pattirahiriyar yearned for the day when casteism would vanish.¹⁹The figure Pattirahiriyar assuming the name Kapila, composed poems. He condemned caste system and imposed the responsibility of forcing the fourfold caste system in the Tamil society by the Brahmins.

**Oh Brahmins, listen to me
In all his blessed land
There is but one great caste
One tribe and brotherhood
One God doth dwell above**



**And he has made us one
In birth and frame and tongue
If, therefore oh ye fools
You would observe and do
The precepts of your ancestors
Give aims to all who need
And, as for his life, avoid
All that is mean.**

Thus, it is obvious that the Tamil tradition, as with all traditions, was always in flux. There was always protests against Brahminic supremacy and the Varna system and his protest justified itself by appealing to an earlier age.²⁰

The Nanvettiyan, a later work, fathered on Valluvar is important in this respect. Its author proudly declared that he belonged to a caste called the Sambhava which buried the carcass and cremated the corpses. According to him the Sambavas constitute the first and foremost among all the castes and they are related to the Hindu supreme Gods. He complained: When all the castes appear from Yoni (Vagina) why do the upper caste call us sneeringly the 'beef eating foolish Payaras'?.²¹Nanvettiyan again asks: "O Brahmins! Is there any rank for the semen as high and low? Is your semen fair and ours dark? He added further, "it is true that different species of the animal kingdom cannot procreate by copulation, but it is not so if a Brahmin cohabits with a Paraya woman. So there is no caste in the world except the males and females"²²

Akappey, Alukuni,Itaikkattar,Katuveli, Enathi, Kalai, Kutampai and Pampatti are considered to the later Siddhas. Not only are their real names shrouded in mystery but also the age in which they lived in the 15th, 16th and 17th centuries and they have been given their names from their poems.²³ The later Siddhas differed in no way from the earlier ones, except that their poetry was much inferior in quality . But their poetry is easier to understand than that of the earlier Siddhas. Undoubtedly, the later Siddhas sang their songs for the masses by using the coarse language and adopting a simple style.

The last and yet a very conspicuous in the list is Pampatti, the snake-charmer. The expression atupampe(Do thou dance, O! snake) is a refrain at the end of each stanza of his poem of nearly 600 lines. He denounced caste differences and bowls. He ridiculed idol worship and the Vedas, Agamas and other scriptures. The caste differences are denounced by him. He assails the four Vedas, various Puranas, Shastras and Tantras by calling them rubbish and sings Lord Siva as the supreme power of the universe.²⁴ Pampatti Siddha declares.

**“ We will set fire to divisions of caste
We will debate philosophical questions in
The market place
We will have dealings with respired household,
We will go around in different paths”**

The poems of later Siddhas reformed to above appear to have been conceived and written as literature for the masses. These Siddhas were the earliest poets who wrote for the masses, and wanted their art to reach them.

Generally the idea of social justice is depicted in their poems and it is philosophically substantiated. The purity and impurity which were advocated by the



Vedic tradition were viewed by the Tantras and Siddhas from an opposite angle. They teach the existence of one supreme God and the need for feeling of identity with the faith in him. Besides, absolute equality of all, irrespective of caste or creed, and the need for each individual to develop his inner life by spiritual effort to know and realize are also stressed by them. Indeed the works of the Siddhas served a substantial role in the social transformation of South India in general and Tamilakam in particular.

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संस्कृतेः लक्षणं स्वरूपं परिभाषाच – एकासमीक्षा

ड. दिलीपकुमारपण्डा

सहयोग्यध्यापकः

संस्कृतविभागः

घाटालरबीन्द्रशतवार्षिकी महाविद्यालयः

घाटालः, पश्चिममेदिनीपुरः

पश्चिमवङ्गः

भारतवर्षः

कस्यापिजातेः जीवनावर्तनसमष्टिरेव संस्कृतिरिति तु सर्वेषामेव समुत्पत्तिसंस्कृतस्याः लक्षणं स्वरूपं परिभाषादिव षये विचक्षणानैकमत्यं भजन्ते। केचित्संस्कृतिसंस्कारसंभ्यतयोः समष्टिमन्यते,

अपरे तु संस्कृतित्त्वं न्नमेवान्तरत्वमेव। सामान्यतोलक्षणं हि अद्यास्यतिव्यास्यसम्भवदोषत्रयशून्यमितर व्यावर्तकमसाधारणधर्मप्रतिपादकं वाक्यमङ्गितिदार्शनिकाः। स्वरूपत्वञ्चसंसारान्तराविशिष्टप्रत्ययजन नयोग्यत्वम्। स्वशास्त्रकृतासाधारणसङ्केतएवपरिभाषा। अनियमेनियमकारिणीचपरिभाषा इतिवैयाकरणाः।

सामान्यतः संस्कृतिशब्दः शोधन-उन्नति-कर्षण-समुत्पत्ति-संभ्यता-विकाश-आभूषण-अनुशासन-

प्रसाधनाद्यर्थेषु तत्र तत्र प्रयुक्तोद्देश्यते। किन्तु शास्त्रापेक्षया संस्कृतिस्तद्व्यतिरिक्तमेवार्थमावहति।

व्युत्पत्तिदृष्ट्या संस्कृतिशब्दः सम्पूर्वकात्कृञ् (करणे) धातोर्भावेति प्रत्यये सुडागमे सिध्यति,

संस्कृत्यते अनेयेति व्युत्पत्त्या अस्यामिति वा। सुडागमस्य “सम्परिभ्यां करतौ भूषणे” (पाणिणीयसूत्रसंख्या -

६/१/१३७) “समवायेच” (पाणिणीयसूत्रसंख्या - ६/१/१३८)

इति सूत्राभ्यां भूषणे समवाये चार्थं भवति। अतः पूर्वसूत्राणुसारेण “समितिसम्यक्शोभनायाकृतिः क्रियासासंस्कृ

तिः” इति। एतत्प्रत्ययानां भावे एव सत्त्वात् तत्सिद्धानां संस्कृति-संस्करण-संस्कार-संस्कृतशब्दानां नानर्थन्तरत्वम्।

व्याकरणं हि व्याक्रियन्ते प्रकृतिप्रत्ययविभागेन व्युत्पाद्यन्ते अर्थवतया प्रतिपाद्यन्ते श्वायेनेति। समवायश्चकैयट

मतानुसारेण कस्याञ्चित्क्रियायां मेलनं हरदतानुसारेण समुदितइति। भट्टोजिदीक्षितानुसारेण तु सङ्घीभावइ

ति। तेन हितदनुसारेण विचाराचारव्यवहारसमुदिता तन्निर्देशिका विशिष्टा क्रियैव संस्कृतिरिति।

एतद्व्यतिरिक्तं शोधने अर्थे अपि सुड्विधानं “संस्कृतं भक्षाः” (पाणिणीयसूत्रसंख्या - ४/२/१६)

इति सूत्रे तथा दर्शनात्। कृतिः करणं क्रियावा। क्रिया तु आरम्भ-निष्कृति-शिक्षा-पूजन-सम्प्रधारण-उपाय-कर्म-चेष्टा-

चिकित्साप्रभृतिनवविधैर् अर्थे प्रयुज्यते। एतद्दृष्ट्या मानवजीवनवर्तननिर्देशिका विचाराचारव्यवहारसमुदिता क्रियैव संस्कृतिरिति निर्गलितोऽर्थः।

वेदे वैदिकसाहित्ये तदुत्तरवर्तिसाहित्ये च यत्र तत्र संस्कृतिशब्दः प्रयुक्तोद्देश्यते

, दृश्यते च तत्र प्रकरणानुसारेणार्थवैविध्यमपि। वाजसनेयसंहितायां श्रुयते –

“अच्छिन्नस्य ते देवसोमसुवीर्यस्य रायस्पोषस्य ददितारः स्याम।

साप्रथमा संस्कृतिर्विधवा रासप्रथमो वरुणो मित्रो अग्निः ॥” इति। (वा.स.सं - ७/१४)



व्याख्यातीमुब्वटः –

“जुहोतिसाप्रथमायस्येन्द्रस्यसाप्रथमासंस्कृतिः।सप्रथमःसोमसत्कारःक्रियतेसोमक्रये।सादिविदेवमच्छेहीन्द्रायसोममिति।कथम्भूतासंस्कृतिः ?

विश्ववाराविश्वैःसर्वैर्यत्रसोमोव्रियतेऋत्विग्भिराहुतिभिश्चाविश्ववावृणोतीति।सोमेक्रीयमाणेयत्रजगदुत्पत्तिवीजत्वात्साविश्ववारासंस्कृतिः”इति।

महीधरोहिव्याख्याति –

“साप्रथमामुख्यासंस्कृतिःसोमसंस्कारोयस्येन्द्रस्यक्रियतेइन्द्रार्थक्रियतइत्यर्थः।सोमक्रयेसादेविदेवमच्छेहीन्द्रायसोममित्युक्तत्वात्।किम्भूतासंस्कृतिःविश्ववाराविश्वैःसर्वैःऋत्विग्भिस्मृत्विग्भिश्चव्रियतेयत्रसोमःसाविश्ववाराजगदुत्पत्तिवीजत्वात्

.....”इति।एतेनहिसोमस्यसत्कारएवसंस्कृतिःसोमस्यसंस्कारएवसंस्कृतिःसोमस्यसत्कारसंस्कारादयोयत्रहिक्रियन्तेसासंस्कृतिरेवप्रथमाविश्ववाराचेतित्रिविधोऽर्थोऽवगम्यते।सोमोयत्सत्क्रियतेयच्चसंस्क्रियतेतत्संस्कृतिरेव।सोमसत्कारस्तत्संस्कारश्चविश्वस्यैवप्रथमासंस्कृतिरितिचाराचारयोःसंस्कृतेरङ्गत्वमध्युक्तमत्र।

शतपथब्राह्मणेत्तत्रत्रोक्तम् –

“अथातःसंस्कृतिरेवसा।याअमूरेकदशेष्टकाउपदधाति”। (८/४/११)

“सजुहोति।साप्रथमासंस्कृतिर्विश्ववारा”। (४/२/१/२७)

“नैतस्यपुरुषस्यवाहुकुर्यात्....।एतयोरेवसासंस्कृतिरेतयोर्वृद्धिः”। (७/३/१/४५)

तत्रतत्रप्रयुक्तःसंस्कृतिशब्दःव्याख्यातृभिःपृथगपृथगर्थवोधाकत्वेनव्याख्यातोदृश्यते।प्रथमेवाक्येगुणान्तराधानंसंस्कृतेरर्थइतिकेचिद्वदन्ति, द्वितीयेसोमस्यक्रयरूपायासंस्कृतिःक्रियतेसाप्रथमेति,

तृतीयेगुणोत्कर्षहेतुःसंस्कारइति।परेतुतद्विपरीतंसंस्कृतिशब्दस्यतत्रतत्रान्यमेवर्थकल्पयन्ति।यथाप्रथमेवाक्येएकादशेष्टकोपधानंसंस्कृतिः, द्वितीयेसोमक्रयरूपायासंस्कृतिःसाविश्ववारेति,

तृतीयेतुतथैव।एतरेयब्राह्मणेउक्तम् –

“आत्मसंस्कृतिर्दावशिल्पानिछन्दोमयंवाएतैर्यजमानआत्मानंसंस्करुते”। (६/५/१)

एवमेवएतरेयारण्यकेऽपि –

“यानिदशनवप्राणाआत्मैवदशमःसात्मनःसंस्कृतिरष्टावष्टाउघन्तेऽश्रुतेयघत्कामयतेयएवंवेदः” (१/३/७)

ताण्ड्यमहाब्राह्मणेऽप्युक्तम् –

“सुताइन्द्रायवायवइतिसंस्कृत्यै” (११/३/१) ।

“ देवस्थानंभबतिप्रतिष्ठायैसंस्कृतिर्भबतिसंस्कृत्यै ” (१५/३/२८)।

अत्रसंस्कृतिःसामगयनमितिव्याख्यातारः।

एतैरन्यान्यैश्चोदाहरणैःजायतेयत्,

संस्कृतिशब्दोहिविचाराचारव्यवहारार्थकत्वेनतत्रतत्रप्रयुक्तः।यतोहिविचाराचारव्यवहारेषुसंस्कारेणगुणान्तराधानंक्रियते, वैशिष्ट्याययत्तश्च।चाराणांविशिष्टानुभवःसङ्घीक्रियते,

यतोऽपिव्यवहाराणांपद्धतिर्निश्चीयतेसासंस्कृतिरिति।प्रकरणेऽस्मिन्विचारोमानसंकम्,

“यन्मनसामनुतेतद्वाचावदतितत्कर्मणाकरोतितदभिसम्पद्यत”



इतिश्रुतेः।तेनहिवुचारस्यउत्कृष्टतराअवस्थासंस्कृतिर्भवति।अस्मिन्पक्षेभावोभावनाभक्तिश्चेतित्रयोहिपक्षाविचार्यन्ते, यत्रभावोहिआत्मगतधर्मः,

भावनास्वंपरंप्रतिदृष्टिःभक्तिश्चसंलग्नता।आचारोहिधार्मिककृत्यनिर्वाहः।पक्षेणानेनभोजनभोगभागादयोविचार्यन्ते।व्यवहारश्चाचारस्यवाह्यःपक्षः।अस्मिन्पक्षेभाषाभुषाभेषभङ्गीप्रभृतयोःविचार्यन्ते।अतोहिसंस्कृतिदर्शभकारात्मिका,

दशभकारश्चभाषाभेषभुषाभोजनभोगभङ्गीभक्तिभावनाभावभागाः।लोकनृत्यादौसंस्कृतिशब्दोलाक्षणिकः।

पाश्चात्यविचक्षणैःसंस्कृतिशब्दस्यव्याख्या

मैथु- आरनाल्डमहोदयानुसारेणसंस्कृतिर्हिपूर्णतायाःसमष्टिःज्ञानस्यान्वेषणश्च।

टी. एस्

.इलियेटमहाशयानुसारेणसंस्कृतेःक्षेत्रमत्यन्तमेवव्यापकंभवति।एतद्विकाशस्वरूपंजातुंमानवोनितान्तमेवाक्षमो, यतोहितस्यसमग्रमेवजीवनंसंस्कृतेरङ्गमेवैकम्।

मलिनोरस्कीमहाशयस्यविचारेणसंस्कृतिर्हिमानवस्यहस्तोद्योगः।साहितत्साधनंयेनसस्वसाध्यंसाधयति।**पी.**

गिसवर्टमहोदयानुसारेणसाधनानांसम्पूर्णाजटिलताव्यावहारप्रणालीभौतिकीआध्यात्मिकाचरुचिरेबंसन्तोषश्चाधुनिकनृशास्त्रिभिःसंस्कृतिरित्युच्यते।

इ. बि.

टाइल्महोदयानुसारेणसंस्कृतिर्हिसानिःशेषाजटिलतायत्रज्ञानंविश्वासःकलाःनैतिकताविधिःप्रथाउत्सवाःसमाजिकत्वेनसमग्राक्षमताअभ्यासाःस्वभावाःशीलानिप्रवृत्तयःरूढयश्चसमाविष्टाभवन्ति।

रेड्क्लिफ्महोदयमतेननिरन्तरभौतिकनैतिकसुधारेणसुसभ्याव्यवस्थाप्राप्तिरेवसंस्कृतिः।

एडवर्डसापिरमहाशयानुसारेणसंस्कृतिर्हिमानवजीवनेप्राकृतिकाध्यात्मिकसामाजिकपक्षसाधितत्वमेव।एल्. एहाइट्मतेनसंस्कृतिर्हितादृशानांघटनानांसमूहोयत्रव्यवहाराःवस्तूनिविश्वासाःविचाराःज्ञानंभावुकताचेत्यादीनांसमावेशाभवति, याहिप्रतीकानामुपयोगेआधारिता।

कोशग्रन्थेषुसंस्कृतिशब्दस्यपरिभाषा

- 1) संस्कृतिर्हिकस्यांश्चिद्व्यक्तौसमाजनिमित्तंसायोग्यतायाहिकलासुसाहित्येआचरणेवौद्धिकाभिग्रहणेचयाश्रेष्ठतातस्यांरुचितस्तस्याःपरिचयाच्चजायते।
- 2) संस्कृतिर्हिसभ्यतायाःविशिष्टरूपंवाअवस्था, यथाग्रीक्संस्कृतिः।
- 3) संस्कृतिर्हिजीवनपद्धतेःपूर्णासासमष्टिर्याहिविशेषेणमानवसमूदायेननिर्मिताभवतियाचसन्ततिक्रमेणनिरन्तरंसंक्रमिताचलति।
- 4) संस्कृतिर्हिविशेषतःकस्यचित्समुदायस्यसमाजस्यवासामजिक्याःकलात्मिकायाश्चाभिव्यक्तेःप्रक्रियाएव।
- 5) संस्कृतिर्हिसामाजिकव्यक्तेवौद्धिककलात्मकक्रियाकलापः।
- 6) संस्कृतिर्हिशिक्षयाऽभ्यासेनचानुभवेनमानवशक्तेःवरिष्ठोविकाशःविकाशश्चहिमनःसत्वानाम्।
- 7) कस्यापिविशेषमानवसमूदायस्यजीवनपद्धतिरेवसंस्कृतिः।
- 8) संस्कृतिर्हिकस्यापिजनसमुदायस्यआचारव्यवहाररूपादीनांसमष्टिरेव।



९) संस्कृतिर्हिजनसमुदायस्यवौद्धिकविकाशस्यसाक्ष्यमेव।

इत्थं हि संस्कृतिविषये यानि खलु प्राच्यपाश्चत्यविचक्षणप्रतिपादितानि मतानि सन्ति तेषामालोचने सारतया एतदेव फलतियत्संस्कृतिर्हिमानवस्य भौतिकाभौतिकोभयविधसंस्कारसम्बद्धा भवति। साहिमानवस्यवौद्धिकमानसिकाध्यात्मिकाधैदविकाधिभौतिकाचारविश्वासविचारक्रियाणां समष्टिरेव। तेनेदं सप्रमाणंकथ्यते-

“विचाराचारव्यवहाराणां मानवसमुदायस्य समष्टिरेव संस्कृतिः

इति। परिभाषया अनया संस्कृतिविषये पञ्चपक्षा उतिष्ठन्ते। यथा -

- १) संस्कृतिर्हिमानवसम्बद्धा भवति।
- २) साहिभौतिकाभौतिकोभयपक्षसम्बद्धा।
- ३) साचपरम्परया संक्रमिता भवति।
- ४) साहिसर्वासामेव क्रियाणां नियामिकापथप्रदर्शिका च।
- ५) साहिव्यक्त्यनुगता सामाजिकी सम्पद च।

संस्कृतिः केवलमानवजात्यैव सम्बद्धा भवति। न हि पशुपक्षिप्रभृतयः संस्कृत्या साक्षात्सम्बद्धा भवन्ति। संस्कृतिरेव मानवयोऽन्यतरां पृथक् करोति सत्यपि आहारनिद्राभयमैथुनादिकर्मणि सामान्ये सर्वस्य। मानवेतरयोर्नो सम्यक्त्वासम्यक्त्यवयवभेदो भवति किन्तु मनुष्यो हि विवेकित्वात्स्वभावतयैव सौन्दर्यप्रेमि त्वाच्चापास्यासभ्यकत्वं सम्यक्कार्यतः स्वभूषयितुं जानाति प्रयतते चतदर्थम्। तस्य ह्ययमेव प्रयासः संस्कृतिपदवाच्यः। अतो हि मनुष्यः सर्वविधशाश्वतकल्याणाय यानेव विचारचारव्यवहारानवलम्बते सैव संस्कृतिरिति।

संस्कृतिर्हि सम्यक्प्रकरणकर्तव्या क्रियैव। तेन यत्र यत्र सम्यक्त्वं तत्र तत्र संस्कृतेर्भावः। असौ हि मानवजीवनस्य आध्यात्मिकभौतिकैहिकामुष्मिकपक्षैः सहसाक्षात्सम्बद्धा भवति। किञ्च सम्यक्तया भूषणमेव संस्कृतिः। न हि भौतिकपक्षीयोपलब्धिमात्रेण जीवनं भूषितं भवति नापि च ज्ञानमात्रेण सुखेच्छाप्रपूर्यते। प्रकारान्तरेण कथनेन हि ज्ञानमात्रेणोदरं परिपूर्यते न च वस्तुमात्रलाभेनात्माप्रसीदति। यदि हि भौतिकवस्तुशरीरपोषाय तथैव ज्ञानमात्मन तुष्टये भवति। उभाभ्यां सम्भूयैव जीवनं विभूष्यते। न समानवः केवलमैहिकसुखे एव रन्तुं शक्नोति, विवेकशीलत्वात्स आमुष्मिकसुखमपि वाञ्छत्येव। अतश्च सयदेव करोति उभयमेव पक्षविचिन्त्य करोति। तेन मानवसंस्कृतिर्भौतिकाभौतिकोभयविधपक्षसम्बद्धा भवति। यतोऽभ्युदयनिःश्रेयससिद्धिः सधर्मः। स एव मानवजीवनस्य सुमहद्वैशिष्ट्यम्। कर्माणि हि फलवन्ति भवन्ति। फलञ्च कर्तुरैहिकामुष्मिकपक्षाभ्यां सम्बद्धं भवति। तेनैवोच्यते आध्यात्मिकत्वनिर्दिष्टभौतिकत्वमामुष्मिकत्वनिर्दिष्टमैहित्वमेव शाश्वतसमुन्नत्यै परमसुखाय च भवति। शाश्वतसमुन्नतेः परमसुखस्य च प्रयास एव संस्कृतिविषयः। कथ्यते हि भौतिकोन्नतिः सुसेविका भवति न तु सुशिक्षिकाऽपि।

संस्कृतिर्हि परम्परया वंशक्रमाद्वंशक्रमसंक्रमिता भवति। एषा हि युगानुयुगानुभवसिद्धा। न हि कश्चित्प्रयतमानोऽपि संस्कृतिप्रणेतुं प्रभवति। युगानुयुगार्जितसञ्चितानुभवपरिणतित्वेन संस्कृतिर्हि चिरस्थायिनी च भवति। यच्च तत्र परिवर्तनं सम्भवति तदपि सन्तत्यनुसन्ततिसभ्यस्तानुभवेनैव। वैदिकसंहिताकालादपि प्राक्कालतोऽद्यावपि या हि जीवनपद्धतिर्जनैस्तत्रत्यैरभ्यस्ता सैव किञ्चित्परिवर्तितरूपाऽपि स्थिरप्रकृतिकाभारतीया संस्कृतिः। संस्कृतिर्हिसर्वासामेव क्रियाणां नियामिका भवति। जनोयद्विचारयतियथाचव्यवहरति तेषां सर्वेषामेव संस्कृतेराणु कूल्यमावश्यकम्। न हि संस्कृतिप्रतिकूलं किमपि शोभनं भासते यतो हि सा सम्यग्भूषणरूपा। अत एवोक्तमेपादशभ



कारात्मिकेति।भाषा, भोजनं, भूषा, भेषः, भोगः, भङ्गी, भागः, भावना,

भक्तिर्भावश्चसंस्कृतेरङ्गानीति।उक्तमेवादौ –

“आचारविश्वासविचारभावक्रियासमष्टिःखलुसाजनानाम्” ।

नहिसभ्यतैवसंस्कृतिरपितुअपराऽयानियामिका।नहितज्जीवनेकिञ्चिदन्यसंस्कृत्यानुप्राणितम्।

संस्कृतिर्हिव्यक्त्यनुगतासामजिकीसम्पदेव।एषानचव्यक्तिनिरपेक्षानैवचव्यक्त्यनुगा।एषाहिसमष्टिर्व्यक्ती
नांयांहिनकोऽपिव्यक्तिगतरूपेणप्रभावयितुंभवतिअपितुअनिच्छन्नपिजनोवलादपिनियोजितइवापिभृशम
नुसरति।एषाहिअजिह्वाराजपद्धतिर्यतःसर्वेणगन्तव्यमेव।यथाह्येषाप्रकृत्यैवनिश्चिताभवतिनतुतदर्थप्रयासेन
तथैवैषास्वभावतएवानुसृताभवतिनतुतदर्थकतत्परतामात्रेण।सामाजिकसम्पत्तयासर्वसाधारणेषा।

नचसभ्यतैवसंस्कृतिःकिन्तुसभ्यताहिसंस्कृतेरङ्गमेव।अङ्गयङ्गयोःपृथक्त्वाभावेऽपिनैकत्वमपि।लौकिक
क्रियाकलापानांसमष्टिरेवसभ्यता

,याहिविशेषतःसमाजसम्बद्धाद्विपरीतसंस्कृतिःसर्वेषामेवक्रियाकलापानांसमष्टिर्याहिव्यक्तिसापेक्षाऽपि।स
भ्यताहिसामाजिकविधिनिषेधयोराधारिता,

संस्कृतिस्तुतन्नियामकत्वेन।सभ्यताशब्दःसभासुसाधुरिति विग्रहेसभाशब्दाद्यत्प्रत्ययेसिद्धात्सभ्याशब्दाद्वा
वेऽर्थतत्प्रत्ययेनसिध्यति।सभ्यताशब्दःपर्यवस्यतिसभ्यामास्थितैर्योग्यता।तेनहिसभ्यताशब्दःसामाजिकशिक्षा
चारव्यवहारोत्तरदायित्वसूचकः।सएवसभ्योभवतियोहिशिष्टाचाराणुसारेणव्यवहर्तुजानाति,

यश्चोत्तरदायित्वान्नपराङ्मुखोभवति।अतःसभ्यताहिसामाजिकीयोग्यतैवयदासंस्कृतिर्हिव्यक्तिसमाजोभयस
म्बद्धश्रेष्ठता।सभ्यताहिनैवभौतिकसंस्कृतेर्भिन्ना।पाश्चात्यविचारकःकान्टमहोदयःसाधुर्यदासकथयति –

संस्कृतिर्हिनैतिकतत्त्वसम्बद्धतयाऽभ्यन्तरव्यवहारएवयदासभ्यतातुआचरणमात्रसम्बद्धतयावाह्यव्यवहारहि
सूचयतिकिमस्त्यस्माकमित्यदासंस्कृतिस्तुकेवयमिति।सुप्रसिद्धविचक्षणःप्रसन्नकुमाराचार्यःसत्यमेवक
थयति।संस्कृतिर्हिवौद्धिकविकासबस्थांसूचयति,

यदासभ्यतायाःपरिणामस्तुशारीरिकभौतिकविकाशएव।संस्कृतिर्हिआत्मनासहसम्बद्धायदासभ्यतातुक्रिया
कलापेनसह।भारतीयपरम्परामनुसृत्येदंकथयितुंशक्यतेयत्,

संस्कृतिरेवसायाहिएपराविद्याइतिप्रसिद्धायदासभ्यतात्वपरा।संस्कृतिर्हिआत्मिकाभ्युत्थानपथप्रदर्शिकाकिन्तु
सभ्यताशारीरिकावस्थायामनोविकाराणाञ्चवोधिका।संस्कृतिर्हिमन्दगत्याविकसिताभवतियदासभ्यतातुगु
ण्त्मिकात्वेनतीव्रगत्याविकसिताभवति।सभ्यताहिसामाजिकरिक्थःतेनास्योपयोगेविशेषयोग्यतानावश्य
की,

यदासंस्कृतिस्तुपूर्णज्ञानाभावेनैवोपयुक्तंपर्यते।सभ्यताहिसमुदायात्समुदायंयथायथंसंक्रमणीयाकिन्तुसंस्कृ
तेःसंक्रमणेत्त्रत्यवैशिष्ट्यसम्मिश्रणेनतत्रनवीनत्वमुत्पद्यतेइति।

नचसंस्कृतिरेवसंस्कारः।संस्कारोहिसंस्कृतेरङ्गमेव।अङ्गयङ्गयोःपृथक्त्वाभावेऽपिनैकत्वंतयोः।संस्कारोना
मआत्मशरीरान्यतरनिष्ठोविहितक्रियाजन्योऽतिशयविशेषः।सचकिमपिवस्तुकामपित्यक्तिञ्चोद्दिश्यप्राप्त्यर्ह
तामानयति।तेनपुरुषेयोग्यताप्रतिष्ठापकविधयएवसंस्काराः।संस्कृतिस्तुतादृशसंस्कारनिरूपिकाशक्तिरेव।को
शदृष्ट्यासंस्कारशब्दोऽर्थत्रयेप्रयुक्तोदृश्यते – प्रतियत्नानुभवमानसकर्माख्ये।तत्रप्रतियत्नो गुणान्तराधानम्
,अनुभवःस्मृतिभिन्नंधारावाहिकज्ञानम्,

मानसकर्मपूर्वाभिभूतज्ञानसंस्मरणरूपमिति।एतेषुनकश्चिदपिसंस्कृतिस्मानतामारोहति।यद्यपिसंस्कारज



न्यं ज्ञानं स्मृतिरिति वाक्ये संस्कारशब्दः अनुभवजन्यस्मितिहेतुत्वे प्रयुक्तो दृश्यते
, प्रभाविता च भवति संस्कारेण संस्कृतिस्तथापि न हि संस्कारः संस्कृतेर्व्यापकत्वमुपादातुं प्रभवति किन्तु तयो
न्योपस्कारकत्वं तु सौकर्यमेव । संस्कृतिमनुसृत्य संस्कारः प्रवर्तते,
संस्कारमनुसृत्यैव संस्कृतिरपि प्रसरति । संस्कारो हि स्वाश्रयस्य प्रागुद्भूतावस्थासमानावस्थान्तरापादकातीन्द्रि
यधर्मविशेषत्वेन संस्कृतिमुपस्करोति,
संस्कृतिश्च तन्निरूपकधर्मविशेषत्वेन संस्कारम् । तेन हि संस्कृतिर्नामसभ्यतासंस्कारातिरिक्तः कश्चन विचाराचा
रव्यवहारसमष्टिरूपो धर्मविशेष एवेति ।

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SUSTAINING QUALITY IN HIGHER EDUCATION

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ABSTRACT:

Quality assurance in higher education is the need of the hour in Indian scenario. Quality of any higher education institution is measured by carefully devised bench marking. Indian Higher education has developed by leaps and bounds since independence, but quality is questionable. Many challenges need to be addressed. This paper critically examines the challenges faced by Indian Higher education in brief and the steps to be taken to sustain and assure quality.

Key words : Quality, Quality Assurance, Higher Education

“Excellence in thinking and action is the foundation for any mission. Excellence is not by accident. It is a process, where an individual or organization or nation continuously strives to better oneself”

-Dr. APJ Abdul Kalam

Higher education of any country is an enabler to attain economic growth, a vehicle for wealth generation and technological progress. Ancient India was a centre of excellence, as detailed in the chronicles. British invasion transformed Indian education to their colonial needs. At the time of independence, only 20 universities and 500 colleges were existing. There were about 2.1 lakh students pursuing different courses in higher education. After independence, there has been an asymptomatic growth of Indian Higher Education. There is a growth of 47.9 times in the case of the Degree awarding Universities, 82.02 times in the case of Colleges. The students enrolment has increased to over 174.49 times in the system of higher education in comparison to the times of Independence. With more than 990 universities, 40000 colleges and 5000 technical institutions, India has the second biggest higher education system in the world. This is quite enchanting. But the other side of the coin portrays a gloomy outlook. Poor student –teacher ratio, exclusivity, lack of research culture integrating institute and industry are the main short comings.

The challenges faced by higher education in India include -

- Gross enrollment ratio is still less than 30%
- Mere degree holders are being produced, not intellectuals
- Degrading environment consciousness, values & ethics among youth
- Insufficient global competitiveness and employability in Indian youth
- Higher education is not still inclusive, not extended to the masses



- Competent faculty are not being attracted to work in this arena
- Lacking world class institutions and research facilities at higher education level
- Quality of academic research is poor
- Applied research is not upto the global bench mark
- Lack of innovation culture
- Higher education institutions are not able to get a place in global rankings
- Industry-institution interaction is very poor

Amidst these challenges, ‘quality’ is a big question mark. Though the National Assessment and Accreditation Council (NAAC) has been instrumental in generating a quality consciousness and quality culture among the Higher Education Institutions in India, still many are out of NAAC framework. According to the British Standards Institution, “the totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs”. The concept and culture of quality is essential for accountability, credibility, visibility, image and brand value of any institution. It is also required for getting through the competition and maintain standards. In the light of the challenges mentioned above, there is a dire need to expand the accreditation frame work to include more and more Higher education institutions. Since its institution in 1994, NAAC has instilled quality culture in Indian Higher education, while travelling through the path of resistance to acceptance, acceptance to appreciation and appreciation to enlightenment.

In the context of higher education, Quality assurance is a “systematic management and assessment procedures adopted by a higher education institution or system to monitor performance and to ensure achievement of quality outputs or improved quality”. Quality assurance aims at giving stakeholders confidence about the management of quality and the outcomes achieved. Quality Assurance indicators framework and benchmarking is effectively devised by NAAC on par with global standards. As afore said, NAAC is successful in motivating Higher Education Institutions to volunteer for assessment, quality sustenance is questionable due to the challenges faced by our higher education system. The following may help sustain quality.

Steps to sustain Quality:

1. Steps shall be taken to improve the graduate outcomes. At the minimum, 50% of students should secure employment or pursue higher education
2. Curriculum shall be framed in such a way that at least 60% of the Under graduate students engage themselves in socially productive and economically viable activities during the period of their study.
3. Students pursuing UG courses shall be trained in soft/life skills that lead them to be better citizens in the changing global scenario
4. Vacancies of teaching positions shall be filled from time to time and all the teachers must be trained in their respective domains and methodologies to carry out teaching-learning transaction effectively
5. All institutions shall get NAAC accreditation within a prescribed time limit.



6. Outcome based curriculum shall be implemented immediately.
7. There should be continuous evaluation of learning outcomes, with a combination of formative, interim and summative evaluation.
8. Faculty should be given professional enrichment continuously by way of awareness programmes about emerging trends and empowered technologically in assisting teaching technologies.
9. All educational administrators must be given leadership training to realize national educational goals.
10. Higher educational institutions shall be connected to local communities and industries.
11. While research is promoted, the same should be integrated with community well being in particular and national well being at large. Quality research should be encouraged.

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COVID 19 PANDEMIC AND PRESENT SENARIO OF EDUCATION AT ELEMENTARY LEVEL

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Abstract:

In this time 'Covid 19' is undoubtedly a terrible name to the whole world. The world has been affecting by this virus since last many months. The whole world seems to have stopped for this virus. India has also being stopped by economically, educationally and several aspect of progress. Nobody knows how many days would require in future to get rid from this pandemic situation. In this situation The Government of India has declared to precede education system at several levels through various digital modes to keep the continuity of education. For that Government of India has launched different educational T.V. channel and takes many initiatives also. **The main objectives** of this study are to focus on some government initiatives, which have been taking to move forward the education system in this pandemic situation successfully and to highlight the scenario of ongoing teaching learning process through digital mode at elementary education stage. To investigate the problems of the teachers and the students, whichever they are facing regularly in this process. In addition, provide some suggestions for its betterment. **This is a qualitative study** and mainly based on document analysis. **In this study**, the researcher has tried to analyze how badly the teaching-learning process at elementary level has affected during this pandemic situation and what steps should be taken by the teachers, school management and other government bodies to run this new process successfully.

Key Words: Covid 19, Teaching learning process, Elementary education, Digital mode

1. Introduction: Like the whole world India has completely disrupted by the outbreak of Covid 19. Economy, Education and many other progressive pillars of India has been destroyed by this terrific outbreak of covid 19 virus. Where the country of 1.3 billion people has been faced this epidemic namely Covid 19, there the Government of India had to be bound to take the decision of *Janata Curfew* and after that *lock down* for the long time. During that lock down period Government of India had been taken many decisions regarding education to move forward it. Many digital platforms have been introducing themselves with the students, teachers and parents also since the beginning of this pandemic situation. SAYAM, SWAYAMPRAKASHA, NATIONAL DIGITAL LIBRARY, GAYAN DARSHAN etc. many online courses, T.V. channel like those has introduced with us. Although Digital- learning was an important vision of government of India. ICT based



teaching learning process has began long time ago across India. But there was no bounding to adopt it mandatorily. While at present time it is almost mandatory to the students to adopt the various digital platforms to precede their education. How would much effective this plan across India, a developing country. Many remote localities have in India where internet connection is not available. Massive people have in India whom has no capability to provide smart phone, internet connection and any other digital accessories to their child to continue their education through online mode. In this study elementary level's students gets more emphasis in the context of online education system. Elementary level's students are basically belonging in the age group of 4/5 years to 10years. That is why they are all lie the level of early childhood and late childhood. How it is possible to them to move forward their educational activities by using all the digital gadgets like smart phone, tab etc. where people can not able to secure their basic needs, there buying smart phone and other gadgets remains as a dream to them. At the same time there have many other problems from the teacher side. Many teachers are facing a lot of problems during the online teaching learning process. Many of them are not used to access the digital platform, many others has a crisis of good network in their localities. Many parents are not concern in so much about this type of teaching learning process, results they may neglect this digital platform or they cannot understand the effectiveness of online teaching learning process. In this situation to successfully move forward the elementary education what should be done by the school management and all the concern body of the elementary education throughout India.

2. Objectives of the study:

- To focus on some government initiatives to successfully moving forward the education system in this pandemic situation at school level.
- To focus on the present scenario of teaching learning process at elementary level, in this pandemic situation across India.
- To highlight how much problems are facing by the students and teachers in this online teaching learning process at elementary level.
- To provide some suggestions for its betterment as a whole.

3. Research Questions:

- What are the Government initiatives for education system in India?
- What is the actual scenario of ongoing teaching learning process through digital mode at elementary education stage during this pandemic situation throughout our country?
- How much problems the teachers and the students are facing regularly in this process?
- What would be the suggestions for its betterment as a whole?



4. Methodology of the study:

- At first, the researcher has selected the specific research problem.
- Then he reviewed the related literature.
- Thirdly, he has collected data from various primary and secondary sources.
- Then the collected data has analyzed in a qualitative way by the researcher.
- Lastly, the researcher has drawn his research findings and conclusion.

5. Research Materials:

- Journals, magazines, news papers,
- On-line documents from relevant and reliable internet sources.

6. Findings:

The findings of the study have been analysed according to selected objectives.

Some Government initiatives to successfully run forward the education system:

Ministry of Human Resource Development (MHRD) of Government of India had passed a notification in their website on 20th March 2020 regarding the issue of digital learning. Wherein MHRD has introduced with some digital platforms for the purpose of precede the school education system safely with staying at home. These digital platforms are following:

- **DIKSHA:** According to MHRD-Notification, "Diksha has more than 80,000 e-books for classes I to XII created by CBSE, NCERT and states / UT which are available in multiple languages. The contents can also be viewed through QR codes on textbooks."
- **e- PATHSHALA:** According to MHRD, "In this web portal NCERT has deployed 1886 audios, 2000 videos, 696 e-books (e-pubs) and 504 Flip books for classes I to XII in different languages."
- **National Repository of Open Educational Resources (NROER):** According to MHRD, "NROER portal has a total of 14527 files including 401 collections, 2779 documents, 1345 interactive, 1664 audios, 2586 images and 6153 videos on different languages."
- **National Digital Library:** According to 'Indian National Commission For Cooperation With UNESCO' (INCCU), "This is a digital repository of a vast amount of academic content in different formats and provides interface support for leading Indian languages for all academic levels including researchers and life-long learners, all disciplines, all popular form of access devices and differently-abled learners."



Present scenario of elementary school education in this pandemic situation across India:

“A report prepared by UNICEF has revealed that COVID-19 pandemic in India and lockdown has impacted 247 million children enrolled in elementary and secondary education, besides 28 million children who were undergoing pre-school education in Anganwadi centres. According to the report, at least 600 million South Asian children have been threatened by the impact of COVID-19 pandemic. Pointing out the revelations in India's perspective on education and learning of a child, the UN report said, "In India, school closures have impacted 247 million children enrolled in elementary and secondary education. It has impacted about 28 million children who were attending pre-school education in Anganwadi centres. This is in addition to more than six million girls and boys who were already out of school prior to the COVID-19 crisis." However, the report has highlighted the efforts done by the central and state government to continue education for children through multiple e-platforms like web portals, mobile apps, TV channels, radio and podcasts to reach children, Diksha platform, Swayam Prabha TV channels, e-Pathshala and the National Repository of Open Educational Resources. In the wake of COVID-19 lockdown, recently, the National Council for Educational Research and Training (NCERT) has prepared an alternative academic calendar for classes 1 to 12 with suggested activities to guide learning at home. Importantly, UNICEF report has indicated that approximately only a quarter of households (24 per cent) in India have access to the internet and there is a large rural-urban and gender divide. A large number of children are likely to miss out on distant learning opportunities, the report said.” (NDTV Education, *COVID-19 Lockdown In India Has Impacted Education Of Over 247 Million School Children: UNICEF Report*, June 24, 2020).

Dr Yasmin Ali Haque, UNICEF Representative in India said, "The pandemic has exposed the fragility of children, less by the virus itself but much more by the indirect and long-term fallout. Millions of vulnerable children are losing out on their development and learning opportunities and their right to survive. The most vulnerable families need to be protected by social protection schemes that can help them access healthcare, schooling for children, afford nutrition etc. This can only be ensured by a firm commitment from the governments and all stakeholders."

Some Government initiatives to ensuring equity in digital learning All over India:

‘Indian National Commission For Cooperation With UNESCO’ (INCCU) have stated in the context of ensuring equity in digital learning, “TV Channels/Radio are being used to reach out to the most difficult areas. The 32 DTH TV channels are available on Swayam Prabha. These channels are available for viewing all across the country using DD Free Dish Set Box and Antenna. The same are being promoted with special emphasis on students in remote areas. 12 channels will be exclusively marked for School education (Class 1 to 12). Swayam Prabha Channels pertaining to school



education will be given for 2 hours per day to each State/UT. States will develop class wise/ subject wise content mapped to their syllabus in local languages. Private DTH service providers have also provided one channel each for education during COVID period. Extensive use is being made of radio channels to broadcast educational programmes. Radio will be used specially for those children in remote areas who are not online (specially for classes 1 to 5). Activity based learning will be very effective for radio channels. 289 Community Radio Stations are to be used. Due to digitalization, huge portions of Analog spectrum of Radio and TV that are not in use, may be utilized for connecting people online in remote areas.”

Some problems of online classes facing by the students at elementary level:

- In India many students has been belonging at rural area where internet facility is not available strongly. Due to poor internet connection many of them cannot access any kind of digital platform.
- An elementary school level student has lied in the age group of 4/5years to 10 years. In this age group it is too difficult to create self-motivation among them through online or distance mode.
- Direct interaction with teachers is not possible in online teaching learning process. So young students are often feeling bore by this teaching learning process.
- Many parents in all over India cannot secure their basic needs due to their poverty, in that situation to provide digital accessories to their child for online-education becomes dream to them.
- Young students have always expected a direct feedback from teacher side, which is not available in online teaching learning process.
- In rural area many parents are not concern about the online teaching learning process in so much, so they cannot feel that how much important the online teaching learning process for supporting their child in this pandemic situation.
- All over India Corona Virus has been spread rapidly. So, many young pupil's parents and family members has affected by this virus. That victim family has faced many challenges. In that situation where they always face insecurity of their life therein online education how would be possible?
- For the slow learners there will be adverse effect of digital learning.
- Problems may arise in case of students with special needs. In the mean time rate of drop-out and stagnation may increase.
- In physical classroom young students can well interact with their peer groups. As results they stay mentally happy. In online education they cannot interact with their peer so they easily become very bored.

Some problems of online classes facing by the teachers at elementary level:

- Many teachers cannot take their class through online mode due to poor network in their locality.



- Students' feedbacks are also unavailable in online teaching learning process because of their passiveness.
- Teacher cannot access the student performance through online mode. It has been seeing that, some students are joining their class through Zoom app or Google Meet app by putting off the microphone and camera. In this way, he has joined the class but do not attend the class.
- Teacher cannot understand that, is the young students get his instruction smoothly or not.
- Very poor attendance and less interaction of learners are observed in online classes.
- Sometimes poor video and audio quality obstruct in smooth functioning of online classes.

Suggestions:

- Caution is required when using different platforms likes Zoom, Google Meet etc. to avoid hacking of E- accounts and personal data of teachers and students both.
- Many private or non Govt. school managements need to be much more flexible and empathetic toward students and teachers both.
- Need to keep an eye on the various initiatives regarding online teaching learning process at elementary level prescribed by the government, that they can be implemented.
- Government should take an initiative to announce frequently in that remote area where the parents of young children are not concern about online teaching, digital education etc.
- Government and other concern bodies of elementary school education should secure the continuity of Mid-Day-Meal among the students to maintain the social distance. There the Ingredients of daily meal can be distributed up to their door steps. In that case social distance also will be maintained.

Conclusion:

Elementary education is a foundation of a student. Therefore, it should be gets more importance. Digital education is a one of the dream vision of India Government since 2014. Covid pandemic has given the opportunity to the Govt. to do successfully implementation of his dream vision through ICT. Undoubtedly, it is the fact that online education is giving the adequate support to the learners at higher education. However, when the question arises at elementary level then online education with the support of ICT does no gets satisfactory compliment. According to different reports of many important organizations that due to this pandemic situation drop out or stagnation has been increasing. In India massive people has completely disrupted by economically by this covid 19. Therefore, it would be very difficult to bring all the elementary level students in a same axis of digital learning. Nevertheless, it can be saying that the govt. initiatives and their constructive approach towards education system is demands a lot praise especially in this pandemic context.



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STUDY AND DESIGN OF SUSPENSION KINEMATICS FOR A FORMULA STUDENT VEHICLE

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ABSTRACT: This research paper is based on the design procedure of the kinematics of a Suspension system aimed for the Formula Student events. The work done in this research paper represents the necessary studies regarding the general suspension terms and their influence in maximizing the overall performance of the vehicle. The selection of various geometrical parameters based on the effects of SAI and caster angle on the camber variation and aligning torque along with various other design procedures such as damper actuation and rocker design have been discussed. This paper concludes with the kinematic design of the double wishbone suspension system and its outcome characteristics.

KEY WORDS: Design, Formula Student, Suspension kinematics, Suspension system

Introduction

Underneath the body of a car, there are three fundamental areas of importance. The chassis (which everything is bolted to), the powertrain (engine, gearbox, differential and driveshaft) and the suspension. On the face of it, both road and race car suspension systems appear to be very similar in terms of what they do and what the systems consist of. However, there are some subtle differences which have a large impact on how race suspension performs.

The suspension on a road car is designed primarily to support the body of the car, but also to provide a comfortable ride for the occupants. This means that the components used by the vehicle manufacturer tend to be softer in a bid to better cope with the road conditions for everyday driving. In contrast, suspension for a race car is all about maximizing performance, often resulting in a much stiffer ride.

Suspension geometry is the geometric arrangement of linkages and parts of a suspension system. Suspension geometry control the way in which tires move and react to disturbances. The ride and handling characteristics of a car also depend on the suspension geometry.

Problem statements

Since the beginning of formula student competitions, various changes and modulations of suspension systems have been done on various levels aiming at one focal point of reducing the lap time and increasing the stability if vehicle in conditions like acceleration, braking, cornering, etc. This research paper focuses on general problems regarding the kinematics of suspension system and how to design the geometry of a double wishbone suspension system.

Overview of Suspension Systems

The Suspension system is a device connecting the body with wheels. The motion is constrained by the suspension. The main propose of the suspension is to maintain a constant tire contact patch during different dynamic events. This includes cornering, braking, and accelerating. All kinds of forces and movements between the wheels and the ground pass to the body through the suspension. A well designed

suspension system is an important part of the overall vehicle design and also for the performance of the racing car. A double wishbone type suspension was chosen because it allows for the suspension characteristics to be easily adjusted and gives more control over the toe, camber, and scrub over the range of wheel travel.

Suspension Kinematics describes the orientation of the tire as it is the study of the motions of the tire as a function of the travel of the wheel during heave and roll, and steering angle. (1)



Figure 1: Full CAD Model of the Suspension System

Common Terms in Suspension System

Camber Angle

Camber angle is the inclination of the vehicle tire with the vertical axis when viewed from the Front section. In case top of tire tends to lean in towards the center of the vehicle then this is known as the condition of negative camber. Positive camber is vice versa of this.

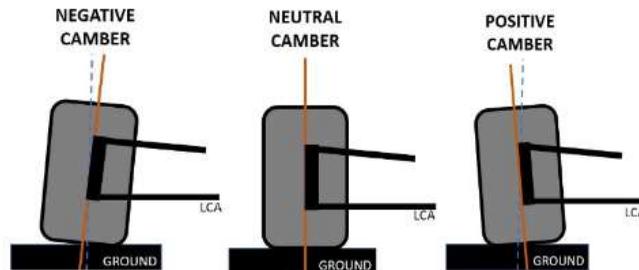


Figure 2: Negative, Neutral and Positive Camber

Steering Axis Inclination and Scrub Radius

The SAI is the angle, when viewed from the front of the vehicle, between the line passing between the upper ball joint and lower ball joint center and the line passing from the center of the wheel. And the scrub radius is the lateral distance between these two lines at ground level.

The reasons why the value of KPI should be kept as low as possible are, as the wheel starts to rotate when it is steered, SAI tends to vary the camber value of the wheels. The heavily loaded outer wheel gains a lot of positive camber with increasing steering angle. (2) The camber change, ΔY , due to the effect of SAI, Θ_s , at a steering angle, δ , is given by:

$$\Delta Y = \Theta_s + \cos^{-1}(\sin \Theta_s \sin \delta) - 90^\circ$$

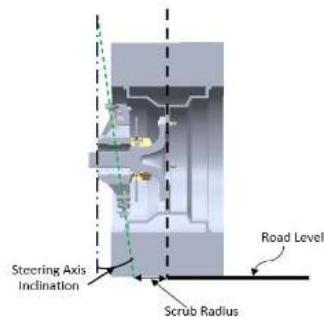


Figure 3: SAI and Scrub radius

Caster Angle and Caster Trail

Caster angle is the angle between the line joining the upper and the lower ball joint and the wheel center line when viewed from the side of the vehicle. Caster trail is the resultant distance between the two lines at ground level. By increasing positive caster angle the mechanical trail is also increased, and mechanical trail increases the aligning torque which further improves the steering wheel returnability. (3)

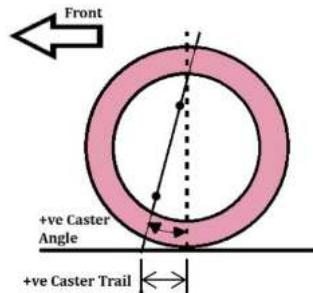


Figure 4: Caster Angle and Caster Trail

The caster angle is used in the motive to counter the adverse effects of SAI on wheel camber. As the wheel starts to rotate around the steering axis, the caster angle produces an increment in negative camber angle on the outer wheel with increasing steering angle. The camber change, $(2) \Delta Y$, due to the effect of caster angle, Θ_c , at steering angle, δ , is given by:

$$\Delta Y = \cos^{-1}(\sin \Theta_c \sin \delta) - 90^\circ$$

Trackwidth and Wheelbase

The Distance between center axis of tire from front view is known as trackwidth. The Distance between the center axis of Front and Rear Wheel from longitudinal direction is known as Wheelbase.

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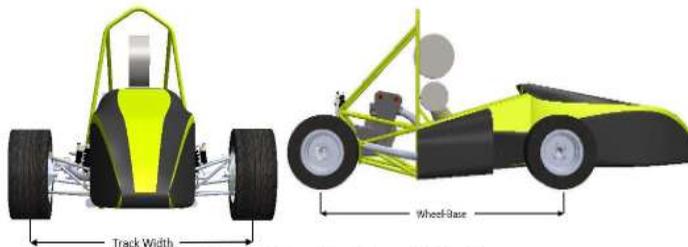
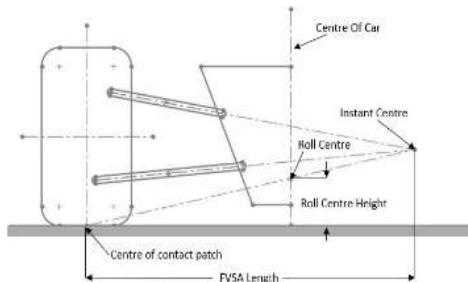


Figure 5: Trackwidth and Wheelbase

Instantaneous Center and Roll Center

Instantaneous center is the momentary center which the suspension links pivot around. As the suspension moves the instant center moves because the suspension links or the arms when viewed from the front also move with respect to each other and the frame.



Instantaneous centers are possible in both the front view and the side view. When the IC is viewed from the front of the vehicle and a line is drawn from the IC to the center of the tire's contact patch. (4)

If this process is done for both the sides of the car, then the resultant point of intersection is known as the Roll center. As

the RC position is decided by the IC position, high IC will result in a high RC and vice versa. It is observed that the RC settles the force couple point between the sprung and the unsprung masses of the vehicle. Hence, a higher RC would definitely result in a smaller rolling moment.

Figure 6: Roll center and Instant center

Rolling is an undesirable property of car and it depends mainly on roll center height. There is no specific range of roll center position but the roll center and center of gravity should be as close as possible so that lesser roll moment acts thereby increasing lateral stability of the vehicle.

Under-steer and Over-Steer

Under-steer is when the combined grip on the front tires is much less the combined grip on rear tires. So what happens is the front tires start slipping when the driver tries to turn hard so the extra grip gets wasted in the rear. Over-steer is when the front grip is considerably higher than the combined rear grip so the car would certainly try to slip out in case of hard turning. An ARB mechanism can be designed in a way that it could vary the roll stiffness of front or rear isolated suspension systems so that the combined grip can be varied. This means that if a car is having a Front engine configuration and hence less front wheel grip and tends to understeered, then the understeer can be cure by placing an ARB in the rear. Similar thing could be said about the mid or rear engine drives.

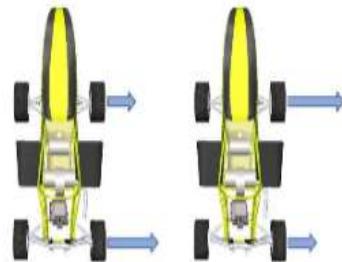


Figure 7: Under-steer and Over-Steer Characteristics

Methodology

Analysis of Geometrical parameters

Wheelbase and Trackwidth determination

As the trackwidth increases the trackwidth the total lateral weight transfer decreases but having a very large trackwidth can cause trouble for the driver in narrow tracks. Also, a large trackwidth or wheelbase results increased weight. Wheelbase of an ordinary road car is observed to be more or less 1.4 - 1.7 times the trackwidth but in fast moving vehicles which demand more high speed stability, the ratio seems to increase by a considerable amount. The wheelbase to trackwidth ratio for current generation Formula 1 cars is close to 2:1. It is observed that car having wheelbase in the range of 1.5-1.7m and trackwidth around 1.2m performs best in the Formula Student according to an article in Derek Seward's Race Car Design. (2)

After looking at all the factors, the following values have been decided.

Trackwidth = 47 inches or 1193.8mm (for both front and rear ends)

Wheelbase = 62 inches or 1574.8mm

Selection of SAI, Caster angle, Scrub radius and Caster trail

The suspension design procedure requires several terms selections and values taken into consideration as design of the Formula Student car starts with suspension.

Scrub radius has to be kept minimum so as to minimize the aligning torque experienced by the driver. The aligning torque can be calculated using the following equation: (1)

$$M = N \cos(\theta_{caster})\cos(\theta_{roll})\sin(\theta_{sai}) [r_{caster} \tan(\theta_{roll}) + r_{scrub}]\sin(\theta_{steer})$$

The upright in the wheel assembly is placed in the inside portion of the hub which also includes the brake assembly. Hence, the wheel assembly should be designed in such a way that it takes minimum space for the upright to be as close as the wheel center as possible. This would mean with brake caliper taking minimum space, the lower ball joint can be positioned as outwards as possible to keep the scrub radius at its minimum.

With the SAI angle to be positive and lower ball joint now fixed there are few possibilities of SAI and scrub radius. The value of scrub radius for the SAI to be varied in between 5° to 11° are mentioned in the following table:

	1	2	3	4	5	6	7
SAI	5	6	7	8	9	10	11
SCRUB	74.5	72.11	69.71	67.3	64.88	62.44	59.99

Table 1: SAI and Scrub radius possibilities

As discussed earlier in the Introduction, SAI and Caster angle are responsible for dynamic camber angle due to rotation of wheel around steering axis. An excel is made with all the possible configurations with SAI, between 5° to 11°, and Caster angle, between 2° to 5°, varying with the steering angle from 0° to 30° in a 5° incremental fashion. The total camber angle at each steering angle is observed and the most favorable configurations of SAI and Caster angle are listed out in the following table:

	1	2	3	4	5	6	7
SAI	5	6	7	8	9	10	11
Caster	2	2	3	3	3	4	4

Table 2: SAI and Caster angle possibilities

The Aligning moment (in Nm) is calculated for the above possibilities and another table of outcomes is made.

Θ_{steer}	M_1	M_2	M_3	M_4	M_5	M_6	M_7
5°	4.17	4.83	5.39	6.03	6.50	6.84	7.35
10°	6.15	9.68	10.75	11.78	12.70	13.37	14.38
15°	11.98	14.37	16.02	17.33	18.67	19.67	21.15
20°	16.30	18.99	21.17	23.78	25.40	26.25	28.76
25°	20.14	23.46	26.16	29.12	36.38	33.05	35.53
30°	23.97	27.76	30.95	34.67	37.35	39.35	42.30

Table 3: Aligning Moment Outcomes

These are the final selected front geometric parameters based on the above analysis:

SAI = 7 °

Caster Angle = 3 °

Scrub Radius = 69.71 mm

Caster Trail = 10 mm

Front View

The front view of a double wishbone suspension refers to the position and direction of the arms relative to each other and the vehicle when seen from the front of the vehicle. (2) The arms can be adjusted in three different ways:

1. Parallel and equal

When arms are built in a manner such that both arms are equal in length and parallel to each other, fall in this category. The suspension system of any vehicle has to endure through two main motions, roll and bump. Roll is when the vehicle corners and the bump occur when the whole or a part of vehicle suffers through a vertical bounce motion. In this case, the arms hold the wheel in such a way that the wheel doesn't suffer any camber change in case of bump but the change in camber angle in case of roll is as high as the roll of the vehicle.

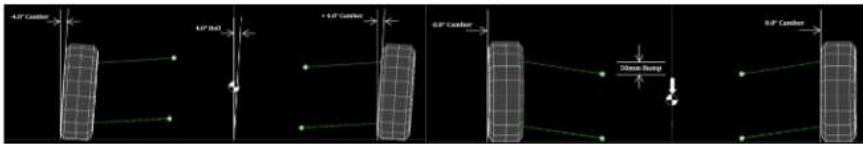


Figure 8: Parallel and equal arms

2. Converging and equal

In this case, compared to parallel links, converging links produce better camber control in roll but inferior camber control in bump/rebound. This transition is entirely dependent upon the degree of convergence. In the extreme convergence case, where the top and bottom links meet at a common pivot point on the center line of the car, camber change during roll would be zero but camber change during bump would be very large.

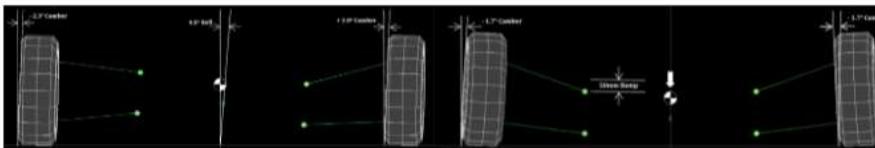


Figure 9: Converging and equal arms

3. Converging and unequal

If the effect of adding unequal length wishbones is also taken in account in the previous case then by shortening the upper arm but keeping the roll center at the same height, it can be observed that virtually no change in camber recovery is seen while movement of roll center is reduced in bot vertical and horizontal plane. It can be concluded that the main advantage of unequal length links is the ability to minimize roll center movement.

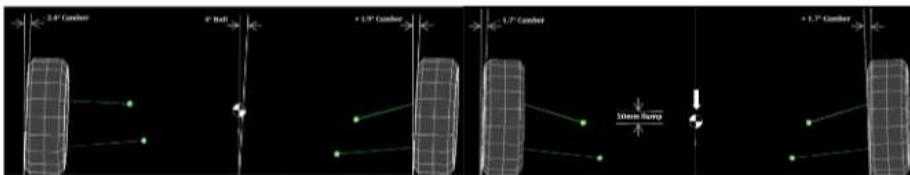


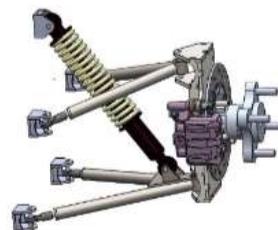
Figure 10: Converging and Unequal arms

Now that the front view characteristics of a double wishbone system has been studied the geometry was designed using LOTUS SHARK suspension software by analyzing the camber control, roll center movement, tire scrub and other parameters discussed above.

Damper actuation system

The force actuation from the tire contact patch are to be transferred through arms and the spring-damper actuation system. The Actuation system can be of 3 main types:

1. *Directly Actuated*
 - Motion ratio is always smaller than unity.
 - Leaves lesser space and clearance for the wheel assembly.
 - Difficult to attach adjustable ARB.



2. Pushrod Actuated

- A wide range of Motion ratio is available and it could be adjusted with just a few changes in the Rocker arm.
- ARB can be easily attached via fourth point in the Rocker.
- As pushrod is less bulky than an ordinary strut, it leaves more clearance for upright bearings and hub nuts.

Figure 11: Directly actuated double wishbone



Figure 12: Pushrod actuated double wishbone



Figure 13: Pullrod Actuated Double wishbone

3. Pullrod Actuated

- All of its characteristics are same as Pushrod in addition of lower center of Gravity.

Decision

For the front suspension system pull rod actuated and for rear, pushrod actuated system is selected based on the Parameters discussed above. Design of pushrod and pullrod system mainly consists of design of rocker according to the required motion ratio.

Rocker Design

Rocker is a device attached to pushrod or pullrod which completes the actuation mechanism of the suspension system by transferring the wheel forces to the shock absorber and anti roll systems.

The rocker or bellcrack usually pivots around an axis perpendicular to the action of damper mechanism. The Lower ball joint, pullrod/pushrod-wishbone point, pullrod/pushrod-rocker point, rocker, and damper points should always lie on the same plane so that there is no out of plane force acting on the rocker and it can only pivot along one axis. The motion ratio of damper and ARB can be varied by changing the rocker point to point dimensions. The primary aim of rocker design for this vehicle was to keep the motion ratio close to unity throughout the motion of the suspension. Motion ratio close to one is desired for good ride quality of the vehicle and it reduces the amount of load into the vehicle structure as more load is absorbed by the shocks. The graph for the motion ratio vs bump/rebound, for both the front and the rear suspension systems, is shown in the table.

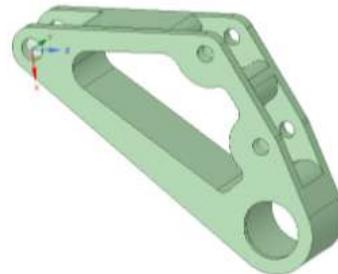


Figure 14: Front Rocker Design

Result and discussions

The study and analysis of the suspension kinematics has concluded with fairly reasonable results. The camber variation while steering has been minimized considerably. The camber loss during roll on the heavily loaded tire is significantly reduced to 0.66° and 0.90° for front and rear respectively, while the half track change or the tire scrub during bump is only 2.8 mm and 3mm in the front and rear ends. This camber change can be manipulated by adding addition camber during the static state of the suspension setup. The lateral roll center migration during roll has been observed to be 88mm in front and 62mm in rear for positive roll. The toe angle increment under maximum heave is only 0.043° , which is definitely a good characteristic for a stable suspension setup. The rocker design procedure included an iterative analysis of motion ratio variation with bump. The graphical results show that the motion ratio is mostly constant and close to unity for both the front and rear setups.

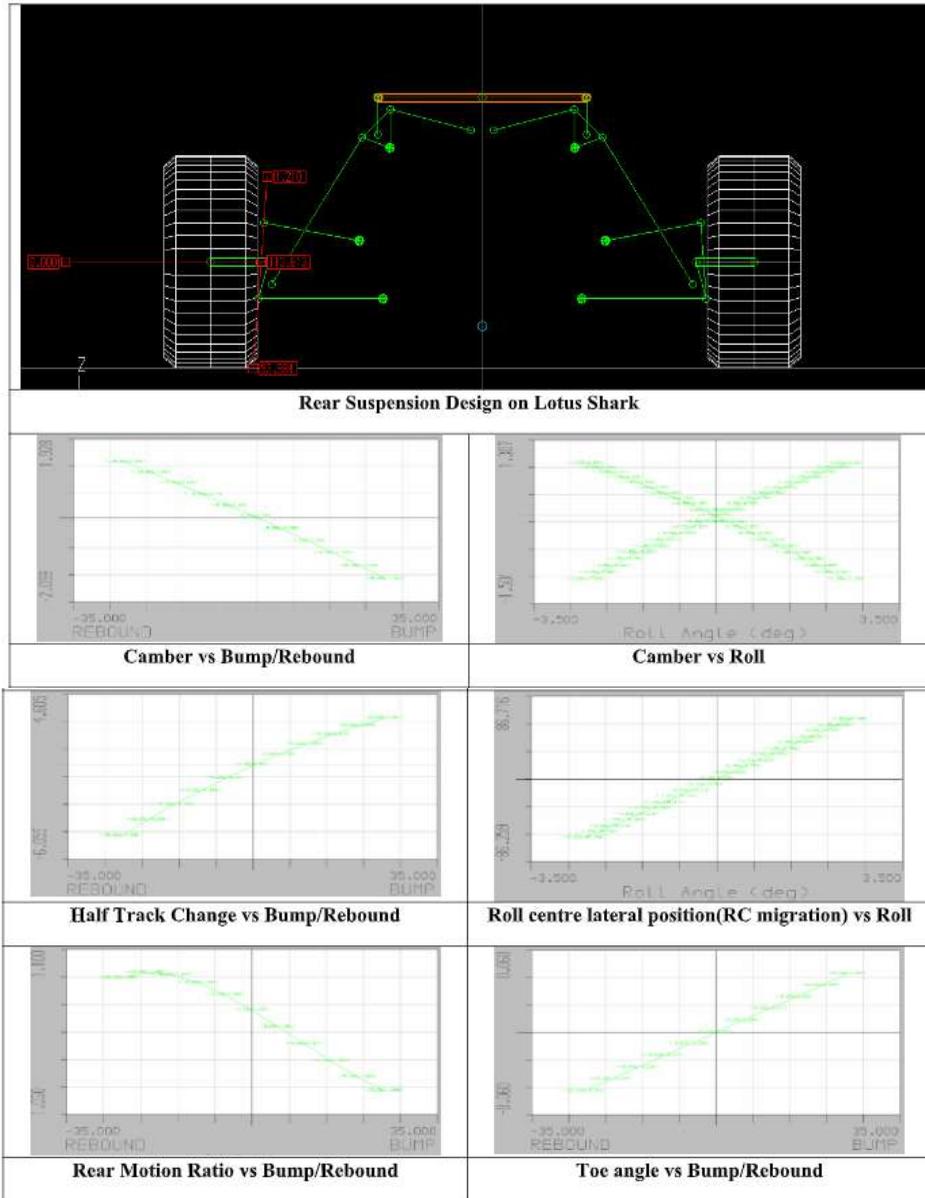


Figure 16: Rear Suspension Characteristics



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CULTURE, TRADITION AND VALUE CRISIS IN THE WORKS OF KAMALA MARKANDAYA

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Abstract:

The purpose of the research is to outline in Indian Fiction the themes of culture, tradition and value crisis with special focus on works of Kamala Markandaya. She has rightly selected different themes suitably to illustrate her subjects either traditional or cultural in a creative stance and she has successfully operated themes like value crisis. Her early novels, nonetheless, dramatize the agony and ecstasy of cultural changes in India, involving innumerable persons. Markandaya's Indian sensibility enables her, it is true, to grasp the plight of her Indian characters more easily than her British character set in Indian context. Markandaya explored the impact of change in terms of human psychology; for, to her, culture means essentially an idea which unites a million individuals and confers on each of them what Lionel Trilling calls 'an integral selfhood'. It thus represents interacting assumptions, modes of thoughts, habits and styles which are connected in secret as well as overt ways with the practical arrangements of a society and which, because they are not brought to consciousness are unopposed in their influence over men's minds. This concern for individual consciousness and its growth refinement of her creative sensibility endows her novels with a certain representative character that marks them out as a significant entity in the Indo-English fiction. I will focus on the study on these themes which are now also providing ground to various critical theories like feminism, ecofeminism and new historicism.

Keywords: Culture, Tradition, Value Crisis, Modernity, Indian Renaissance, Feminine Sensibility

Introduction:

The Indian –English writings has certainly established its credentials in commonwealth literature in English and can stand in comparison with the World literature since the past few years have witnessed a gigantic thriving of Indian writing in English in the global market. Indian writers not only 'nativised' the British mother tongue in terms of stylistic features, but also acculturated English in terms of 'Indianised' context. The main theme of post-independence Indian works particularly Indian fiction in English has focused on 'contemporary problems' and related to this are at least three more subgroups of themes like an individual's search for identity; woman's role and position in the society forming a part of 'a hierarchically structured



universe 'and the intercultural relationships, highlighting the culture, tradition and values of our country. (Banerji 2)

Kamala Markandaya's novels in comparison with those of her contemporary women writers, seem to be more fully reflective of the awakened feminine sensibility in modern India as she attempts project the image of the changing traditional society. The variety and complexity of the achieved content of her novels represent a major trend in the history of Indo- English novel. In her novels Markandaya not only displays a flair of virtuosity which orders and patterns her feelings and ideas resulting in a truly enjoyable work of art but also projects the image of national consciousness on many levels of aesthetic awareness. Most of her characters, both majors and minor, are born by conflicts between good and bad, reason and faith, Eastern and Western values, honesty and dishonesty and the conflicts terminate towards the ends of the novels with a message crystal clear. Markandaya is remarkably successful with women characters who are noble, strong willed and judicious and hence memorable. They anticipate greater freedom and more opportunities for the Indian women. S. Indra has noted:

Kamala Markandaya's major theme has been the cultural clash between the western and oriental modes of life. All her novels have the backdrop of east-west encounters and she explores the impact of change in terms of human psychology. The cultural understanding is thus the base of Kamala Markandaya theme in many of her novels. Kamala Markandaya Novels deal with the theme of Tradition and Modernity.

Culture:

Culture is the collective programming of the human mind that distinguishes the members of one human group from those of another. Culture in this sense is a system of collectively held values. (Geert Hofstede). People with little understanding of cross-cultural competency tend to use the term interchangeably with race and ethnicity. Culture is a "way a group of people solve problems and reconcile dilemmas" (Trompenaars and Harpen-Turner). The patterns of behavior are learned. Individuals are born into a culture, and they subsequently learn how to behave within their society.

The mainstream cultural values in India have remained the same. In spite of cultural turmoil and social upheaval the values of Indian culture have remained unchanged. Their reflection in the form of literature has been a significant contribution of Indian novels which require a careful analysis. The writer is very keen while describing roots of Indian culture. Humanism is the soul of Indian culture. Thus Kamala Markandaya has elevated Indian values on a global level. The interaction between eastern and western cultures is the essence of Kamala Markandaya's novels. It has been observed that the theme is found most frequently in Markandaya's novels occurring even where the novel tackles other issues simultaneously. (Almeida 102). Her sole effort is to cherish Indian culture with a positive outlook.

The interaction between two varying cultures—foreign and Indian, as portrayed in her novels. The fact that the West gets the benefit of ethical values from



India, and the spiritual India profits from the modernization of the West, as depicted in the novels of Kamala Markandaya's, has been accentuated. In fact, Markandaya's own personality combines in itself the antipodal values of two diverse cultures. Her novels bear testimony that she was in favour of a synthesis of the two ways of life. (Mh.Irshad)

Tradition, Values and Modernity:

Tradition signifies certain customs, habits, tastes, beliefs and opinions which have been prevalent in the countries for a long time, which consequently acquires a contextual value. A society is considered to be traditional if its behavior is governed by customs and traditions. .On the other hand Modernity implies a gradual change in the attitudes, ideas, and beliefs of the people generated by the Urbanization, Science and Technology advancement in India. Modernization in India is basically an offshoot of Industrialization and westernization introduces a new society. The external distinctive characteristic of modernity is felt in the hysterical process of industrialization. The growth of industrialization means in the Indian context, the peasants being uprooted from their land and their surroundings, the oppression of common workers and the vulgarization of their traditional life and their ancient culture. People who have so far adhered to deep rooted cultural habits are caught unawares by the sudden intrusion of modernization and its evil impact .The remarkable quality that distinguishes Kamala Markandaya from her contemporary writers is her sharp awareness of the shift in values that has been taking place in the post – colonial India.

Culture and feminine sensibility

India has been the confluence of many cultures. The Indian women reacted to the Western culture with avidity, took up ideas and forms and assimilated them. The fact that Indo- Anglican novel did finally achieve some success in presenting women authentically is due to what Professor Rajan has called “ Indian capacity for assimilation and tolerance ”.

Culture, Tradition and Values in works of Kamala Markandaya

Kamala Markandaya has rightly selected different themes suitably to illustrate her subjects either traditional or cultural in a creative stance and she has successfully operated them. Not only the themes of her novels understand certain basic problems of life in a rather better manner. The beautiful selection factual theme enhances the interest of the readers and cultivates their interest in such literary works. The genius of Kamala Markandaya also lies in the fact that she is able to captivate her readers in a rather comprehensive manner.

Kamala Markandaya's novels in comparison with those of her contemporary women writers, seem to be more fully reflective of the awakened feminine sensibility in modern India as she attempts to project the image of the changing traditional society .The variety and complexity of the achieved content of her novels represent a major trend in the history of Indo-English novel. In her novels Markandaya not only displays a flair of virtuosity which orders and patterns her feelings and ideas resulting in a truly enjoyable work of art but also projects the image of national consciousness on many levels of aesthetic awareness .



The Rural Ethos

Markandaya's best-known work, *Nectar in a Sieve* (1954) dramatizes the tragedy of a traditional Indian village and a peasant woman and her family assaulted by industrialization, with her realism and evocative descriptions of the Indian arcadia, Markandaya achieves a perfect poise between the rural reality and urbanity of art. The real truth of the novel is the spiritual stamina of Rukmani against such formidable enemies of her culture; the draconian landlord, and the soulless industry. It deals with the life story of Rukmani and Nathan against the background of suffering and agony of rural India. This novel is a portrayal of social relationships. Michael Foucault, a French intellectual, argues that: Power is imminent in all social relations and that all social reactions are relations of power whether in a family or in the layers (hierarchy) of Government and other social institutions.

Markandaya's novel, *Nectar in a Sieve*, is the identity crisis resulting from a clash between western value systems. The juggernaut of progress, the tannery, with all its resultant pollution and corruption which it endangers, stands for the western value system of crass materialism and agro-industrialism, which the idyllic rural life as depicted by Rukmani (the narrator-heroine) stands for Indian rural value systems. The Indian peasant is conditioned to work without hope, that is to draw nectar in a sieve. He is conditioned to leave everything in the hands of God and to bear all sorrows and sufferings with a sense of fatalism which the Westerner cannot stomach.

East-West Encounter

Kamala Markandaya evolved her works in the phase of transition which were relevant to social reality. She doesn't want her characters to part with the past and their ancient heritage that amounts to a fundamental dualism in her novels. She tries to criticize the tradition which she has inherited, but at the same time in a sense to renew it.

In *Some Inner Fury* (1955) the divergence is total: the unsophisticated, uneducated and uncivilized peasants with their problems of industrialization and feudalism give place to the more civilized and anglicized upper-class gentlemen and ladies with their issues of political violence and racial feud. Mira, the heroine, is entirely different from Rukmani, the woman narrator of her first novel. Mira is sophisticated and westernized and the central theme of the novel may be said to be the clash between passion and patriotism and the Some Inner Fury of passion is symbolic of Indian passion for independence. Her novels record a changing view of Indian life in the post freedom movement.

Markandaya's *A Silence of Desire* (1960) marks a further evolution of her genius. She leaves economics and politics behind and is more concerned with spiritual realities. The mode of narration is not auto biographical, but is carried on in the third person. Thus the spiritual reality is an important character of this novel. The theme of *A Silence of Desire* is a clash between faith and reason, superstitions and science. Through her novels, Markandaya brings to light the complication of post-colonial and traditional Indian social hierarchy as well as the implications prevalent within both systems.

A Silence of Desire is seemingly about the turmoil in the life of a government clerk, after his routine is shattered one day when he finds his wife missing when he returns home from work. Furthermore, he also realizes later that the reason she



had given for her absence was not the truth. He suspects his wife of infidelity. Much flustered, and not helped by the discussions happening in his office on the social mores of womenfolk, he follows her and finds out something, which to him becomes a more painful thing to bear than what he had initially suspected his wife of. His structured life then goes through turbulence, as his personal problems begin to affect his work, and even his character undergoes a change. This story focuses on the strong bond of love and dedication between the family, and the willingness they have to make things work between them.

The author uses the family to show the upheaval that happened in Indian society after the British left. The spirituality and faith of the traditional Indian housewife collides with the scientific and rational mindset of her British trained husband. The father is disturbed that his teenage daughter would go to the 'milk bar' with a male friend, even if it's in a group. There is even some reference to the conflict between north and south Indian civil servants because of their varying approach to problems and fellow workers. Even as the author manages to create a microcosm of the changes that were sweeping Indian society, her narrative and prose manage to bring out the human aspect in a very convincing manner.

Possession (1963) is different from the other novels in as much as its action moves from India to London and back again to India. On the very opening page of *Possession* one comes upon the following note; "...she[Kamala Markandaya] has woven threads of poignant and somber hue into the failure of this dramatic story of contemporary East and West"?Its theme is wider and more universal and its narrator, Anasuya, though a woman, is not its heroine, but a minor character silently watches the whisking away of the humble peasant-boy Valmiki ,a fine artist who paints murals on the walls of rock caves from his village and his ragged little family to London by Lady Caroline Bell, a woman insatiable possessive instincts. Lady Caroline comes into conflict with the Swamy, a wise and spiritual man who also stakes his claim to possess his spiritual disciple Valmiki speaking of this cultural class Meena Belliappa says:

In *Possession*, she [Kamala Markandaya] tries to concretise the invincibility of the spiritual power of the East confronted with the glamour of the materialistic society of the West. But Valmiki who forms the focal point of the conflict is a mere puppet without the freedom to choose for himself. Moreover, the exoticism inherent in the story of an Indian goatherd who is a genius and a western Jezebel who discovers his talent and transplants him into another soil, comes in the way of any significant exploration of either East –West relations or the impact of an alien culture on the life of an individual.”(Belliappa 125-126)

Another noted Indian Scholar, K.R. Chandrasekharan, has dwelt at length on the question of East-West encounter in the novels of Kamala Marakandaya and interpreted her message in the following way:

The implied message in Kamala Markandaya's novels is that India should confidently pursue her own path holding fast to her traditional values and using methods appropriate to her culture...Her emphatic teaching is that India should preserve her soul and carve out her great destiny in religion, she should be proud of her great legacy and her constant aim should be attainment of purity, equipoise and altruism represented by the Swami of *Possession* or a *A Silence of Desire*. (Chandrasekharan 328)



A Handful of Rice (1966) is an important novel. In this novel, not a woman, but a man occupies the central place and the narration is carried on by the omniscient novelist. The appeal in the novel is universal. This novel is one of the first novels to exemplify the plight of rural peasants to the new urban lifestyle. She traces the path of the antagonist in the novel, Ravi, a rural peasant who moved to the city to escape the vicious cycle of starvation in his village. When he moves to the city he befriends an orphan who grew up in the city. Ravi's life becomes full of robberies, alcohol, and prostitutes. He sleeps on the sidewalk and eats perhaps one meal a day. Things change when Ravi falls in love with Nalini, the daughter of a man he robs. Ravi begins to change his ways and begins working for Apu, Nalini's father. Ravi marries Nalini and realizes that even while working, it is very difficult to make a decent living. Ravi becomes obsessed with greed and constantly battles between going back to his old way of life with easy money and freedom and living a middle class life.

Markandaya conveys the stress of society's standards through Jayamma, Nalini's mother. Jayamma never seems to care about the hardships their family encounters but is more concerned that the neighbors do not find out about their struggles. As Ravi and Nalini have children, financial stresses increase and Ravi becomes more stingy and greedy. He then associates with his old gang friends and starts to abuse Nalini. Finally, Ravi is forced to choose between his money and his son, a choice that in the end claims his fate. Ravi displays a wonderful grit and determination in tackling his adverse circumstances and tries hard to overcome them, though ultimately he is crushed under the tyrannical wheels of Destiny.

The Cofferd Dams (1969) shows a further maturity of the powers of our novelist. Her art has grown more sophisticated and she writes now, less from the freshness and compulsion of spontaneity and rather more from the assurance of her mature craftsmanship. The novel centers on issues relating to tradition and modernity, scientific attitudes and human values, a rational approach to nature and an emotional response to its changing moods and freaks. It is concerned with the construction of a dam to channelize the waters of a turbulent river in a hilly region called Maland in South India. The construction work is being supervised by the Clinton-Mackendrick Company. It attempts a threadbare analysis of such diverse characters as Howard Clinton, Mackendrick, Rawlings, Helen Clinton, Millie, Bashiam and Krishnan. It may be read as an exposition of the theme of industrialization which is certainly a gift of modernity. Thus it seems there is a continuous evolution in the style, diction and vision of Kamala Markandaya as a novelist.

The Nowhere Man (1972) is a powerful novel which studies the theme of East West encounter through individual relationships and experiences. Its central figures are nowhere man i.e. Indian immigrants in England who belong neither to India nor to England. This novel echoes a psycho sociological view of Kamala Markandaya to look at the problem.

In *Two Virgins* (1973) Kamala Markandaya once again returns to India. The setting is provided by some unknown and remote Mysore village, and as in *Nectar in a Sieve* the theme is once again the disintegration of the rural way of life under the impact of modernity, and the sustaining power of the spirit as evidenced by



those who live in Nature. This is a dialogue between rural and urban setting in the decade of the 80s.

The Historical Scenario

The Golden Honeycomb (1977) which marked a new impact on contemporary English literature produced by Kamala Markandaya. It is different in its theme, thought and presentation. Its title is very thought-provoking, providing room for argument and counter-argument. It may be interpreted as the golden honeycomb symbolizing India. India is known to be rich in cultural heritage, in ancient history, and in traditional background. Such a treasure house, rich in every aspect, attracted the attention of the Britishers. They came to it in search of and with a hope of materialistic gains and did succeed through their cunning tactics of 'dividing and ruling' the country. The novel is a historical one, depicting facts with slight alterations put forth in a fictional frame. The events occurring then become history. Such a recording of events is what is put forth to us by the novelist. India's history is a vast one. It is an ancient history stored with treasures of past memories of events. It is a storehouse of a variety of occurrences.

A Pleasure City (1982) is a period novel in which there is no scope to touch on British influences that survived the Raj. It is really the third dimension of the political confrontation, the breakdown of personal relations that Markandaya is chiefly concerned with. The economic life of the fishing community of the coastal settlement is given in this novel. This novel is a unique contribution made by Kamala Markandaya. The writer has presented a number of new angles here. Rikki and Tully in the novel symbolize the meeting of Indian and western social life. Rikki is the protagonist of the novel around whom the story rotates. , Markandaya wrestles with issues of social hierarchy; in the novel Shalimar she accurately portrays two parallel societies in India. The main character, Rikki, is introduced to both of these societies during his adolescence. Rikki was born into the life of fishing. His father, brother, and cousins were all fisherman. However, at a young age his entire family falls victim to the might of the sea. Rikki is taken in by a family of missionaries. These new guardians show Rikki a completely new life. Markandaya shows that the presence of both cultures has painted the beautiful picture of what has become India. This novel depicts the evolution and development of Indian society and culture by describing the changes of Shalimar. So, Markandaya has tried to reconcile East with West which describes the arrival of multicultural construction companies in south Indian fishing villages."Markandaya has tried to convey through this novel that there are no boundaries between East and West." (Mukesh Ranjan Verma, Krishna Autar Agrawal 108)

Conclusion

Kamala Markandaya is undoubtedly one of the most important Indian novelists writing in English. The study of the various themes enlightened us that her work could be viewed from the lens of various critical theories like feminism , ecofeminism and new historicism. Markandaya is the outcome of this phase which represents the value crisis in Indian life in general and English literature in particular. Kamala Markandaya evolved her works in the phase of transition. At the same time she does not want her characters to part with the past and their ancient heritage that amounts to a fundamental dualism in her novels she tries to criticize the tradition which she has



inherited, but at the same time in a sense to renew it. Her contribution lies essentially in her capacity to explore feminism and ecofeminism and project the fascinating images of cultural change. Very few Indian novelists can compete with human beings whose sensitive nature responds to the stimulus of change. Kamala Markandaya's success as a novelist thus reveals in her simplicity, realism and symbolism which is universal together in an interesting fabric of social life.

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RELIGION-A WAY OF SOCIAL INTEGRATION

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Abstract

Religion can be defined from various perspectives. It is an indispensable aspect of human being which helps to lead a good life. Religion is one of the ways for social integration and it also helps to preserve social, cultural and political harmony in society. Belief in spirituality is the core of religion which can be attained through the path of knowledge, action, devotion and concentration. Different religions are the different ways of achieving the same goal i.e. the realization of ultimate end of life, attainment of liberation through the service of humanity. This paper tries to explain the value of religion in the present day society with special reference to some modern Indian thinkers.

Keywords: Harmonization, Spiritual, Moral, Society, Human Being, Development

Introduction

Religion is a growing, dynamic and broad concept which can be realized but cannot be defined in its completeness. It is not a mere belief, conviction and faith, but it is a principle of unification and harmonization of the whole personality of human beings with others. For some people religion is nothing but the limitation of taking food items and someone thinks that religion implies the practice of rites and rituals of everyday life. Though different thinkers put forwarded different definitions of religion from different perspectives, a holistic definition cannot be found till now. The term 'Religion' is derived from the word 'relegere' signifies 'to bind together'. So from the etymological standpoint religion is a binding force which puts individual beings together in agreement in a group and which unites human life with the social life. From the inception of human civilization, people have immense faith in a power which is higher than him, which satisfies not only his emotional needs but also guides him to lead a good life. Religion implies the spirit of devotion to the perfection of human life. All human beings try to attain the ideals of life i.e. Truth, Beauty, and Goodness. Search for the attainment of these ideals is nothing but the search for spiritual perfection. In broad sense religion is a way of life, the art of living through right action, a good code of conduct which regulate man's life. It helps man to achieve the highest goal of his existence and to lead a life of peace and happiness. Religion is not only concerned with individual phenomenon but also social phenomenon. In individualistic standpoint it develops the inner spiritual nature of human beings and in social standpoint it develops the social consciousness of human. In social phenomena religion manifests itself in domestic, economic and political sphere. Thus we find different meanings of religion. But question is that can religion be considered as a mean for the establishment of social



integration? This paper tries to find out the answer of this question by analyzing the elements which are inherent in religion.

Analysis

Religion is regarded as a social force which plays an important role in establishing peace and harmony among the nations of the world. Individual life and social life are inseparable from each other. Good of the individual depends upon the good of the society and vice versa. Religion is inborn tendency of man in the sense that it is natural to man. It helps the individual to develop his moral character and indirectly suggests the guidance for the foundation of society. Without the bond of religion society would be disintegrated. In the history of mankind religion occupies in such a widespread, impressive position that nobody can deny it. Religion gives us an interpretation of the meaning of the universe in terms of its values for human life. Religion also can be regarded as an attempt of human being to satisfy his inner urge or spiritual hunger and thirst. Belief in spirituality is the core of religion which can be attained through the path of knowledge, action, devotion and concentration. It helps man in developing his moral character and it supplies basic foundational pillar for the development of society. It also helps man to establish cosmic harmony and a centre of human fellowship through different religious institutions. Religious institution not only unites different categories of people but also helps the poor and needy people economically as well as educationally. Social unity, harmony, social development and integration would be made possible through religious institution. In this regard we can mention the name of Sankardeva, pioneer of Assamese society who established EK SARANA DHARMA (literal meaning is 'Shelter in-One religion') or Neo-Vaishnavite movement by means of which he tried to evolve social harmony and unity through the establishment of socio-religious institutions such as SATTRAS and NAMGHAR. His religion is mainly based on tolerance where there is no scope of discrimination of caste and creed. His religion aims not only spiritual progress of individual but also try to establish the welfare of society by instilling some moral qualities to all living beings. Moreover he tries to reform the society through mutual understanding, co-operation, goodwill, friendship, brotherhood and fraternity among people with the help of such religious institution which are the driving forces of social integration in which there will be no conflict and prejudice.

The contemporary world is full of anxiety and tension. The modern civilization leads the social framework to a deep crisis and conflict. Due to the technological advancement and scientific development today's society are mainly concerned with material comfort, it neglects moral and spiritual values. It provides an easier life to man, helps man to reach on the Mars, to fly in the sky and so on. But human being seems to be unhappy because only material comfort is not sufficient for leading a good life. It requires spiritual development and religion is one of the ways for the achievement of spiritual development. Though material wellbeing is one of the ends of life it should be earned through right way without the violation of peace and harmony in the society. Because achieving happiness from something depends upon the practicability and the mode of its application. If scientific development is taken from moral and religious standpoint, it will be boon for us rather than curse. For this religious sentiment is essential because



from a truly religious life our control over minds and intellect can be achieved by means of which we are able to minimize our control over the forces of nature coming from scientific development. To be a civilized, noble, ideal and rational society, it must be based on religious and moral values i.e. truth, right conduct and love. All religions provide us moral foundation to build up a harmonious society where an enforcement of mutual trust, respect, and tolerance exist.

In today's society we observe that religion becomes the tool of political leaders. They use religion for their personal benefit. Nowadays it is seen that the believers and practitioners of every religion deviate from their good motives. As a result social evils like religious riots, communalism crop in and that leads to disintegration of social framework. Religious fundamentalist make use of this conflict amongst different community to fulfill their own aim. In this respect we can mention the demolition of Babri Mosque held on 6th December, 1992. This type of event would encourage the disruptive forces of the society to destroy the mutual trust and harmony prevailing in different societies. This is due to either some personal profit. But religion itself cannot destroy world peace. Moreover today's society is divided into many parts on the basis of religion and innocent peoples are killed in the name of religious fundamentalism. This is the situation that is prevailing in the present scenario affecting different societies. Why this confusion takes place in very advanced societies in 21st century? The proper way to tackle these imbalances we must go back to our religious roots and find out reasons. In order to maintain peace and harmony in the society political involvement in the religion and religious institution should be prohibited. Religion helps to establish national integration in society and it also helps to preserve social, cultural and political harmony in society. According to religious thinkers such situation can be removed through the reward for spiritual values, the love of truth and beauty, belief in brotherhood among all human beings.

The most outstanding personality of Contemporary Indian thought M. K. Gandhi who occupies a remarkable position as a novel interpreter of Hinduism and as a moral, religious philosopher and a social reformer. If we analyze M.K.Gandhi's philosophy we observe that the main key of his philosophical thinking is religion. He says, "Man without religion is man without roots. Therefore religion is the basis on which all life structure has to be erected, if life is to be real."¹

His concept of religion gives us a new way of thinking which is based on faith, tolerance, truth and love. Religion helps people to lead a peaceful and harmonious life; it enables man to unite himself with his inner truth. According to Gandhi all problems related to life whether it is national or international or moral or social or economic or political can be solved by religion. Any problem of life can be solved if there is a harmony or unification between theory and practice which is proved by M. K. Gandhi through India's struggle for Independence, but if it is practiced wrongly on the basis of wrong interpretation and misunderstanding it will affect negatively. If religion is taken as a personal quest, personal effort and sacrifice it would be most effective weapon for eradicating violence and tyranny of today's society. Like Gandhi the most eminent Contemporary Indian thinker Radhakrishnan also emphasized the importance of religion in man's life. He says, "The need for religion for a system of thought, for devotion to a



cause which will give our fragile and fugitive existence significance and value does not require much elaborate argument. It is an intrinsic element of human nature."²

Some thinkers remark that religion is doing harm instead of doing well. It is the obstacle of the progress and development of mankind. Among such thinkers Lenin is one of them whose sole aim was material prosperity and he says, "Religion is one of the aspects of spiritual oppression"³. Karl Marx also opines the negative view of religion and he considers religion as the opium of the people. If religion is considered from social standpoint then it is found that universal brotherhood is one of the important features of religion and it is the end of religion. By criticizing this view some thinkers point out that brotherhood is associated only with the followers of each particular religion and no religion can claim this quality for all individuals belonging to all religions. Moreover it is also seen that followers of particular religion have blind faith on the views of their religious leaders and they consider leader's statements are the commands of religion. Thus different views are found regarding the negativity of religion put forwarded by different thinkers emphasizing only in one aspect of religion without knowing the essence of religion. But it cannot

1. Gandhi ,M,K: In the search of the Supreme,vol II,p.311
2. Radhakrishnan.S: Religion and Culture, pp.16-17
3. Radhakrishnan.S: Religion and Society,p.69

be accepted. It is true that great development of science and technology has a great success in their activities to develop humans. But they are seldom happy and at the same time all the human virtues such as love, kindness, sympathy, fellow- feeling gradually disappear from the domain of moral life of a person.

As a result chaos and confusions take place in man's life. Such type of latent crisis can be solved by the emergence of spiritualistic attitude and religion is one of the ways for the emergence of spirituality. Religion always demand the establishment of an ideal state based on human relationships of understanding and love. Therefore the best way is to avoid the emphasis on the anti religious views and must give importance on the development of both scientific development and spiritualistic attitude. Because for harmonious life both can go hand in hand and here we find real happiness. Technological advancement gives tremendous power in the hand of man and if it is tinged with religion then human progress would be possible which ultimately helps social integration

In religion there is no distinction of cast, creed and color and there is no fundamental difference amongst the religions. All religions are based on truth and love. Different religions are the different stages on our journey of achieving the same goal i.e. the realization of ultimate happiness, attainment of liberation through the service of humanity. Therefore in truest sense, religion is the worship of mankind. If we accept that all religions are true then there will be no room for religious persecution. Different religions are the different stages on our journey to realize the ultimate truth. The motto of all religions is the realization of the true nature of man; Man is both religious and moral being and the co-relation between religion and morality is one of the essential ingredients for the development of today's society. Just like without water soil has no fertility in the same way without morality no religious life is meaningful. Religion is the



ideal foundation of morality. These two are inseparable for a complete and integral development of the individual. In every society, every individual finds opportunity and facility for their own development; and for self developmentself sacrifice, sympathy, tolerance are essential which are found in the very nature of religion Therefore religion is able to fulfill our hope i.e. establishment of peace in the present disturbed society.

From the above discussion it can be concluded that to fulfillmans aim of establishing social integration through religion which is prevailing from the dawn of civilization would be possible if the new generation is trained with the ideals of sacredness and supremacy of spiritual life along with the revolutionary changing society. In other words in the midst of the rapid change of the society if religion should be revolutionary and acting as a bridge ,then challenge of both science and society would be enriched. If religion is seen from the etymological aspect i.e attachment between men then it will be very useful for social harmony. If it is taken as a duty (dharma) as depicted in Gita, then it would be more essential for the establishment of social integration. Moreover if religion is considered as a way of life, it will be utmost beneficial for the development of society. It is observed that if religion is taken as a particular religion, then we find that every religion is based on the same principle i.e. establishment of equality, justice, love and belief in spirituality.

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PRINTING CELLULOSIC FABRIC WITH THE CO FRIENDLY DYE AND NATURAL THICKENING AGENTS

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Abstract

The trials were under taken to screen print cellulosic fabric with Palash dye extract using natural thickening against i.e. cassia seed gum and mango kernel gum with two mordant concentrations. Two mordant namely Copper sulphate and Ferroussulphate was selected for the experiments. The screen printed samples were studied for colour fastness properties and CIE LAB values. The results revealed that cellulosic fabric can successfully screen printed with natural thickening agents.

Keywords: Palash, Natural thickening agents, International Commission of illumination(CIE),Mordant

Textile printing is called localized dyeing, it is the branch of textile wet processing industry and becoming increasingly popular for all fibers and varieties of fabrics as well as garments. Basically printing is a form of dyeing in which the colour is applied to specified area. The resulting multicolored patterns have attractive and artistic effects which enhance the value of fabric. To resist the colouring matter to the design area, it is pasted with thickening agent which may be natural or synthetic. Thickeners are polymeric materials used in the preparation of print paste. These polymeric products include diverse products as starches, plant gums, sea weed Aliginate, oil in water emulsion, poly acrylics etc. Thickeners impart stickiness and plasticity to the printing paste so they can be applied to a fabric surface without spreading and are capable to maintaining the design outlines even under high pressure.

The present paper deals with preparation of thickening agent from Cassia seed gum and Mango kernel gum and investigating of their suitability as thickening agent in screen printing on cellulosic fabric using Palash dye extract with two different mordants and testing its CIE Colour coordinates and colour fastness properties.

Materials and Methods:

Pretreatment of fabric:

Cellulosic fabric scouring was done in order to remove the impurities. The fabric was pretreated with 20 percent of *myrobalan* solution for 24 hours maintaining the 1:20



MLR(material to liquor ratio). The fabric was squeezed and sun dried. The side exposed to sunlight was used for printing.

Dye and Mordants used: Palash flowers were collected and dried in shade and pulverized to powder form. Aqueous method was used for dye extraction, dye solution was reduced by boiling. Copper Sulphate (0.5%) & Ferrous Sulphate (3%) were mordants used.

Thickening agents used: Cassia seed gum (2.5%) & Mango kernel starch (1.5%). All the ingredients were mixed and boiled until the required consistency is obtained.

Printing: Screen printing technique was used. After treatment was given to printed sample with Alum. Anonymous (1995) proposed Alum for its low environmental toxicity. Fixation of the printed goods was done by steaming at 125° for 30 min.

Measurement of fastness properties Colour fastness test to light, washing, crocking or rubbing was carried out in Fad-o-meter, launder-o-meter and crock-o-meter respectively and fastness was rated as per Grey scale (AATCC Technical Manual 1968).

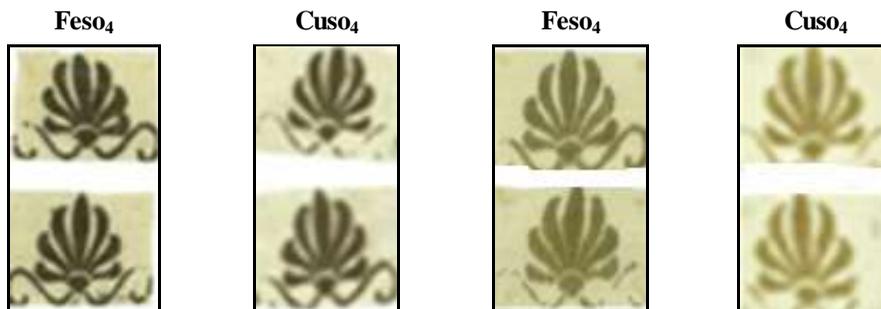
Evaluation of colour strength- Colour strength (K/S value) of a printed sample was measured at wavelength of maximum absorption of each of the colour on MS 2000 (colour eye 3100), Macbeth UV spectrophotometer. These values are computer calculated from reflectance data according to Kubelka-munk equation.

Results and discussion: In order to compare the effect of two natural and ecofriendly thickening agents. Cellulosic fabric was printed with natural dye extracted from Palash with two different mordant. The K/S values and their corresponding fastness properties were evaluated. Evaluation of CIE lab Coordinates was analyzed on the basis of L*a*b* values using reflectance spectra through (colour eye 3100) Macbeth UV spectrophotometer. The L* value is a measure of lightness and darkness of the colour to define the colour on a two dimensional chromatic space of green-red axis and blue-yellow axis, a* and b* values were evaluated.

From the table 1 it can be seen that the K/S value of cassia seed gum printing paste was more as compared to Mango Kernel printing paste in case of both the mordants. While comparing the mordant wise K/S value data indicates that it is more in case of CuSO₄ with both the thickening agent.

Table 1 Effect of thickening on colour strength of screen printed cellulosic fabric

Thickening agent	Mordant	CIE Colour Coordinates			
		K/S	L*	a*	b*
	Standard	14.09	81.57	-1.24	28.27
Mango kernel	FeSO ₄	19.99	22.61	-0.59	12.75
	CuSO ₄	26.72	59.11	-1.26	38.0
Cassia seed	FeSO ₄	38.80	51.56	-0.65	14.0
	CuSO ₄	67.31	54.36	0.30	18.68



Mango kernel gum

Cassia seed gum

Screen printed samples

Higher L values of the standard sample relates to higher brightness. Since the L* values of both the thickening agents with both the mordants are found in range of 51-59 except Feso₄. L* value of cassia seed gum and only Cuso₄ mordant of mango kernel gum were closer to fifty the brightness of shade was good. In case of Feso₄ mordant of Mango kernel gum the L* value is less (22.61) which shows darkness of printed sample. Greater L* values may be due to more extent of dye mordant complex formation, since the dye was used only in preparing print paste. The extent of this dye transfer from the print to interior of the fabric which contain mordant thickening agent a dye and type of mechanism involved in formation of dye mordant complex. The whole complex is transferred during steaming. Different type of mordant and dye resulted in different shades and tones of screen printed cellulosic fabric. It is indicated by CIE colour coordinate results.

The a* value indicates redness or greenness and b* value indicates yellowness and blueness. From the table it can be seen that a* values were negative except Cuso₄ mordanted cassia seed thickened printed sample a* value is positive. Negative a* value indicates greenness in the screen printed samples. While positive b* value indicates yellowness in the screen printed samples. Screen printed samples were yellowish green.

Table 2: CIE Colour Coordinates and Light fastness grades of Screen printed cellulosic fabric

Thickening agent	Mordant	Light fastness	CIE Colour Coordinates				Light fastness Grades
			K/S	L	a*	b*	
Mango Kernel Gum	Feso ₄	Controlled	19.82	32.94	0.78	7.76	7
		Exposed	12.20	33.07	0.53	7.07	5
	Cuso ₄	Controlled	66.208	53.60	0.41	22.37	7



		Exposed	64.44	54.26	0.35	22.66	5
Cassia Seed gum	CuSO ₄	Controlled	47.73	53.20	-.60	16.93	7
		Exposed	29.44	58.34	.41	21.18	4
	FeSO ₄	Controlled	27.0	41.68	-.48	16.87	7
		Exposed	19.99	29.21	0.53	14.32	4

(Rating 1-poor, 2-fair, 3-moderate, 4-good, 5-better, 6-very good, 7- best & 8-excellent)

Fastness properties of printed samples:When the dye or pigment is imparted on the fabric it is expected to have certain properties, thus the colored fabric is exposed to sunlight during its use, and the dye should not fade or change its color. During the exposure of colored fabric to crock or sunlight in the presence of air (oxygen or moisture) the color absorbs some portion of sunlight.

Table3: CIE Colour Coordinates and Rubbing fastness grades of Screen printedcellulosic fabric

Thickening agent	Mordant	Rubbing	CIE Colour Coordinates				Rubbing fastness grade	
			K/S	L	a*	b*	CC	CS
Mango Kernel Gum	FeSO ₄	Dry	19.9	20.81	0.189	10.36	5	5
		Wet	19.9	19.74	-.210	12.21	5	4
	CuSO ₄	Dry	22.92	62.68	-.894	19.39	5	5
		Wet	27.16	58.88	-1.43	18.68	5	5
Cassia Seed gum	FeSO ₄	Dry	44.13	43.29	.732	8.74	5	5
		Wet	66.75	36.98	1.12	9.08	4/5	4
	CuSO ₄	Dry	51.80	58.66	-.629	23.87	5	5
		Wet	57.8	56.02	0.022	23.08	4/5	4

The data in table clearly reveals that after exposing the K/S value was reduced of all the samples where as L* values were increased except for FeSO₄ with Cassia seed gum that shows slight variations in tone. The light fastness properties of printed fabric with two different thickening agents and mordants are good to excellent which shows that dyes are stable to photo degradation and printing paste interaction is good. Another important fastness for printing paste is rubbing fastness because of this screen printed samples were evaluated for rubbing fastness. The extent of rubbing may be influenced by the moisture, as many textiles transfers more color when wet. The dry rubbing fastness was slightly better than wet rubbing fastness. K/S value of dry and wet rub show no significant increase except FeSO₄ mordanted Cassia seed gum thickened screen printed sample where the difference in K/S value is more as compared to others. This shows



that majority of dye is fixed well on fibers and surface residual dye is minimal. The CIE colour coordinates also confirm the results.

Table4: CIE Colour Coordinates and Washing fastness grades of Screen printed cellulosic fabric

Thickening agent	Mordant	CIE Colour Coordinates				Washing fastness grade		
		K/S	L	a*	b*	C	CS	
						C	W	C
Mango Kernel Gum	Feso ₄	29.42	46.46	-1.72	10.01	lighter	4/5	4/5
	Cuso ₄	32.3	31.22	-0.78	10.21	5	5	4/5
Cassia Seed gum	Feso ₄	36.0	39.56	-1.4	8.79	5	4/5	4/5
	Cuso ₄	20.06	56.25	-1.2	16.70	5	4/5	4/5

CC=ColourChange, CS+ Colourstaining, W=wool, C=cellulosic

Table5:CIE Colour Coordinates and Prespire-0 –meter grades of Cellulosic Screenprinted cellulosic fabric

Thickening agent	Mordant	CIE Colour Coordinates				Prespire-0 –meter grade		
		K/S	L	a*	b*	CC	CS	
						CC	W	C
Acidic Medium								
Mango Kernel Gum	Feso ₄	19.9	20.81	3.34	9.94	5	4	4
	Cuso ₄	30.5	47.35	6.69	27.97	Lighter		5
Cassia Seed gum	Feso ₄	10.4	28.58	7.0	14.67	Darker	4	5
	Cuso ₄	121.	32.41	4.66	12.87	Darker	4	4/5
Alkaline Medium								
Mango Kernel Gum	Feso ₄	34.24	47.48	4.14	12.94	Lighter	4	4/5
	Cuso ₄	8.8	68.33	1.9	16.26	Lighter	5	4/5
Cassia Seed gum	Feso ₄	19.7	68.35	-1.47	21.09	5	4	5
	Cuso ₄	20.42	64.91	-2.40	18.70	5	4	5

CC=ColourChange ,CS-Colour staining ,W=wool ,C=cellulosic ,(Rating 1-poor,2-fair,3-good,4-very good & 5-excellent)



Washing fastness grades for colour change for both mordant and thickening agents was 5 and colour staining was observed between 4/5 to 5 for all the samples concludes good to excellent range. Almost all screen printed samples showed good performance during acidic and alkaline perspiration test as L^* values decreased during acidic perspiration test while it was increased during alkaline perspiration test. Fastness property is quite good as No colour staining was observed. Colour of screen printed fabric becomes lighter in case of alkaline medium with mango kernel gum, while shade becomes darker with mango kernel gum in acidic medium.

Conclusion: It is evident from the results that cellulosic fabric can be successfully screen printed with Mango kernel and Cassia seed gum with ferrous sulphate and copper sulphate mordant and Palash dye extract. The fastness properties of screen printed samples were found good to very good. Hence, the industrial implementation of natural thickening agent with natural dye using screen printing is very much possible, giving all round performance properties.

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EMINENT PERSONALITIES AND THEIR CONTRIBUTION TO HYDERABAD STATE

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Abstract

Hyderabad's position with respect to the Mughal Empire changed drastically during the eighteenth century. At the start of the century, it was the Mughal administered portion of the Deccan plateau in southern India. But the weakening of the central Mughal authority and the constant intrigues in Delhi meant frequent changes of the officials in the Deccan. The Government of Hyderabad invited several personalities in an expert of different fields to Hyderabad and appointed in various department. They were served to the society. Most of them were settle down in and around of the Hyderabad. A few personalities got Prime minister ship in the State. These personalities were migrants and came different parts of the India. These officers received handsome salary and good facilities from the State. The Nizam encourages their skills in different fields. The Nizam Government strengthen the Administration, Revenue, Agriculture, Industries, Education, transportation and communication with the support of the respective officers. However the migrants occupied an important place in several fields in Hyderabad State. This research paper to be critically analysed about the eminent personalities and their contribution to Hyderabad State.

Key Words: Nizam State, Muslim Culture, Hyderabad Dominion, Ruling Reforms, Role Model personality, Educational Reforms, Madarasa Education.

Statement of the Problem

“History in the versions of past events that people have decided to agree upon”.

Napoleon Bonaparte.

The city of Hyderabad founded in 1591 by the fifth Qutub Shahi ruler, Mohammed Quli Qutub Shah played a remarkable role as the largest princely state in India. The erstwhile Nizam's dominion of Hyderabad comprised of the present day Telangana region of Andhra Pradesh, the districts of Bidar, Gulbarga and Raichur in Karnataka and the Marathwada region, comprising of Mannad, Aurangabad, Parbhani, Barsi, Nanded, Sholapur, Oamanabad and Akalkot of Maharashtra. The state was an extensive plateau with an average elevation of about 1,200 feet. The dominions farmed a lateral square situated between 15° 10' and 21° 50' north latitude and between 74° 45' and 81° 35' east longitude. A trigonometrical survey of the region shows the area to be 97,837 square miles. The length of the State from east to west is 456 miles. Its breadth from north to south is 384 miles. It has an average elevation of 1,250 feet and is intersected by ranges



of hills with summits rising from 2,500 ft. to 3,500 ft. The surface of the country has a general slope from north to southeast.

Hyderabad's position with respect to the Mughal Empire changed drastically during the eighteenth century. At the start of the century, it was the Mughalad ministered portion of the Deccan plateau in southern India. But the weakening of the central Mughal authority and the constant intrigues in Delhi meant frequent changes of the officials in the Deccan. Confusion and rivalry there reflected rivalries at the Delhi Court. The rise of the Marathas as a political power in the western Deccan led to further political instability. The Mughals attempted to incorporate Maratha leaders into the empire, and there was constant Mughal-Maratha competition for the Deccani revenues. The situation provided an opportunity for the Mughal subahdar, later known as Nizam-ul-Mulk Asaf Jah I, to consolidate his hold over Deccan.

Origin of Hyderabad State

By mid 17th century, Hyderabad was at the height of its glory. It was a city beyond compare. Tavernier and Thevenot, European travelers who had visited most of the important cities of India including Shahjanabad and Akbarabad in the Mogul empire lavished undiluted praise on Hyderabad. Even Moghul historians described Hyderabad as a resort of heavenly peace and worldly comfort. The affluence is evident from the observation of Tavernier and Thevenot who report of 30,000 dancing girls registered on the municipal rolls.

The gradual separation of Hyderabad from the Mughal Empire was accomplished before the death of the first Nizam in 1748. Though considered loyal to the emperor by many contemporaries and later historians, Nizam-ul-Mulk centralized the administration of the Deccan under his personal control. He was first appointed subahdar in 1713, but Hyderabad's effective independence has usually been dated from 1724, when the Nizam won a major military victory over a rival Mughal appointee, or 1740, when the Nizam returned to the Deccan from North India for the final time. On several occasions, Nizam-ul-Mulk left the Deccan for North India at the Mughal emperor's request, but he always arranged for his own subordinates to govern during his absence.³ Moreover, he often returned to the Deccan without imperial sanction. Upon each return the Nizam's successful resumption of power, displacing rival Maratha and Mughal officials, compelled the emperor to re-appoint him subahdar. Upon resuming control, the Nizam journeyed about confirming or replacing Mughal appointees in the Deccan.

As there were many centrally appointed officials in the Mughal provinces, this action was a further assertion of the Nizam's personal authority in the Deccan. The Nizam's recognition of Mughal suzerainty became increasingly nominal. Nizam-ul-Mulk conducted war, made treaties, and conferred titles and mansab appointments himself. The Nizam's appointees were termed "Asafia" mansabdars (from his title, Asaf Jah), as distinguished from the "Padshahi" mansabdars appointed earlier by the Mughals (padshah means king or emperor). Under the Nizam and his successors, those customs



which emphasized the Deccan provinces sub-ordinance to the Mughal emperor were gradually diminished or discarded entirely. The office of the "Padshahi Diwan", an official, whose seal was supposed to approve the revenue accounts and sanction all land grants on behalf of the emperor, was allowed to lapse. Ceremonial observances such as the reception of Mughal farmans (royal orders) and gifts and the celebration of the Mughal emperor's regnal year, had diminished noticeably both in frequency and scale by 1780. But Mughal authority continued to be the source of symbolic legitimacy for Hyderabad. The emperor's name was still read in the Khutbah, the discourse in the mosque in which the sovereign's name was mentioned. Coins were struck in the emperor's name until after the Mutiny of 1857, when the Mughal Empire was brought officially to an end.

The second half of the eighteenth century was the formative period in Hyderabad's history. The Nizam and his principal nobles moved permanently to Hyderabad city from the old Mughal capital of Aurangabad and formed stable relationships through the court and administrative institutions. The long reign of Nizam Ali Khan, from 1762 to 1803, contributed greatly to these important developments. Prior to his reign, the Nizams had been constantly moving, setting up encampments at the site of military campaigns or diplomatic negotiations. The early Nizams fought and negotiated with the Marathas to the west, claimants to the Nawabship of the Carnatic and their French or English allies in the South and various local rulers like the Pathan Nawabs of Cuddapah, Kurnool, and Savanur-Bankaput, and the Raja of Vizianagaram. But by the late 1760's, Hyderabad's borders were relatively settled. The coastal territories (later known as the Northern Circars) had been ceded, first to the French and then to the English. The Nawab of the Carnatic was no longer under the jurisdiction of the subahdar of the Deccan. The soldier adventurer Hyder Ali had replaced his employer, the Raja, as ruler of Mysore. Most important, the struggle with the Marathas was waged only intermittently and there were long periods of peace.⁹ Within Hyderabad, the succession disputes between descendants of Nizam ul-Mulk were terminated decisively when Nizam Ali Khan seized control in the 1760's. During his long reign, a consistent pattern of political relationships that can be termed a political system developed in Hyderabad.

Personalities in the Administrative System.

This political system operated through loosely structured patron-client relationships. Another basic characteristic was the use of vakils, or intermediaries, of many kinds. The vakils represented their employers' interest at court and in dealings with others. Most participants were members of the nobility and administration, but groups and individuals from outside were integrated into the local political system through these relationships also. The participants in the Hyderabad political system were diverse and participated in politics in different ways. The Nizam and powerful nobles were the most important dispensers of patronage in the late eighteenth century political system. Earlier in the century their resources had depended upon military and diplomatic success. Later, when the court was fixed in Hyderabad city, the receipt of



regular income from their land grants (jagirs) enabled nobles to maintain large establishments.

The Nizam himself, with personal control over the greatest amount of land and its revenues and the largest military, administrative, and household establishments, was the best source of financial support in Hyderabad. Nobles maintained establishments patterned on the Nizam's. They too could dispense administrative posts or cash grants. Also, depending upon their status and the strength of their recommendations, nobles could secure places for their clients in the Nizam's establishment. Successful provision for a large number of diverse clients-relatives, employees, artisans, poets, and religious men was an essential mark of noble status. Understood in this way, the seemingly wasteful and luxurious style of life followed by the nobility was essential to political power.¹⁰ For the clients as well, the patron-client relationship was the key to maintenance of position and advancement. Employees with ability could switch allegiance from one patron to another, improving their position in the process.

For example, newly arrived Maharashtrian or North Indian administrators initially employed in one nobleman's establishment often shifted to another, more powerful, patron. For a client, access to the Nizam's administrative service and eventually to the nobility depended upon a connection with an influential patron or sponsor. An aspirant to even a relatively low appointment in the Nizam's service had to be presented to the Nizam by someone already in good standing at court. Such a sponsor was not necessarily or even usually a relative of the applicant; patron-client relationships were formed on an individual basis and did not follow caste or kinship lines. The loosely structured patron-client relationships encouraged individuals to change patrons and positions to achieve personal advantage.

Individual Personalities in Nizam Era

Another characteristic of the Hyderabad political system was the use of vakils, usually translated as agents or intermediaries. These intermediaries were crucial to the operation of the system. In accordance with prevalent etiquette, members of the nobility seldom met with the Nizam or each other directly. They sent their vakils to attend the court and to negotiate business and even personal matters with other nobles. A continuous ceremonial exchange of greetings and gifts through their vakils served to maintain friendly connections between the Nizam and his nobles and between noblemen. The diplomatic ability of a vakil could do much to maintain or enhance his patron's position. And a vakil's ability to secure jobs for applicants in his employer's establishment put the vakil in a subsidiary role as a patron to those below him. Those vakils who were the agents of regional political powers such as the Peshwa of the Marathas or the Nawab of Arcot attended the Nizam's Court and represented their employers' interests there. But they, like the local vakils, served a double function-they too acted as patrons within the Hyderabad political system. These vakils maintained



large households in Hyderabad city and employed many subordinates to administer their employers' properties in Hyderabad.

Often these vakils could dispense jobs and support of the same magnitude as Hyderabad nobles directly attached to the Nizam. Sometimes a vakil's position in the local political system became more advantageous to him personally than his position as an outside power's representative at the court.¹³ The Nizam granted land (jagirs) to some of these external vakils and eventually some switched their allegiance to the Nizam, bringing their employees or clients with them.

There were many semiautonomous local rulers in the Nizam's territories that paid an annual tribute and continued to govern their inherited lands themselves. The most important of these were the seven or eight samasthans, or Hindu royal houses. The samasthan Rajas and other local rulers can be viewed as patrons, like the Nizam and the nobles in Hyderabad city, for they maintained their own courts and provided for many diverse clients. Yet their position in the political system, and in the nobility of Hyderabad, was more nominal than real. These indigenous rulers were never fully integrated into Hyderabad politics and society. Most of the samasthans were in the Telangana area (including Raichur) of Hyderabad only Sholapur was in Marathwara. Most of them were from Telugu-speaking peasant castes.

Ruling Consciousness in the Nizam State

The culture of the Deccani courts can be traced to the migration to India of waves of Central Asian Turks who had been uprooted from their homelands by Mongol invasions in the thirteenth and fourteenth centuries. Having grown up in Central Asia or Iran amid the flowering of the Persian Renaissance (10th-13 century) – a vibrant literary and cultural movement these in progress in those regions-these refuges brought with them the entire spectrum of cosmopolitan Persian culture which soon took root in North India. This tradition eventually diffused southward when armies of Delhi Sultanate (1206-1526) a large state Northern India's Indo-Gangetic plains, conquered the Deccan Plateau in century. Migrants transplanted from Delhi then settled the Daulatabad region, in the north western part of the plateau. Accompanying these migrants were Sufis, Muslim holy men and mystics, who were believed to possess spiritual authority that transcended the political authority of Kings or governors. Sayyid Muhammad Hussaini Gesu Daraz (1321-1422), whose tomb attracts many thousands of annually, remains today the most popular Sufi in the Deccan. He was the son of one of those early migrants from Delhi.

The Nizam's State is called Hyderabad-Deccan in the official documents. It comprised 16 districts that were trifurcated later into three States of Andhra Pradesh (now Telangana) with the largest share, Maharashtra that include the famous Takht Sach Khand Hazoor Sahib, Nanded with five districts and Karnataka with Bidar as an important pilgrim centre called Gurdwara Nanak Jhira, with three districts (including Bidar). The Sikhs are spread all over South India, but the prefix Daccani goes only with those who belong to the State of Hyderabad-Deccan since 1830. This term is not used in



the generic sense. The Urdu language replaced Persian as the official language of the later Nizam's State in 1884. In 1918, the Osmania University was established with Urdu as medium of instruction. It is also called Daccani Urdu. It is the people's lingua franca, too, which is why Deccani Sikhs feel comfortable conversing in Hindi. Deccan also has its specific cuisine, such as the famous biryani Hyderabadi and many more. It is for this reason that most Deccani Sikhs are not uncomfortable with this identification. A noted historian of the Deccan, H. K. Sherwani suggests: "The scions of the dynasty (QutbShahis) formed a connection link between the Bahamanis and the Asafjahis, and they were also promoters of that peculiar culture which is sometimes dubbed as Deccani culture".

The industrial and allied infrastructural developments, like lying of road and rail lines, were a boost to migration from other parts of the country too. The Asafjahi rulers invited several eminent personalities to the Deccan and appointed in different position of the State. Those who came on the invitation of the Nizams from different regions are settled in and around the Hyderabad. These officials most of them permanently settled in the Deccan particularly in Hyderabad. The eminent personalities such as Nawab Chattari, Sir Akber Hyderi, Sir Mirza Isamail, Gulam Mohammad, Ali Yawar Jung, Khaja Sarwar Hussain, Sir Syed Ali Imam, Sir Nizam Jung and Dr.Mallanna etc.

Nawab Chattari

Nawab Chattari belonged to a noted Rajput family called Lavani of Buland Shahar. He was among the leading nobles of the United Provinces Agra and Oudh. Born on December 12, 1888 in Kalanor at Rohtak in the Punjab and educated at M.A. O College Aligarh, he entered public life in 1910 and started taking interest in cultural, educational and political activities. He laid the foundation of Muslim Rajput School at Kalanoor in 1910 and was elected President of the Muslim Rajput Conference held at Kalanoor in 1923. He was elected unopposed from the Muslim Constituency of Buland Shahar as Executive Council Member. In 1923 he was appointed Minister for Industries and Agriculture and in 1926 as Home Minister in the United Provinces. He was made Governor of the United Provinces twice. He participated in the Round Table Conference at London in 1930 and 1932.

He was a model of Muslim culture. Besides other subjects, he was educated in religious and had learnt the Holy Quran by heart at the Mohammadan College, Aligarh. He entered into active politics in 1920 and was appointed member of the Ministry of Home and in 1928, governor of the Suba, later he became the Minister of Education in the Government of India. In 1941, he was appointed to the post of Sadr-i-Azam in the Hyderabad Dominions and remained so for five years. Several reforms were introduced during his premiership. He came to Hyderabad after serving in the fields of politics, education and administration in British India as an expert. The post of Prime Ministership was conferred upon him in a favourable environment. The Second World War was about to end and the British Government seemed ready to give India the rank of an independent Dominion. During his tenure the Majlis ItihadulMusalmin became a new communal force. The activities of Itihad made Chattari realise that he could not survive long under such circumstances like Sir Akber Hyderi.



Sir Akber Hyderi

He belonged to a respectable family of Bombay. His father SaitNazar Ali was a renowned businessman of Bombay. His native place was Kambat. He was born on November 8, 1869 in Bombay. He graduated with distinction from Xavier's College, Bombay, at the age of seventeen. He enrolled for a degree in Law but the Government of India selected him for training in the Finance Department. He completed the training with honours.

In 1888, he was appointed Accountant Officer in Nagapur. After one year he was appointed as Currency Officer at Lahore, and then brought to Calcutta. Three years later he was appointed Assistant Accountant General , Allahabad. In 1893, he was transferred to Bombay and in 1900, appointed as Deputy entrusted with the auditing of the Government Press for India and Burma. In 1905, his services were obtained as Accountant General on a Salary of 1950 rupees during the time of Sir George Casson Walker in Hyderabad. He was attached to the Home Office, High Court and Department of Education. Later he helped in fulfilling the plan for establishing the Osmania University, which had been under contemplation for a long time.

He retired from the State Service, but in 1921 when he was acting as Controller- General of Accounts at Bombay, he was called to Hyderabad and made the Finance Member of the Executive Council in place of Sir Glancy. He was known for his expertise in the administration of finance. He was the president of the Reception Committee to welcome His Royal Highness Prince Edward. In 1925-26 he presided over the Delhi-Inter Universities Committee. He was the Official Director Singareni Collieries Company Ltd. Chairman of Shahabad Cement Company Ltd., Industrial Finance Trust Ltd., Central Bank of India Ltd., Osmania Shahi Mills, Azam Jahi Mills and inter-Universities Board. He was Sadrul-Maham for Co-operative Credit and Mineral Departments. The credit of purchasing the Nizam's State Railway and its nationalisation goes to him. He was sent to the Round Table Conference in London. He was conferred Knighthood in 1928, and the title of Right Honourable in 1936. He was appointed Prime Minister in 1937 for a period of five years. He was a man having great capacity for hard work and had uncommon pertinacity in carrying out his aims. He died in 1941.

Sir Mirza Ismail

Native of Mysore Sir Mirza was the Diwan of Mysore for a long period. During the Osmania period, when he was appointed for the first time Sadre Azam he rendered excellent service. He was again called to the Sadarat-i-Uzma, (Presidentship) after returning to Mysore. This was the period when India got independence and the partition of India took place.

Sir Mirza ismail was one of the ablest Prime Ministers who served His Exalted highness the Nizam and the State with ability and distinction. Sir Mirza was a seasoned administrator who had efficiently managed State administration in Mysore and Jaipur. From his reminiscences entitled "My Public Life", it can be gathered that he had been requested several times to accept the reins of the Hyderabad administration. However, it was ordained that he should come in the first week of August, 1946, to Hyderabad. Hyderabad had the privilege of enjoying the fruits of the enlightened and wise administration of Sir Mirza Ismail for 10 months. He was a veteran in the art of



administration and knew perfectly the methods of avoiding delays and redtapism. He was determined to see that the commonest citizen in the State should avail the benefits flowing from the State administration.

He made himself available to those people who were anxious to ventilate their grievances. Sir Mirza introduced the practice of conducting weekly inspections of localities and roads. He himself was a visionary in the field of art and architecture. He ordered the top-ranking executive officers of the Municipal Corporation, town planning and P.W.D. to accompany him on his inspections and took expeditious decisions in consultation with them. Matters which were stuck in the office files moved briskly and concrete changes began to take place right before the eyes of the people.

When Sir Mirza Ismail left Hyderabad for Bangalore, HEH the Nizam suspected that he might resign and would not return to Hyderabad. The Nizam ordered HoshBilgrami to go to Bangalore and persuade Mirza on behalf of the Nizam to pay a visit to Hyderabad at least for three or four days. Hosh went to Bangalore and enjoyed the hospitality of Mirza Ismail. He returned to Hyderabad and reported to the Nizam that the decision of Mirza in this matter was final and that he would send his resignation in a week. Thus the Hyderabad State and the Nizam lost the mature guidance of a sagacious administrator.

Gulam Mohammad

He was a resident of the Punjab and graduated from the Aligarh University. He was an expert in economics. He worked as a teacher in the Aligarh Muslim University for some time and was later appointed to high posts one after the other under the Government of India. He was appointed to the responsible post of auditing the accounts of military supplies. In this connection, he often toured Secunderabad. On November 19, 1951, after the retirement of Nawab Fakhr Yar Jung, he was appointed as Finance Minister. His services were returned to the Government of India after two years.

Ali Yawar Jung

Nawab Ali Yawar Jung's services to the Osmania University as its Vice-Chancellor are memorable. The university under his stewardship occupied a coveted position in the educational map of India. The India Government after independence appointed him as Ambassador to Egypt after the death of Dr. Syed Hussain. Later, he was appointed vice-Chancellor, Aligarh Muslim University. In later years he was appointed as Governor of Bombay.

Khaja Sarwar Hussain

He was Secretary, Institute of International Affairs, Karachi. His father was Director, Buildings in Hyderabad. The magnificent and beautiful buildings of the High Court is a great masterpiece of architecture. According to Nawab Mustaq Ahmed Khan, he spent his entire life in Hyderabad and had a strong affection for Hyderabad.

Sir Syed Ali Imam

He was a renowned scholar in the Bihar Province. He earned fame as advocate, after graduating in English Literature and Law. He was appointed Member of the Viceroy's Executive Council, sometime after entering public life. During this period, when he went to Hyderabad he was honoured and received with great acclaim. After retirement from the services of the British Government in 1909, he entered the services



of the Government of the Nizam. This was a time when the foundation of the Executive Council was laid and Sir Imam with the title of Moid-ul-Mulk was made the first Sadr-i-Azam of the Executive Council. The Moidul Mulk was known for his passion to serve the State and people. He left an indelible impact on administration with his efficiency and integrity.

Sir Nizam Jung

Nawab Sir Nizam Jung (Nizamuddin Ahmed) was born in 1871. He was the second son of the late Nawab Rafat Yar Jung. The ancestors of Nizam Jung belonged to Arabia, who came to India during the seventeenth century. A part of the family came to Hyderabad along with Asaf Jah. Nawab Nizam Jung was educated at the Madrasa-i-Aizza and later preceded to England in 1887 and joined Trinity College, Cambridge where he took the degree of B.A. L.L.B (Honours) in 1891. He was the first Hyderabad to achieve this distinction. Later on he became a Barrister at Law, being called to the Bar from the Inner Temple in 1895 during his second visit to England. In 1896 he returned to Hyderabad. In the same year he obtained his Master's Degree. He was enrolled as an Advocate of the Madras high court in 1896. He was appointed District Judge Parbhani in 1897 and subsequently Registrar of the High Court, and then became the Chief City Magistrate in 1899. In 1901 he was transferred to the Legislative Department as Under Secretary, because of his high legal qualifications. The Government of Mir Mahbub Ali Khan recognising his ability appointed him to officiate as Home Secretary and as Political Secretary on several occasions between 1901 and 1904. He was ultimately made Home Secretary during 1909-1910 and Political Secretary in 1918, having in the mean time served with distinction as a judge of the High Court for ten years and a Chief Justice for about two years.

He was appointed Political Minister in 1919. As a Political Minister his post was not a bed of roses. The nature of the work imposed on him great responsibility. Besides, maintaining cordiality and smooth interaction between the Darbar and the Residency, he was admitted to the inner circle of the Nizam's Councilors and had to perform this delicate, difficult and unenviable task. The matter regarding the proper distribution of the water of the Krishna and Godavari rivers between Hyderabad and Madras Government which had been pending for more than 15 years was at last satisfactorily settled by the able advocacy of Nizam Jung together with the late Mackenzie, Chief Engineer and the late Habibuddin, Financial Secretary.

For his long faithful and able service Nizam Jung was honoured with a Knighthood by his Imperial Majesty the King Emperor, having already received the decorations O.B.E. in 1919 and C.I.E in 1924. He was also the Honorary Secretary of the City Improvement board & Victoria Memorial Orphanage. Nizam Jung was a man of wide sympathy and broad outlook and uncommonly tolerant disposition. He strongly disapproved communal dissensions as being fatal to progress. He was an accomplished scholar and a man of taste, known for his devotion to literary pursuits. He was passionately devoted to English poetry.

Dr. S. Mallannah

Mallannah was born on 23rd October 1872. He received education from Hyderabad. He completed Medical Education from Nizam Medical College. The Government of Hyderabad sent him for higher studies to Edinburgh. He completed



medical education i.e M.D. and D.P.H there. After completion of the Medical Education he came to Hyderabad and appointed on Plague duty. He also appointed as Chemical Examiner, Bacteriologist and Lecturer in Osmania Medical College. The Nizam of Hyderabad utilized his services in the field of Medical.

Summing up

The Government of Hyderabad invited several personalities in an expert of different fields to Hyderabad and appointed in various department. They were served to the society. Most of them were settle down in and around of the Hyderabad. A few personalities got Prime minister ship in the State. These personalities were migrants and came different parts of the India. These officers received handsome salary and good facilities from the State. The Nizam encourages their skills in different fields. The Nizam Government strengthen the Administration, Revenue, Agriculture, Industries, Education, transportation and communication with the support of the respective officers. However the migrants occupied an important place in several fields in Hyderabad State.

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AN ANALYSIS ON PROGRESS AND PROSPECTS OF FINANCIAL INCLUSION IN INDIA

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Abstract :

Financial Inclusion is a method of providing banking and financial services to every individual of the society and prove as a major indicator of growth and development of the country. One of the broader objective of Financial Inclusion is to upliftment of poor and illiterate community by including them into main stream of banking services by increasing financial literacy. A decade ago the effective use of banking services was generally confined to the urban areas. The mass exclusion of people from financial services create hinderance in the overall development of the country. Financial inclusion is considered as an effective tool for the betterment of the society by ensuring that general public use their saving in productive sector of economy. Despite various initiatives taken by government and RBI ,banking services are not fully approachable for all sector of society. This research paper is an endeavor to analyze the trend and loopholes of financial inclusion and ways certain measures to improve Financial Inclusion mechanism in India.

Key words: Financial Inclusion, Financial Literacy, Financial Inclusion mechanism, Productive sector, RBI

Introduction:

Financial inclusion has started momentum when RBI highlighted the significance of financial inclusion in its annual policy statement in the year 2005.Banks have been encouraged to offer banking services specially to rural areas to catch the masses. Gradually an effective Financial inclusion need is widely recognized by policy makers. Financial inclusion include provisions of basic knowledge of financial services and access to credit at an affordable cost specially to low income group and excluded sector . Financial inclusion became an integral part after 2008 as banks started paying attention on business growth by capturing masses through new methods of financial inclusion. From April 2010 RBI advice to submit a three year FI Plan for the banks on coverage on unbanked areas. Financial inclusion provide financial knowledge to rural communities .Rural population become intended for investing their savings in to banks after fulfilling their basic requirement which helps them to generate potential to transform the financially weak community in to a better financially strong group.

Objective:

Financial inclusion programme has a wider objective to cater different types of people. The progress of implementation of Financial Inclusion has to be measured to decide



concern policies in future on the basis of major dimensions such as credit ,Deposit, branch penetration and insurance . This research paper is based on following objectives

- 1.To analyse the trend and progress of Financial Inclusion in India.
2. To find out challenges and major problems in effective implementation of financial inclusion .
3. Impact of financial inclusion on excluded unbanked areas.
4. To suggest measures to increase the level of Financial Inclusion in India

Analysis:

Financial Inclusion has been a game changer in disseminating financial knowledge. The situation started improving since 2008,with the introduction of KYC norms, Banking Correspondent(BC) and no frill accounts. Momentum has taken place since year 2010 as banks started opening more branches in rural areas for better penetration of unbanked areas. Launch of Pradhan Mantri Jan Dhan Yojana (PMJDY) in 2014 added a new dimension in the progress of financial inclusion by opening of accounts at a very large scale .The objectives of this yojana is to accelerate financial services such as basic saving account, credit availability, pension and insurance to the needed group. In the starting of this programme only 40 percent of Indian had saving accounts. The new data shows a significant increase in Financial services. More than 600 million deposit account were opened during 2012-2015 with a huge rise in number of people availing credit .The Financial Inclusion Advisory Committee (FIAC) has been set up in the year 2012 to review Financial Inclusion policies. The analysis shows that poverty is the major problem in financial stability.

Banks have been advised to prepare board-approved Financial Inclusion Plans (FIPs). These information include Business correspondence BCs ,Kisan Credit Cards (KCC),No frill Accounts etc. ATMs Digital kiosks and other delivery channels also helped in financial inclusion at a larger scale The progress made by banks on various parameters under FIPs is given below:

Table :1 Financial Inclusion Plan: A Progress Report

Particulars	March 10	March18	March19
Banking Outlets in Village (branches)	33,378	50,805	52,489
Total Banking Outlets in village-BCs	34,174	5,15,317	5,41,129
Total Banking Outlets in village-other mode	142	3,425	3,537
Banking outlets in village -Total	67,694	5,69,547	5,97,155
Urban location covered through BCs	447	1,42,969	4,47,170
KCC-Total(No. in million)	24	46	49
KCC-Total(Amt.in Rs.Billion)	1,240	6,096	6,680
GCC(Total in Million)	1	12	12
GCC-Total amt. In Billion)	35	1,498	1,745
BSBDA-Through BC (No in Million)	13	289	319
BSBDA-through BC (Amt. inRs. Billion)	11	391	532
BSBDA -Total(No. in Million)	73	536	574
BSBDA-Total(Amt. in Rs. Billion)	55	1,121	1,410

Source: Annual Report RBI(2019 data are provisional)



The above table shows a sharp increase in Total banking outlets in villages .It has increased by 88.66 percent as compare to the year 2010-2019.The Reserve Bank has taken many steps to provide banking facilities in the unbanked villages in the country. The use of information technology (IT) and intermediaries has made it possible at an affordable cost.

Table 2: Performance of PMJDY

S.N.	Item	Mar16	Mar17	Mar18	Mar19
1.	No. of PMJDY accounts (in Crore)	21.43	28.17	31.44	35.27
2.	Deposits in PMJDY accounts (in crore)	35,672	62,972	78,494	96,107
3.	Average Deposit perPMJDYaccount(in Rs.)	1,665	2,235	2,497	2,725
4.	Number of Rupay debit card issued to PMJDY a/c holder(in crore)	17.75	21.99	23.65	27.91

Source:https://financialservices.gov.in/sites/default/files/Financial%20Inclusion%20report_material31.3.2019.pdf

The performance of PMJDY in terms of accounts opened, deposit balance and average deposit balance in different years is shown in above Table. The table envisaged that on major parameters, consistent progress has been observed under PMJDY over the years. From starting years, over 35 crore new accounts have been opened . The number of operative PMJDY accounts has increased significantly during the years.

Challenges:

While concentrated efforts are being made to bring basic financial services approachable for all, policy makers face severe problems to make it fully successful.

- 1.Lack of effective financial and digital literacy create hinderance in full implementation of Financial Inclusion Programmes.
- 2.The technological reasons of slow growth of Financial Inclusion include problem in connectivity, internet frauds, cloning of cards .
- 3.A big challenge is that level of literacy and awareness of Internet and mobile banking is significantly low specially in rural areas .
- 4.The implementation of Financial Inclusion Programme become more difficult in a huge populous country like India.
5. Many poor households in the country do not have any access of financial services .

Suggestions:

An effective Financial Inclusion Programme is needed for upliftment and overall development of unprivileged population of the country. Various reasons have been identified for the slow progress of Financial Inclusion which can be further minimized by adopting certain measures given below:



1. People have diverse need of financial services so different schemes should be implemented to cater their actual financial need .
2. Banks can take advantage of post offices to provide banking services to unbanked population with the help of retired people, housewives and specially abled people. Provisions can be made for giving higher commission to retain such people in this field.
3. Financial Inclusion schemes must be implemented in such a way to provide financially weak a chance to increase their income and lead to a better life.
4. Despite doing so well ,more to do in educating people ,making them aware and disseminating financial and digital knowledge to enable them for effective use of credit facility.
5. Technological innovations in cash withdrawal and deposits such as voice commands and multilanguage format would lead for growth in Financial Inclusion.
6. Advertisement can be increase in local language with the help of print media, broadcast media ,television to enhance banking facility in rural areas.
7. The awareness of mobile banking is very low in rural areas so the banks should educate their staff to promote financial literacy campaigns in rural areas. Observation envisaged that many people feel reluctance in adoption of formal technology in banking services so help of brand ambassadors can be taken to increase financial literacy.
8. Banking correspondents should be fully trained by banks for providing banking services at a low cost at their local places. Huge sum of money should be invested in building strong financial infrastructure to increase Financial Inclusion.

Future scope :Financial Inclusion has been a major policy with the intent of reaching masses who are the potential beneficiaries to increase their access to financial services. Effective implementation of Financial Inclusion policies give a chance to change their economic condition .In rural areas people are dependent on weather and uncertain conditions ,financial service providers should concentrate to serve these communities successfully by making policies to cover the financial risk. This is the very important area where India still need to pay serious attention.

Conclusion :

India has worlds largest young population where financial inclusion prove as a core strategy to make them self sufficient. Financial Inclusion Programme has been launched to ensure that financial services are accessible to every households in India. Undoubtedly Government of India and RBI have been doing sincere efforts to increase banking facilities .Roadmap made by them encourage people to avail financial service for a better livelihood. Financial inclusion help rural communities by increasing their additional income .Financial products have the potential to transform the financially weak in to a self employed and job oriented community. Despite of the increasing Financial Inclusion during past few years there are still some loopholes which have to be filled in coming years. The policymakers would need to pay serious attention for the effective implementation of financial inclusion plans to make a difference in future.

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EDUCATION OF WOMEN: A JOURNEY THROUGH THE AGES AND CIVILIZATIONS

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Abstract

Education is the training of mind and body. It is the foundation of life and is an important tool to change the world in a better way. Education is important for both men and women. But from the times immemorial, women have been relegated to the periphery in the matters of education. The women's education in the ancient time suffered at the hands of male dominated social, cultural, political and economic discriminations. Though during Vedic period we witness no such prejudice against women's education. The women education in the medieval India which was mostly influenced by the foreign invasion suffered a decline. In the beginning of 18th century, especially after the wave of renaissance that swept across Europe, the churches began to provide the rudimentary education to the women. Eventually during British Raj we witnessed some progress in the women's education in India and the other British colonies. But the real push towards women's education in India came after Independence. In this paper an attempt is made of analyse the growth of women's education from the ancient time to the times of modernity.

Keywords: Women, Education, Patriarchy, Male Dominance, Modernity, Professional education.

"Education is the most powerful weapon which you can use to change the world"
Nelson Mandela

Introduction

Education is certainly the most potent attribute to change the world in a better way. Education must be given to all irrespective of caste, colour, creed and gender. It gives an opportunity to all to understand the world around. Education enables woman to widen the reach of her activities in and around her social sphere. Throughout the world history, women have been relegated to the periphery in the matters of education from the times of yore. The education of women throughout the world began with rather in a limited sense, suffered heavily at the hands of male dominated social, cultural, political and economic discriminations. In this paper an attempt is made to find out and analyze the growth of women's education in different civilizations and its journey to the modern times.



Growth of Women's Education from Ancient to Modern Time)

Let us find the growth of women's education from the ancient time to the present era.

Women Education in ancient Greece

It is believed that there was an accomplished education system in ancient Greece. But despite that women in ancient Greece lacked formal education as boys do have. Dwelling upon the history of women's education Tim Lambert asserts "There have been some educated women in the past, generally, upper class women were well educated. Middle class women often had some education. But poor girls like poor boys had little or no access to education." (1) Most of the schools focused on boys rather than girls. There were institution in ancient Greece segregated based on sex. In ancient Greece the word for school is gymnasium which means 'house of nudity'. The first such school probably came into being in 720 BCE, where Orsippos was the first athlete to run nude. It was a sort of training house. Eventually these training areas expanded into the area of music, reading, writing and drawing etc. Though there are no such indications of the women education on the similar lines as the boys do have. However there are references of female choruses. The Chorus girls were able to read and write. It indicates that they have been subjected to some amount of training. Most of the girls were taught at homes. Only music and dance lessons were done outside the homes. The fathers, brothers and husbands trained their women members. There were special schools where they learnt the art of conversation and rhetoric. Boys were supposed to learn grammar, arithmetic, geometry and astronomy while girls were taught weaving and other household chores, dancing, music. Music was the favorite subject of the ancient Greek women. "Women were not given formal education. The boys were sent to the school at an early age, girls were taught at home. They were made skilled in domestic subjects such as cooking, sewing, weaving and taking care of family. The girls of the wealthy families hired tutors. We can see the images of women writing and reading. They were certainly literate." (2)

There are examples of Aspasia (470BCE - 400BCE) and Sappho (620 BCE) in the ancient Greece who were very learned. Sappho wrote passionate poems. The women like Sappho and Aspasia exhibited great talent that could have only been achieved through an established education system.

Women's Education in Ancient Roman Society

In the ancient Roman society, girl's education was very limited. The girls from the upper strata of society were taught and read. "The education of women was a controversial subject in the Roman Period. Basic skills of reading and writing were taught to the most girls in the Roman Upper and Middle classes." (3) The families which were wealthy employed tutors to their daughters. But the education which was given to them was to prepare them to be good wives and mothers. Too much learning for the girls was not considered healthy keeping in mind their future roles.



Education of Women in Ancient India

Hindu religion laid emphasis in attaining liberation and self reliance in building up the society which eventually gave emphasis for the women's education. Education in Vedic period had its roots in religion. Women held a respectable place in the society. There was no prejudice against the girl education. During the same period people believed in equal growth of women. The girls from upper strata of society learnt music, dancing and even martial training whereas the women from lower wrung of society learnt spinning, weaving and other life sustaining activities. Equal attention was given to the girl students. Girls from 'Kshatriya' caste were given martial training also. There are references in the Vedic literature which praises the scholarly daughters such as: 'A girl should be brought up and educated with great effort and care.' Mahaninav Tantra and "All form of knowledge are spread in Thee, and all the women of the world are Thy forms." (Devi Mahatya). Then there are women educators who fall in two categories: 'Bramavadinis' and 'Sadyodvahas'. There were also married women educators. They were called 'Upadhyayinis' Unlike in other parts of the world, women in India especially in Vedic period are believed to have access to education. They were allowed to be the part of Vedic sacrifices and rituals like men. During Vedic period 'Pardah' system and 'Sati' system was not prevalent. There are references of learned women such as Viswavara, Lopamudra, Ghosa, Sulabha, Apala, Maitreyi, Gargi and Saswati. In Rigveda there is a mention of Viswavara, Apala and Ghosa the learned women attaining the rank of 'Rishis'. They used to compose mantras. Lopamudra is believed to have composed 179 hymns of the first book of Rigveda along with Agasthya, the sage. The examples of these philosophical, prudent women scholars make us believe that during Vedic period in India women were imparted equal educational opportunities. Women in Vedic period enjoyed many privileges that their counterparts in other parts of the world lacked. However, women education started taking turn from Vedic (2000 B.C to 1000 B.C.) to Post-Vedic period (1000 B.C to 200. BC).

Women's Education in the Middle Ages and Renaissance:

Women education in the medieval India was mostly influenced by the foreign invasions. India during medieval time came under the influence of foreign traders, invaders and brought their own culture, customs and traditions in the Indian society. They did not present a rosy picture of women's education. In medieval India women education suffered a setback. Unlike that of the status women enjoyed in the Vedic period, their situation especially in the field of education saw a decline. In mediaeval society there was clear cut difference in the social status of men and women, that difference continued in the field of education too. That why this age is also called Dark Age for women in India. All types of evil practices such as *Purdah system*, *Child Marriage*, *Sati System*, *Jauhar*, were employed to subjugate women. The plight of women in the North India was worse than in South India. Dwelling upon the women's education during Middle Ages Lucas observes, "Some women of nobility and/or royalty in the Middle Ages were literate and had the opportunity of an education within the castle walls, monastic, or conventional schools." (p.39)



In the Middle Ages Churches had the great influence on the women's lives. Convents were the centers of women education. Women education was not considered to be a priority. However, despite many restrained against the women in the middle ages, they were not the passive victims of religious and patriarchal dominance. "Affluent women were required to have some literacy during the Middle Ages, but their learning was intended only to prepare them for being respectable wives and mothers. Higher learning for nuns, on the other hand, was encouraged because they were required to comprehend biblical teachings. So it was no coincidence that many of the earliest female intellectuals were nuns." (4) Sister Juliana Morell is supposed to be the first Spanish Nun to have earned a university degree. In the 16th Century girls did not go to schools but were taught at home. Tutors were employed to teach them at home. Girls learnt music dance and needlework. The languages they learnt were Latin, Spanish, Italian, Greek and French. Merchants taught their daughter to run their businesses. But in the 17th century boarding schools for girls came into being in the towns. Elena Piscopia was the first woman to earn the Degree of Doctorate (Phd.) in 1678. In 1700s many schools were founded and were called blue coat schools because of the girl's colour of uniform.

Education of Women in Modern Era

In the beginning of 18th century, especially after the wave of renaissance that swept across Europe, the churches began to provide the rudimentary education to the women. But in the 19th century the scope of women education was extended to the poor also. In 1811, The National Society for Promoting Education of the Poor was founded by the Church. But in the Victorian Age, despite Queen Victoria's reign the women's education was not given much importance. Even the poet laureate Alfred Lord Tennyson had his adverse views about women's education in his poem 'Princess'. Writers like Virginia Woolf have to fight tooth and nail to assert for women's education. It was in 1880 Schools were made compulsory for both boys and girls between the age of 5 to 10. Education among the girls of working class was greatly introduced and improved in the 20th century. The growth of education in this period was not without oppositions. Even the Fathers in the Churches believed that "Any woman who excelled intellectually blurred gender identity and invited alarm or scorn - to her contemporaries she represented almost a hermaphrodite figure: male by intellect, female in body and spirit, less than male but not fully female." (Lucas 2006, p 40) Despite that as the time passed by, the importance of girls' education was realized by all.

Women's education in India during British Raj:

East India Company came to India in 1600 A.D. With the advent of British, missionaries also came to India. As the East India Company grew from strength to strength, they took various measures to educate the people. Though their aim was to help the company in its administration. They also aimed at converting people to Christianity. In 1773, Warren Hastings started British Education in India. British gave emphasis to English Education. Indians want vernacular languages as the mode of communication whereas British gave emphasis on English. They came across many problems in Indian society which restricted women. Macaulay laid stress to teach Indians in foreign language. He believed that the superior western system was more appropriate medium of instruction. It was considered more scientific which would eventually increase the horizon of knowledge. He also highlighted the problem that Sanskrit and Arabic did not find much



readers. In 1854, “The Magna-Carta of Education in India” came into being. Consequently, in 1857 University Act was passed. The Education commission recommended separate schools for boys and girls, above the 4 years.

Women Education in Post Independence India

The real fillip to the women’s education came in 1947 with the Independence. In 1947, women literacy rate was 8.86 percent whereas men literacy rate was 21 percent. Many measures and policies were taken to boost women education in India. “In 1958, a National Committee on Women’s Education was appointed by the government, and most of its recommendations were accepted.”(5) The measures taken were top priority .After that many more committees were formed by the government to give attention for the improvement of women’s education.

As a result of this in 1971, women’s literacy rate went up to 21 percent. And eventually it rose to 65.46 percent 2011. There is a considerable growth of women’s education in India. There is still a wide gap between the literacy rate of men and women which needs to be filled up quickly. Women’s education plays a vital role in the development of society as well as the country.

Conclusion

The journey of women’s education observed many ups and downs. In ancient, Greek, Roman, and Egyptian civilizations only the women of elite or aristocratic classes had the access to education. But in India during Vedic period the women had the full access to education. In the medieval period throughout the world, education of women was not given any importance at all. However during British there was some revival of women’s education especially by missionaries. This period also witnessed many socio-religious movements led by personalities like Raja Ram Mohan Roy, Ishwar Chander Vidya Sagar who gave emphasis to the women’s education in India. JyotibaPhlule, Baba SahabAmebdkar and Periyar were the leaders who advocated the education of the women. In the modern day India women have established themselves in almost all professions. As opposed to the past, today women stand shoulder to shoulder to their male counterparts in all spheres of life. Now the women across the world are in air forces, bureaucratic services, journalism, medicine, hospitality, science, finance, business administration, designing and space science etc. This could happen only because women’s education witnessed a sea change from the ancient time to the time of modernity. The women’s education throughout this journey grew quantitatively as well as qualitatively.

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MALABAR UNDER MADRAS PRESIDENCY

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Abstract

This paper focuses on the judicial reforms of introduced in the Malabar region when the civil administration was transferred from Bombay presidency to that of Madras on July 1800. In 1802 a series of regulations were passed and put an end to the existing judicial practice. In the new system tries to eradicate the evil effects of the old system and introduced a new system. The features of the new system were the separation of the revenue and judicial function of the district collector. This system inaugurates a regular system of appeals from the lower to the higher tribunals and entrusting of magisterial duties to the judge.

Keywords: Judiciary, Colonialism, Legal system, Modernity, Customs, Regulations, Justice

Introduction

Malabar was under the control of the British East India Company as one of their colonies in the south east as a result of the Anglo-Mysore war's put under the Madras Presidency in 1802 for the judicial administrative purpose. The civil administration was transferred from the Bombay Presidency to that of Madras with effect from 1st July 1800. The main reason was that the government of India was not satisfied with the working of the established government of Malabar under Bombay presidency. The Cornwallis code, stretched to Madras in 1802 could not be made strictly applicable to Malabar until 1806. The origin of the present system of judicature, civil as well as criminal, in Malabar as in other districts or Madras Presidency is to be traced to what is called the Cornwallis system, first established in Bengal in 1793 and subsequently extended to Madras in 1802.

The focus of the present treatise is on the momentous role played by the judiciary in its capacity as one of the most important administrative organs of the British colonial government in India that attempted and succeeded in restructuring of an out and out custom-ridden, overly conservative and near static society in Malabar into one vibrant and throbbing society in tune with the values, ideals and criteria of a modern society. During the period of British colonial rule in India, judiciary was identified as an essential part of the British colonial government. It was widely perceived that the customary function of the judiciary was to work in tune with the demands, designs and ideology of the colonial government. The judiciary gradually turned out to be the agency of radical social change through which Malabar was passing when the region



came face to face with the Western system of social practices and Western world view as part of colonial intervention.

Objectives of the study

- To explore the traditional judicial system that existed in British Malabar and highlights the revolutionary changes under the East India Company
- To present the comprehensive and salient features of the Cornwallis system introduced in Malabar between 1802-1816

Origin of the Research problem

This study is the outcome of a devoted endeavor undertaken with the aim of developing a close and detailed understanding of the judicial system, progressed as part of the intervention of British colonialism in Malabar from 1792 to 1816. After the colonial acquisition of India, the East India Company's earliest endeavors were directed at the evolution of a judicial system in India in general and Malabar in particular with the practical aim of increasing revenue collection from the province. The establishment of an enduring system of judiciary endowed with high and noble conventions, traditions and values such as independence, impartiality, equity and fairness should be deemed as one of the most valuable contributions of the British rule in India.

The present study focuses on the historic and historical role played by one of the most important organs of the British administrative machinery in India, that is, the judiciary, in the radical recasting of an extremely custom oriented, highly conservative, almost village centered, stagnant, traditional and orthodox Malabar society that recently experienced chaos and disorder owing to Mysorean invasion into one well suited to the modern standards of life and rule of law. The aim of this study is to highlight the history of British judicial system in Madras Presidency, particularly the evolution of law and legislative system in Malabar and the establishment and subsequent reforms of civil and criminal courts for the evolution of a modern society inspired and guided by the collective values of the ideology of modernity. This study also involves a careful consideration of the complex pre-British and colonial British legal system in Malabar, rules and regulations related to land tenure, revenue settlement implemented by the Mysore rulers and later by the British, feudal relations, social conventions and the political changes.

III. Interdisciplinary Relevance

The study of legal structure, code, procedure etc is interdisciplinary in nature. Insights from theories of sociology, anthropology, Economics and political science etc will supplement the study of legal system. The history of the evolution of judicial system in British Malabar is really interdisciplinary in character.

IV. Scope

The scope of the present thesis is limited to the study of a region so that it becomes regional study which in turn, becomes part of a wider topic of the judicial history of India. An attempt has been made to address the major problems related to the evolution of judiciary. Here the endeavor is to comprehend and explain the regional social and political experience and experiments against the backdrop of the existing theories. For the more perfect functioning of the judiciary and better conditions for the implementation of justice, it is very important to have a clearer understanding of the



culture, economy, polity, society, customs, law and order, and other similar aspects of the history of Malabar.

V. Review of Research and Development In the subject

In spite of the fact that the history of Kerala has become significant and important on account of the valuable contributions of Indian as well as foreign scholars, no adequate attention has been paid to the presentation of the judicial history of Malabar, whether it be ancient, medieval or modern periods. So far, no comprehensive historical work exclusively dealing with the judicial system in Malabar has been published. At present, only a few research monographs on the judiciary of Malabar are available.

A survey of the previous literature points out that none of these above mentioned scholars has made a special or in-depth study focusing on the evolution of judiciary under the British administrators in Malabar region. Here, a sincere and humble attempt is made with the aim of presenting a detailed and comprehensive account of the history of the evolution of law and legal system, the prevailing law and order situation and the establishment of civil and criminal courts in Malabar through this present study.

VI. Significance of the study

The evolution of a sound judicial system can be regarded as the best and the most valuable legacy left by the British rule in India. The judicial system so evolved in India can be viewed as one of the centripetal forces that exerted a positive impact in the emergence of a unified India by virtue of its innate ability to aim at uniformity and universality in the implementation of the law through the judicial institution. With administrative reforms and introduction and implementation of a new legal system, the British rulers attempted to make it well suited to the modern standards of life and criteria of modernity, within the framework of British colonialism.

Radical reforms

By regulation II of 1802, the jurisdiction of the courts of *Adalath* or courts of judicature for trial civil suits in the first instance was established and defined. Persons holding the situation of the collector of revenue were deprived of their judicial duties and were hence forth confined to the work of revenue administration. A distinct person other than the collector was performed by the duties of the Judge, or Magistrate. For the better administration of justice, courts of *Adalat* were established in the several districts, denominated after the Zillah. The Commissioner should decide as to whether or not the reply and rejoinder could be avoided as part of official procedure. Also he was expected to decide whether the practice of taking down in writing all depositions specified in Regulation III, 1803, was necessary or not. An objective examination of the possibility of appointing license *Vakils* in order to rectify defects in the system also should be examined by the Commissioner. The restriction related to appeals from the Registers and Judge of the Zillah courts also could be revised by the Commissioner. Another point that the commissioner had to examine was to find out whether the fee and stamp duties imposed had discouraged the fair claimant from approaching the court for justice. The Commissioner had to find out the amount of the sum below which the verdict of the village *Potail* or *Panchayat* should not be stayed through appeal submitted to Zillah court. Also the types of cases with which the *Zamindars* could be provided with the powers of an agent of police also had to be specified by the Commissioner. The



Commissioner should find out if the procedure involving Zillah judges being entrusted with jurisdiction in criminal matters will make it convenient and prompt administration of justice. Also the Commissioner had to find out whether the prompt and convenient administration of justice could be achieved by the administrative reform in which collectors acting as magistrates of Zillah being empowered to punish offenders by punishment up to 30 rattans, fine up to 100 Arcot Rupees and imprisonment up to three months.

In order to frame the drafts of the Regulations, the members of the commission were to conduct the investigations and prepare the draft in such a way that it is in accordance with the established system of internal administration, thereby every measure that might unsettle the minds of the people could be avoided. Also care was to be shown so that people will have confidence in the administrative system and faith in its continuous functioning. In addition to that, the members of the commission were expected to strengthen and support the power and influence of the legally constituted authority of the government.

With regard to various points mentioned in the Resolutions passed by the Government, the Commissioners formed their considered opinion submitted it in writing. The Commissioners put forth the suggestion that the most effective way of preventing the minds of the people from being disturbed in relation to the stability of the system of government would be to publish and publicize and make known without delay, all the rules and regulations that were incorporated as part of the reforms.

A significant change was effected in the jurisdiction of the board of revenue. The revenue courts were presided by the Collectors to decide cases arising out of revenue collection, from which appeals lay to the board of revenue. These steps were great consequence that the heavy burden of collectors to deal the civil, magisterial and revenues was reduced, to a great extent. This led to the expeditious and speedy administration of the revenue department. Another benefit of the system was the possibilities were fully avoided to the clash between the judges of the Zillah courts and the authorities of the board of revenue. As Cornwallis rightly said “the courts for the trial of matters relating to the revenue which involve the right of all the various descriptions of land holders and cultivators of son of soil, scarcely merit the appellation of courts of justice.

The Zillah Courts were empowered to take cognizance of all suits and complaints respecting succession or right to real or personal property, land rents, revenue, debts, accounts, contracts, partnerships, marriage, crimes to damages for injuries and generally to all suits and complaint occurred within the limits of the Zillah. But they had no jurisdiction over the British subjects.

Provincial Courts of Appeals were established for hearing appeals from the decision passed in the several Zillah courts. Their powers and jurisdictions were defined and the rules for receiving and deciding upon appeals and other causes of which they were declared to have cognizance were by means of a regulation prescribed. The object was to safeguard the interests of the people against unjust and erroneous decisions of the Zillah Judges and by review and revision of their judgment and to prevent the inferior courts being used as a instruments of procrastination, litigiousness and rapacity. To borrow the expression from Cornwallis, these courts were “the great security to



government for the due execution of the regulations and removal of the barriers to the rights and property of the people” for they were empowered to receive charges of corruption preferred against the judges. In accordance with the Regulation, the office of the referee and arbitrator in which capacity Indians had been appointed previously, were abolished. The Zillah judges were authorized to draft and submit to the provincial court a new establishment of the district *Munsiff* having local jurisdiction comprising one or more whole *Thasildaries* or public jurisdiction or police jurisdictions. In addition they were directed to identify and recommend the name of the town or village in each jurisdiction which would be most suitable for the establishment of each *Munsiffs Cacherry*.

In case a person who was summoned did not attend, the district *Munsiff* was empowered to seize any property or possession owned by him that belonged to the *Munsiffs* jurisdiction. Also he had the power to attach the person of any party in accordance with the condition of a decree. In such cases, the district *Munsiff* should send him within 24 hours with proper charge to the Zillah judge, so that the person thus attached could be confined in the Zillah jail, an official statement specifying the amount levied by the sale of his property and possession thus attached and the balance still due also should be sent to the Zillah judge. As part of his duty, the district *Munsiff* was entitled to keep a register of all sales by auction in accordance with the terms in the decree in which the day of sale, particulars of property sold the amount and the name and address of the purchase etc should be clearly recorded.

The fifth regulation of 1802 established the highest appellate tribunal of the Presidency, the *Sader Adalath*. It was constituted in 1802 consisted of the Governor and his Council. In 1806 its constitution was a little altered, the governor functioning as the chief judge and the other two judges being selected from among the covenanted civil servants of the company, other than the member of the council.

The Regulation XIV of 1816 provided scope for the *Sader Adalath* and provincial courts to employ the assistance of *Vakils* of these respective courts. They were to be appointed by the judges of those courts from the section of people owing allegiance to Hindu and Muslim religions. As part of the mark of official status, they received a sinner from the respective courts where they were supposed to render legal assistance.

Earlier the Zillah court was both a civil and magisterial court. In 1816 this arrangement ended and the magisterial powers were transferred from the Zillah Judge to the Collector. His criminal jurisdiction extended over all subjects within the territory of the Zillah except the European British subjects. The judicial system of 1802 was an amalgamation of the Indian and English elements of justice, continental features predominating. It was not detached from the peculiar native environment like the customs, usages, personal laws, caste laws, languages, manners and religious prejudices. In Malabar there existed a heterogeneous mixture of law. As Munro observed, “it appeared from the reports of the local authorities of Malabar from the period of its cession to the British government that both its ancient institutions and the manners of its inhabitants differed widely from those which generally prevailed over the peninsula of India.

When it put into operation, in many aspects, the system proved to be a failure. People no doubt, mired the high principles arrayed behind it, but they certainly did not



think so highly of the means which had been adopted for its accomplishment; for the system was “regarded by them rather as one of good intention than of efficient operation”. Munro pointed out its main defects as “that it is too artificial and too little adapted to the state of society in India; that it proceeds upon the assumption that the natives are altogether unworthy of trust and in consequence, it requires too little native and too much European agency, and that it takes the duties of Magistrate and Superintendent of police from the Collector, by whom alone they can be adequately discharged, and throws them, upon the judge, who has no time to attend to them, and who cannot engage in them without deranging the municipal institutions of the country, which connect them inseparably with the office of collector

Conclusion

The object of the new system was perfectly laudable. A written code, separating the judiciary from the executive, grading the various tribunals with specific functions and jurisdictions, enforcing the personal laws of the Hindus and Muslims in civil cases and *Muhammadan* law alone in criminal cases and promoting a strict regularity in all kinds of dealing was a monument of British principle of justice

For the efficient working of the government, Cornwallis system created a remarkable achievement in the field of judiciary. In the words of *Aitchison*, “in time the, non-regulation system come to be synonymous with all that is best for the government of a newly conquered country. The multiplicity of authority created by Cornwallis system perplexed the unlettered Indian mind. The benefits of non-regulation system would have far outweighed the merits of Cornwallis scheme. It achieved a more efficient and effective functioning of the administration of justice in the Malabar region.

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COVID-19 AND EDUCATION: A CHANGE IN INDIA'S EDUCATION SYSTEM

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ABSTRACT:

As the execution of the digitisation of Higher Education mainly centres round learning rather than teaching, role of teachers has been relegated to secondary position resulting in a restricted and moderate adaptation of the technologies in the sphere of higher education. In most of the institutions providing higher education, face-to-face interaction or intensive web-enhanced teaching is not given due importance. The present article makes a brief study on why students, especially at the undergraduate level, are quite reluctant to be self guided. The paper also discusses the problems underlying the digital literacy of teachers and sheds light on what holds the teachers from implementing technological brilliance in teaching. The study recommends means and strategies for a more successful technologically enabled teaching at the end.

KEY WORDS: COVID-19, Impact of COVID – 19, Digital Education, e-learning

INTRODUCTION:

Higher Education in our country demands well equipped institutions and quality teachers. The institutions need to be both physically and digitally enabled. All over the world education is going through a massive change, and it is all the more striking in the Higher Education. If we look at the prevailing higher educational scenario globally, there is no alternative except digitisation. Our lives have been inextricably intertwined with Information and Communication Technology (ICT) in the last few decades. In each and every level of modern educational platforms we use ICT. All the stakeholders of education namely teachers, students, administrators and others are now set to use ICT in the best possible way. The success of an effective teaching – learning process now-a-days depends largely on how a teacher makes judicious use of ICT in the process and how he/she can incorporate ICT with the traditional methods. Teachers are therefore left with no option but to equip themselves with the latest knowledge of ICT. To make the teachers well acquainted with the basics and latest developments of ICT and to use them in real classroom situation all the teacher education programmes are now loaded with ICT curriculum. Bridging teachers, students and parents under one umbrella is the best part of this rampant venture. In the current scenario Continuous and Comprehensive Evaluation (CCE) provides ample scope for teachers and students alike to make the most of this boon. India is a pioneer in teaching through satellite. Now, the Ministry of Human Resource Development (MHRD), which is responsible for access and qualitative improvement of Higher Education, is trying to incorporate e-learning in this field. They have introduced SWAYAM online platform, Massive Open and Online Courses (MOOCs) for promising teachers and students along with ePGPathshala; an online repository. Recently, the Central Government has launched PM e-Vidya programme, where students and teachers will get multi



mode access to digital education. But what is worrying in this context is that we still do not enjoy a commendable, let alone sound, physical and digital infrastructure in each and every corner of our country. My present paper would focus on the use of digital platform in Higher Education in India.

STATEMENT OF THE PROBLEM:

At present, the institutionalised education system in India is going through an extremely difficult time because of the ongoing Covid-19 pandemic which has spread all over the world. People are locked inside their houses complying with the norms of social distancing and as a result the concept of virtual teaching and learning has become the sole alternative. The central and the state government proposed to continue the teaching learning process through online-mode and also through the medium like television. The Government of India has already taken some initiatives for continuing education in this pandemic situation. But what is worrying is the fact whether this platform is similarly congenial to both students and teachers.

OBJECTIVES OF THE STUDY:

The objectives of the present study are as follows:

1. To discuss about the initiatives taken by Government of India for e-learning,
2. To explore the possibilities of e-learning in education, and
3. To find out the possible challenges in the way of e-learning.

WHY IS E-LEARNING QUINTESSENTIAL IN THIS HOUR?

E-learning facilitates the learner's easy access to schooling without physically attending the educational institutions. In every branch of education, students can grasp the lessons effectively through E-learning only if the platform is designed and put to use judiciously. According to psychologists, audio-visual method of teaching with the help of the competent teachers can revolutionise the existing one resulting in a disciplined and productive student teacher interaction in the virtual class. Besides, learning through this platform assures the learners with the best of materials and they are always enriched coming in terms with the advanced learners.

INITIATIVES TAKEN BY GOVERNMENT FOR E-LEARNING IN INDIA:

Government of India provides facilities of e-learning platform for students which are helpful in the time of covid-19 pandemic outbreak. In this situation MHRD minister Ramesh Pokhriyal suggested digital learning platforms for all students and teachers. Some digital online platforms are:

- **SHAGUN Online Junction-** This is for school education learning which provides facilities for students and teachers to be engaged in online teaching learning. There are three learning platforms under the SGAGUN-
- **National Repository of Open Educational Resources (NROER)-** This medium is exposed to e-libraries, e-books, e-courses, online participation. Language facility is given in both Hindi and English.
- **DIKSHA-** This portal is for class 1 to class 12 students and also helpful for teachers. This app requires to scan the QR code of textbook in getting e-materials.
- **e-Pathshala-** This digital platform is made available by NCERT for class 1 to 12 students and several languages are available here.



- **e-PGPathshala-** This is also a digital platform for under graduate and post graduate students providing e-text materials and videos.
- **SWAYAM-** An initiative is taken by this platform for the students of class 9 to 12 and also Under Graduate and Post Graduate students which provide video lectures, e-text materials, online discussion and debate etc.
- **Swayam Prabha-** Students from class 1 to 12 and UG-PG candidates access this medium. Programme schedules are available in swayamprabha portal.
- **National Academic Depository-** It is another digital platform run by UGC for storage, retrieval, authentication and verification of academic awards.
- **National Digital Library-** In India, it is run by MHRD which provides materials from lower level to higher level education. School students as well as research scholars can access this site for learning.
- **Virtual Lab-** It is another initiative taken by MHRD, Govt. of India to provide learning materials.
- **eGyankash-** It is a national digital repository of learning resources started by IGNOU providing open learning materials.

The purpose behind the introduction of Digital India program is to integrate technology with education. To this end many technologies are incorporated in schools like providing E-Learning App, digitalized smart schools, smart tools like smart board, audio-video materials for teaching learning and school management software for management of data in schools.

ADVANTAGE OF E- LEARNING IN EDUCATION:

E-Learning in education has many advantages. One can easily access, absorb and share the information as one wish. Education on this platform can make everyone empowered as none is left outside this technological boom.

- ❖ E-Learning makes grasp and absorption of the required information much easier. Learners can remember the information for a long time if the interaction medium is Audio-Visual.
- ❖ E-Learning keeps one in sync with modern and advanced learners.
- ❖ In a traditional classroom there are many impish students who oftentimes disturb the class. But through E-Learning one can uninterruptedly deliver lessons.
- ❖ Lectures can be taken at any time and for any number of times. In traditional classes, revisions are not that easy. Unlike traditional learning, if you have missed any lesson, you can always have it online.
- ❖ E-Learning allows teachers a higher degree of coverage to deliver the content regularly. This ensures consistency in learning.
- ❖ E-Learning is cost-effective . There is little or no requirement for long training period, infrastructure, stationary or travel expenses.
- ❖ E-Learning is specially beneficial to those who feel aloof in company. It can easily be taken at home if one wishes the comfort of one's own place.

E- LEARNING BENEFICIAL FOR STUDENTS:

E- Learning is a potentially rich and productive medium. The present generation of students who are otherwise known as “digital natives”, “millennial



students” or “*Homo Jappaiens*” (Dede, 2005; Oblinger, 2003; Ubachs et al., 2017) is apparently in a vantage position to use all the fineries using this platform. Young students are often described as possessing a natural inclination towards studying through the web, as taking more responsibility for their personal and educational activities, and as expecting to use relevant digital tools when they study at university (Pappas, 2017; Ubachs et al., 2017). According to some, students of present generation are willing and able to design their own study programs based on their interests, talents and inclinations, and control their own study process. Some educationists are of the opinion that in the matters relating to university decision making, including curriculum design and pedagogy, students should be placed in the centre. But a recent study by Temple University Libraries brought forth a finding where 500 librarians responded to a survey about first year students’ digital research skills (Alexander et al., 2017). The findings of the survey indicated that most students were unprepared for college level studies. Many librarians commented that digital literacy education often fails because too little time is allotted for it in college curriculum, many non-library faculties and administrators reprioritise it, and students possess an over-confidence about their digital literacy skills upon entering college, a fact that leads them to underestimate its value to their academic success. A sound learning through this medium requires scientific training and can never be taken for granted as far as students’ natural or innate abilities are concerned. And all these simply highlight the quintessential role of teachers and experts in shaping and designing the study modules.

DIGITAL LITERACY OF TEACHERS:

For a successful implementation of E-Learning system only technological advancement will not do. Digitally enabled teachers play a significant role in imparting education through this platform. At present, most academic faculty are not well-equipped to guide students in developing the digital competencies they need. Interestingly, in the report released by the Stanford History Education Group, aforementioned, not only 60% of Stanford University students failed to identify Internet sources, but also 40% of the academic faculty failed to trace information to its source. These were history scholars who were trained over decades to look closely and critically at texts. Yet, many could not navigate a simple problem of web credibility.

In order to meet the growing need for digital literate teachers highly skilled in preparing students with applied ICT literacy skills, the Educational Testing Service (ETS) in the USA has developed a new certification program entitled *ICritical Thinking –Certification Powered by ETS* (Educational Testing Service, 2009). The *ICritical Thinking* certification features real-time simulated, scenario-based tasks designed to measure teachers’ ability to navigate, critically evaluate, and make sense of the wealth of information available through digital technologies. The *ICritical Thinking* certification exam provides a clear understanding of how teachers incorporate and integrate technologies while performing on an array of tasks, such as: define (understand and articulate the scope of an information problem in order to facilitate the electronic search for information); access (collect or retrieve information in digital environments); evaluate (judge whether information satisfies an information problem by determining authority, bias, timeliness, relevance, and other aspects of materials); manage (organize information to help you or others find it later); integrate (interpret and



represent information using digital tools to synthesize, summarize, compare, and contrast information from multiple sources); create (adapt, apply, design and construct information in digital environments); and communicate (disseminate information tailored to a particular audience in an effective digital format) (Educational Testing Service, 2009). After carefully considering the results, teachers' training programmes are designed. Unskilled academics will only worsen the situation and students will get demotivated.

E- LEARNING STRATEGIES IN EDUCATION:

E-Learning strategies focus on a balanced blending of offline instructional strategies and online educational strategies. Following are some of the strategies for an effective and meaningful online teaching learning process.

1. Use of Audio-Video lectures: Audio- video lecture is the widely used e-tool and the most common strategy in the E-Learning scenario. Both teachers and learners find it comfortable and in the present Covid situation this method can be applied.
2. Formation of cooperative learning groups: Small groups of students are engaged in cooperative learning to make the teaching learning process more dynamic and effective. This method makes the students learn interdependence. Cooperative learning mainly focuses on group learning rather than individual accomplishment.
3. Assistance by mentor educator : Students can be given assignments on WhatsApp or any other active type of communication platform. Whole work can be supervised by the mentor educator. Time fixation can also be done as per the need. Such participation of the students will no doubt turn this learning experience a fruitful one. This can be effectively implemented with some modification in the rules of traditional jigsaw class.
4. Online classes through Google-Meet and many such apps: Both small and large groups can function through them and be benefitted.
5. Discussion: Discussion is always interactive and a beautiful platform for students' participation. Today, technology has offered many modes of discussion both a-synchronous and synchronous type. These tools can be effectively used for educational purpose.
6. Online alter-parenting/ mentoring: This platform is no longer new to educational institutes in our country. Many institutes are now reaping the harvest of online alter parenting. A mentor serves as a guide and promote understanding of the world to his students/wards. As a result they can shape and mould a student's personality and wider vision. This can play a very effective role in supporting the students during this challenging time of pandemic.
7. Online games: Games of indispensable parts of curriculum in education. Online games can have special benefits to the learners in facing stress and maintain psychological balance during this uncertain and hard situation.
8. Evaluation pattern: Evaluation must shift to objective pattern. Summative pattern should be conducted under strict vigilance. Grading the assignment and group performances should also be a part of evaluation.



AVAILABLE DIGITAL PLATFORMS:

During this worldwide pandemic, education in particular has been going through a tough time. Now educational institutes are left with no option but to use various digital platforms to further the cause of education. Some of them are listed below:

Mobile applications for Online Teaching Learning:

- ✚ Video lectures Prepared and recorded by the teachers
- ✚ Soft copy of the Study material
- ✚ Videos available on Channels as You Tube
- ✚ Power Point Presentations on specific topics
- ✚ Sharing the material on a common platform as a common Google drive
- ✚ Whatsapp for day to day communication
- ✚ Online test Planned and prepared by the Teachers
- ✚ The study material available on different authorized Websites

With all these options at hand, the teachers are now- a -days more confident and can make the teaching learning process conducive for students. Teachers can have their own youtube channel in which they can make the study material available. The government machinery also has established the association and collaboration of the teachers so that preparing learning materials may become a group task and will save the efforts with more comprehensive approach.

PRODUCTIVITY: A PERSPECTIVE:

So far we have discussed the topic from teachers' perspective only. But what about the students' or learners' perspective? Any discussion on the online teaching learning and its impact will remain faulty if students' conduciveness is not given due attention. Ours is a massive country with increasingly rising population. Therefore in this vast country all is not blessed with digital competence and digital prerogatives. A big mass of students are without a mere smart phone or they live in areas where availability of proper network is a dream. Availability of electricity is also not uniform in each and every corner of the country. Another area of concern is the lack of digital literacy. Though we have come a long way as far as technological advancement is concerned, we are not yet in a position to run the wheel of education solely on a digital platform. Teachers' training, age appropriate digital content, necessary equipments, learners' affordability etc. are some of the matters of concern.

Another great barrier is the ongoing Covid crisis. The prolonged crisis challenges the educational institutes's agenda to be articulated. The only way-out from this deadlock is the gradual habit formation of students for online teaching learning process. But what is worrying is the fact that elementary level learners are failing to cope up with this pandemic situation as for them there is still no alternative to actual classroom situation. Though the digital platform has been working wonders for the higher classes, the same cannot be asserted for elementary level. Other areas like evaluation and admission have their own challenges. The structure of higher education at the college and university level does not possess the digital infrastructure that can conduct the examination. Conducting examination demand a well established and



sufficient number of updated equipments in the colleges. Looking to the enrolments the infrastructure is not more than 10% of that of the requirement. In the case of evaluation the universities need to be extra cautious while awarding the students for internal academic achievement as evaluation is being done now weighing only the internal assessment for COVID situation. Child Health is a major concern when we expose them to the excessive use of the technology. The consequences of overexposure have even started coming in form of lethargy, obesity and irritable attitude of children. An extended lockup at their homes will affect the psyche badly. Child's psychology should be given utmost priority and teaching learning method must be shaped and developed thus.

CHALLENGES OF E-LEARNING IN EDUCATION IN POST COVID-19 INDIA:

Some of the challenges of e-learning in education in post COVID-19 India may be summed up in the following way:

- ❖ Self interest is the key word in E-learning. Students with lack of concentration may find E-learning a tough nut to crack.
- ❖ Often online teaching is carried out through lecture method. In few cases discussion, question answer session, feedback session are given. Lecture method through a virtual media may not be helpful for all students.
- ❖ Without internet connection online teaching is not possible. But poor internet facilities in especially rural areas may be a great issue to the teachers and students. Severe limitations in technology may hamper the process.
- ❖ Lack of appropriate knowledge and training on the part of teachers hampers teaching learning process through online.
- ❖ Preparing e-materials and delivering online lectures is costlier than normal classroom teaching.
- ❖ Time is another factor to produce e-materials and then to implement them. It takes extra time for the teachers. Though once material is developed it needs only modification through time and changing situation.
- ❖ In the online platform teachers may become sidelined as it is basically child-centric and emphasizes on self-learning.
- ❖ In rural areas most of the schools till now do not have computers. Students are not able to access computer at home. So, it becomes a challenge to introduce digital platform for them.
- ❖ There is a rapid growth of online teaching but there exists a digital divide between rich and poor, urban and rural area in our country. It poses a big problem in India for online teaching and learning.

A FEW LIMITATIONS OF E-LEARNING IN INDIA:

1. Most schools and colleges, especially in remote areas are not equipped for online classes.
2. Most of the educators are not techno-friendly. Also, they are unwilling to learn.
3. Though cell phones are at easy access to most population but android or other advanced phones which can access E-learning are far approachable to major population.



4. To access internship of teacher trainees online is again a hard nut. Trainees, learners as well as the schools need to be techno- friendly. Possessing the gadgets is also questionable at present.

SUGGESTIONS:

1. Adaptation to the technology: Universities, Colleges, Schools etc. should ensure that the administrative and academic structure of the institution should get updated according to the demand of time. The staff as well as students should accept this situation and try to find the way outs.
2. Online Training program for teachers: There is no alternative to online training programmes. Such programmes prepare the teachers for digital platform with requisite skills.
3. Short term orientation program for students: Similar orientation is required for the students as they will be facing a novel scenario of admission, virtual teaching learning process and evaluation.
4. Infrastructure: Infrastructure is of vital importance in this regard. MHRD should develop the digital infrastructure as soon as possible so that it can be reached to the farthest corner of the country. Though the digital infrastructure is the need of the hour but it would be impracticable if we expect it to be immediate. We should think of the temporary solutions like smart phones.
5. Welcoming the Creative ideas: Creativity and ingenuity must be praised and rewarded. Teachers should be motivated to search for the effective solutions to their routine teaching learning problems.
6. Evaluation Patterns: The system of evaluation is the key to the quality education. It is the demand of the time that we should shift to flexible but objective pattern of evaluation. The major part of the summative evaluation can be conducted in form of online tests, rest can be evaluated internally by following strict guidelines.
7. Learning Oriented pattern: The goal of education is to make the learners benefitted. Therefore we must rest our focus on the learning in the teaching learning process. The progress of the students can be marked with a number of tools as presentations, assignments, associative activities and innovative methods applied to communicate. Now it is time to update our rubrics and set newer objectives to achieve our educational goals.
8. Internships: The four months of school internship can also be conducted through digital association. The schools are in need of the updated digital teaching learning apparatus. If we train our interns to develop the online study material and share it with the associated school, it may open a different type of practical learning environment. The interns may also get benefitted by the e- learning platforms available for the school students.

CONCLUSION:

The COVID crisis has hit the very supremacy of mankind. The world is slowly but steadily coming in terms with the situation. A 'new normal' has emerged. We all believe that our civilization will surely emerge victorious as it has done so many times before. This pandemic has presented before us an opportunity for leaping to a brighter



tomorrow with patent objectives and well devised action plan. It has called for a more flexible education system where there will be innovative and committed teachers and oriented learners. If judiciously devised the text based online learning will go a long way in the enhancement of knowledge and cognitive development of the students. But the experts are worried over the physical development of the learners which will be in the centre stage in the post Covid India. Feeling, emotion, sympathy, understanding students' psychology are an integral part of teaching which is absent in online learning. In post COVID India education system will develop digitally but the question arises how our society will face the situation.

When we come to the implementation of the digital technologies in higher education , we find that more emphasis is given on students' learning rather than on professors' teaching (Alexander et al., 2017; Andrews & Haythornthwaite, 2009; Bates & Sangra, 2011; Guri-Rosenblit, 2009, 2010; Harasim, 2000; Johnson et al., 2016; Pappas, 2017). That teachers do have a significant and pivotal role in online teaching learning scenario has been underrated thereby resulting in a restricted and moderate adaptation of the technologies in higher education so far. In most higher education institutions, the new technologies are used mainly for add-on functions and not for substituting face-to-face encounters or for an intensive web-enhanced teaching (2011; Gradinarova, 2015; Guri-Rosenblit, 2010; Guri-Rosenblit & Gros, 2011). Among the valued parameters of E-Learning , e-teaching has a crucial role. So teachers in this regard have a strenuous journey ahead and there will be wonder on the way only if their position is reevaluated in the online settings of imparting education. In addition to the lack of digital literacy, there are additional reasons for the restricted use of technologies in the academic world: The unbundling of the professors academic responsibility for the overall teaching process; work overload in preparing curricula suited for online learning, which leads also to some extent to feelings of burnout; lack of ongoing support systems; and intellectual property concerns (Lacritz, 2004; Guri-Rosenblit, 2010).

Another problematic area is the copyright issues in preparing rich study materials. This problem is not only limited to individual level but also to institutional level also. Preparing online courses, Open Educational Resources or MOOCs involves frequently great investments, which deters many academics from participating in the design and development of such courses (Bonk et al., 2015; Guri-Rosenblit, 2010; Lane, 2017; Swan et al., 2015). Within the academic community there are currently many initiatives of widening the open source usage. Open source frameworks enable to access instructional resources and academic courses in a plethora of areas. Widening of open source framework coupled with a sound copyright regulation will be of immense importance to the teaching community. Whatever medium the teaching learning process will head to, the teachers's role will always be imperative and therefore e- teaching with all its paraphernalia should be given utmost care and attention.



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RE-ASSESSING WOMEN'S STATUS IN PRE-COLONIAL AND POST-COLONIAL INDIA

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ABSTRACT

It is very important to re-assess the status of women of ancient period in India to assess present status of women and suggest for upgradation of their status in socio-economic and political premises. The status and position of women is different in different periods and different civilizations. Women were held in high esteem in ancient India and were granted the same privileges as men. They had initiation and carried out rites and Vedic duties with the husband or independently. They were provided with educational opportunities and training according to their class. Women were free to choose their life-partners as is evident from the practice of *Swayamvara* in the epic period.

The high status that women enjoyed during early Vedic period gradually started deteriorating in the late Vedic period. Lineage began to be traced in the male line and sons were the sole heirs to family property. As the economic and social status of sons began to rise, the position of women saw a steep decline. The position of women reached an all-time low during the medieval period. In early colonial period with the advent of the British, the status of women saw many changes. In the 19th century, the era of social reforms, the status of women started a gradual positive change.

The focal point of the study is to reassess the changing socio-economic status of women in India and suggest some probable measures for upgradation of the present status of women in India.

Key words: Status, Women, Ancient, Upgradation, Position, Colonial.

Introduction: The status and position of women is different in different periods and different civilizations. If during one period of time or in one civilization she was brought up as a cherished possession of the parents, in some others, she was completely neglected and was accepted only as a provider of sexual pleasure to man and as a producer of his offspring.

The "status of women" can be assessed in different ways: the extent of women's access material resources within family and community; her power and authority to take decisions independently for her personal and family matter; the prestige received from male members of her family and community; her position in the social system distinguishable from male's positions. The status of women can further be assessed upon the extent to which women have accesses to knowledge, economic resources and political power, degree of independence in decision-making and making personal choices in different stages of their life cycle.



In the light of above discussion, the status of women can be understood by considering their-

- Access and control over personal property.
- Access to public resources.
- Control over their labour and earnings.
- Control over their body, i. e. sexuality, reproduction and physical security.
- Control over personal physical mobility.
- Access to political participation.
- Access to and control over insubstantial resources, such as self-confidence, self-worth, communication skills, information and knowledge.
- Access to legal structure and redressal.

Status of women in different time period in India: It is relevant to mention that before independent, the big South Asian countries i.e. India, Pakistan and Bangladesh were concentrated into one India. The status of women in Indian society has changed from time to time. Their status has been variously estimated and there are many views regarding their place in civilization. There is so much variability in relation to women's contribution to the society during different time period that it is difficult to make a general statement. Emphatically, her utility and resourcefulness in domestic life, her revitalizing company and affectionate care for children have always proved a great asset to her partner's life and this role has determined her status at different stages of civilization.

Pre-colonial period: Throughout the Vedic Period, women in India especially of the upper caste were given equal status with men. Women were held in high esteem in ancient India and were granted the same privileges as men. They had initiation and carried out rites and Vedic duties with husband or independently. The word '*Dampati*' was used for the mistress as well as the master of the house during the Vedic period.¹ Women were provided with educational opportunities and training according to their class. They were not forced to marry. Some *Brahamavadinis* devoted themselves to sacred wisdom and were highly acclaimed for their learning. Women were free to choose their life-partners as is evident from the practice of *Swayamvara* in the epic period. According to great historian Ramesh Chandra Majumdar, there is no evidence in the *Rig Veda* of the seclusion of women, and the ladies trooped to the festal gathering.

This brighter aspect of the high status of women in ancient India elucidates only one side. However, the other side of the picture regarding status of women was not so glowing. Equal status of women described in *Vedas* represents a small section of women belong to the enlightened high status family. Several inscriptions and references in literature make it clear that polygamy were not uncommon among men, particularly among the kings, nobles, rich and high caste men.

The high status that women enjoyed during early Vedic period gradually started declining in the late Vedic period. Lineage began to be traced in the male line and sons were begun to consider the sole heirs to family property. As the economic and social status of sons began to rise, the position of women saw a sharp decline. The position of women reached to an all-time low during the age of the *Dharmashastras*. It was the age of *Sutras* and *Epics* (500 BC to A. D. 500) that the status of women changed considerably. Procreation of a son became a religious necessity as he alone could



discharge certain ritual obligations to the ancestors. A wife was expected to offer all services needed by her husband and to keep him pleased. The religious pronouncement (Manu's) was that a wife ought to respect her husband as a "God". It is during this age when codes of conduct prescribing behavioural norms for women were evolved. This phase saw the elimination of women from both economic and religious sphere. During the period child marriage was encouraged and widow re-marriage was looked down upon. The birth of girl child was considered as an ill sign and many parents went to the extent of killing the female infants. The practice of *Sati* became quite wide spread because of the ill treatment assess out to widows. The system of *Purdah* which was prevalent among royal families and merchant classes prior to the advent of Muslims, spread to other classes also. The women were socialised and were expected to play the completely dependent role on men with no opportunity to take decisions of their own. The status of women continued to deteriorate during the age of *Smriti* (A.D. 500 to A.D. 1800) and *Muslim rule* till they almost lost all status in society.

The medieval India is particularly the period of the Muslims i.e. the Turks, Afghans and the Mughals, who ruled over India approximately for six hundred years. The Muslims have contributed as one of the major current in the Indian socio-cultural mainstream. The advent of the Muslims and the emergence of Islamic culture in Indian environment have given a new dimension to the traditional Indian society.

During the medieval period, practices such as *polygamy*, *sati*, *child marriage*, ill treatment of widows gained further momentum, which already prevalent during the *Dharmashastra* age. There were many factors directly or indirectly responsible for the continuous deterioration of the status of Indian women in medieval times. Early marriage became a rule to safeguard the honour and chastity of girls. In view of the Muslim invasion, the indigenous culture had been subjected to acculturation. The customs and traditions of Islam had made in-roads into the native culture. For example, the '*Purdah*' system was widely practiced among the middle classes after invasion of Muslim in India .

On the other hand, the values of Hinduism sustain the male supremacy over female, women's 'mother-wife' role in private domain and man's "public" role in economic and political spheres. Hindu religious scripture prescribed inferior position of women in ritual activities and a dependent position of women on man throughout her lifetime. The priestly class misapprehended the sacred texts and created an impression that all these evil practices had religious permit.

PrabhathiMukharjee, the renounced sociologist has identified some reasons for the low status of women in post Vedic period. These reasons are imposition of Brahmanical austerities on the entire society, rigid restrictions imposed by the caste system and the joint family system, lack of educational facilities for women, introduction of the non-Aryan wife into the Aryan house hold and foreign invasions.

Colonial period: In early colonial period with the advent of the British, the status of women saw many changes. This had become possible because it was the period of social and political awakening in India, followed by intense reformist efforts made by social reformers with or without organised support. The issue of women's status become the focus of social reform, which was reflected in a series of legal enactments relating to or affecting women. To mention only a few, the 'Sati Abolition Act' was passed in



1829, the 'Widow Remarriage Act' in 1856, the 'Age of Consent Act' was passed in 1891'. Initiative for women education was taken by few social reformers. The great Indian reformist Ishwar Chandra Vidyasagar opened 35 female schools in 4 districts of Bengal, namely, Hughly, Burdwan, Medinipur and Nadia, in a brief space of time between November 1857 and May 1858. By 1929, Indian women had been granted the right to vote. One of the outstanding features of modern India has been the unprecedented awakening of Indian Women during nineteenth and twentieth century.

A number of movements, both religious and social, like, Brahma Samaj led by Raja Rammohan Roy, Arya Samaj led by Swami Dayananda Sarasvati, Prarthana Samaj led by Atmaram Pandurang launched in the middle of nineteenth century, reforming Hinduism and Indian society. These reformers attacked only those practices that were extremely cruel or visibly violent. Seldom had they challenged the kinship structures of women subordination, sanctity of marriage and family, sexual division of labour, and caste hierarchies which perpetuated inequalities. But, these movements have had a deep impact on the women's identity and women's life in India.

The social reformers like Raja Rammohan Roy, Pandit Iswar Chandra Vidyasagar in Bengal, Malabari, Ranade in Bombay and Dayananda Sarasvati in Punjab and many others and their ideas changed the total atmosphere in India and brought about a near revolution, which started a new era of emancipation for women in India.

The political upheaval under Mahatma Gandhi marked the climax when women participated in the independence movement. In the 1930s and 1940s the outlook of leaders of the nationalist movement became more egalitarian and less hierarchical. Netaji Subhash Chandra Bose formed the 'Rani of Jhansi Regiment', the women's Regiment in Indian National Army in 1943, for fighting against British colonial rule. 'Rani of Jhansi Regiment' Led by Captain Lakshmi Swaminathan (better known as Laxmi Sahagal) was one of the very few all-female combat regiments of the Second World War on any side. Formation of the all women regiment shows egalitarian mentality of the legendary freedom fighter. The nationalist leader's commitment to equality influenced the Indian women's movement to turn to liberal egalitarian values.

A significant change came when Gandhi led Non-cooperation Movement of 1920, Civil Disobedience Movement of 1930, and Quit India Movement of 1942 were launched. In these movements many women like Sarojini Naidu, Pravabati Devi, Kasturba Gandhi, Kamala Nehru, Jyotirmoyee Ganguli, Latika Ghosh, Ashalata Devi, Neli Sengupta, Captain Laxmi Saigal, Aruna Asaf Ali played a remarkable role for Indian national freedom from British rule. Matangini Hazra sacrificed her life to free India.

Some women's organisations were formed to promote modern ideas to women on a nationalist basis. Of these Sakhi Samity, (1896) under the leadership of Swarna-kumari Devi, Bharat Stri Mahamandal (BSM) was founded in 1910 led by Sarala Devi Chowdhurani, Women's India Association (WIA) founded in 1917 by Madame Annie Besant, National Council for Women in India (NCWI) founded in 1925 by Lady Aberdeen, Lady Tata and others and All India Women's Conference (AIWC) founded in 1927 by the efforts of Margaret Cousins and others. These organisations took up various issues like Women's education, abolition of social evils, Hindu law reform, moral and material progress of women, equality of rights and opportunities and



women's suffrage. The Indian women's movement worked for two goals: 1) Uplift the status of Women in India, that is reforming the social practices so as to enable women to play a more important and constructive role in society and 2) equal rights for men and women, that is, extension of civil rights enjoyed by men in the political, economic and familial spheres to women also.

Post Independence Period: The Constitution of India gives equality to Indian Women through its fundamental rights and Directive Principles of State Policy. The adult franchise brought Indian women an equal footing with men. The Constitution of India guarantees all those rights to women which are given to men. The Central Social Welfare Board (CSWB) was established by the Govt. of India in 1953, to promote and strengthen voluntary efforts for the welfare of women. The five years plans also laid emphasis on women's rights and stressed on the welfare activities, education, health and family planning for women. After independence in 1947, there was an acceptance of professional life for women although they were not encouraged in scientific and technological vocations. In recent years the Govt. of India has introduced lots of welfare schemes and Acts in favour of women for upliftment of their status. In political arena, 33 percent seats have been reserved for women in local self governments in all over India. Many states have declared 50 percent seat reservation in Local Self Government for women in concerned states. Equal pay for equal work has been functional in government sectors. Many Acts have been formulated for protecting women from any kind of violence against them. National Commission for Women and State Commissions for Women have established for safeguarding rights of women in India.

Conclusion: But, regretting fact is that many women still in India are not able to access the opportunities created by the government for upgradation of their socio-economic and political status. Reasons behind subordinate status of women in 21st century India are - lack of proper education, lack of professional education, lack of technical education, lack of political education; lack of technological illiteracy and education; inaccessibility of information; economic backwardness; social and familial restrictions; burden of domestic work; increasing violence against women in domestic as well as community level; and above all discriminatory and disregarding backward mindset of men and women in Indian society. Following measures may be taken for upgradation of status of women in India:

1. Consciousness among men and also women regarding enjoyment of Right to development by each and every woman is to be developed.
2. Reservation for women in Govt. Job within existing reservation policy may be introduced as employment operated as an effective engine of change in the lives of women.
3. Registration of birth, deaths and marriages should be ensured to meet effectively the problems of infant and maternal mortality and early marriage.
4. Improved quality of education to facilitate life-long learning as well as development of occupation/ technical skills by women and a gender sensitive educational system, increase in enrolment and retention rates of girls is required.
5. In view of high risk of malnutrition and disease that women face at all the critical three stages viz., infancy and childhood, adolescent and reproductive phase, focused



attention would be paid to meet the nutritional needs of women at all stages of the life cycle.

6. By undertaking strong measures both preventive and punitive within and outside the family, all forms of discrimination against the girl child and violation of her rights should be eliminated.

7. Media should be used to portray images consistent with human dignity of girls and women.

8. All forms of violence against women, physical and mental, whether at domestic or social levels, including those arising from customs, traditions or accepted practices should be eliminated.

9. Legal-Judicial system would be made more responsive and sensitive to women's issues, especially in cases of domestic violence and personal assault.

10. Women should be given comprehensive support services in terms of labour legislation, social security and other support services to participate in various industrial sectors.

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EFFECTIVENESS OF HUMAN WASTE FOR BIO WASTE PLANT WITH SPECIAL REFERENCE TO BSNL RTTC STAFF QUARTERS AT TRIVANDRUM

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Introduction:

Waste has become a major problem in this world due to the increase of population, urbanization, intensive agriculture, and industrialization. Waste is a substance or object that is disposed of, intend to be disposed of or required to be disposed of. Types of wastes commonly available in and around us are: human, municipal, hazardous, biomedical, and domestic. Kitchen waste consists of considerable quantities of processed food and waste/refuse like vegetable/non vegetable and refuse like plastic and paper.

Human waste is human excreta, refers to byproducts of digestion such as feces and urine and sweating water. Like cow dung and its urine, this human waste can also use for biogas and decomposed waste also can use as a good manure after some process.

Keywords: Human ,Waste , Bio Compost, Urine ,Stool, Feces, Organic Matter, Wastewater

Review of Literature:

World Health Organization had classified wastes in several categories such as General waste, Pathological Waste, Sharps, Infection waste, Chemical waste, Radioactive waste, Pharmaceutical waste, Genotoxic waste, Nondegradable waste, Human waste etc. Human waste or human excreta usually refers to the waste products of the human digestive system and the human metabolism namely feces, urine, and sweat.

Usually, we treated human waste as non-hazardous. If the human waste not properly disposed, that is if no proper sanitation, following things may happen (a) Bacterial infection such as cholera involve large infective doses, hence they are more susceptible to control through sanitation. (b) Polio or hepatitis acquire only a small dose to cause the disease.(c) Many diseases such as salmonellosis involve transmission cycles that can pass through animal hosts which limits the benefits of controlling only human excreta if the disease can be transmitted through the feces of chicken in the household. Huge demand for fertilizer availability in the future reemphasized the need for improved nutrient management including the nutrients contained in feces(human excreteta0 to agricultural and related field.(Elser& Bennett, 2009; Dawson & Hilton, 2011; McConvilleetal.,2015). From long back human excreta was used for agriculture and organic farming.

Due to urbanization improvements came in toilets, closets, and sewer networks. This given a path for using artificial and synthetic fertilizers instead of human excreta (Rockefeller, 1998; Ferguson, 2014).In urban areas of developed industrial countries, human excreta is going to municipal sewage treatment plants(STPs) through water sewage networks. The outcome of the sewage plant has gaseous emissions and solid residue called sludge or biosolids by different countries. This sewage sludge is used by several countries as recycling of nutrients to agriculture. This practice of sewage sludge conversion created a lot of arguments due to concerns about contaminants like pathogens, organic pollutants and heavy metals (Petrik, 1954; Renner, 2000; McBride, 2003; Bengtsson & Tillman, 2004; Singh & Agrawal, 2008; Öberg & Mason-



Renton, 2018). Because of this, there is a trend towards incineration of a huge portion of the sludge.

But for underdeveloped low-income countries, the high infrastructure costs are prohibitive for widespread adoption of this system, (Larsen et al., 2016). For high-income countries the main issues arose as a concern of high energy, water demand, sludge disposal problems, and limited nutrient recycling. (Brands et al 2014). Some experts /scientists talked about the idea of municipal sewers and directed for more comprehensive resource recovery at municipal STPs (Peccia & Westerhoff, 2015; Verstraete et al., 2016; Puyol et al., 2017). Were as some others called for source separation and control which provides greater opportunities of resource recovery. This minimizes dilution and contamination of human feces (Larsen & Gujer, 1997; Otterpohl et al., 1997; Wilsenach et al., 2003; Larsen et al., 2009).

The methods based on source separation and control are generally known as new decentralized sanitation/eco friendly / resource oriented or waste water management by several countries. A lot of research works done and a lot of development taken place for the last few years to enable more comprehensive recovery of nutrients contained in human waste (feces). New knowledge and technologies are continuously unfolding, as evidenced by the number and scope of recent reviews published in the scientific literature. These reviews provide detailed insights into certain aspects of nutrient recovery. When the feces become dry the solid have about 14-18% nitrogen, 13% carbon, and 3.7% to 4% both potassium and phosphorus (Rose et al., 2015). The dominant content of fresh urine is urea which making over 50% of organic components (Rose et al., 2015).

In human feces, about 75% is water (H₂O) by weight and 25% solid material mainly organic matter (Rose et al., 2015). In the dried feces carbon (C) is a major constituent, approximately 50% of the organic matter (Vassilev et al, 2010) This is somewhat true for all feces (Rose et al., 2015). In urine and feces also contain some micronutrients such as magnesium and selenium. The amount of excreta comes out depends on the dietary intake of the individuals. The digestibility of individuals diet determines the partitioning of nutrients between urine (digested) and feces (undigested) (Jonson et al., 2004). In general urine have the majority of nitrogen. Nitrogen, Potassium and Phosphorus contained in human excreta were as feces contain potassium and phosphorus, and the majority of carbon (Heinonen-Tanski & Van Wijk-Sijbesma, 2005).

Depends upon the way of collecting urine, feces with water, the excreta sometimes called yellow water, Brown water excreta, source-separated feces, backwater etc. Generally under the urban water sanitation system, urine, flushing water, feces, toilet paper, cleansing water, etc comes together. Collection of this is normally called as domestic or municipal sewage or wastewater. Sometimes kitchen refuses also comes through the sewage system. If this excreta comes through metal pipes copper and lead may also release to the excreta (Renner, 2008; Schock et al., 2008) and organic compounds may also produce if it is run through polymeric pipes (Zhang & Liu, 2014). Contamination levels are further increased following mixing with used water from households, hospitals, industry, and the commercial sector, and with stormwater where it is also discharged to the same sewer.

Major origination of pathogens are from human excreta (Dumontet et al., 2001). Other sources of pathogens are coming out while preparing meat products in the domestic kitchen (Cogan et al., 1999), while process animal products commercially (Dumontet et al., 2001), organic pollutants, personal care products and detergents (Kümmerer, 2013).

Collection of human excreta often involves mixing with other streams. Separate collection of urine, depending on the type of toilet or urinal, may involve mixing with flush water and the respective stream is commonly referred to as source-separated urine or yellow water. Separate collection of human feces, depending on the type of toilet, may involve mixing with urine, flush water, anal cleansing water, toilet paper, and additives such as ash, lime, or dried soil. The



respective stream is commonly referred to as source-separated feces, brown water excreta, or backwater. In conventional urban water and sanitation infrastructures, human excreta generally become mixed with flush water, anal cleansing water, toilet paper, domestic used water, industrial used water, and possibly even stormwater. The stream resulting from this form of collecting human excreta is commonly referred to as domestic or municipal sewage or wastewater (Renner, 2008; Schock et al.2008)

There are several methods existing for the disposal of human waste. a) Unsewered areas service type latrine and nonservice type latrine) sewerred areas, water carriage system, and sewage treatment. Several types of latrine are available like:-service type latrine, sanitary latrine, Borehole latrine, Dug well latrine and water seal latrine. Water seal latrines we are using in quarters.

In Trivandrum for the accommodation purpose, several quarters are available in several places. One such quarters complex is available at RTTC compound. Several types of quarters are available like B type, C type, D type, and E type. Depends upon the grade of the official and demand, these quarters are allotting. At present, about 43 quarters are occupied by BSNL staff and outsiders. In CTTC hostel of RTTC, all the toilets waste is directly going to a biogas plant. From this plant, we are getting biogas. Long back when separate mess canteen worked in this hostel, this biogas was utilized. Nowadays no separate canteen, all hostel having a common mess in the main canteen. So this biogas is not utilizing.

Quarters details at RTTC compound TVM as on June 2020.

Type of Quarters	No of quarters	Occupied	Vacant	BSNL	Non-BSNL
B	08	05	03	03	02
C	41	27	14	26	01
D	15	10	05	10	00
E	03	01	02	01	00

On an average of 14 to 17 ounces (400 to 500 grams)/day feces throwing out if one goes to the toilet once in a day. Human waste considered beneficial in terms of the process because it does not require additional starter (microorganism seed) and a supply of micro organisms occurs continuously during the feeding of raw material. This directly supports the sustainability of the production of biogas.1 Kg human feces can produce 0.4 cubic meter biogas per day. If one human produces 0.25 lbs of volatile waste per day, the usable energy one human produces in one day is 1102.2 KJ/day. In-country like Indonesia, the use of human excreta for biogas at the same time is a potential way of reducing environmental problems and in supplying electricity. In Indonesia, 80% of the electricity need is from human waste biogas. Expense for one 1.5 ton capacity biogas plant and interconnecting the present septic tanks may come 5 to 6 lakhs rupees in RTTC Trivandrum.

If we calculate the amount of biogas produced from the feces of RTTC it is like this 77.4Kg waste(43 families, average 4 members,450grams feces per head, that is 43x4x450=77.4 Kg roughly) 1 Kg produces 0.4 cubic meter biogas, Total biogas produced is 0.4x77.4=30.96 cubic meters, say roughly 31cubic meter biogas.

Biogas usability and equivalent:

Application	1cubic meter biogas equivalent
Lighting	Equal to 60-100 watt bulb for 6 hours.
Cooking	Can cook 3 meals for a family of 5 members.
Fuel replacement	0.7 Kg of petroleum
Shaft power	Can run a one horse power motor for 2 hours
Electricity generation	Can generate 1.25KW hours of electricity



Human society requires several resources for its survival and creates lots of wastes (such as garbage, municipal, industrial, and agricultural waste in the form of solid, liquid, gas, and temperature). The generation of waste depends on several factors such as economical status, climatic condition, and degree of modernization. Modification in applied technology may affect the quantity and quality of the waste. However, the generation of one particular waste, that is human excreta, may not be affected by any technological advancement.

Since the early stage of civilization, human excreta is being considered the most unwanted waste/refuse of society. Modern society too does not give due consideration for efficient utilization of human excreta and only considers it as a pollutant, and thinks that it must be removed from wastewater at any cost to protect human health. Presently the most common sanitation concept is 'end-of-the-pipe-technology', in which a small volume of excreta is mixed with a large volume of water and transported the mixture to treatment site employing a costly and complicated sewer network. This process leads to loss of valuable and non-ending sources of fertilizer and energy. Therefore, a holistic approach is warranted for human excreta (feces and urine) management that could ensure improved environmental conditions in human settlements and promote the economic and social well-being and health of the population.

Benefits of latrine connected biogas plant: 1)Cutting the trees for firewood will be reduced in proportion to the available biogas.2) The incidence of communicable diseases will be reduced due to lesser pollution of water sources and lesser fecal contamination of food through flies and insects.3) Ailment in the cattle population would be reduced.4) Crops would be healthier if open defecation in the fields is reduced.5)Availability of organic manure of high quality would be benefited for the crops.

Problems of social acceptance of human waste biogas plant:1) Ignorance about the nature of biogas leads to a misconceived feeling that these end products are directly and unhygienic. 2)A wrong notion prevails that human waste-based biogas plant will make their surroundings unclean and foul-smelling.3) A feeling exists that the grains and vegetables grown in the farm where the slurry is used as a fertilizer, will not be clean and wholesome.4) A doubt about religious sanctity creeps in one's mind. One feels that it is not right to use gas and food obtained from dirt, for religious purposes.5)Possibility of ridicule from neighbors and relatives weighs heavily on the mind of the user.6) A fear of possible non-acceptance of eatables from the user's home by the villagers becomes a formidable deterrent.

Objectives:

In the RTTC campus at Trivandrum, waste disposal is a problem. Present biogas plant using human waste is not using as no mess working in that hostel for using this biogas. People all together staying in a clustered area in the RTTC quarters colony. So a human waste plant if used can get biogas for few members use at least. The objectives of the study are

- 1) Effectiveness of human waste disposal in RTTC staff quarters.
- 2) Avoid the unwanted spreading of wastes in the colony area by the inmates.
- 3) Effective utilization of the waste for local vegetables, garden of the inmates.
- 4) Make a permanent solution for the inmates' complaint for waste disposal

Methodology:

A survey conducted among the inmates of the RTTC quarters(irrespective of the type of quarters and BSNL/Non-BSNL employees).The questionnaire prepared in the local language(Malayalam) and data collected from 50 inmates which includes each one member of the



quarters and office-bearers. The collected data analyzed using simple statistics. The questionnaire supplied to all the quarters and additional to office-bearers too.

Analysis of Data:

1) Based on family members present in the quarters:

No of members in the family	No of family	Cumulative percentage
Up to two	nil	0
Three to four	40	80
Five and above	10	100

All the family having three and mote than that number of members in their family.

2)About employee status:

Type of employee	Number
BSNL/DOT employee	47
Non BSNL employee	03
Total	50

94 percent of the inmates in the quarters are BSNL/DOT employees

3)Regarding the accommodation based on the type of quarters:

Type of Quarters	No of occupants	Cumulative percentage
B Type	05	10
C Type	31	72
D Type	13	98
E Type	01	100

62 percent of the officials are staying in C type quarters .

4)Does the institution providing dedicated staffs for waste collection and disposal

Opinion	Number of respondents	Cumulative percentage
Yes	0	0
NO	50	100

100 percent of the inmates have the opinion that dedicated staffs are not provided by the institution for waste collection and disposal.

5)Income details of the family:

Income	No of respondents	Cumulative Total
Less than Rs 50000.00	03	03
Rs 50001-75000	36	39
Above Rs75000.00	11	50

78 percent of the respondents are in the income level of Rs 50001-75000.



6)Regarding occupation of the quarters:

Number of years in quarters	No of respondents	Cumulative total
Up to 10 years	35	35
10- 20 years	10	45
Above 20 years	5	50

70 percent of the inmates are residing in the quarters for less than 10 years.

7) Opinion about satisfaction of waste disposal at present:

Opinion	No of respondents
No	50
Yes	00

All the respondents not satisfied with present disposal of waste in colony.

8)Opinion about effective human waste disposal in RTTC colony:

Opinion	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
No of respondents	35	10	3	2	0

90 percent of the respondents agree that they required an effective human waste disposal in their colony.

9)Methods opted to avoid spreading of waste in the colony.

Methods opted	Participants opinion
Keeping all waste in a separate bin	35
Burning the waste in a remote area of the colony	10
Throwing away near to your quarters	5

70 percent of the respondents agree that have to keep all the waste in a separate bin.

10)Opinion about effective utilization of waste for local vegetation/gardening etc:

Opinion	No of respondents
No	45
Yes	05

90 percent of the participants are not effectively utilizing the waste for local vegetation etc.

11) Opinion about waste disposal in RTTC colony:

Opinion	Number of Participants
Keep separate bin for different types of waste and engage some body for taking out	10
All individuals can take the waste to the place shown by RTTC administration and dispose it	05
Arrange corporation authority for disposal of waste	35

70 percentage of the participants have the opinion that waste should be disposed through Trivandrum Municipal corporation.



12) Opinion about disposal of human waste to biogas:

Opinion	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
No of respondents	30	05	02	03	10

70 percent of the respondents agrees that human waste to be disposed to biogas and can be effectively used.26 percent disagree about this.

Findings:

- 1) All the family has four or more than four members staying in each quarter.
- 2) 94 % of the inmates are BSNL/DOT retired/working employees.
- 3) The majority of the inmates are residing in C&D type quarters.
- 4) Institution (RTTC) not providing any dedicated staff for waste disposal.
- 5) 94 % of the inmates having income above Rs 50000/00per month.
- 6) 70% of the inmates occupied the quarters is less than 10 years of experience in colony.
- 7) None of the respondents were not satisfied
- 8) 70% of the respondents agree that they have to keep all wastes in separate bins.90% of the inmates not utilizing this wastes (food etc) effectively for vegetation/gardening.70% of them have the opinion that the waste should be disposed of through Trivandrum Municipal Corporation.
- 9) 70% of the inmates agree that human waste to be disposed to biogas and to be utilized for streetlight,canteen’s use etc, and 26 % disagree about this.

Conclusions:

BSNL ,a PSU Telecom service providing company giving their service across India in hook and nook of the corner. It is having Training centers in all circles. One of such training center is situated at Trivandrum, in the locality “Kaimanam”, hardly 4 kilometers from Trivandrum central railway station. In this RTTC compound having residence colony,43 quarters were occupied by BSNL and Non-BSNL staff. Due to financial constraints of the organization (BSNL) cleaning, timely maintenance, etc of the quarters not taking place.

This paper is an eye-opener for utilizing the human waste (human excreta) of the inmates of the quarters for street lights of the whole compound(more than 50 in 29.5 acres of land)/cooking food etc by spending few lakhs of rupees.

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SHIFT IN TRADITIONAL MARKETING PRACTICES IN NEW MEDIA AGE: AN INTERNET MARKETING

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Abstract:

The world of marketing is no longer as simple as it used to be. Today, traditional marketing media are butting heads with the Internet as they compete for the same audiences. For example, online video streaming services like Netflix and YouTube directly compete with television. Google can deliver phone numbers much more quickly than a phone book. Plus, an increasing number of consumers prefer to read their news online instead newspapers. However, traditional marketing still works for many businesses, but Internet marketing can provide a better avenue to connect with customers and even build a relationship. Internet marketing involves the use of digital media to inform the market of one's business and to entice people to purchase its products and services. The internet is merely a vehicle to provide greater reach for advertising, promotional and public relations efforts. The major objective of the study is to investigate the best internet marketing strategies/traditional marketing methods to boost the business in this modern era. The outcome of the present study helps marketers to select an efficient marketing strategy to enhance their sales relaying on their target audience.

Key Words: Business, customer relationship, Internet Marketing, Modern era, Traditional Marketing.

Introduction

Businesses that want to boost the results of traditional marketing need to dovetail their strategies with Internet strategies rather than viewing them as independent channels. A good Internet site, for example, improves the effectiveness of other advertising because many customers who see your company's advertising will evaluate your company's products and services online. Integrating Internet marketing tactics with other advertising ensures that your company provides a consistent brand experience. Fact is, mobile is now the leading medium around the world—and digital strategies can easily be a part of this growing platform. The goal is to reach consumers where they are, and right now, it's through their mobiles.

The beauty of digital marketing is that it gives businesses direct response for their efforts. And if you have a limited budget, getting these results can go a long way towards showing you that you're doing something right for your product or brand.

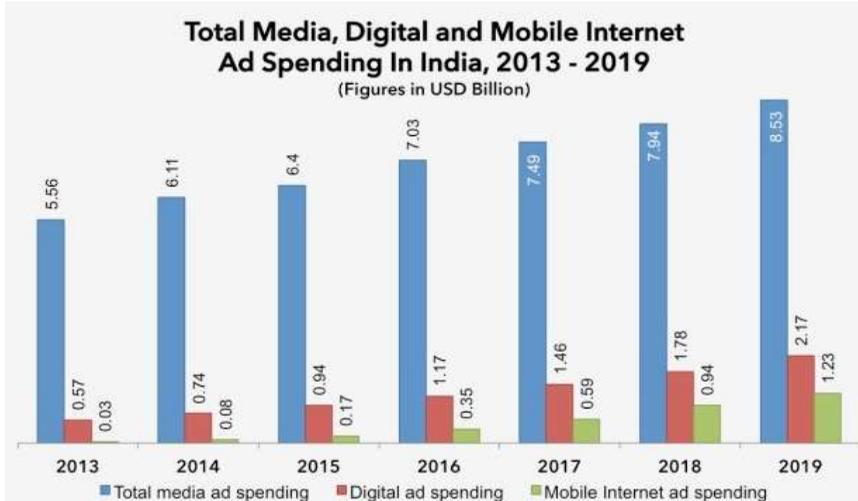


Traditional Marketing Vs. Internet Marketing:

<u>Traditional</u>	<u>Digital</u>
<p>Includes...</p> <ul style="list-style-type: none"> • Print media <i>(newspaper and magazine ads, newsletters, brochures and other printed material)</i> • Broadcast media <i>(such as TV and radio ads)</i> • Direct mail <i>(including fliers, post cards, catalogs)</i> • Telemarketing 	<p>Includes marketing efforts anchored on electronic devices such as--</p> <ul style="list-style-type: none"> • Websites • Social networking sites • Content marketing • Banner ads • Google ads • Video marketing
<ul style="list-style-type: none"> • Proven techniques with high success rate • Long-standing initiatives that the public already understands • Metrics for measuring success 	<ul style="list-style-type: none"> • Cost-efficient methods of marketing • Unprecedented audience reach • Allows direct response from intended audience

Originally, global online ad spend was forecast to grow by 4% this year, but that has been updated with current trends showing growth to be closer to 4.7% growth. According to Zenith's Advertising Expenditure Forecasts, this means online advertising will reach \$329 by 2021, accounting for 49% of all global ad spend. The projection of 14% growth in location-based marketing indicates an increased interest in this form of advertising. Marketers' willingness to purchase location-based ads may suggest that this type of ad has proven a positive ROI in the past few years to many marketers. Social referral to retail sites has grown by 110% over the past two years. It's growing faster than any other referral source.

Facebook, being the leading social platform, drives the most traffic. Instagram and Pinterest are the most natural and relevant platforms for retailers to advertise on. Snapchat and Twitter also play a significant part in the ad game, but not as much as the other three. TikTok, being the new kid on the block, is working hard to get the attention of advertisers. The app reached \$9 million in-app sales in May and is forecast to reach \$100 million. "TikTok's focus on video may give the app an advantage as video ads drive media spending," says Mobile Marketer.



In the digital world, marketing is becoming more streamlined and profitable than it has ever been. Internet marketing is the term used to describe any advertising efforts that occur online, including:

- Email marketing
- Social media marketing
- Content marketing
- Search engine optimization
- Pay per click advertising

E-Mail Marketing:

Email marketing is the act of sending a commercial message, typically to a group of people, using email. Email marketing has evolved rapidly alongside the technological growth of the 21st century. Prior to this growth, when emails were novelties to the majority of customers, email marketing was not as effective. Email marketing can be carried out through different types of emails: transactional emails, direct emails. Transactional emails are usually triggered based on a customer's action with a company. To be qualified as transactional or relationship messages, these communications' primary purpose must be "to facilitate, complete, or confirm a commercial transaction that the recipient has previously agreed to enter into with the sender" along with a few other narrow definitions of transactional messaging. Direct email involves sending an email solely to communicate a promotional message (for example, a special offer or a product catalogue). Companies usually collect a list of customer or prospect email addresses to send direct promotional messages to, or they rent a list of email addresses from service companies.



- **Social media marketing**

Social media marketing is a powerful way for businesses of all sizes to reach prospects and customers. involves creating and sharing content on social media networks in order to achieve marketing and branding goals. Social media marketing includes activities like posting text and image updates, videos, and and other content that drives audience engagement, as well as paid social media advertising.Social media often feeds into the discovery of new content such as news stories, and “discovery” is a search activity. Social media can also help build links that in turn support SEO efforts. Many people also perform searches on social media sites like facebook, Instagram, LinkedIn, Twitter, Tiktok, Pinterest, Quora,SnappChat and Youtube to find people and content.

- **Content marketing**

Content marketing is a strategic marketing approach focused on creating and distributing valuable, relevant, and consistent content to attract and retain a clearly defined audience — and, ultimately, to drive profitable customer action. Today, majority of marketers are using content marketing. In fact, it is used by many prominent organizations in the world, including **P&G, Microsoft, Cisco Systems, and John Deere**. It’s also developed and executed by small businesses and one-person shops around the globe. Specifically, there are three key reasons — and benefits — for enterprises that use content marketing:Increased sales, cost savings, better customers who have more loyalty.

- **Search engine optimization**

It is the process of getting traffic from the “free,” “organic,” “editorial” or “natural” search results on search engines.Search engine optimization (SEO) is often about making small modifications to parts of your website. When viewed individually, these changes might seem like incremental improvements, but when combined with other optimizations, they could have a noticeable impact on your site's user experience and performance in organic search results. You're likely already familiar with many of the topics in this guide, because they're essential ingredients for any web page, but you may not be making the most out of them.



- **Pay per click advertising**

PPC is an online advertising model in which advertisers pay each time a user clicks on one of their online ads. There are different types of PPC ads, but one of the most common types is the paid search ad. These ads appear when people search for things online using a search engine like Google – especially when they are performing commercial searches, meaning that they're looking for something to buy. This could be anything from a mobile search (someone looking for "pizza near me" on their phone) to a local service search (someone looking for a dentist or a plumber in their area) to someone shopping for a gift ("Mother's Day flowers") or a high-end item like enterprise software. All of these searches trigger pay-per-click ads. In pay-per-click advertising, businesses running ads are only charged when a user actually clicks on their ad, hence the name "pay-per-click."

Conclusion

Traditional marketing is becoming less and less effective by the minute; as a forward-thinking marketer, there has to be a better way. Internet marketing has shown proven success over and over again. Internet marketing allows to target by demographic information, socioeconomic status, hobbies, interests, or spending habits. The Internet is constantly marketing for the business. People can access website or social media 24/7. This means that business is visible to the audience at all times. The importance of online marketing also includes its ability to run multiple campaigns at once. The Internet marketing is easy to take on a high level of customers and provide them with a quality experience. Millions of customers can be handled at a time when they're on the website. Website can take on multiple transactions, which allows to obtain more conversions for business. It's a great opportunity to grow one's business. In addition, one can run multiple marketing campaigns at once. This means, Business can reach leads through multiple channels at the same time, maximizing business's reach. Business will earn more valuable leads by investing in Internet marketing.

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YOUTH AND NATIONAL SERVICE SCHEME (NSS)

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Introduction

The concept of making national service a part of university education took about 20 years to evolve from the state of an idea into that of a scheme. The early seeds of it were sown by Dr. S. Radhakrishnan in his report (1948). The Central Advisory Board of Education discussed the idea and made some recommendations in 1950. In the first five year plan document (1951) the need for social service camps found a mention. During the next few years some institutions already started organizing such camps. Then in 1958. Pandit Jawaharlal Nehru, Prime Minister, wrote to Chief Ministers suggesting social service as prerequisite for graduation. In 1959 an outline proposal came up for discussion in the meeting of education ministers from all over India. The concept was accepted, and Deshmukh Committee was formed to propose concrete suggestions (1959). In 1960 further suggestions came from Prof. KG. Saiyidain and these are responsible, more or less, for the scheme as we have it now. But implementation was further delayed. Then came Dr. Kothari's strong recommendations in 1966. During the next, year Vice Chancellors meeting took place and in 1969 a conference of student leaders welcomed the scheme. By that time the fourth five year plan was ready to be launched. It carried an outlay of five more rupees for National Service Scheme (NSS). The scheme was launched on September 24, in the Gandhi Centenary Year, 1969. Having traced this history the present chapter reviews the basic concepts, broad organizational goals, motto and operational objectives of NSS, and then narrows down to discuss village adoption. It is pointed out that NSS at present lacks clarity about the concept of village adoption and about the strategies to be used for its effective implementation.

Objectives of NSS

- Understanding of community in which the students or volunteers work.
- Understand themselves in relation to their community.
- Identify the needs and problems of the community and involve them in problem solving process.
- Develop among themselves a sense of social and civic responsibility.
- Utilizing their knowledge in finding practical solution to individual and community problems.
- Gain skills in mobilizing community participation.
- Acquiring leadership quality-ties and democratic attitude.
- Personality Development of Students through Community service.
- Develop capacity to meet emergencies and natural disasters and practice national integration and social harmony.



- Develop competence required for group-living and sharing of responsibilities.

Process of Work

1. NSS units are allocated by the Ministry of Youth Services and Sports, Govt. of India to our State. Further we allocate these units to our Sr. Sec. Schools subject to their enrolments in +1 and +2 classes. Full unit is allocated to a school having 100 or more than 100 students and half unit for 50 or more than 50 students.
2. Programme Officer is appointed by the Programme Coordinator on the recommendation of the concerned Principal.
3. All kind of information viz. enrolment of volunteers, reports regarding regular activities and special camping, camp information and audited UCs is collected from the schools and after compilation of all this information is submitted to the Regional Centre, Chandigarh.
4. Budget is allocated to units on the basis of their previous utilization certificates. Rs. 250/- is allocated for regular activities and Rs. 450/- for special camping for each student.
5. NSS certificates are also awarded by this Directorate to eligible volunteers on the recommendation of the Programme Officers and concerned Principal. Only those volunteers are eligible for NSS certificates who completed 240 hours under regular activities and also participated in the 7 days special camp. NSS volunteers may secure 2% marks for merit in the admission for higher studies.

Special Camping

Special camping forms an integral part of NSS programmes. It provides an experience of mutual adjustment and adaptation to new changing and challenging situations and generates courage, confidence, comradeship, decision making, democratic attitudes, resourcefulness, objectivity and leadership in the students. So, it must be ensure that 7 days special camp be organized in all schools under the strict compliance of the following instructions.

1. The camp should be organized in the adopted village/slum area for duration of 7 days where some project of great importance has to be undertaken with the participation/cooperation of the local community.
2. The village or slum adopted by the school should be near the institution so that proper follow up of the activities performed under special camp as well as the regular activities can be done.
3. The village/slum area should be adopted for three years so that concrete results are achieved.
4. Attendance be marked by the volunteers in an attendance chart and be submitted to this directorate along with the demand letter of NSS certificates.
5. It should be as a national campaign involving the widest possible understanding and support rather than merely as camps. It should be more a field work oriented educational plan than a mere plan for shramdan.
6. Food should be simple but balanced. It should be at the minimum cost and prepared from material generally available locally.



7. The rural population should be involved in the work that is done during the special camp.
8. Punctuality and discipline should be emphasized in the camp. The volunteers and teachers should strictly abide by the camp rules. The teachers should stay with the students at the camp site, in case convenient arrangement for night stay is not available at the camp site, the stay can be made in the school campus.
9. Principal will ensure that in Co-educational schools one male and one female teacher should stay with the volunteers in the night for proper care of the volunteers, no deviation should be made in this regard.
10. Management of the camp may be made through committees which will take care of various aspects of camp life. Each committee will be responsible for its assigned role. The Programme officer will simply guide and monitor the camp. The system of committees not only provides experience in management but also exposes the volunteers to democratic ways of functioning.
11. Cultural programme should be organized during camp days in evening time as it is the most effective way to convey the messages with regard to various issues and educating them through audio visuals, skits, nukkadnataks, songs, short plays based on various themes.
12. Camp report along with expenditure statement must be sent to this office within 15 days of the close of the camp.

The Motto

The motto or watchword of the National Service Scheme is “**NOT ME BUT YOU**”. This reflects the essence of democratic living and upholds the need for selfless service and appreciation of the other person's point of view, and also to show consideration for fellow human beings. It underlines the fact that the welfare of an individual is ultimately dependent on the welfare of society as the whole. Therefore, it should be the aim of the NSS to demonstrate this motto in its day-to-day activities.

Operational Objectives

The operational aim of NSS is to develop a sense of participation, service and achievement among the volunteers. The activities should aim at the following:

- (i) Making education more relevant to the present situation to meet the felt needs of the community, and supplement the education of the university/college students by bringing them face to face with the rural situation.
- (ii) Providing opportunities to the students to play their role in planning and executing development projects, which would not only help in creating durable community assets in rural areas and urban slums, but also result in the improvement of quality of life of the economically and socially weaker sections of the community?
- (iii) Encouraging students and non-students to work together along with the adults in rural areas;
- (iv) Developing qualities of leadership by discovering the latent potential among the campers, both students as well as local youth (rural and urban), with a view to involving them more intimately in the development programme, and also to ensure proper maintenance of the assets created during the camps.



(v) Emphasizing dignity of labour and self-help and the need for combining physical work with intellectual pursuits.

(vi) Encouraging youth to participate enthusiastically in the process of national development, and to promote national integration, through corporate living and cooperative action.

Village Adoption by NSS

As per NSS Manual (Govt. of India) village adoption is a programme of crucial significance in National Service Scheme. A volunteer is expected to remain in constant touch with the community. Hence, it is of vital importance that a particular village/slum is selected for implementation of NSS programmes. The volunteer is to live with the members of community and learn from their experience during his/ her tenure in NSS. For adopting a slum, there should be a composite survey team consisting of students drawn from faculties like Arts, Science, Engineering, Medicine, Home Science, Social Work, etc. Not even in the composite survey team the local people have a place. The whole strategy is marked by the absence of people's participation. All the points quoted above can almost be seen as don'ts in social work. An intervention of this manner will not lead to sustainable development because of the dependence it breeds. It does not at all assume that the people know their problems best, and that they are capable of handling these problems with some motivation and guidance from NSS and other collaborating agencies. In other words the concept of empowerment is conspicuous by its absence. Since one of the objectives of the present study is to evolve a suitable conceptual framework and model for communitising education through NSS.

NSS, it is necessary to dwell at some length on the aspects mentioned above, such as people's participation, empowerment, and sustainable development. Quite a volume of literature already exists on these areas, and these operational goals are pursued by a number of well-meaning voluntary organizations (NGOs) in India as well as elsewhere. In schools of social work these strategies form part of the syllabus. But, somehow or other, NSS has not succeeded in availing these resources, as is evident from the excerpts from NSS manual quoted above. A Govt. sponsored youth movement with 1.5 million enthusiastic students has immense potential in promoting social development while ensuring the personality development of the volunteers

concerned. But it needs to be planned better. It is with this perspective that a whole chapter on Development Perspective for NSS and another on Sustainability, Participation, and Empowerment are included in this study.

Training in NSS

With a view to providing orientation and training to develop right thinking, approach and understanding about the philosophy of NSS, fourteen institutions have been designated as Training and Orientation Centers (TOCs) of NSS. In addition to these, four Training Orientation and Research Centers (TORCs) have also been established. The training dimension has an important role in NSS. We need to formulate special training strategies and methods for purposes of bringing about attitudinal changes in students. Unfortunately TOCs and TORCs seem to have proved themselves to be the weakest links in NSS. It is high time the Govt. of India subjected these institutions to a



scrutiny to find out the extent to which they have been able to put life and a sense of direction into the functioning of NSS. They often complain about inadequacy of funds, while Govt. of India complains about the dysfunctional or nonfunctional nature of these centres. In fact in an organization which runs on the fuel of voluntarism, these training institutions are the fuel stations. If the fuel tanks are dry, if the motivators, themselves have lost motivation, it is a sad state of affairs. As Chaucer, in a different context asked, "If gold rusts, what shall iron do?"

Conclusion

Asurvey of the evolution of educational thought in India clearly indicates its bias towards social commitment. And a review of the planning process which preceded the formulation of National Service Scheme reveals that NSS has been designed to promote the social goals of higher education. Unfortunately, even after 30 years of implementation, NSS has not succeeded in influencing the mainstream of educational activity in the country. NSS is an extra-curricular activity today. Until and unless it becomes a curricular activity, its role in communitizing education will remain an unfulfilled promise.

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LIFE INSURANCE SECTOR IN INDIA : OPPORTUNITIES AND CHALLENGES

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ABSTRACT

Indian economy and industry has undergone significant transformation since 1991 moving away from state controlled to a competitive market economy. The most remarkable of this transformation has been noted in the financial sector, particularly, in the Indian Insurance Industry which has opened up to all competitors, integrating financial services to the global economy. IRDA was established in 1999 to protect the interest of policyholders for promoting and ensuring orderly growth of the insurance industry. Indian Insurance Company means, any insurer being a company which is formed and registered under the companies Act, 1956. FDI cannot be viewed from the financial perspective alone. It brings experience sharing, technology up-gradation, specialized skills, better operational efficiency, improved perceptions by reinsurance companies, and faster evolution of industry. Since Indian Insurance market is getting integrated into Global Insurance Industry, we must analyse and understand opportunities and challenges of Insurance business in India.

Keywords:Life Insurance, Products Offered, Challenges, Opportunities.

INTRODUCTION

The insurance sector in India has grown at faster rate after liberalization. Life Insurance is one of the fastest growing and emerging markets in India. Insurance penetration in the country is low mainly in rural area. The Insurance Industry has a significance contribution in socio-economic development. A majority of the underprivileged & rural poor society is still not insured and untouched by the benefits of Life Insurance. There is a tremendous scope for developing insurance business in the rural areas where human life and income generating rural assets need more protection. IRDA has acknowledged various reforms and initiatives for the welfare of rural people i.e. Micro- insurance especially designed to provide life insurance benefit to rural and economically backward class of the society.

Insurance Companies are focusing on customer satisfaction through increased customer choice and lower premiums, while ensuring the financial security of the insurance market. Insurance companies are targeting upon the customers by giving them a basket of returns with a mission to make them delight and satisfied. The Insurance sector has obviously started growing at a rapid place after the sector was opened up. The credit for enlarging the market should however goes to the private sector as they came up with an aggressive market strategy to establish their presence. The public sector has



in its turn, redrawn its priorities, revamped their marketing strategy, and together the public and private sectors have enlarged the market. India, with its huge middle class households, has exhibited potential for the insurance industry. This has made international players to look at the Indian market. Moreover, saturation of markets in many developed economies has made the Indian market all the more attractive for global insurance majors.

With the liberalization and entry of private companies in insurance, the Indian insurance sector has started showing signs of significant change. Within a short span of time, private insurance has acquired 24 per cent of the life insurance market and 45 per cent of non-life market. However, there is still a huge untapped demand for insurance. Insurance companies have a pivotal role in offering insurance products which meet the requirements of the people and, at the same time, are affordable. Some of the challenges faced by the insurance sector pertain to the demand conditions, competition in the sector, product innovations, delivery and distribution systems, use of technology, and regulation.

REVIEW OF LITERATURE

There are various studies related to Insurance Sector in India and abroad. It was found that the numerous numbers of literatures is available on insurance industry and its various aspects. Few relevant reviews are putting here in the context, they are as follows:

Selvakumar&Priyan (2010) found that insurance companies are increasingly taping the semi-urban and rural areas to take across the message of protection of life through insurance cover. Higher level of protection implies that customers are more conscious of the need for risk mitigation, grater security, and about the future of their dependents. Insurance sector has been evolving and improving its underwriting and risk management abilities.

The study of Sinha et al (2012) identified the per capita number of agents and the per capita number of insurance offices (both are supply driven), as two other influencing factors, apart from per capita GDP, which explained together large section of data. The above study also carried out a multiple linear regression analysis to (i) identify statistically significant factors influencing the insurance penetration and density, (ii) to identify the outlier states/UTs, which are deviating from the estimated straight line statistically significantly and, (iii) to classify the states/UTs, which have under-insurance, over insurance and adequate insurance given the assumptions of the model.

Agrawal (2012) favoured Direct Selling of insurance by using telemarketing and internet can helps to insure the literate and vigilant people towards the insurance.



The research review identifies the links between insurance, financial sector performance and growth in substantial details, helping define the insurance economic growth relationship and supporting the policy conclusions of this report.

CURRENT STATE OF THE LIFE INSURANCE SECTOR

The life insurance industry has witnessed a phenomenal increase in demand over the last few years. The main reason for this change is the growing awareness about the importance of life insurance, increasing life expectancy rates, changing demographics, etc. a large number of private sector players have entered this market as customers now demand highly customized products and prompt service.

The life insurance industry in India was nationalized under the Life Insurance Corporation Act of 1956. Until 1999, when the Insurance Regulatory and Development Authority Act was passed, LIC was the only life insurance provider. Since liberalization, a total of 24 life insurance companies have been formed, with the majority of them being joint ventures with foreign companies.

Globally, the share of life insurance business in total premium was 56.2 per cent. However, the share of life insurance business for India was very high at 79.6 per cent while the share of non-life insurance business was small at 20.4 per cent. In life insurance business, India is ranked 11th among the 88 countries, for which data is published by Swiss Re. India’s share in global life insurance market was 2.00 per cent during 2018. However, during 2018, the life insurance premium in India declined by 0.5 per cent (inflation adjusted) when global life insurance premium increased by 0.7 per cent.

At the end of September 2019, there are 53 insurance companies operating in India; of which 24 are in the life insurance business and 28 are in non-life insurance business. In addition, GIC is the sole national reinsurer. Of the 53 companies presently in operation, eight are in the public sector - two are specialized insurers, namely ECGC and AIC, one in life insurance namely LIC, four in non-life insurance and one in reinsurance. The remaining forty five companies are in the private sector (Table -1).

TABLE -1
Registered Insurers in India
(As on 30th September, 2014)

Type of business	Public Sector	Private Sector	Total
Life Insurance	1	23	24
Non-life Insurance	6*	22**	28
Reinsurance	1	0	1
Total	8	45	53

* Includes Specialised insurance companies - ECGC and AIC.

** Includes five Standalone Health Insurance Companies – Star Health & Allied Insurance Co., Apollo Munich Health Insurance Co., Max Bupa Health Insurance Co., Religare Health Insurance Co., and Cigna TTK Health Insurance Co.

Source: Annual Report, IRDA, 2018-19.



Life insurance industry recorded a premium income of Rs. 3,14,283 crore during 2018-19as against Rs. 2,87,202 crore in the previous financial year, registering a growth of 9.43 per cent (0.05 per cent growth in previous year). While private sector insurers posted 1.35 per cent decline (6.87 per cent decline in previous year) in their premium income, LIC recorded 13.48 per cent growth (2.92 per cent growth in previous year). On the basis of total premium income, the market share of LIC increased from 72.70 per cent in 2017-18 to 75.39 per cent in 2018-19. Accordingly, the market share of private insurers has declined from 27.30 per cent in 2017-18 to 24.61 per cent in 2018-19 (Table 2).

TABLE 2
Premium Underwritten & Market Share: Life Insurers (Rs. in Crore)

Year Insurers	2017-18			2018-19		
	LIC	Private Sector	Total	LIC	Private Sector	Total
1. Regular premium	30,313.52 (-24.58) (58.13)*	21,834.53 (-0.94) (41.87)*	52,148.05 (-16.21) (100)*	31,904.49 (5.25) (60.56)*	20,780.83 (-4.83) (39.44)*	52,685.32 (1.03) (100)*
2. Single premium	46,297.98 (11.11) (83.85)*	8,915.05 (-11.20) (16.15)*	55,213.03 (6.78) (100)*	58,904.30 (27.23) (87.09)*	8,730.05 (-2.08) (12.91)*	67,634.35 (22.50) (100)*
3. First Year Premium (3 =1+2)	76,611.50 (-6.41) (71.36)*	30,749.58 (-4.15) (28.64)*	1,07,361.08 (-5.78) (100)*	90,808.79 (18.53) (75.47)*	29,510.88 (-4.03) (24.53)*	1,20,319.67 (12.07) (100)*
4. Renewal Premium	1,32,192.08 (9.23) (73.50)*	47,649.33 (-8.55) (26.50)*	1,79,841.41 (3.88) (100)*	1,46,133.51 (10.55) (75.34)*	47,830.02 (0.38) (24.66)*	1,93,963.53 (7.85) (100)*
5. Total Premium (5 =3+4)	2,08,803.58 (2.92) (72.70)*	78,398.91 (-6.87) (27.30)*	2,87,202.49 (0.05) (100)*	2,36,942.30 (13.48) (75.39)*	77,340.90 (-1.35) (24.61)*	3,14,283.20 (9.43) (100)*

Note: 1. Figures in brackets indicate the growth (in per cent) over the previous year.

2. Figures in * brackets indicate the market share (in per cent).

Source: Annual Report, IRDA, 2018-19.

PRODUCTS OFFERED

Life insurance products are offered either for individuals or groups.

Individual products:

1. *Participating products:* In participating policies, insurers are required to share any surplus generated with the policyholders. This includes Money Back, Endowment, Whole Life variants, etc. These policies are the most dominant product range in the



middle income segment as they are a source of savings for customers, give assured returns, and cater to non-investment savvy consumers. However, these products are pooled investments and are often not adequately transparent with consumers.

2. **Unit-linked (ULIP):** These policies are becoming increasingly popular as they provide a combination of contingency coverage and market-linked investment returns. For most insurance companies, especially the new private sector ones, ULIPs account for approximately 90% of their total portfolio. ULIPs primarily cater to high income and/or investment-savvy clients. These products are generally more flexible but have a higher risk associated with them. Capital requirement is lower, as compared to other policies, because most of the investment risk is borne by the policyholders.

3. **Pure risk cover products:** These products are the simplest form of insurance. They include term with return of premium variants. In the last few years, their popularity has increased as consumers purchase them with housing loans. However, their contribution to the sector as a whole is still small as people focus on savings and investment-type policies.

4. **Riders:** These are extra coverage policies that policyholders purchase to supplement their principal policies. They include accidental death and dismemberment, health and illness, pure term, and waiver of premium variants. Due to high costs and lack of trained agents, riders are not very common in India. However, these products are highly profitable.

Group products:

1. **Group protection:** These are yearly group term contracts, single premium, deposit-linked, loan/mortgage cover variants. Group products are primarily sold to employer-employee groups. In most cases, affinity group segments buy them. These products are highly price-sensitive and have a long gestation period for sales.

2. **Group funds:** These include super-annuation, gratuity funds, leave encashment variants, etc. These products are also highly price sensitive and have a long gestation period for sales. As the investment track record and servicing standards of a company are the key to its sales, specialized sales teams are required for such funds. These products have low profitability and high capital requirements to maintain solvency.

Innovative products

The growth in the number of insurance companies has reiterated the need for companies to differentiate themselves to increase their market share. Product innovation is one of the best tools for companies to increase their presence in the market by offering products that suit their customers best. The most significant product innovation to take place in the life insurance segment is the launch of ULIPs, which have become extremely popular due to their insurance-cum-investment profile. Higher returns amid a sustained bull run in equity markets have also contributed to their popularity. Both traditional and unit-linked products are positioned for various customer segments such as child, women, health, retirement, whole life, endowment, etc. Due to its inadequate penetration (only 10% of the working population is covered), the pension sector has tremendous potential for insurance companies to be more innovative.



CHALLENGES

1. **Money laundering in insurance:** Mutual funds and banking products have traditionally been more susceptible to money laundering. Insurance has not been a favourite sector for money launderers because of its typical way of functioning whereby only a premium is charged upfront for the promise of a huge contingent payment later. But in the wake of innovations such as single premium policies and unit-linked plans, the insurance sector has become far more prone to money laundering than it was earlier. Companies characterized by large customer bases and their dependence on third parties for sourcing their businesses are soft targets for money launderers as it makes it relatively easier for them to hide their dubious intentions. In this regard, Indian insurance companies have to deal with issues emerging from geographically dispersed distribution networks and contact points through the agency sales force. Apart from establishing comprehensive KYC norms, they would also have to put in place processes to know the agents.

2. **Solvency Norms:** Solvency is a part of prudential norms and as risks increase across markets, the solvency margin also needs to go up tangentially. In order to satisfy the solvency margin requirements, companies have to systematically build up reserves by transferring a part of the surplus to a special reserve called “Solvency Margin Reserve.” However, transferring the surplus will result in a reduction in bonus rates declared and make insurance unattractive vis-a-vis other financial instruments. Therefore, only a part of the amount needed to meet solvency margin requirements can come from the surplus held back. The balance requirement has to be met by other sources for capital, which include:

- Share capital
- Free reserves in the shareholders’ fund
- Difference between the market value and book value of assets

This coupled with the constraints on capital raising (FDI restrictions in private insurers and mandatory majority government shareholding in public insurers) poses significant challenges for insurers to maintain 150% solvency margins in a rapidly growing industry scenario.

3. **Technological advancement:** A key driver of growth in a long-term business like life insurance, technological advancement will be critical to functions like data management, underwriting, fund management, actuarial efficiency, and the end-to-end service delivery process. Technology will provide the cutting edge in terms of improved disclosure to the policy holder as well as the regulator in due course of time.

4. **Quality of manpower:** Insurance is an intensively people- oriented business and human resources will be the undoubted differentiator like in any other retail industry. The quality of manpower attracted and retained by insurers and how their abilities and ambitions are harnessed would be the litmus test for the industry

5. **Investment strategy and fund management:** Expertise in fund management is the value proposition that any insurance company offers and the quality of asset-liability management (ALM) in a falling or stable interest rate regime will thus be a key challenge. The regulator is progressively in favour of insurance companies setting up their own investment research and dealing cells and against knowledge sharing with group asset management companies. Bonus performance on traditional plans and the net



asset value (NAV) performance on ULIPs will determine the demand patterns and investment strategy will remain at the core of successful insurance business.

6. **Meeting Cost Challenges:** Increasing the distribution reach to less populated areas will increase the costs of insurers. Such costs will have to be estimated and priced into the products. Issues relating to cross-subsidization may arise. Alternatively, insurers could introduce new products for these specific market segments and price them to recover the incremental costs of their distribution. Controlling the distribution of specific products through agents has always been difficult. Another method of controlling costs by increasing productivity is to get agents to focus on particular generic products. Historically, this has been difficult to achieve and may not be in the best interests of the customer.

Acquisition costs which is a sum total of technological, operational, and distribution costs, will be the key differentiating factor in the initial years. While the initial hits on the technology and process costs have already been absorbed by a majority of the new insurers, intermediary costs of distribution is a critical variable. This is where the players with a strong brand presence like SBI Life will stand to gain. SBI Life can claim of the lowest acquisition cost levels in the industry due to the lower infrastructure and set-up costs thanks to our existing bank network. Further, the intermediary costs to distribution channel partners are also lower due to the bargaining power that the strong brand possesses in life insurance.

7. **Recruitment and selection of agents:** As stated earlier, attracting and retaining of agents is one of the major challenges. To overcome this challenge, the companies need to involve local management to recruit agents among the local population. For such wide recruitment efforts, local managers could be provided support in managing applications and conducting the selection process. Further, to ensure the success of this decentralization process it should become a part of the performance appraisal of the local management. Traditionally, the success rate of print advertisements attracting good applicants is very low. Unusual initiatives like presentations in social functions in clubs and meetings are expected to be powerful. Live examples of a few highly successful agents could be given during the presentations. The selection of agents should include behavioural traits and analytical abilities.

Most of the insurance companies have not fully leveraged on the potential of part-time agents. A large chunk of prospective agents cannot devote full time to the profession due to their existing engagements. These people have a wide social network which would enable them to get good business.

8. **Commission:** The agents work primarily on the commission which is paid to them on the basis of annualized premium per policy. The percentage of commission varies from product to product. There is no fixed remuneration to them. The IRDA guidelines prohibit paying any compensation to agents. It makes the early career phase of the agents difficult as they generally do not get too many policies in that phase. There is a need to find ways of overcoming the early phase difficulties and revising the existing norms. More help could be extended by sales managers to agents in the early phase to make them learn ways to get business. However, socially networked agents find it relatively easy to get more policies from their networks. In reality, an average agent is able to sell one to two policies per month.



There were 21,09,718 agents as of end January 2019 as against 21,89,000 at the beginning of April last. While 5,03,000 new agents joined the sector since the beginning of this fiscal, as many as 5,83,000 agents have left the industry as of end January, resulting in a net attrition of 80,000 agents during the 10-month period, as per data. As per the existing system, up to 25 per cent of the first year premium is given to the agents as commission in traditional policies. However, this is a low 15 per cent in case of money-back policies and other ULIPS products. The new Insurance Act empowers IRDAI to finalise the agency commission structure. Also, it can enact regulations in such a way that commissions become attractive for the agents.

Other Challenges:

- Premium rates will remain under pressure due to intense competition on the more profitable lines.
- Public and private sector insurer's greater reliance on their investment portfolios to generate sufficient income and gains for net profits would subject them to the volatility of the financial markets.
- As far as the prospective are concerned, the greatest challenge is that of setting up infrastructure and to reach out to as many areas as possible.
- The biggest challenge for public sector giant, the Life Insurance Corporation is one of the sustaining the huge growths it has shown in the recent times.
- Despite the liberalization in the insurance sector, public sector insurance companies are expected to maintain their dominant positions, at least in the foreseeable future.
- Falling premium income -- without a corresponding reduction in claims -- is likely to drive down profits
- Reinsurance is likely to cost more as treaty reinsurers reduce ceding commissions to compensate for the lower rates following deregulation
- Private insurers need to raise more capital, otherwise growth could be constrained since reliance on reinsurance for capital relief is not always viable or available
- Traditional distribution channels, especially tied agents, need to be improved to match the new product offerings
- There is general lack of transparency as financial and operational data for insurers are not readily available as none of India's insurers are directly listed on stock exchanges
- Like all developing economies on a fast track, the shortage of trained insurance professionals and technicians at all levels cannot be remedied in the short term
- Natural catastrophes will always be present; the Indian sub-continent is vulnerable to cyclones, floods, hurricanes and earthquakes, and until there is a national capacity (similar to the terrorism pool) to manage losses, dependence on overseas reinsurers will continue.

OPPORTUNITIES

1. Social: The balance of power is shifting towards customers. New and ongoing social trends will shake up traditional business patterns in the insurance industry, resulting in an increase in consumer power:



➤ **Customer expectations:** Customers (consumers and businesses) are increasingly demanding simplicity, transparency and speed in their transactions with businesses, including insurance agents/advisers and carriers. The relentless march of online and mobile technology is continuing to fuel this change in customer expectations. The online world is also becoming increasingly mobile as smartphone and tablet use increases and fuels the demand for localised information, available anytime, anywhere.

➤ **Social networks:** The rapid adoption and fast evolution of social networks will continue to empower both consumers and businesses to communicate more transparently and to harness the buying power of virtual communities. The growth of social networking – one of the fastest ever global adoptions – will help shift the balance of power towards customers. In just six years since its launch, for example, Facebook has attracted over 800 million users. As consumers become even more comfortable with social networks several scenarios are likely to develop.

2. Technological: Advances in software and hardware that transform ‘big data’ into actionable insights. Historically, the insurance sector has been dominated by intermediaries who have played the role of understanding consumer and business needs, and then matching and tailoring insurance products and solutions to their needs. Internet, mobility and social networking have changed the game over the past decade and have created a new generation of customers who demand simplicity, speed and convenience in their interactions. These trends will accelerate, leading to a situation where customers will be more willing to buy ‘direct’ using their online and offline ‘trust’ network of friends and family to guide their choice. This will result in a fundamental redefinition of the role of advice and the disappearance of distributors as a sales channel.

3. Environmental: The rise of more sophisticated risk models and risk transfer to address the increasing severity and frequency of catastrophic events. Historically, the insurance sector has been good at developing catastrophic models that capture known high severity/low frequency events (e.g. earthquakes, tsunamis, etc.). However, most of these models perform poorly when it comes to unknown ‘Black Swan’ events. Over the next decade the insurance sector could be overwhelmed with uncorrelated catastrophic events reducing capacity and raising prices. Alternatively, new sensing and monitoring technology, together with risk transfer mechanisms, could cushion insurers and reinsurers against abnormal losses.

4. Economic: The rise of economic and political power in emerging markets. The increasing attractiveness of the emerging markets, combined with uncertain growth in the developed world and stricter regulatory guidelines will make carriers re-evaluate their strategic goals towards developing countries.

Other Opportunities:

- Aggressive marketing strategies by private sector insurers will maintain consumer awareness of risk and expand the markets for products.
- Competition in the insurance sector will allow market forces to set premiums that are appropriate for exposures and push insurers to differentiate their products and services.
- There is a probability of a spurt in employment opportunities.



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- The falling interest rates, the scope for entering related areas like banking and pensions in a bit for synergy and the promise of e-commerce are some of the opportunities knocking at the door of the insurance sector.
 - Given the enormous potential the Indian insurance market, it is expected that there will be enough business for the industry entrants.
 - Privatization of Insurance eliminated the monopolistic business of Life Insurance Corporation of India. It helps to introduce new range of products which covered wide range of risks.
 - It resulted in better customer services and help improve the variety and price of insurance products.
 - The entry of new player has speed up the spread of both life and general insurance. It will increase the insurance penetration and measure of density.
 - Entry of private players will ensure the mobilization of funds that can be utilized for the purpose of infrastructure development.
 - The participation of commercial banks into insurance business helped to mobilization of funds from the rural areas because of the availability of vast branches of the banks.
 - The intense competition brought about by deregulation has encouraged the industry to innovate in all areas; from underwriting, marketing, policy holder servicing to record-keeping
 - Innovations in distribution and improvements in market penetration will follow as public and private insurers compete to market their products
 - Allowing insurers to issue their own policy wordings and set their own rates will enable underwriters to tailor products to meet client needs
 - The existence of stringent licensing requirements ensure that only adequately capitalized and professionally managed companies are eligible to carry out insurance and reinsurance
 - The Insurance Regulatory Development Authority of India's (IRDA) emphasis on quarterly reporting/monitoring of insurer solvency will enhance capital adequacy and transparency.

THE INSURANCE LAWS (AMENDMENT) BILL, 2015

A major economic reform in this year was the Insurance Laws (Amendment) Bill, 2015. The amended Law has several provisions for levying higher penalties ranging from up to Rs. 1 crore to Rs. 25 crore for various violations including mis-selling and misrepresentation by agents/insurance companies. It also disallows multi-level marketing of insurance products in order to curtail the practice of mis-selling. The amendments provide for an easier process for payment to the nominee of the policy holder, as the insurer would be discharged of its legal liabilities once the payment is made to the nominee. Insurance sector regulator, IRDA has been empowered to regulate key aspects of insurance company operations in areas like solvency, investments, expenses and commissions. In addition to the provisions for enhanced foreign equity to 49 per cent from 26 per cent, the amended law will enable capital rising through new and innovative instruments under the regulatory supervision of IRDA. IRDA is expected



to frame guidelines to facilitate the entry of foreign players into the reinsurance business in the wake of the new Insurance Bill. It added that with a “view to serving the interest of the policy holders better”, the period during which a policy can be repudiated on any ground will be confined to three years from the commencement of the policy and no policy would be called in question on any ground after three years.

CONCLUSION

From above discussion it is evident that life insurance expanded tremendously from 2000 onwards in terms of new business policies and premium business. The major drivers include sound economic fundamentals, a rising middle-income class, an improving regulatory frame work, and rising risk awareness. The fundamental regulatory changes in the insurance sector since 1999 were significant for future growth. Despite the restriction of 26 percent on foreign ownership, large foreign insurers were entered in the Indian market. Private life insurers used the new business channels of marketing to a great extent when compared with the LIC. Indian insurance companies still have dominant market position. But this would probably change over the next decade.

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EVOLUTION OF EROTIC ARTS: A SPECIAL REFERENCE TO CAUSES AND FACTORS ON ODISHAN TEMPLE ART

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ABSTRACT:

Sex in the temple Art is a typical feature of Indian culture. The Erotical representations in religious art are a core element here for explanation. The Socio-Cultural history of India both ancient and medieval is full of debatable issues. One such issue is the erotic temple sculptures, which have been interpreted as symbolic and eternal bliss over the manifestation of 'Kama'. The presence of sexual expression as sculptural remains in the temples is a Pan-Indian cultural phenomenon. The erotic sculptures are largely found in the temples of South India, Madhyadesa, Odisha and Eastern region of India. The Indian temple Artisans never hesitated to lavishly depict the sex art and sculptures as the decorative motifs related to the *Sringara rasa* or erotica to decorate the outer walls of the temples of Odisha. All these erotic sculptures are not necessarily be linked with obscenity. But we can not ignore the universal truth that eroticism has its root in an imperious instinct of mankind. Hence the erotic art and sculptures in the temple has definitely some objective to promote the sexual promiscuity in the Indian society. The Art of sex and sexual behavior reflected as the different forms of art and sculpture in the temples are obviously speaks about the artistic creativity and celebrity of the Indian sculptors. The ancient Kalinga(Odisha) is a veritable land with lot of temple art and sculptures related to eroticism as the Decorative motifs in the temples of Odisha. Specifically the '*Mithuna*' and '*Maithuna*' images have left some unsolved mystery to decipher their meanings for the sake of social interest. Love, sex and passion are the universal existent in man, which is obviously exposed in various forms of Literature and artistic manifestations. The prime objective of this present Article is to decode that mystery.

KEY WORDS: - Erotic, Prudery, Kamasutra, Couplation, Obscene

INTRODUCTION :

The Hindus believe in the ideology of image worship. This is an old tradition and practice of image is a unique character of Indian culture. The visual representation of Hindu Gods and Goddesses were developed since the historic times. The spiritual art in the hindu temple is a good medium to present an immense pleasure in the visitors mind. The practice of carving different art and sculptural images on the temple is essentially an auspicious creation in India. While making a serious attempt to reveal the metaphysical meaning of a temple, I tried to find out the exact truth behind it. The temple has been spelt with a human identity according to *Silparatnakosa*. It means the different parts of a temple have been compared with different limbs of a man. We have



even enough scriptural evidences available to establish a strong base to support a theory, that a temple has been conceived of as a replica of a human being. The present article is about to discuss on the issue of Erotic temple sculptures of Odisha. According to the old canonical rules and hindu scriptural directives, the temple sculptures represent three qualities of a man viz. *Sattva*, *Tama* and *Raja*. Almost all temples in India and Odisha provenance of these three kinds of sculptures. The group of Erotic sculptures represents the *Tamasika* devotion of artistic manifestation. Being authorized by the directives propounded by the canons and old scriptures, the *Mukhya-Stapaka* (the chief architect priest) had empowered the temple artisans to carve art motifs of erotic sculptures on the temple walls. Interestingly, the temple sculptors or artisans collected the themes for art motifs from the great text of *Kamasutra* written by sage VatsyayanaMallanga. As a result, sexual depiction in the temple art and sculpture is an eye-catching issue for the scholars. Its widespread and riotous depiction on the temples cannot be the creations of the whims and caprices of a few temple artisans, rather it might be the clear reflection of the social reality and cultural necessity of the Indian society. According to Veda and Upanisad the human life needs to pass through the four aspects of *Purusartha* such as *Dharma*, *Artha*, *Kama* and *Moksha*¹. Among these four stages of *Purusartha*, Kama has a distinct place in the life course of every individual. Sex and sexuality is one of the prime objective of life. So this is attached with the spirituality, which has been deeply linked with Mythology and sacred texts of ancient India. Over past several centuries Indian experimentation of various form of art and sculpture expertise towards sexual art had been well illustrated on the temples of Odisha.

Odisha is a political territory (past Kalinga) situated on the eastern coast of Indian peninsula, has a good cultural reputation. Despite its richness of cultural and religious sanctity, the temple art and sculptures of Odisha has been sadly neglected by the previous scholars and a little interest has been taken so far to study the Odishan temple art and sculptures with an idealistic manner. The purpose of the present Article is to decipher the riddle of Erotic art and sculptures present in the religious edifices of this land. While investigating these erotic temple sculptures in Odisha, we can find a lot of variations in the degree and volume of sexual eroticism. Like any other part of India, the decorative motifs of Odishan temples is permitted to adorn with lot of female imagery. Though Erotic images or sexual depiction in the religious art of India is an unique subject. There is no gain saying about these mysterious issues, which were largely carved on the Hindu temples. People often consider them as a sullyng mark of Indian culture. Such widespread sexual depictions on the temple walls, obviously pose confusion in understanding². Once again I pretend to remind our readers that, the erotic imagery carved on the outer temple walls, all over India could not be the imaginations of a few individuals or the temple artisans. Rather, it might be the socio-cultural norms and practices recognized by the society of contemporary period. More than a Dozen of explanations have been placed by different scholars as the answer of the issue. But Still the existence of Erotic sculptures in temples remained unanswered because none of the answer given by the experts is completely satisfactory. After a careful investigation of all angles, it is apprehended that the problem lies not in the Indian society of a particular region, rather we can say it is a pan-Indian symptom. On the other hand, the erotical images were so largely used as the decorative motifs in the hindu temples due to the



socio-cultural condition common to all Indian context³. The exact explanation on this particular issue are still to be examined perfectly with a scholastic manner. The erotic expressions on religious edifices are considered as a symbolic representation for eternal bliss and human manifestation of *Kama*. These sexual themes are involving orgies and bestialities⁴. Here arises a lot of questions in the viewers mind, why in this particular time period we saw such a vast outburst of erotic depiction in the temples ? Why there was the presence of sex symbolism in the religious art ? Therefore, it is highly necessary to look into this branch of knowledge which has been neglected for a long time. This is controversial issue. So it is necessary, to solve some specific point- that's why such erotic sculptures were depicted so prominently in the Hindu temples of India and Odisha as well. In fact the erotic representations on the temples have certain socio-cultural, anthropological and historical sense with an aesthetic appreciation⁵. As we are aware that Love making activities played an important role in the day to day life of the Hindus since past. The erotic and sexual representation on the temple was a pan-Indian cultural phenomena which have influenced all the religious sections of India. The Hindus, the Buddhist and the Jains have reluctantly depicted the erotic motifs in their temple art. It would not be wrong to say that, erotic art and sculptures are not so largely displayed in many north Indian temples. But large volumes of sexual depictions are found in the south Indian temples as well as in the temples of Odisha too. Therefore it is the need of the hour to justify the presence of erotic sculptures on the hindu temples. For human beings love and passion have an important role in life. The sexual activities of kings, queens, prince, princesses and the peoples of upper classes is a natural behavior and that's why their activities are made to reflect on the temple walls. While depicting the erotic images on the temples, the owners (the temple builders) expected spiritual goodness, prosperity and vigor as well as long life for himself and the temple. Portrayal of women in the formal expression of human moods, emotions and various sex appealing activities on the temple obviously created to justify the human manifestations towards *Kama*. Before entering into the temple we have to understand the principle of self-realization or *AtmanamViddhi*. By which the devotee see the temple as his own image along with all his virtues and vices. This knowledge of acme self-realization, the path to ultimate salvation opens for *Moksha*. Exactly for this reason the erotic art and sculptures have been depicted in the Hindu temples of India. This thought proved the Indian mindset, that *Kama* is an essential part of human life. So it's symbolic and explicit display is commonly detected in most of the hindu temples as a part of *Kamasatra*.

Evolution of Eroticism in temple sculpture

Odisha is taken a special place in the cultural history of India particularly in the field of art and architecture. The art is one of the human instinct of man since the human civilizations has started he tried to tell his thought and ideas through various form among them art is taking significant role. The eroticism on the temple was generally comes from the socio-religio and religio-mythological concept of men. It was universal practices practiced under various nomenclatures, but it is more significant in India and Odisha in particular. The nudity was generally depicted in the early sculptures like, in ancient Mesopotamia, Egypt and Greece and Rome. In Indian subcontinent, in Indus civilization we had some evidence of nudity and art of yoni and linga in



particular. It implies that to show nudity and sexuality is natural in that time which may connect socio-religious ideas of that society. In some degree or other, the practice of employing girls in temples was prevalent in almost all ancient societies all over the world. The fertility cult seems to have existed in all ancient civilizations. The ritual dancing as a part of religious services was long history in the world⁶. From that believes great mother goddess appeared under different names like Mythila, Isis, Ishtar, Astarte, Venus, Aphrodite to name a few. The function of these goddess was reproductive. They ensured the cycle of the season which regulate the growth of crops.

The eroticism was might started from the practice of prostitution, which is gives ample historical evidence. The similar cult was traced in various ancient civilizations like in the Far East, Central America, West Africa, Syria, Phoenicia, Arabia, Egypt, Greece and Rome⁷. The ancient Babylonian Civilization, has left significant evidence where temple are played an important role, to permeate all activities of human life. Hence the intimate relationship existed between human being and gods. The Babylonian thought that the god and goddesses actually dwelling in the temple, not as symbolically representation there. In this regard Herodotus refers that the cult of enforced temporary prostitution for all Babylonian women to please the deity Ishtar. In Syria, the system religious prostitution was prevalent at temple of Astarte. In Egypt, the Temple of Osiris and Isis were crowded with dancing girls. The royal priestess entered the profession when quite young and was given training in the sacred dances and singing the sacred songs. The earliest recorded evidence associating with women with temples comes from the temple of Anu, the supreme deity of Uruk where prostitutes were dedicated to the cult of her daughter, Ishtar⁸. In ancient Greece at the temple of Aphrodite, the practice of dedicating girls is said to have been first established as a ritual worship⁹. In Cyprus, it appears that before marriage all women were formerly obliged by custom to prostitute themselves to strangers at the sanctuary of Goddess, whether she went by Aphrodite or Astarte. Strabo had mentioned that the temple Aphrodite (at Corinth) was so wealthy that it was able to keep more than thousand hetaerae (courtesan) who were dedicated to goddess by men and women¹⁰. Such like in Phoenician, women prostituted themselves for hire in the service of religion, believing that by this conduct they appeased the goddess and won her favour. In Armenia the noblest families dedicated their daughters to the service of goddess Anaitis in her temple of Acilisena, where girls acted as prostitutes for a long time before they were given in marriage. There is no hesitation to take these girls as wife when her period of service was over¹¹. Some time sending of girls to the temple had double aim, namely that serving the deity while at the same time earning their marriage.

From the above examples shows that religious prostitution was existed in ancient world other than India. The differences between the Indian religious prostitution and other world is, the dedication to the goddess was not for life, they are allowed to marry and lead a normal life but in India, once they entered to the system they cannot come out for common life. These are the various influences upon the Indian society as well as Indian arts. Hence, the temples and the panels of erotic sculptures in Khajuraho, Koanrk, Bhubaneswar, Aihole, Badami, Helebid and other places of India are existed. Odisha has achieved it zenith in the field of art, among them the eroticism has greatly carved on the Odishan temples.



Odisha is a veritable laboratory of different temple art and sculptures. The richness of the temple art in this part of territory always attracted the attention of many scholars to devote their time for searching the unspoken messages under laid in the form of stone carvings. The erotic imagery constitutes an important instrument as decorative motifs throughout a long period of temple construction phase in Odisha. Scholars consider, this is a unique chapter in the cultural history of Odisha. Historian like M. M. Ganguly¹² calls them “a most perplexing features of Odishan architecture”. Prof. R. D. Banarjee¹³ commented “Presence of indecent figures on religious edifices is still a puzzle”. K.C. Panigrahi¹⁴ has made an attempt to study on the Erotic sculptures in Odishan temples. The obscene sculptures are commonly found in all the *Saiva, Sakta, Vaisnava* and *Surya* temples of Odisha. The chronological study revealed, that the Odia temple artisans and sculptors started making erotic images on the temples in a specific cultural epoch and that trend lasted till the end of the temple building period in Odisha. The changes in political authority in different dynastical ages like-Sailodvabas, Bhaumakaras, Somavamsis and Eastern Gangas, saw drastic changes in their sculptural style and manner in Odisha. This change took place because, engagement of different guilds of temple artisans from time to time by these changed political authorities. The regional manifestations were clearly visible in the sculptural pattern of Odisha. The refinement process in sculptural art development has passed through a systematic process. The temple sculptures of Odisha are broadly divided into two main parts, they are: cult images and Decorative motifs. The cult images are generally projected religious themes of Gods and Goddesses. But the Decorative Motifs were incorporated with a variety of themes to beautify the temple structures. Under this category of art and sculpture, we find the Erotic images. The erotic sculptures appeared for the first time in Odisha, on Vaital temple and Sisiresvar temple. It means their appearance marked positively during 6th & 7th century A.D. These two temple structures are influenced by the art and sculptural culmination under Bhauma rulers. It is worthy to mention here that, Bhaumakaras were the staunch followers of *Mahayana* sect of Buddhism, hence these two temple's art and sculpture is obviously got some bias by the spiritual thoughts of Bhaumakaras. The erotic sculptures of the Varahi temple at Chaurasi had definitely influenced with the *Kaula-Kapalika* cult. Several erotic temple sculptures are available on the stone walls of early Odishan temples like the *Suklesvara*, *Mukhalingam*, and the *Parasuramesvara* temple etc. You can notice the numerous images of nude woman exposing their breasts, *yonis* and other parts. These motifs generally found on the doorframe of a *niche*. This erotic motif serves here a double function to the creative genius of the Odia sculptors. A distinctive improvement has been noticed from time to time in this branch of temple art, until it reached its zenith particularly in 13th century A.D. The *kama* related art and sculptures were frequently depicted in the temples under the Somavamsi and Keshari rulers in Odisha. With regard to many Odishan temples in Bhubaneswar, Puri and Konark we can notice a lot of female figurines in a variety of beautiful and graceful poses carved lavishly. The different scenes displayed on the stone walls like -touching of breasts, scratching, yawning, disrobing, sexual engagements, sexual embracing, tempting, kissing, playing with pets like parakeets and monkeys, playing musical instruments, looking at mirror, applying *Kajol*, *Narttakis*, *Alasakanyas*, *Nayikas* etc¹⁵ images are the various manifestations of



estrogenic erotical styles of effeminate compartments of fair sex in architectural parlance of several temple sites in Odisha. While carving these sculptures, the craftsmen were well inspired by an ecstatic joy and passion for physical beauty in their mind and heart. The temple artisans tried their best to reveal the hidden secrets of physical love, sex and romance, and displayed it from the most fascinating angles, fine profiles, unusual sex styles where sensual couples depicted as the most beautiful sculptural compositions with rare human emotions. The *Mithuna* images are amorously engrossed in an expression of spiritual orgasm, which transcends the human body, mind and soul to the pinnacle of spirituality. These outburst illustrations of erotic images are considered as the influence of several *KamaKala* activities prescribed in the *Kamasutra* of Vatshayana and inspired by many Epical episodes. These sex figures present in the temple wall speak about the erotic practices of mediaeval India by a section of people, who involved themselves in the sexual activities as a ritual of symbolism and considered *Yoga* (spiritual exercise) and *Bhoga* (physical pleasure) as the easiest way leading to the attainment of final deliverance¹⁶. According to these peoples -the controlled enjoyment of senses was the very easiest way to achieve the salvation that is *Moksha* in the individual's life. The society of the then India gave the practice of *Kama* its due place in the day to day life and spirituality of man. The *Kama* and *Sringara Kala* are the essential stepping stone towards the salvation or *Moksha* in the life of a individual. That's why the depictions of ecstatic human couples (*mithuna/maithuna*) images in the temple are respected as symbol of auspicious and providential for the structure. The *Mithuna* images present in the temple sculpture of Odisha well illustrated with artistic grandeur. They are indispensable as quoted in *SilpaPrakasa* :- "As a house without a wife, as frolic without a woman, so without the figure of a woman the monument will be of inferior quality and bear no fruit." The Erotic sculptures are generally are of two types, they are: 'mithuna' and 'maithuna'. Except these sculptural images there are so many other ecstatic images like – *Alasakanyas* (Indolent maiden), *Alasatorana* (standing at a door), *Mugdha* (happy), *Manindalamal* (holding a branch of tree), *Padmagandha* (smelling a lotus), *Darpana* (looking into a mirror), *Vinyasa* (hair combed pose), *Ketakivandha* (putting on Ketaki flower), *Matrimurti* (mother holding a baby), *Gunthana* (bashful), *Nartaki* (dancer), *Sukasarika* (carrying a parrot), *NupuraPadika* (tying ankle bells), and *Mardala* (Playing a Drum) etc¹⁷. In the early Odisha temple like Parasurameswar we can find the erotic images with small size (8- 10 inches) and they are randomly installed on the outer walls of the structure. On the other hand, the temples like the Rajarani, Lingaraj and Konark, the sculptural images have been exposed the feminine grace with its fullest extent. The image of *Salabhanjika* (a maiden breaking the branch of a Sal tree) is so charmingly depicted on the temple walls. A. Coomarswamy rightly commented: "Sculptures of women are Frankly the work of Lovers". The vulgar sculptural images like Copulation, Oral Sex, Genital handling, Fellatio, Females straddling with male penis and peculiar sex poses etc, are depicted as the decorative motifs on the outer walls of the temple structure. According to the various ancient texts and canonical literatures, the obscene images are holy symbols for both the temple and the visitors. As a guiding principle, the text *SamaranjanaSutradhara* Prescribed that, the depiction of sexual representation in the temple art is highly essential element. In the temples like



Satrughanesvara and Parasuramesvara scenes of sex making are largely found. Particularly in the Varahi temple at Chaurasi exposed a series of sexual activities like: – *Vasikarana, Sammohana, Akarasana, Yoni-Abhiseka, Purascharana, Rajapana, Prastaya And Nivritti*. Interestingly, all these techniques of '*Kamakala*' activities are in detail discussed by Vatshayana in his historic text '*Kamasutra*'. The sixty-four sex positions as described in '*Kamasutra*' have statically reflected on the temple art of Odisha¹⁸. In his historic *sutra* text the basic principles on sex laid by Vatsayana became a customary to license the adults to learn the sex-education to perform as their social responsibility, with secret. It is right to say that, the erotic sculptures of Gods embracing to their opposite partners is different from the human erotic couples¹⁹. We will agree with the truth that, '*maithuna*' had once upon a time considered as the most powerful religious ritual in the *Kaula-tantra*. This *Kaularites* influenced a large sections of the hindu followers in the past. Therefore, the art and sculptures related to *Maithuna* became a popular decorative motifs in the temple of India and Odisha. In this connection Odisha's the sixty four Yogini temple at Hirapur and Ranipurjharial became the prime centre of sexo-Religious Practice. On this issue historian – A. Coomarswamy commented : "*Love and desire are part of life. Life is a veil behind or within which is God. The outside of the temple is an image of this life. Sansara and the carvings on its represents everything that belongs to Sansara.....*" The erotic scenes depicted on the temples certainly bears some secret abbreviation with symbolic interpretation²⁰. The art and literatures is always influenced by the individual taste of its patrons and public in general. As prescribed by the ancient scriptures of India, the human life has to pass through the four stages of *Purusartha* in a systematic way to attain the final salvation. It means, the concept of "*Dharma-Artha-Kama and Mokshya*" have definitely an important role to play in the life of every individual. Since the early ages, the Indians believed that sex is a necessary instrumental for a healthy and blissful life. The ancient Indian myths put much emphasis on the polarity between the sex as a source of creation, so the physical union of man and woman is portrayed as the human counterpart of the cosmic function. Sex and sex-psychology was treated as the important branch of human physiology. The sex education was delivered through the art and sculptural engravings on the stones utilized for temples. This act of artistic celebrity by the temple artisans got the appreciation and patronization of royal houses and higher classes of society. That's why, the universal marriage system, which have got the social recognition in hindus as a custom. Apart from that, customs like polygamy, polyandry, concubine, prostitution and extra marital affairs have been practiced in our Indian society since the beginning of our civilization²¹. The predominance of *Bhoga* (pleasure) elements in the worldly life intended to bring sensual and material luxury in the mode of depiction to the auspicious erotic expressions in the temple structures²². Sexual intercourse was considered as a holy practice for keeping relationship of mutual understanding, love, respect and duty in reciprocal responsibility among the married couples. The erotic images of different temples in Odisha are symbolically accepted as the expressions on variety of forms of philosophical works on *Kamasutra* as an attempt to find out a link between *Yoga* and *Bhoga*. The erotic microcosm sculptures of Odisha as elsewhere in India was admired and reconnoitered without ignominy and embracement. These erotic sculptures are not confined to any specific portion of the



temple structure for their installation, but are well guided by some basic principles. Yet, they are mostly seen in the upper *jangha* part of the temple and *onjagamohana*. The mandatory theories propounded by the *silpacanons* were strictly followed by the temple craftsmen. The total temple is divided into three corresponding symptomatic parts :*sattva*, *raja* and *tama* , the erotic images representing the *tamasika* aspect of life, so they are fixed to carve on a particular portion of the temple called *jangha*. There are a number of sex images carved elucidating plethora of sexual themes ,which help us to understand the spirituality in a different way. Such erotically art and sculptural depictions of sexual spirituality have been an important part of the Odishan temple as a form sculpture and Odiya literature too. Undoubtedly, this sort of experimentations by the temple artisans or sculptors on erotic temple art and sculptures awaken the soul, sensual stirring and pleasure-arousal of spiritualities had never been found in any other cultures of World civilizations, except in India.

Facts and notions about the Erotic sculptures:

The Erotic images used as sculptural motifs were a significant cultural development in the course of different Hindu temple construction in India in general and in Odisha in particular. Particularly in the field of temple art of Odisha we can easily find the elements of sensual expressions. The sex motifs found in the temples of Odisha bear typical features. Particularly, in the temples of Odisha we can see such an erotic flavor as a form of design in sculptures. Possibly each image carved on the temple wall, was having an auspicious motifs in the overall iconographic programme. The temples concentrated near Bhubaneswar, Puri and Konark have frequently been exposed with erotically displays. Due to the erotic imagery on the temples there are many things comes into mind of the visitors. In such religious places what is the importance of the eroticism? What is the factors that depicted on the temple wall? Is there any philosophical thought behind its depiction or any sociological factors? The eroticism is very ancient thought in Hindu scripture. From the very early civilization the eroticism has been taking very important role. But how the erotic sculptures have been allowed to depicted on the temples largely in Odisha? Many scholars has been tried to point out the facts and notions. The obscene figurine on the religious place makes great attraction among the mass but at the same time critics for its presentation as well. The historical reasons behind the pornographic expression of temple sculptures in India and Odisha has based upon some facts and notions stated below :

Firstly, the erotic imagery is consider as auspicious like other imagery. According to Varhamihira's *Brhat-Samhita*²³ quoted (56-14-15) that the doorway or entrance to a temple or sacred compound should be depicted the images like *dvarapala(pratihara)* while rest of the decoration consists of auspicious birds, *srivriksha*, *svastika purna-gatha* and *mithuna*.

Secondly, Various scholars, believe that the Hindu architectural sculptured program is established with magical incantations and rituals from the initial selection of a site and the lining of the *garbhapit* with 'female' stones to chiseling ceremonies of 'opening the eyes' of the idol. The *parsvadevatas*, *dikpalas* and *avarana-devatas* form the protective rings around the installed divinity by emanating their power outward. Is the erotic figures as well? In the early temples the erotic figure is quite rarely seen but in the latter period a large sculptures were inscribed. It is the actual cause that depicted?



Still the confusion arises. As per the K.C. Panigrahi's investigations about the facts, he stated that eroticism on temple has come two explanations, one explanation given by priest summarily rejected and another explanation is the presence of obscene figures prevents the temples from being struck by lightning²⁴.

Thirdly there are various texts which reflect on the issues regarding the construction of the sacred place or temples i.e., the Brhat Samhita, The Puranas such as Agni and Matsya. The Agamas like the Vaikhans-agam prescribed that erotic imagery is to be carved on the outer walls of the temples²⁵. The Vastusatra texts refer to the erotic imagery as lila of gods and sages. It is likely that some of the figures represent the builder masons or the builder himself as well as gods, gandharvas and royal figurines. The *kanlavali tantra* also refers to the auspiciousness of the image. According to J.N. Banarjya, *astakamalaka-prayagaa* unedited Sanskrit texts as described in the fourth patala. Other related Odishan texts such as *Tantrarvava*, *Soudhikaragama*, the *silpaprakasa* and the *Kalakaumudi tantra*, the *paraskaraguhyasutra*, *garbhadhana-prakarana* all these texts recorded the value of the erotic image in the temples²⁶. At last the Vastayana's *Kamasutra* is also responsible for such depiction on the temples.

Fourthly, Love plays an important role in the life of Hindu²⁷. The importance and significance of auspicious couples can be traced back to Vedic rites. The formulation of 'pairs' was an essential feature of Vedic sacrifices. In some cases actual couple was placed behind the sacrificial mound to love and procreate²⁸. The nudity and obscenity in the religious edifice probably have some evidences throughout the world. The images in Greek sculpture, which exhibit the anatomical treatment of the limbs and sometimes it conspicuously shown. The obscene or erotic figures which appear on Odishan temples is very different than other part of world. In order to avoid confusion, it is necessary to define the precise meaning of the erotic or obscene figures. It is not a fact that erotic figures represent an isolated phenomenon in the temples of Odisha alone. It is found in the temple of Khajuraho in central India, at Balasane in Khandes and in the Asvera at Sinnar in the Nasik district²⁹. The terracotta is also found in many modern temples in Bengal and in the paintings and decorations of metal and the wooden rathas of the Bengali Vaisnavas. They appeared on the modern Nepali temples of which wooden temples built by the Nepalis near Observatory at Banaras³⁰.

Fifthly, the widespread of Buddhist tantrism was another source for the erotic images on the temples of Odisha during early Bhauma-karas period. From the various archaeological evidence such as sites the Puspagiri, presently known as Jajpur district also known as Virajapitha (khetra) centre for tantra. Many Buddhist tantric images, including such specimen as Trailokya-vijaya, heruka, three headed Bhairava and Penna-savari have been discovered from these region. Besides the archaeological evidences some literary references which give proof that for the existence of tantric cults. Yuan-Chwang³¹ and Tibetan tradition has referred Puspagiri for its tantric centre. Although the tantric centres traced in Odisha, but still there is no evidence of obscene figure has been found in the sites. It is tantrism is responsible for the occurrence of such sculptures in the temples, how is it that at Puspagiri, the centre of Tantrism, no such sculpture has been found or discovered. Buddhist Tantric is not only proved by archaeological discoveries but also by various literary references to them like SaddharmaPundarika, an important Buddhist work. The scholars are still unable to



understand, if the eroticism is influence of Mahayana-Tantrick, there is no such evidence are similar between Buddhist erotic and Brahminical erotic sculptures. There is no such evidence has found regarding the erotic sculptures in Buddhistic Odisha, as per the scholars, Like Buddhism, either died out or went underground. But Tibet is still a living faith and it represents the latest manifestation of the form of Tantric Buddhism which the earlier phases can traced in India. The Tibetan Tantric believes in Obscene as awful esoteric rites. To put it bluntly, those idols represent all the postures the mind of man has been able to conceive having to do with copulation. The images were shows during the reaching of spiritual training, where Lamas, believes that can look upon the flesh without desire or emotion, he enters the Obscene idol house for 'post-graduate examination' and conduct experimental research³². But the Tibetan artist could not depicted what they want to show. Where the nude womens play a large part in this deeply serious rite, seen in sex play with the gods and demons; for it is an attempt to make copulation a visual appeal to the sense. Like the Tibetan ideology, probably responsible existence of erotic figures in Brahminical temples or it is difficult to believe that they could have ever been allowed to be associated with the religious edifices without a purpose or a religious sanction³³. R.D. Banarji³⁴ has stated that like Idol-houses of Tibetan temples, Odishan temples has same sense figures are carved. The Tibetan has carved a separate house attached to temples for the purpose but in Odisha the erotic images are exhibition on the temple walls.

Sixthly, The image of kama or god of love was come into scene in 8th century A.D at the temple of Bhubaneswar. As per some scholars, rather than representing temptations to lewd thoughts, put on the temples expressly to be overcome by devout³⁵, however, they more likely testify the rituals being practiced by the Pasupata and Kapalika sects responsible for the construction of the temples. The Kama is standing between two concert, *ratian* and *priti* which is represents a bow and arrow³⁶. Various scholars observed that in the early temples kama appears to be intimately associated with lakulisa, the founder of the pasupata sect, with Bhiksatanamurti motifs of siva. The erotic images of Bhiksatamurti are carved on the various temples such as the Kutaitundi temple at Khinching, the Somesvara at Mukhalingam and the Panca-Pandava at Ganeswarpur. The erotic nature of siva in this motifs, exciting women to acts of impropriety, apparently served as model of conduct for both the Pasupatas and Kapalikas³⁷.

Seventhly. The erotic imagery on Odishan temples illustrates the tantric rituals. In the tantrism it is the female principle that is worshipped, she is the altar, she is the Brahman and to worship women is to worship the great goddess herself. In the tantra, women incarnates both mystery of creation and mystery of being, of everything that is, that is incomprehensible becomes and dies and reborn³⁸. In the Tantric rituals which culminate in Mithuna the women-prakrti is transformed into an incarnation of the Sakti. The Yogin(purusa) incarnates the god so that sexual union is transformed into a ritual through which human couple became a divine couple. The various scene were depicted particularly, include fellatio and bestiality. In 10th century the Tantrism was widespread with erotic rituals appearing on Saiva, Vaisnava and Sakta.

Eighthly, role of Devadasi might be one cause for the depiction on the temples. Devadasis, regarded as important part in Indian philosophy, and religious and social



aspects. In Hindu mythology and legends the scriptures depicted that *Paris* and *Apasaras* are associated in the heaven with gods who are mostly engaged for merrymaking and enjoyments of gods. At the same in Indian philosophy believes that the Devadasis are appointed for the kings, palace and godly purposes because the kings are always regarded as god. There are many evidences of devadasis are prevalent in ancient India in general Odisha in particular from the archaeological findings from temples as well as the literary evidences³⁹. That means the Devadasi system in Odisha was prevalent since very early days which were depicted on the temple walls. However, the sexual activity of Devadasis seems to be connected a 'good food' situation and the volarisation of their sexual activity. The Devadasis are engaged in various works of kings and the temples, they were served by the governments, and every welfare of the devadasis was take care by the administrations. As per the philosophy, Devadasi are considered as sacred in Indian society. The erotic represented on the temples believe auspicious, because, god Indra king of gods will pleased and made a rain. The sexual activity brings on the rain which in turn provides food to live by. Sexuality is associated with raw food through the rains⁴⁰.

Ninthly, The rise of metropolitan cities may one cause, to influence the artists to depicted such art on the temples. The sexuality and sex is sacred in every religions of the world, but practically it has much stressed in Indian philosophy. There are many references about the existence of prostitutions was legalized by the state⁴¹. They are protected and supervised by state. Due to rise of the urban centers in ancient Odisha, the society was rise with many categories and differences, which probably roses of prostitutions in the cities. The artist had clearly observed and captured the various emotions and activities on their art. Without the clear observation, it can not be possible to depicts such beautiful images. The various scriptures like *Arthasatra* which indicate that prostitute (*Vesya*, *Ganika*) are legal so those social features are inscribed on the temple⁴². But it is also clear that Indian philosophy is believe that the images is sacred. The women is regarded as earth and the linga is regarded as power.

Tenthly, with the increased influence of *Vajrayana* cult in the Buddhism is a probable reason of this kind of trend started in the iconographic process to carve the erotic images on the temple. The ancient and early mediaeval Odisha have witnessed the large number of followers of *Vajrayana* sect of Buddhism. The *Vajrayana* or the thunderbolt Buddhist ideologist firmly believed on the tantric way of spiritual worship to achieve utmost salvation. In their religious practice they involved the sexual engagements, consumption of alcohol as religious rituals. This mystical worship might have influenced the Indian and Odia society to have that much importance to sexual activities. This openness towards nudity tempted the temple artisans to carve the enormous erotic images in the temples of Odisha. In this form of Buddhism employ sexual symbolism as a means of overcoming attachments and delusion⁴³.

Eleventhly, it is very important to note that the work of *Kamasutra* of Vatsayana is taking an important role for the depiction of such erotic sculptures on Odishan temples. Vatsayana has also depicted about the region in his texts where he mentioned the various part of India and their sexual activities. Sex was inhabited and cultivated as an art of healthy and luxurious living by Indian since early days. During



Guptas we saw a great sage named Vatshayana who was a champion author of the historic text '*Kamasutra*'. The book generally intends to teach its readers, how to live a healthy sexual life. The techniques presented in this great text helped the kings, prince, princesses, courtesans and general public to lead a perfect healthynagaraka life. Vatshayana prescribed the utility of sex or '*Kama*' with certain rules, regulations and customs for its practice. The clear message of '*Kamasutra*' is to make the society familiar with sex education. Therefore, the right places are the places of religious worship to impart the sex awareness among the adults. Hence, the patrons of temple and the temple artisans installed so many erotic sculptures on the temple walls. The intense of Kama probably have cause for the engraving such sculptures on the temples. According to Vatshayana, Kamasutra is the not for enjoyment only but it is the three principal human science⁴⁴.

Keeping all the above stated views and reasoning's, the temple patrons and artisans might had decided to install the erotic sculptural icons in the temples. The temple artisans of Odisha carved the obscene images on the temple walls without any shyness and prudery. The grandeur and splendor of the hindu temples in odisha erected by the royal patrons introduced some innovative pattern of art and sculptures in according to their field of individual taste and interest. We are aware that the people of upper classes of the Indian society practiced sex as a symbol of luxurious life. The *Kama Kala* activities of royal queens, and princesses were even described in the temple inscriptions. So it is natural that such love making imagery was allowed to carve on the temple walls. Due to all these causes and factors, Odishan artists were outburst their imaginations into their artistic sculptural activities on the temples⁴⁵. The installation of female icons on temples brings the beauty, offspring and auspiciousness for the temple structure. Her magical nature is particularly enhanced, when she is depicted as naked.

Conclusion

The Eroticism is actually depicted because of the socio-religio, mytho-religious perspective. There are various ancient civilization where the existence of the system. From the various records we come to point that the system was arises from the sacred prostitutions, which was identified as productivity, and healthy for the society. There are some of the evidences which indicates the erotic sculpture other than India, but artistically they are not shows the every activity of sexuality. They are not depicted the such erotic, amorous, mithuna sculpture on their temples, but they have strongly practiced the beliefs in their counties. In spite of India, it is very different, the system which was practiced in the ancient world was followed but quite differently. Where the sacred prostitutions of India was once entered they never come as common life. They will serve the god for their life such as this practice has also depicted very consistently on the wall of the temples as a of various mytho-religious, socio-religious perspective which has fully accepted by the Indian philosophy. The art on the temple is possible because the artists were very technically very effective, each of the expression has been felt on the sculpture.



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A TECHNICAL STUDY OF NET ZERO ENERGY BUILDING

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Abstract

The aim of this paper is to assess the gaps and needs for net-zero energy buildings (NZEBS) design and implementations in MENA Region, particularly in Egypt. The paper reviews current government efforts and regulations on energy efficiency in buildings, the academic efforts in developing NZEBs concept, as well as challenges and barriers in building design phases. For illustration, the paper summarized study undertaken to analyze the potential challenges and opportunities for implement (NZEBS) in Egypt as an example of Mena region. Two case studies in Mena region E-JUST campus in Egypt and MASDAR City in UAE had been analyzed. The review and case studies show a lack of energy performance in Egyptian buildings code and optimization calculation methods, as well as limited numbers of academic work for NZEBs which studied the Egyptian case. It is concluded that the current building codes and laws need to be upgraded to include the energy performance of buildings requirements, a database for buildings materials need to be developed with studies to the cost optimal for different buildings type in Egypt, one the challenges of the NZEBs in is the vernacular environment and enhancing the implementation procedures.

Keywords:Net zero energy building NZEB building energy policy :global policy Energy Consumption, Energy Resources, Non Renewable Energy Resources, PV Solar Module Renewable Energy Resources, Energy simulation,Thermal comfort, Hot climates.

1. INTRODUCTION: With rapid urbanisation, there has been a steady exodus from rural parts of the country to urban areas, leading to increased energy consumption especially in the commercial sector. According to India's Central Electricity Authority (CEA), while the electricity consumption in the commercial sector at present accounts for about 9% of the total electricity consumption in the country; this has been growing at a rate of about 12- 14% annually over the last few years, compared to the overall electricity consumption growth rate of about 6% in India.

- The main objective of this paper is to study and analysis the existing building. It is much difficult to understand the overall concept of a net zero energy building. As all we know that the building has significant impact on the energy use and the environment which is turn affect on the development of the present era. **Net Zero Site Energy:** A site ZEB produces at least as much energy as it uses in a year, when accounted for at the site.
- **Net Zero Source Energy:** A source ZEB produces at least as much energy as it uses in year, when accounted for at the source. Source energy refers to the primary energy used to generate and deliver the energy to the site. To calculate a building's total source energy, imported and exported energy is multiplied by the appropriate site-to-source conversion multipliers.
- **Net Zero Energy Costs:** In a cost ZEB, the amount of money the utility pays the building owner for the energy the building exports to the grid is at least equal to the amount the owner pays the utility for the energy services and energy used over the year.
- **Net Zero Energy Emissions:** A net-zero emissions building produces at least as much emissions-free renewable energy as it uses from emissions-producing energy sources.

1.1 Energy Resources

1.1.1 Non Renewable Energy Resources

A non-renewable resource (also called a finite resource) is a resource that does not renew itself at a sufficient rate. Fossil Fuels such as Coal, Petroleum, Natural Gas are all considered as Non renewable Energy Resources.

1.1.2 Renewable Energy Resources

The source of energy which can be used again and again without threatening the nature so much is known as Renewable Energy Resources. Sunlight, wind, rain, tidal energy and geothermal heat are some examples of Renewable Energy Resources. The aim of this Research Paper is to focussing on the building to create it a Net Zero by using a Renewable Energy Resources instead of Non Renewable Resources. We can use Solar Energy, Wind Energy, Tidal Energy etc to make the building net zero. We cannot use Geothermal source of energy at a level due to lack of technology. We can use the Wind Energy when the velocity of air is very high. It works only in the open areas. The widely use Renewable Source of energy is Solar Energy. Solar Panel can be used as Solar Photovoltaic cell, solar thermal heater, etc.

1.2 Connections of PV Solar Modules There two types of connections which are given below:

1.2.1 Grid Connection A grid connected photovoltaic power system, or gridconnected PV power system that is connected to the utility grid. A grid-connected PV system consists of solar panels, one or several inverters, a power conditioning unit and grid connection equipment. When, conversely, on-site energy generation exceeds the building energy requirements, the surplus energy should be exported back to the utility grid, where allowed by law. The excess energy production offsets later



periods of excess demand, resulting in a net energy consumption of zero. Due to current technology and cost limitations associated with energy storage, grid connection is usually necessary to enable the Net Zero Energy balance.

1.2.2 Off Grid Connection An off grid photovoltaic is when your solar photovoltaic system is not connected to the utility grid and you are producing your own electricity via solar, wind, generator, etc. This system will generally have a battery bank in order to store the electricity for use when needed.

II.CASE STUDY Indira Paryavaran Bhawan, the new office building for Ministry of Environment and Forest (MoEF) sets a radical change from a conventional building design. The project team put special emphasis on strategies for reducing energy demand by providing adequate natural light, shading, landscape to reduce ambient temperature, and energy efficient active building systems. Several energy conservation measures were adopted to reduce the energy loads of the building and the remaining demand was met by producing energy from on-site installed high efficiency solar panels to achieve net zero criteria. Indira Paryavaran Bhawan uses 70% less energy compared a conventional building. The project adopted green building concepts including conservation and optimization of water by recycling waste water from the site. Indira Paryavaran Bhawan is now India's highest green rated building. The project has received GRIHA 5 Star and LEED Platinum. The building has already won awards such as the Adarsh/GRIHA of MNRE for exemplary demonstration of Integration of Renewable Energy Technologies.

2.1 Passive Design Strategies

Orientation: Building is north south oriented, with separate blocks connected through corridors and a huge central court yard. Orientation minimizes heat ingress. Optimal window to wall ratio.

Landscaping: More than 50% area outside the building is covered with plantation. Circulation roads and pathways are soft paved to enable ground water recharge.

Daylighting: 75% of building floor space is day lit, thus reducing dependence on artificial sources for lighting. Inner courtyard serves as a light well.

Ventilation: Central courtyard helps in air movement as natural ventilation happens due to stack effect. Windows and jaalis add to cross ventilation.

2.2 Building Envelope and Fenestration:

- Optimized Building Envelope – Window assembly (U-Value 0.049 W/m²K), VLT 0.59, SHGC 0.32
- PVC windows with hermetically sealed double glazed using low heat transmittance index glass
- Rock wool insulation
- High efficiency glass
- Cool roofs: Use of high reflectance terrace tiles for heat ingress, high strength, hard wearing.

2.3 Materials and construction techniques :

- AAC blocks with fly ash
- Fly ash based plaster & mortar
- Stone and Ferro cement jaalis

3. Architectural Planning

The architectural planning of the center is done keeping in mind the various facilities to be provided to the players, the capacity and the various other important factors. The sports center designed has two floors comprising of an office room, meeting room, kids zone, waiting room, store room, first aid room, squash room, badminton court, basketball court, boxing ring, table tennis court, pool table, bowling arena, sitting area and washroom etc. Therefore while making the architectural plan for the building following factors were considered:-

- Site
- Requirement of energy
- Capacity of sports center
- Types of sports practiced
- Seating capacity
- Facilities provided
- Standards and guidelines applied to different sports facility



Figure 3.1: Architectural Plan for the Ground Floor



Figure 3.2: Architectural Plan for the Second Floor

Criteria Satisfied by Our Building

1. Reduce Heating, Cooling, and Lighting Loads through Climate-Responsive Design and Conservation Practices

- Use of passive solar design; orient, size, and specify windows; and located landscape elements with solar geometry and building load requirements.
- Use of high-performance building envelopes; select walls, roofs, and other assemblies based on long-term insulation, air barrier performance, and durability requirements.
- We have consider an integrated landscape design that provides trees and plantation for summer shading, appropriate planting for windbreaks, and attractive outdoor spaces so that occupants wish to be outdoors—thereby reducing the occupant driven additional heat load to the building.

2. Employ Renewable or High-Efficiency Energy Sources

- Photovoltaic (PV) system is used as Renewable energy source. Use of renewable energy will increase energy security and reduce dependence on imported fuels, while reducing or eliminating greenhouse gas emissions associated with energy use.

3. Specify Efficient HVAC and Lighting Systems

- Use of energy system HVAC equipment and systems.
- Evaluated energy recovery systems that pre-heat or pre-cool incoming ventilation air in our sports center.
- Investigate the use of integrated generation and delivery systems, such as co- generation, fuel cells and off-peak thermal storage.

4. Optimize Building Performance and System Control Strategies

- Use of Photo sensors to control loads based on occupancy, schedule and/or the availability of natural resources such as daylight or natural ventilation.
- Use of PHILIPS DALI SYSTEM.
- Employ an interactive energy management tool that allows you to track and assess energy and water consumption.

Green Roof Design

Definition

A green roof is a vegetative layer grown on a rooftop. As with trees and vegetation elsewhere, vegetation on a green roof shades surfaces and removes heat from the air through evapotranspiration. These two mechanisms reduce temperatures of the roof surface and The surface of a vegetated rooftop can be cooler than the ambient air, whereas conventional rooftop surfaces can exceed ambient air temperatures by up to 90°F (50°C). Green roofs can be installed on a wide range of buildings, including industrial, educational, and government facilities, offices, other commercial property and residences. Figure 1.7 Green roof components

Why Green Roof?

Green roofs may not be a familiar site in our cities. International examples show they make a **unique contribution to the quality of our urban environment**. Green roofs can address many of the challenges presented by urbanisation. Following are the benefits of green roofs:

- **Reduce the urban heat island effect:** On a hot day, an urban area can be 10 degrees

Figure 3.3 Green roof components



(F) hotter than the surrounding area, green roofs stay 40-50 degrees (F) cooler than conventional roofs reducing the ambient air temperature.

- **Reduce storm water runoff.** In the summer, green roofs retain 70- 100% and in the winter they retain 40-50% of storm water, reducing the volume and velocity and reducing erosion and sedimentation of our water sources.

4.Maintenance of Green Roof

4.1Weeding:

Weeds and native grasses are carried to the roof by wind, birds and insects. These invasive plants can be problematic, as they compete with the green roof flora for moisture, nutrients and sunlight. In order to keep the green roof healthy, all invasive plants (weeds) must be removed regularly and hence a proper inspection should be scheduled for the same on a regular basis.

4.2Water:

For sedum-planted roof, rain is often adequate. Water one time a week for a newly planted roof Water one time a month for an established green roof in times of extreme draught. Supplemental watering can often be done through a sprinkler attached to a garden hose. For green roofs planted with more traditional landscaping, more frequent watering may be needed.

4.3Nutrients

One time a year. Lightly apply a specially blended organic fertilizer to help keep a green roof looking at its peak. Sometimes, due to wind shear and other factors, some green roofs' soil media is blown away. Supplemental soil media may be needed, preferably with jute netting as wind protection.



Figure 4 a: Temperature Differences between a Green and Conventional Roof



Figure 4b: Temperature Differences between a Green and Conventional Roof



A typical comparison between green roof and conventional roof reveals that there is a temperature difference of almost 35 to 40°C on hot days; green roof being on the cooler side.

What is Daylight Harvesting?

Daylight harvesting systems use daylight as a primary source of general illumination to offset the amount of electric lighting needed to properly light a space, in order to reduce energy consumption. Day lighting is controlling the quantity and quality of daylight entering in a building. The term Daylight Harvesting has become the standard in the fields of lighting, sustainable architecture, and active delighting industries.

Benefits of Daylight Harvesting System:

The benefits of buildings illuminated with daylight can be listed as:

- Healthier and higher quality interior environments for occupants
- Increased individual productivity
- Increased human comfort
- Mental and visual stimulation necessary for the proper regulation of human brain chemistry
- Its economic and eco friendly

5.FUNCTIONAL DESIGN

5.1 Solar Panel Design:

In the design of solar panel, first aim is to calculate the total electricity consumption of the building and then select the number of solar panels required. Once the number of panels required is finalized, the final step is to compute the total energy that can be produced by the system.

Table 6.1 Total Electricity Consumption

	Watts	Quantity	Hour of Operations	Days/ Week	Weekly Demand
Lights	20	138	6	1	16560
	30	46	6	1	8280
	36	47	6	1	10152
	40	20	6	1	4800
	120	12	6	1	8640
Exhaust	40	48	10	1	19200
Computer	600	01	4	1	2400
Fans	35	33	10	1	11550
T.V.	40	06	8	1	1920

Calculation of Loads:

Weekly average daily load = 83502 Wh/day = 83.5 kWh/day Battery

round trip efficiency = 1.3

Required array output per day = 1.3 * 83502 Wh/day

=108552.6 Wh/day

Total PV panels needed = Wh/d/Wp

= Sunlight of lowest solar month x 0.62

= 3.60 x 0.62

= 2.232

Total Wp of PV panel capacity needed = 108552.6 / 2.32

= 48634.68 Wp

No. of panel needed = Total electricity consumption / Power of a solar panel

= 48634.68 / 215

= 230

Now, area of 1 panel = 1.459 m^2 Therefore, area of

230 panels = 1.459 x 230

= 335.57 m^2



- Solar PV system is considered
- Type of Panel is Polycrystalline
- Latitude 26° 86' and Longitude 80°98'
- Clear south faced direction is considered for installation of solar panel
- Effective solar collector area is 335 m² (considered)

5.3Solar Insolation

Solar insolation is defined as the amount of solar energy received by earth's surface. Higher solar insolation value for a particular region means a higher solar radiation is available to that area. The solar insolation value decides the size of solar collector that is required. Higher the value, lower the collector size and vice versa. This value is generally described as the amount of solar radiation coming to the earth in a meter square area on a single day, which is Kwh/meter²/day.

1. Solar Insolation of the site:

Table 6.2 Solar Insolation

Months	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Avg. 22 years (kWh/m ² /day)	3.72	4.67	5.75	6.32	6.57	5.91	4.80	4.48	4.52	4.87	4.27	3.6

2. Avg. Solar Insolation for different season:

Table 6.3 Avg. Solar Insolation

Season	Months	Avg. Solar Insolation
Winter	Nov-Feb	4.07
Summer	Mar – Jun	6.14
Monsoon	Jul – Sept	4.60
Post Monsoon	Oct.	4.87

Solar energy generation:

$$E = A \times Y \times H \times PR$$

where A = Total solar panel area
 Y = Solar panel yield
 H = Solar irradiance
 PR = Performance Ratio



Winter:

$$\begin{aligned} \text{Energy generation} &= \text{Area} \times \text{Avg. Solar Insolation} \\ &= 335.57 \times 0.1473 \times 4.07 \times 0.75 \\ &= 150.883 \text{ kWh} > 108.55 \text{ kWh} \end{aligned}$$

Summer:

$$\begin{aligned} \text{Energy generation} &= \text{Area} \times \text{Avg. Solar Insolation} \\ &= 335.57 \times 0.1473 \times 6.14 \times 0.75 \\ &= 227.62 \text{ kWh} > 108.55 \text{ kWh} \end{aligned}$$

Monsoon:

$$\begin{aligned} \text{Energy generation} &= \text{Area} \times \text{Avg. Solar Insolation} \\ &= 335.57 \times 0.1473 \times 4.6 \times 0.75 \\ &= 170.52 \text{ kWh} > 108.55 \text{ kWh} \end{aligned}$$

Post Monsoon:

$$\begin{aligned} \text{Energy generation} &= \text{Area} \times \text{Avg. Solar Insolation} \\ &= 335.57 \times 4.87 \times 0.75 \\ &= 180.53 \text{ kWh} > 108.55 \text{ kWh} \end{aligned}$$

Overall Specification of the design:

Table 6.4 Specification for Design

Particulars	Solar Power Plant
Application	Solar power back up for existing electrical appliances viz., Tube lights, Fans, etc.,
Solar Panel Wattage	215 Wp, 230 Panels
Battery Rating	48 V
Life	Years
Solar Modulus	20 – 25 years
Battery	3 – 5 years
Inverter	5 years

Extensive Green Roof

The designing of an extensive green roof system demands the following prospective to be checked in:

1. Structural design of green roof
2. Different component layers of green roof

Structural Design:

In structural design, calculation of live load, dead load, wind load, snow load and the structural support requirements are calculated. Following loads are considered in the design:

1. Dead Load

As per IS 875-1987 (Part-I) dead load of concrete structure = 2.5 KN/m²

2. Finish Load

Finish load is considered as 1.0 KN/m²

3. Wind Load



As per IS 875:1987 (Part III), buildings of up to ten stories designed for gravity loading can accommodate wind loading without any additional support for lateral system. Hence, no consideration for wind load is done.

We are designing an extensive type of green roof which is non-accessible and the dead load of this type of roof is 0.7 KN/m². Since at terrace there is no finishing work done, so we can design this green roof without no special provision of structural support for the roof.

Area Provided:

Total terrace area = 1344 m²

Area of evaporative cooling system provided in ground floor = 16 m²

Area of evaporative cooling system provided in first floor = 11.55 m²

Area of water tank = 10 m²

Area provided for stair case = 18 m²

Total area to be deducted due to above considerations = 16 + 11.55 + 10 + 18 = 55.55 m²

.....

.... (1) Total solar panel area (area of solar panels + maintenance area) = 335 + 15 = 350 m²

Total number of panels used =

230 Area of one panel = 1.459

m²

Considering 30% of this area is used as installation spaces which are to be covered by gravels. Therefore, remaining area for green roofing through one panel = 1.0213 m²

For 230 panels, total available area for green roof system = 69 m²

..... (2)

Therefore, total area of green roof provided = area of terrace – deducted area (equation 1) – maintenance area of solar panel – available area under solar panels (equation 2)

= 1344 – 55.55 – 15 – 69

= 1204.45 m², which is 89.60% of the total terrace area.

Hence, as per design procedure of green roof, total area provided for green roof construction is 89.60% of gross terrace area.

Slope:

Slope of 1 in 20 is provided to carry excess water safely to the drainage.

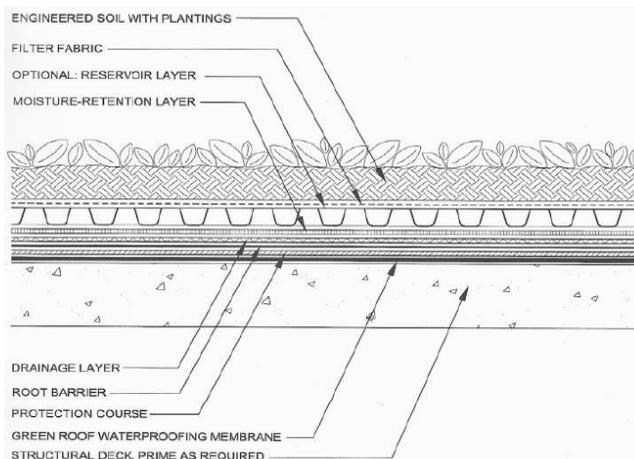
Design of layers of Green Roof:

To design a green roof, the following layers are generally used either in unison or as appropriate:

- Water Proofing Membrane
- Protection Layer – Root Barrier

- Drainage Layer
- Moisture Retention Layer
- Filter Fabric and Growing Medium
- Vegetation Layer

Figure 5.1: Various Layers of Green Roof



6. ADVANTAGES

- Reduced total net monthly cost of living
- Reduces the menace of destruction of the non-renewable conventional energy resources.
- The cost of energy of a NZEB does not increase with time relative to the similar non-renewable energy building.
- Future legislative restrictions and carbon emission taxes/penalties may force expensive retrofits to inefficient buildings.
- It is an area contractionary technique which requires a less area for the installation of setup.
- By improving the energy efficiency it reduces the total cost of ownership as well as the total cost of living.

- Improved reliability – photovoltaic systems have 25-year warranties and seldom fail during weather problems – the 1982 photovoltaic systems on the Walt Disney World EPCOT Energy Pavilion are still working fine today, after going through three recent hurricanes
- Extra cost is minimized for new construction compared to an afterthought retrofit
- Higher resale value as potential owners demand more ZEBs than available supply
- the value of a ZEB building relative to similar conventional building should increase every time energy costs increase

7. DISADVANTAGES

Initial cost is much higher i.e. a money blockage technique which recovers after a few years.

Variation of weather plays a vital role for that the PV solar system is not sufficient for all type of weather.



High skilled labor is required of having necessary information for the installation of setup.

Solar energy system using the house envelope only works in locations unobstructed from the South. The solar energy capture cannot be optimized in facing shade or wooded surroundings.

8. VARIOUS EXAMPLES OF LOW AND ZERO ENERGY BUILDING

A study of the impact of less consumed energy of these buildings is taken in to account. Each was designed to minimize energy and environmental impacts and used a combination of low-energy and renewable energy technologies.

1. KBC Gooik Zero Energy Office Edingssesteenweg, 1755 Gooik Residential Non-residential Public New Renovated X X Office building.
2. Technical University – Sofia, University Research Centre 8 Climent Ohridski blvd., blok 8, Sofia 1000 Residential Non-residential Public New Renovated X X University research centre building.
3. Multifamily building Lenišće East; “Špama hiža” Zvonimira Goloba 1,48 000 Koprivnica Residential Non-residential Public New Renovated X X Multi-family house.

9. CONCLUSION

The main objective encloses the structural and functional designing of a ‘Sports Center’ in Gomti Nagar, Lucknow, which is intended to perform as a Net Zero Energy Building. The building is designed according to the Indian and appropriate standards. The design and construction of a net zero energy building require an integrated approach. The results obtained in the making of the building were inspiring. The steps and methodologies given by various standards and researches for the designing of a net zero energy building were readily adopted. The use of technologies and material supporting the desired outcome were preferred.

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A REVIEW ON SENTIMENTAL ANALYSIS ON MOVIE REVIEWS

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Abstract:

Nowadays what the customers thinks is the most complicated and difficult task handled by the organization. The way to identify the customer's attitude and reaction to the product or other topics is the use of sentimental analysis. This method helps the organizations to gauge out the trends of the market and value of any product or the topic. These results then help the organizations in forming their plan for the future prospects. This paper presents the techniques used to perform the sentimental analysis. The approach uses the Machine Learning techniques that can solve classification task with reasonable success and with very high accuracy depending on the training and test data with respect to the domain.

Introduction:

Nowadays, sharing opinion, sharing marketing, online ticket bookings, and online shopping are rising in daily life of people. In the decision-making process, we are always concerned about what other people think. Other people's opinions are the most important piece of information for most of us. Social networking sites such as Facebook allow users to post their comments or opinions about any issues and topics. Here, we will see the importance of reviews shared by the peoples.

The gradual growth of the number of users and the data related to them has provided a good impetus to every company or organizations to mine these micro-blogging sites to collect information about people's opinion about their services or products. Due to this increase in user interaction, the future sales of any product or service depends a lot on the sentiments and perceptions of the previous buyers [1]. Therefore, it is necessary to have an efficient way to predict user sentiments about a product or service.

The solution to this problem is to classify the text using a strong machine-learning algorithm. Humans face many decisions on a daily basis and sentiment analysis can automate the process of coming to a decision based on past outcomes of that decision. For example, if someone has to buy tickets for a movie, then rather than manually going through all the long reviews, a sentiment classifier can predict the overall sentiment of the movie. Based on positive or negative sentiment a decision can be taken whether or not to buy tickets. Although this is a very trivial problem, text classification can be used in many different areas as follows:



- Most of the consumer based companies use sentiment classification to automatically generate reports on customer feedback. It is an integral part of CRM. [2]
- In medical science, text classification is used to analyze and categorize reports, clinical trials, hospital records etc. [2]
- Text classification models are also used in law on the various trial data, verdicts, court transcripts etc. [2]
- Text classification models can also be used for Spam email classification. [3]

Sentiment can be defined as a view or opinion that is held or expressed. Whereas, sentiment analysis (SA) is a process of computationally identifying and categorizing opinions expressed in a piece of textual content, particularly to decide the writer's attitude towards a particular topic, product or issue

Literature Review:

Sentiment Analysis is a major subject in machine learning which aims to extract subjective information from the textual reviews through text analysis, natural language processing, computational linguistics and biometrics. Sentiment analysis is widely applied to voice of the customer materials such as reviews and survey responses, online and social media, and healthcare materials for applications that range from marketing to customer service to clinical medicine. The field of sentiment of analysis is closely tied to natural language processing and text mining. It can be used to determine the attitude of the reviewer with respect to various topics or the overall polarity of review for market predictions. Using sentiment analysis, we can find the state of mind of the reviewer while providing the review and understand if the person was “happy”, “sad”, and “angry” and so on.

Movie reviews are a part of film criticism which is used for the analysis and evaluation of a film among the viewers. Movie reviews are an important way to gauge the performance of a movie. While providing a numerical/stars rating to a movie tells us about the success or failure of a movie quantitatively, a collection of movie reviews is what gives us a deeper qualitative insight on different aspects of the movie. A textual movie review tells us about the strong and weak points of the movie and deeper analysis of a movie review can tell us if the movie in general meets the expectations of the reviewer. These movie reviews are mainly found on the micro blogging sites where viewers express their views on movie freely as for whether they liked the movie or not.

The main aim of this research is to identify the underlying sentiment of a movie review on the basis of the textual information. It is used to classify whether a person liked the movie or not based on the review given by them. This is particularly useful when the creator of the movie wants to gauge out the overall performance of the movie using the reviews that the critics and viewers are providing. The outcome of this analysis can also be used to create a recommender which provides recommendation of movies to viewers



on the basis of their previous reviews. An alternate application of this analysis will be to find a group of users with similar taste in movies and communities can be formed.

As a part of this research we aim to study several feature extraction technique used in text mining like keyword spotting, lexical affinity and statistical methods, and their relevance to our problem. In addition to feature extraction we will explore different classification techniques and how well they perform for different feature representations. We will finally draw conclusions regarding which set of feature representation and classification are the most accurate for the above proposed task.

There are many sentiment analysis tools and software existing nowadays that is available for free or under commercial license. With the advent of micro blogging, sentiment analysis is being widely used to analyze general public sentiment in several fields and draw out inferences out of this .One famous application of this was the use of twitter to understand the political sentiment of the people in context of German federal elections.

While working with the review text is to calculate the average size of reviews to get some insight on the quality of reviews. The average number of words per review is around 120. In general, people write pretty descriptive reviews for movies and as such this is a good topic for sentimental analysis. Also people generally write reviews when they have strong opinions about a movie, either they loved or hated it.

Conclusion:

Sentiment Analysis presents an important tool for decision making process in the organizations. Organizations will take decisions for their products and services according to the customer reviews. Sentimental Analysis can be performed through many different approaches. The Machine learning techniques uses the text classification which gives reasonable success and high accuracy rate compared to NLP techniques. This paper will present the use of Machine learning techniques to perform the sentimental analysis.

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QUALITY OF LIFE AND DEPRESSION AMONG PATIENTS WITH OBSESSIVE COMPULSIVE DISORDER

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Introduction:

Obsessive-compulsive disorder (OCD) is an anxiety disorder characterized by the presence of intrusive thoughts, images or impulses (obsessions) and/or repetitive behaviors, mental acts or rituals (compulsions) that cause significant distress or interference with daily functioning (American Psychiatric Association, 2000). Epidemiological figures from 2010 shows that OCD affects 2-3 % of the world population (Fontenelle, Mendlowicz, &Versaini, 2006; Ruscio, Stein, Chiu&Kessler, 2010), and is among the top 10 causes of years lived with illness-related disability and 20th among all causes of burden of disease, owing to the extreme financial and social costs (Murray and Lopez, 1996). People with OCD have high prevalence of comorbid neurotic disorders, with a prepotency of Depression (66%), General Anxiety Disorder (30%), specific Phobias (22%), Social Phobias (18%), Panic Disorder (12%), Eating Disorder (17%), Body Dysmorphic Disorder (13%) and Tourette syndrome (7%) (Nestadt et al., 2009 & Torres et al., 2006). OCD therefore endures a chronic and disabling course which comprises an individual's functioning and wellbeing and at last had a detrimental affect on the lives of the patients (Subramaniam, Soh, Vainqankar, Picco&Chong 2013). Due to the higher rates in disability and comorbid conditions, it is not surprising that the quality of life (QOL) will be negatively influenced by the presence of OCD.

QOL is a complex and broad-ranging concept, comprising an individual's physical health, independence level, personal beliefs, social relations and relationship to salient features of the environment (WHO 1998). A survey carried on Hollander and others unveiled that 73% of OCD patients have impaired family relationships, 62% have impaired friendships, 58% have academic underachievement, 47% experience hindrance in work, and 40% are inveterate underemployed or simply unemployed (Hollander et al., 1996). Several other studies also revealed that OCD patients report general impairment in their functioning and report poor Quality of life (QOL) (Calvocoressi et al., 1993; Elizondo, CalamaiJenak 1996; Lochner, et al 2003).

To date, several studies analyzing the factors that determine QOL in patients with OCD, found depression as one among them that is linked with poor QOL in patients with OCD (Koran et al., 1996 & Lochner et al., 2003). Depression is a world health issue that is related with serious consequences in terms of excessive mortality, disability and secondary morbidity; well ranked fourth in 1990 and could elevate to second by 2020 in terms of the overall burden of all diseases worldwide (Berlin & Fleck 2007). It has been



accounted that on an average, about two-third of people with OCD will undergo an episode of major Depression in their lifetime. In most of the cases, Depression occurs after the onset of OCD symptoms. This could suggest that the presence of depression in OCD can contribute to the diminished QOL.

Therefore, the present study aims to examine the contribution of depression on QOL among OCD patients.

Objectives:

- 1) To study the relationship between depression and QOL among OCD patients.
- 2) To study depression as a predictor of QOL among OCD patients.
- 3) To compare OCD patients in depression and QOL with respect to domicile.

Methodology:

Research Instruments:

WHOQOL-BREF: The WHOQOL (BREF version) is a 26-item self administered questionnaire, (WHO, 1998) to measure four broad domains of QOL (physical health, psychological health, social relationships and environment). The response options ranges from 1 (very dissatisfied/ very poor) to 5 (very satisfied/ very good). Assessments are made preceding 15 days.

Becks Depression Inventory-II (BDI-II):

Becks Depression Inventory-second Edition (BDI- II; Beck, Steer, & Brown, 1996) is a 21-question, self report inventory of depressive symptoms experienced during the past week. Questions are graded on a four-point Likert scale ranging from 0-3, with the higher score standing for greater symptom severity.

Sample: This study was conducted on 100 OCD diagnosed patients, selected purposively from Institute of Mental Health and Neurosciences [IMHANS] with following inclusion and exclusion criteria.

Inclusion Criteria:

1. Diagnosed OCD outpatients.
2. Duration of illness greater than six months.
3. Age range from 18 to 60 years.
4. Willing to provide informed consent.

Exclusion Criteria:

1. Uncooperative patients.
2. Refusal to participate in the study.
3. Duration of illness less than six months.
4. OCD with psychotic features.



Data Analysis:

The collected data was analysed using inferential statistics like correlational analysis, regression analysis and comparative analysis to meet the objective of the study. Pearson’s coefficient of correlation was calculated to examine the nature of relationship between variables. Then regression analysis was applied to identify depression as the predictor of QOL. Finally comparative analysis was done to examine the mean difference between groups understudy.

Table-1: Summary of Pearson’s Correlation of depression and quality of life among OCD patients.

Variable	Quality of life	Sig
Depression	-.816**	0.001

**p≤ 0.01 level

The result of the above revealed that depression has significant negative relation with Quality of life (-.816**) among OCD patients which indicates that increase in depression will lead to decline in Quality of Life.

Table-2: Regression analysis of depression with Quality of life among OCD patients Multiple regression analysis (ANOVA summary)

	Sum of squares	df	Mean square	F	sig
Regression	28.776	1	28.776	195.454	.001
Residual	14.428	98	.147		
Total	43.205	99			

Table-2 a: Multiple regression analysis (summary of predictor variables)

Outcome	predictor	B	SE B	Beta	t	Sig.
Quality of life	(Constant)	4.111	4.111		53.082	.001
	depression	-.797	-.797	-.816	13.980	.001

R²=.66

Table 2 and 2a presents the regression analysis of depression and quality of Life. The ANOVA table shows F-value (195.454**) which is significant. This indicated that the depression significantly predict QOL. The Model summary table shows that (R²=.66), which indicates that 66% of the variance in QOL can be predicted from depression. Further analysis (Table 2-a) shows the significance of predictor of QOL. As is evident from the table that the t-value of depression (t= 13.98**) is significant which means that depression has emerged as the significant predictor of QOL.

Table-3: Mean difference in depression and QOL among OCD patients with respect to their domicile



Variable	Domicile	N	M	SD	Df	t-value
Depression	Rural	50	1.1362	.63996	98	.653 ^{NS}
	Urban	50	1.2248	.71536		
QOL	Rural	50	3.1920	.63184	98	.326 ^{NS}
	Urban	50	3.1487	.69394		

NS= Non significant

The results of the analysis as demonstrated in Table-3 indicate that there is no significant difference in depression and QOL with respect to domicile.

Discussion:

The present study is carried out to examine the contribution of depression on quality of Life (QOL) among patients diagnosed with OCD. From the above results, it can be said that there is strong relation between depression and QOL.

- The result unveiled that depression and QOL has significant negative correlation among OCD patients. The results are in line with Hertenstein et.al, 2005; Masellis, Rector & Richter, 2003; Stengler-Wenzke, Kroll, Riedel-Heller, Matschinger, &Angermeyer, 2007.
- The result of regression revealed that depression is a significant predictor of QOL among OCD patients .66% of variance in QOL can be attributed to depression. The results are in line with studies conducted by Hertenstein et.al, 2005; Masellis, Rector & Richter, 2003; Stengler-Wenzke, Kroll, Riedel-Heller, Matschinger, &Angermeyer, 2007.
- The result of comparative analysis indicates that there is no significant difference in terms of depression and QOL among OCD patients with respect to domicile.

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- 1- if'peh fgeky; h {ks= & bl ds vlrXr tEed'ehj , oafgeky insk jkT; vkrk gA
- 2- iohz fgeky; h {ks= & bl ds vlrXr vl ej uloxySM] eSkky;] ef.kij] f=i]kj] fl fdde] v: .kpy insk vlg fetlje jkT; dk ifj {ks= vkrk gA vlg
- 3- e/; fgeky; h {ks= & bl ds vlrXr , d ek= jkT; mRrjk[k.M vkrk gA
bu jkT; ka ds lex fodkl ds fy; s fgeky; fodkl ikf/kdj.k dh elax yxkrkj mBrk jgk gA yfdu HkSkfyd] Hk'kk; h] , oa l kdfrd HkLurk ds dkj.k jktufrd : i l s veyh tkek ugha iguk; k tk l dk gA

mRrjk[k.M

fgeky; {ks= l s foHkr bl dk vf/kdkk {ks= yxHx 88 ifr"kr iozh; gA bl dk dty {ks=Qy 53484 oxLfd-eh ftl ea 34650 oxLfd-eh 1/4-79 ifr"kr 1/2 oa {ks= gA jkT; dk dty {ks=Qy nsk ds dty {ks=Qy dk 1-63 ifr"kr ek= gA fgeky; dk rygvh ea flFr mRrjk[k.M jkT; ds mRrj ea fgeky; ikj phu] iohz ea us ky dh vlrjZVh; l hek] if'pe ea fgeky insk vlg nfk{k ea mRrj insk gA bl dh l hek dks ikdfrd nfv l sn[k tk, rks iohz l hek dkyh un] if'peh l hek vBl un] vlg mRrj ea vlrjZVh; l hek j[kk l s l hekdr gA 2001 dh vkdMha ds vuq kj jkT; dh tul ; k 8489349 ea 4325924 iq 'k vlg 4163425 efgyk, a gA tcd 2011 ds vkdMha ds vuq kj jkT; dh tul ; k 19-17 ifr"kr n"kdh; of) nj l s 10116752 ea 5154178 iq 'k vlg 4962574 efgyk, a gA jkT; ea 2001 ea ifr gtkj iq 'kaij efgykva dk vkr r 962 Fk tks 2011 ea 1-03 ifr"kr n"kdh; of) ds l kfk ifr gtkj iq 'kaij efgykva dk vkr r 963 gls x; kA insk dk tu'kuRo 2001 ea 159 ifr oxLfd-eh Fk ogha 2011 ea; g c<ej 189 ifr oxLfd-eh gls x; kA jkT; xBu ds le; insk dh l k[kjrk nj 71-61 ifr"kr Fk ftl ea 83-28 ifr"kr iq 'k vlg 59-6 ifr"kr efgyk, a FkA tcd 2011 dh tux.kuk ds vuq kj insk dh l k[kjrk nj 8-02 ifr"kr n"kdh; of) ds l kfk 79-63 ifr"kr gls xBA ftl ea 88-33 iq 'k vlg 70-70 ifr"kr efgyk, a gA

jkT; dh 90 ifr"kr vkcnh df'k ij fuhk gA jkT; dk dty df'k {ks= 766459 gDVs j ea 561733 gDVs j ds fy, fl pkbz dh l fo/ak gA jkT; dks , d egrOiwZ ikdfrd ojnu ipj ek= k ea ty ikfr dk feyk gS fQj Hk yxHx 204000 gDVs j df'k {ks= ikh ds fy, o'kz ij fuhk djrk gA jkT; ea puki RFkj] jkd QKLOV] Mkyk kbV] eSud kbV] rkkk] xQkbV] ftl e vkfn ds ipj Hk/kj gA jkT; ea 37928 y?kq vks] kfxd bdkb; ka gS ftuea 162463 ykxka dks jkst xj feyk gqk gA insk ea 6280-48 djkm+ ds fuosk foHkku m| lskaa ea fd; k x; k gA
v/; ; u dk m's;

lLr "kSk i = dk ey m's; uohu fgeky; h jkT; mRrjk[k.M ds l kedu; ifjp; ds l kfk & l kfk jktLo vf/k'k, oa ?kV] jkt dskh; ?kV rFk foHkku {ks=ka l s i kfr , oa Hkqrku dk fi Nys Ms+n'kd dk ryukRed vkfFkZ fo'ysk.k dj c<+ jgs ifr 0; fDr vkfFkZ cks l s voxr djuk gA ftl izkl mi HkDrkohn l ekt ea vlx ds vyus dh gjs ea ey Hk rRoka dh vuns[kh dj , d u; s dhfrEku cukus dk iz kl fd; k tk jgk gS og vkus o'k' i h- ds fy, tku&votus cgr cMk dtZ dk cks Hk curk tk jgk gA ftl ds fujkdj.k ds feuk LoLFk] fodkl "khy , oa l e) vFk; oLFk dh mEhn dZjh dYi uk l kfr gskhA
v/; ; u i) fr

lLr "kSk & i = f)r; d rF; ka ij vk/kfjr , d ekyd jpuk gA bl ds l Eiknu grqo.kukRed "kSk v/; ; u i) fr dk iz kx fd; k x; k gA lLr "kSk fo'k; dh fo'kskrk , oa egrO ds vuq i p; fur f)r; d rF; ka dh fo'ol uh; rk , oa oSkkrk dk fo'kSk /; ku j [k x; k gA bl v/; ; u ds l k'nu ds fy, oKkfu d i) fr ds foHkku pj.kka dk Oec) <x l s iz kx fd; k x; k gA bl Oe ea rF; l dty ds fy,



f}rh; d l kr ds l koztud izy[ka v[š l jdkjh ool kbVla dh l gk; rk yh x; h gš l kfk gh "kksk i=kh
if=dkvla , oabvjuv dh Hkh l gk; rk yh x; h gš

mRrjk[k.M dk vkfkd ifjn";

mRrjk[k.M jkT; ds xBu dh ekz dk iez[k dkj.k bl {s= dk l eipr fodkl u gis ikus l s
c<fh xjch] vkfkd vl eukurk i; kbj.k vl lryul cjstxkj v[š cgeW; ekuo l d k/kula ds idkl dls ekuk
trkr gA fofkku i po'kz ; kst ukvla ea bucds fodkl ds fy, dbz dk; bae pyk; s x; s y[du vFk; oLFk ea
dkbz l dkj ugha vk ik; kA ; gla dh vFk; oLFk e[; ; i l s d'k vk/kfjr gs tcd dbz Hkskfyd , oa vl;
fo'ke ifjLFkr; ka ds dkj.k d'k dk fodkl ugha gis ik; k gA ifj.ker% tMhi h ea rnyukRed : i l s d'k dk
Hkx dkOh de gA vl; vkfkd {s=ka ea jstxkj v[š vktfodk dh vi; krrk , oa d'k dk; ka dk l eipr
fodkl u gkus ds dkj.k l ok {s=ka dh v[š ykxka us dne c<k; k gA igkM+ dh cgd [; k of) ds vuq kr
thodk ktu dsfy, iyk; u dj vl; egkuxja ea dke dkt djs ds etcj gA tul [; k of) ds vuq kr
ea jstxkj ds l k/ku t[k ikuk bl {s= dh xEHkj l eL; k jgh gs v[š l jdkj bu l eL; kvla ds l ek/ku ea
vl eFk jgs gA

mRrjk[k.M dh ekr"kdR insk dh vFk; oLFk dh jh+ds l kfk&l kfk l kktfd pruk dh Hkh /gjh
jgh gA iozka dh fo"kyrk us ml ds vluj deBrk l kgl n<rk fulkzdrk , oa d'v l k; thou ea Hkh vius
drb; ka ds ifr l pr jgs dh "kdR inku dh gA ftyk m|sx dbrka dh l puk ds vuq kj 809 nLrdkj
m|e insk ea LFkr gA 32853 y[kq m|sx bdkbz LFkr gA bl ea yxHkx 50 Qhl nh bdkb; ka rjkbz {s=
ea gh l ekfgr gA l kfk gh igkM+ ea 25 ifr"kr y[kq bdkbz erik; gs; k dlnh ds dxkj ij gA 206 ogn- , oa
694 e/; Jsh ds dy 900 m|sx LFkr gAftuea 72 v[š kfxd bdkbz ka dlnh gis pph gA v[š yxHkx 500
dh lLFkr flrk tud gA jkT; ea yxHkx 64-79 ifr"kr ou {s= gkus ds cktm bl ds tMhi h ¼ dy
?kjsymRi kn½ ea ek= 8-9 ifr"kr gh ou {s= dk ; kxnu gA ; gh gky yxHkx [kuu {s= dk Hkh gA ifjogu
HkA/kj .k l pkj vkfn {s=ka ea Hkh cnyko n[kus dls fey jgk gA ifjogu dk tMhi h ea yxHkx 5 ifr"kr dk
; kxnu gA

rRdkyhu e[; ea h Jh gjh" k jkor ds vuq kj o'kz 2015 ea mRrjk[k.M nsk ds mu 6 jkT; ka ea
"kkfey gis x; k gs t[s fodkl ea l c[s vkxs gA l kr o'kz igys insk dh d'k fodkl nj 3 Qhl nh v[š
forrh; o'kz 2015&16 ea 5-5 Qhl nh Fkh t[s vkt 10 Qhl nh gis x; h gA d'k vk; ea l okz/kd i"kuu dk
; kxnu gA jkT; xBu ds le; insk dh okfkd fodkl nj 2-9 ifr"kr 2011&12 ea 9-5 ifr"kr Fkh t[s
orEku ea yxHkx 13 Qhl nh gA 1999&2000 ds l ki[k jkT; dh ifr 0; fDr vk; ea rhoz of) gpbz gA jkT;
xBu ds le; ifr 0; fDr vk; 15 gtkj ; i; } o'kz 2011&12 ea 56800 ; i; } o'kz 2015&16 ea 84 gtkj
; i; s Fkh t[s vc c<dj 1-98 yk[k ¼ o'kz 2018&19½ gis xbz gs t[s nsk dh ifr 0; fDr vk; dh yxHkx 1-57
xqkh gA ogha jkT; xBu ds l kfk gh dke dkt dsfy, dkOh cMh jk" k dtz ds : i ea feyh] t[s l ky nj
l ky de gkus ds ctk; rhoz xfr l s c<fk gh tk jgk gA tgla o'kz 2001&02 ea 4430-04 djkm+ dtz Fk
ogha o'kz 2006&07 ea; g c<+dj 12623-84 djkm+ ; i; } o'kz 2009&10 ea; g c<+dj 16634-57 djkm+ ; i; }
o'kz 2010&11 ea; g c<+dj 19438-06 djkm+ ; i; } o'kz 2015&16 ea; g c<+dj 36270-45 djkm+ ; i; s v[š
o'kz 2018&19 ea yxHkx 41000 djkm+ ; i; s gis x; k gA ; g jkT; fgr dsfy, flrk dk fo'k; gA , d v[š
ifr 0; fDr vk; ea of) d[s n[k dj jkT; ds fodkl dh ckr djrs gA y[du ; g c<fk vk; jkT; ds 10
ifr"kr inthi fr oxz ds nk; js l s T; knk ugha yxrk gA "ksk v[š r vk; l s dkOh de vk; okys gA l kfk gh
rhoz xfr l s c<fk dtz dk c[s f l dh mi[k dkj jkT; ds fy, fgrdj ugha gA tc rd vk; dh
vl eukurk ds de ugha fd; k tk; xk rc rd jkT; ds fodkl dh ckr djuk d[gh dYi uk ek= gA

rF; ldk fo"ysk k

l dy ?kjsymRi kn ¼ tMhi h½ fd l h vFk; oLFk ds vkfkd fodkl dk , d c[pu; knh eki gA ; g
, d o'kz ea jkT; dh l hek ds vluj l Hkh eky v[š l okvla dk cktj eW; gA uoEj 2000 l s igys ; g
jkT; okLrfod : i l s m|sx "k; {s= ds : i ea tkuk trkr FkA v[š kfxd fodkl gkus l s jkT; ds dy
tMhi h dh nj ea o'kz 1999&2000 l s o'kz 2006&07 ds chp 9-41 ifr"kr dh of) gpbz mRrjk[k.M jkT; dk
o'kz 2001&02 l s 2019&20 rd dk l dy ?kjsymRi kn l kj .kh l [; k&1 ea oxidR fd; k x; kA



सारणी संख्या-1
उत्तराखण्ड राज्य का सकल घरेलू उत्पाद (घनराशि करोड़ रु० में)

वर्ष	जीडीपी	वृद्धि / कमी	प्रतिशत वृद्धि दर
2001-02	15144	-	-
2002-03	18473	3329	21.98
2003-04	20439	1966	10.64
2004-05	24786	4347	21.27
2005-06	29968	5182	20.91
2006-07	36795	6827	22.78
2007-08	45856	9061	24.63
2008-09	56025	10169	22.18
2009-10	70730	14705	26.25
2010-11	83969	13239	18.72
2011-12	115328	31359	37.35
2012-13	131613	16285	14.12
2013-14	149074	17461	13.27
2014-15	161439	12365	8.29
2015-16	177163	15724	9.74
2016-17	195125	17962	10.14
2017-18	222836	27711	14.20
2018-19	245895	23059	10.35
2019-20	263233	17338	7.05

स्रोत - www.uk.gov.in

तमिह जत; ध वफड; ०LFk dk vkbZk gA bl ls vfkFkd fodkl dh xfr dk v/; ; u fd;k tk l drk gA l kj.kh l ; k&l ls Li'V gSfd thMhih ea ifr o'kz yxkrkj of) gDZ gA o'kz 2011&12 ea thMhih l okZ/kd 31359 djkm+; i ; sjgk gA l okZ/kd ifr"kr of) nj o'kz 2011&12 es 37-35 ifr"kr jgk gA thMhih ifr"kr of) nj o'kz 2010&11 ea 18-72 ifr"kr] o'kz 2012&13 ea 14-12 ifr"kr] o'kz 2017&18 ea 14-20 ifr"kr vLj o'kz 2018&19 ea 10-35 ifr"kr jgk gA o'kz 2019&20 ea l cl s de ek= 7-05 ifr"kr dh nj l s thMhih ea of) gDZ gA

l e) vFkD; ०LFk ds fodkl ds fy, jkT; ea jktLo 0; ; ij jktLo ikfir; ka dk vkf/kD; gkuk vFkDZ jktLo vf/k"sk dk gkuk egRo iwZ ekuk tkrk gA jktLo 0; ; rFk jktLo ikfir; ka ds vlrj dks jktLo ?kkvk dgk tkrk gA bl ?kkVs ds ifj.kke Lo: i ljdkj dks vius pkyw 0; ; ds fy, __.k ykuk iMfk gA ; g fLFkr forrh; rLj ij gkfudkj d ekuh tkrh gA forrh; fu; a.k ds fy, jktLo ?kkVs ds LFku ij jktLo vf/k"sk gkuk pfg, vLj bl vf/k"sk dk mi; l x i thxr mnns; ka ds fy, fd;k tkuk pfg, A jkT; dk o'kz 2006&07 l s o'kz 2020&21 rd Ms+n"kdh; jktLo ikfir; k jktLo 0; ; rFk jktLo ?kkvk ; k vf/k"sk dk o.ku l kj.kh l ; k&2 ea fd; k x; ka



सारणी संख्या-2

उत्तराखण्ड राज्य का राजस्व घाटा या अधिशेष (घनराशि करोड़ ₹ में)

वर्ष	राजस्व प्राप्तियाँ	राजस्व व्यय	राजस्व घाटा (-) अधिशेष (+)
2006-07	7373.22	6476.85	896.37
2007-08	7891.09	7254.56	636.53
2008-09	8634.89	8395.36	239.53
2009-10	9486.14	10657.48	-1171.34
2010-11	11608.17	11621.08	-12.91
2011-12	13691.42	12975.32	716.10
2012-13	15747.21	13960.22	1786.99
2013-14	17320.53	16216.41	1104.12
2014-15	20246.52	20884.36	-637.84
2015-16	21234.43	23086.44	-1852.01
2016-17	24888.96	25271.50	-382.54
2017-18	27104.57	29082.69	-1978.12
2018-19	31216.44	32196.02	-979.58
2019-20	35502.61	35481.71	20.90
2020-21 (अनुमानित बजट)	42439.33	42389.67	49.66

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jkT; dk jktLo ?kkvk o'kz 2002&03 ea 457-26 djkm+Fkk tks o'kz 2003&04 ea c<ej 761-34 djkm+ : i ; } o'kz 2004&05 ea c<ej 950-14 djkm+ : i ; } o'kz 2009&10 ea c<ej 1171-34 djkm+ : i ; } o'kz 2015&16 ea c<ej 1852-01 djkm+ : i ; s vkj o'kz 2017&18 ea c<ej 1978-12 djkm+ : i ; s gks x ; k gA o'kz 2006&07 ea 896-37 djkm+ : i ; s dk vf/k"ksk jgk vkj o'kz 2020&21 ea dby 49-66 djkm+ : i ; s vf/k"ksk dh l hkkouk gA jkT; l jdkj us o'kz 2007&08 rFkk o'kz 2008&09 ds fy, l jlyl ctV isk fd; kA o'kz 2012&13 ds fy, 1786-99 djkm+ dk l jlyl ctV isk fd; kA ns'k ea oS dks Lohdkj djus okyk ; g 22 oka jkT; FkkA 1 vDVcj] 2005 dks ykxw eW; of/kz dj izkkyh %oS½ vkj 2017 ea oLrq, oa l ok dj %th , l Vh½ jktLo dh nf'V l sjkT; ds fy, jktLo of) dsef; L=kr ds : i ea ; kx nku fd; k gA

jkT; xBu ds le; l s gh c<fk jkt dkskh; ?kkvk vkfFkd fodkl dh xfr dks en dj j[kh gA fi Nys Ms+n"kd ea l ky nj l ky gq jkt dkskh; ?kkVs dk oxhZj.k l kj .kh l ; k&3 ea fd; k x ; k gA



सारणी संख्या-3

उत्तराखण्ड राज्य का राजकोषीय घाटा (घनराशि करोड़ रु० में)

वर्ष	राजकोषीय घाटा	वार्षिक वृद्धि दर	प्रतिशत वार्षिक वृद्धि दर
2006-07	-885.78	-	-
2007-08	-1742.39	-856.61	96.71
2008-09	-1844.96	-102.57	5.89
2009-10	-2783.31	-938.35	50.86
2010-11	-1842.57	940.74	-33.80
2011-12	-1357.48	485.09	-26.33
2012-13	-1599.24	-241.76	17.81
2013-14	-3050.26	-1451.02	90.73
2014-15	-5696.91	-2646.65	86.77
2015-16	6125.34	11822.25	-207.52
2016-17	5466.95	-658.39	-10.75
2017-18	7685.82	2218.87	40.59
2018-19	7320.58	-365.24	-4.75
2019-20	6673.14	-647.44	-8.84
2020-21 (अनुमानित बजट)	7549.74	876.60	13.14

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Lkkj.kh I 4; k&03 IsLi'V gSfd jkT; xBu ds ckn Isy'dj vc rd I Hkh o'kka ea jkt dskh; ?kkvk yxkrkj cjdjkj gA chp ds dN o'kka ea dN I e; ds fy, ?kkVs dks de djusea jkT; I jdkj dks I Qyrk vo"; feyh gS i jUrqi p% ckn ds o'kka ea bl ea rhoz of) gblz gA jkT; dh jkt dskh; ?kkvk o'kz 2002&03 ea 788-82 djkm+: i; s Fkk tks o'kz 2006&07 ea c<dj 885-78 djkm+: i; } o'kz 2009&10 ea c<dj 2783-31 djkm+: i; s rFkk o'kz 2014&15 ea c<dj 5696-91 djkm+: i; s gks x; kA ckn ds dN o'kka ea bl ea I qkkj dk iz kl fd; k x; k gA

fi Nys ,d n"kd ea k x mRrjk[k.M jkT; I jdkj }kjk is'k fd;k I keku; ctV dk rgyukRed v/; ; u I kj.kh I 4; k&4 ea fd; k x; k gA



I kj.kh I ĩ; k&4
mRrjk[k.M jkT; dk ryukRed ctV 1kujfk'k djkm+: 0 eł

Table with 14 rows and 13 columns. Columns include 'QO I 0', 'fo';', and various 'oLrfod' and 'ctV' values for different years and categories.

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I jdkj }kjk fofHkUu enka eafd; s x; s 0; ; vks fofHkUu enka l s i klr vk; ds vk/kkj ij ; g dgk tk l drk gSfd jktLo i kflr; kWea yxkrkj of) gpl gA ; gh flFkr dj jktLo enka dh Hkh jgh gA djsr jktLo ea o'kz 2015&16 ea i dzo'kz dh ryuk ea FkkMh deh vk; h gSydu ml ds ckn ds o'kka ea yxkrkj of) gpl gA jktLo i kflr o'kz 2006&07 ea 7373-22 djkm+ l sc<dj o'kz 2010&11 ea 11608-17 djkm/ o'kz 2015&16 ea 25777-68 djkm/ o'kz 2019&20 ea 35502-61 djkm+ gks x; h gS vks o'kz 2020&21 ea 42439-33 djkm+ gks dh l Hkkouk gA dj jktLo o'kz 2000&01 ea 894-74 djkm+ l sc<dj o'kz 2006&07 ea 3645-61 djkm/ o'kz 2010&11 ea 6865-55 djkm/ o'kz 2015&16 ea 14710-98 djkm+ o'kz 2019&20 ea 19969-60 djkm+ gks x; k gS vks o'kz 2020&21 ea 22418-10 djkm+ gks dh l Hkkouk gA djsr jktLo o'kz 2006&07 ea 3727-60 djkm+ l sc<dj o'kz 2010&11 ea 4742-62 djkm/ o'kz 2015&16 ea 6523-45 djkm/ o'kz 2019&20 ea 15533-01 djkm+ gks x; k gS vks o'kz 2020&21 ea 20021-23 djkm+ gks dh iR; k'kk gA dj jktLo , oadjsr jktLo ea jkT; dk Lo; a dk , oa dshh; djka ea jkT; k;k l fefyr gA i mch i kflr ea Hkh yxkrkj of) gpl gA bl ea __.kha dh ol yjh) m/kj , oa vU; i kflr; ka dks "kkfey fd; k x; k gA 0; ; en ds vk; kst uxR 0; ; ea jktLo [kkrs ij C; kt vnk; fx; kWrFk i mch [kkrs ij __.kha dh vnk; fx; ka dks "kkfey fd; k x; k gA l cl svf/kd ij fEHkd ?kVk o'kz 2014&15 ea 3291-30 djkm+ gpl gA

fu'd'kz

jkT; ds l keftd&vkfkd fodkl ds fy, l jdkj us l Med) f'k(kk) LokLF; j fctyh) ikuh dh i; klr rFk fu; kstr 0; oLFk djus jstxkj ds volj l ftr djus rFk cfu; knh <kbs dks etcar djus dh fn'kk ea Bkd igy dh gA fo'ksk : i l si; /u) mtqz df'k vks vks kxcd fodkl dks jh-< ekurs gq) orEku vk/kqud rduhdh l s vf/kd ykHknk; d , oa jstxkj ijd cukus dks



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MARKETING OF AGRICULTURAL COMMODITIES IN TUMKUR DISTRICT OF KARNATAKA -A STUDY

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ABSTRACT

The floriculture in India has emerged as a fast growing sector in the recent years. In Karnataka, chrysanthemum flowers are being cultivated in an area of 4,884 hectares with the production of 56,674 metric tonnes (MT) and productivity of 11.60 metric tonnes per hectares (2010-11). Among all the districts in the state Tumkur district occupies first place in area (1162 ha) of chrysanthemum flower. The study revealed that the cultivation of chrysanthemum flower was significantly influenced by cost of human labour, FYM, fertilizers, plant protection chemicals and irrigation. It is worth noting that the elasticity of production of FYM was negative (-0.0271). This clearly indicated that the gross income of chrysanthemum flower declined with the increase in doses of FYM. And further it could be seen from the study the two important channels were identified, in that channel-I is most prominent and producer's share in consumer's rupee was more in channel-I of Sira (68.24%), Tumkur (69.30%) and Bangalore market (70.27%) than the channel-II of Tumkur (68.09%) and Bangalore market(65.76%).

Key words: Resource use efficiency, Chrysanthemum flower, Production, Marketing, Marketing Channels.

INTRODUCTION

The floriculture in India has emerged as a fast growing sector in the recent years particularly in the states of Karnataka, Rajasthan, Tamil Nadu, Andhra Pradesh, Maharashtra and West Bengal. In southern part of the country, chrysanthemum flower is mostly grown in farmer fields for supply to the markets as loose flowers for garlands, hair decoration by the ladies and for religious ceremonies. Yellow coloured flowers are preferred in south, while in North various hues of red, purple, yellow and white flowers are grown in abundance.

In Karnataka, chrysanthemum flowers are being cultivated in an area of 4,884 hectares with the production of 56,674 metric tonnes (MT) and productivity of 11.60 metric tonnes per hectares. In Tumkur district, fresh flowers are being cultivated in an area of 2,878 hectares, of which chrysanthemum flower occupied first place (1162 ha) followed by Jasmine-Multiflora (730 ha) and Aster (593 ha)¹. Thus, a chrysanthemum flower forms an important flower crop of the district and promotes livelihood to the larger sector of the farming community.



The area under this crop is increasing year by year in the district. This flower crop is very often subjected to wide price fluctuations in the domestic markets. There is no systematic organising flower market like other fruits and vegetables markets.

Further, the study would highlight the benefits accruing to the farmers due to efficient use of resources in chrysanthemum flower production. The results of the study would also help in identify the different channels and to estimate the producer's share in consumer's rupee in chrysanthemum flower marketing. The specific objectives of the study were:

1. To study the growth of agricultural marketing in Karnataka.
2. To analyse the price spread in different channels of chrysanthemum flower marketing.
3. To analyse the constraints in cultivation and marketing commodities

MATERIALS AND METHODS

The study was based on primary data during 2018-19. For evaluating the specific objectives of the study, important primary data relating to production of chrysanthemum flower was collected from the selected sample farmers in the study area. To study marketing costs, margins and channels of marketing the number of market functionaries, viz., ten commission agents cum wholesalers, five retailers and five consumers from Bangalore, Tumkur and Sira markets were selected for the study.

To study the resource use efficiency in chrysanthemum flower cultivation Cobb-Douglas type of production function technique was employed. Cobb-Douglas production function Cobb-Douglas production function was tried to establish statistical relationship between selected inputs and gross income in chrysanthemum flower production. Finally Cobb-Douglas production function was selected as best fit on the basis of economic and statistical criteria. The ordinal least square technique was used to estimate the production function.

The variables included in the production function were as follows:

$$Y = f(X_1, X_2, X_3, X_4, X_5)$$

Where,

Y = Gross income of chrysanthemum flowers (Rs)

X₁ = Human labour charges (Rs) X₂ = FYM (Rs)

X₃ = Fertilizer (Rs)

X₄ = Cost on plant protection chemicals (PPC) (Rs)

X₅ = Irrigation Charges (Rs)

The coefficient of multiple determination (R^2) was estimated and tested for its significance using F-test. To examine the resource use efficiency, the marginal value products (MVPs) of all those inputs which were found significant were worked out at their geometric mean level. The marginal value product i^{th} input was measured by using following formula:

Y = Gross income per hectare from chrysanthemum flower at geometric mean level.

X_i = Geometric mean level of i^{th} input. b_i = production elasticity of i^{th} input.



P_y = price of the product

The computed MVP of inputs was compared with their marginal factor cost (MFC) or the opportunity cost of input to draw inferences.

RESULTS AND DISCUSSION

The results presented in Table 1 explained that the cultivation of chrysanthemum flower in the study area was significantly influenced by cost of human labour, FYM, fertilizers, plant protection chemicals and irrigation. The coefficient of multiple determinations was 0.89, which indicates that 89 per cent of variation in chrysanthemum flower income was explained by the five independent variables included in the model, remaining 11 per cent of variation in the gross income of chrysanthemum flower was explained by error term.

It is worth noting that the elasticity of

production of FYM was negative (-0.0271). This clearly indicated that the gross income chrysanthemum flower declined with the increase in doses of FYM. This is mainly due to the fact that the farmers in the study area were applied excess of FYM as indicated by the ratio of MVP to MFC which is less than unity (-0.478) indicated that the resource was over utilized. Therefore it is suggested to educate the farmers to reduce the doses of FYM to optimum level. Regression coefficients with positive sign for inputs like human labour, fertilizer, plant protection chemicals and irrigation charges indicated that they will have a positive impact on the income of chrysanthemum flower with further application of these four resources in the production process⁴. The return to scale is 1.64 indicated that there is an increasing return to scale.

Marketing of chrysanthemum flower Marketing functions

From the study it was revealed that harvesting, packing and transportation were the main marketing functions involved in the process of marketing of chrysanthemum. Flowers are packed in gunny bags. The chrysanthemum is being transported by trucks and buses. The producer sold their maximum quantity through commission agent cum-wholesaler and remaining growers sold through pre-harvest contractor. The commission agent charged a commission of 10 per cent of sale proceeds to the producer-seller.

Marketing channels

Two marketing channels have been identified in the study area are as follows:

Channel-I: Producer -Commission agent cum-Wholesaler -Retailer -Consumer.

Channel-II: Producer -Pre-harvest contractor-Commission agent cum-Wholesaler-Retailer □-Consumer.

As shown in Table 2 in case of Sira market all the farmers sold their produce through channel-I. Further, in Tumkur and Bangalore market, 70.15 and 56.88 per cent of the farmers sold their produce through channel-I respectively and remaining 29.85 and 43.12 per cent of the farmers sold their produce through channel-II respectively. 'On- farm sale' of chrysanthemum flowers to the pre-harvest contractor was preferred by the chrysanthemum producers. The results suggest that the chrysanthemum farmers may prefer the market sale over the on-farm sale



despite the involvement of harvesting and marketing costs, because, market sales helped the farmers to realize higher net returns.

Marketing costs incurred by the producer

The total marketing cost per kg of chrysanthemum was estimated at Rs. 2.97, Rs.

3.6 and Rs. 4.23 under channel-I in the selected markets of the study area. Out of which, the significant item of cost was the commission charges accounting for Rs. 2.12, Rs. 2.56 and Rs. 2.86 per kg of Sira, Tumkur and Bangalore markets, respectively followed by transportation cost (Table 3). This calls for intensive control measure on part of the government to regulate the activities of commission agents and to reduce the commission charges to safeguard the interest of the farmers.

Marketing costs of pre-harvest contractor

The cost and returns to the pre-harvest contractor in marketing of chrysanthemum flower are presented in Table 4.

In Tumkur taluk the total cost incurred by the PHC was constituted both prices paid to the farmers (Rs. 2400 per Qtl.) and cost of marketing (Rs. 352.80) in which the major item farmed was commission charges (34.01%) followed by transportation (17.01%), miscellaneous charges (15.99%) and packing charges (14.27%). And net return realised by the PHC was Rs. 447.2 per quintal. Producer's share in consumer's rupee was 75 percent.

Same trend was observed in Koratagere taluk, the total cost incurred by the PHC was Rs. 2971.55 it includes both price paid to the farmers (Rs. 2556 per qtls.) and marketing cost (Rs. 415.55). Among the marketing cost major item of total cost was commission charges (30.80%) followed by transportation charges (23.16%) and miscellaneous charges (16.03%). Net return realised by the PHC was Rs. 308.45 it is less compares to Tumkur taluk it was due to that, the PHC in Koratagere taluk sold their produce to Bangalore market; it was far away from the taluk hence PHC need to incur more amount on transportation. Producer share in consumer rupee was 77.92 percent³

Producer's share in consumer rupee

It was clear from the Table 5. Producer's share in consumer's rupee was higher in channel-I of Sira (68.24%), Tumkur (69.30%) and Bangalore market (70.27%) than the channel- II of Tumkur (68.09%) and Bangalore market (65.76%). Producer's share in consumer's rupee was higher in channel-I of all the markets compared to channel-II this might be presence of additional market intermediaries in channel-II of both the markets.

The previous analysis specified that producers got the maximum net price per quintal in channel-I and minimum in Channel- II of Bangalore market, same trend was observed in Tumkur market. Henceforth, it could be incidental that channel-I in Bangalore market was superior compared Tumkur and Sira Markets.

However, Channel-I was found to be the most common channel in both the markets for disposal of chrysanthemum flower by the farmers. Efforts have to be made to minimize

village sales so as to provide a higher share of the consumer’s rupee to chrysanthemum flower growers. Equally, care has to be paid for reducing the costs and profit margins of wholesalers and retailers as they grab nearly 40 per cent of the consumer’s rupee. This could cover the way for improvement in the share of producer’s in consumer’s rupee. The producer’s share in consumer’s rupee was more than the study conducted by Balsing², in Bombay market because of number of intermediaries in the all channel was less compare to previous study.

Table 1: Estimates of Cobb-Douglas production function in chrysanthemum flower cultivation

SN	Particulars	Parameters	Regression coefficients	MVP:MFC ratios
1	Intercept	a	-0.7399 (1.243)	
2	Human Labour	b ₁	0.2095** (0.106)	5.680
3	Farm yard manure	b ₂	-0.0271 (0.026)	-0.478
4	Fertilizer	b ₃	0.0901 (0.090)	5.709
5	Plant protection chemicals	b ₄	0.5082* (0.150)	44.315
6	Irrigation Charges	b ₅	0.8637* (0.284)	37.787
		R	0.89**	
		Returns to scale	1.64	

Figures in parentheses indicate standard error.

*Significant @ 1% level of probability ** Significant @ 5% level of probability

Table 2: Quantity of chrysanthemum flower moved through various marketing channels

(n=60)

SN	Channel	Sira		Tumkur		Bangalore	
		Qty sold (qtl)	No. of farmers	Qty sold (qtl)	No. of farmers	Qty Sold (qtl)	No. of farmers
1	P-C /WS - R-C	131 (100)	20	141 (70.15)	14	109.50 (56.88)	12
2	P-PHC- C/WS -R- C	0.0 0.0	0	60 (29.85)	6	83.00 (43.12)	8
	Total	131 (100)	20	201 (100)	20	192.50 (100)	20

Figures in parentheses indicate percentage to total

Note: P- Producer, C /WS- Commission agent cum-wholesaler, R- Retailer, C- Consumer and PHC- Pre-harvest contractor. n=number of farmers.



Table 3: Marketing costs incurred by the producers in the sample markets

(Rs. /kg)

SN	Particulars	Sira Market	Tumkur Market		Bangalore Market	
		Channel-1	Channel-1	Channel-2	Channel-1	Channel-2
1	Packing cost	0.40 (13.47)	0.43 (11.88)	0 0	0.50 (11.8)	0 0
2	Transportation cost	0.45 (15.15)	0.63 (17.40)	0 0	0.87 (20.6)	0 0
3	Commission charges	2.12 (71.38)	2.56 (70.72)	0 0	2.86 (67.6)	0 0
	Total	2.97 (100)	3.62 (100)	0 0	4.23 (100)	0 0

Figures in parentheses indicate percentage to total.

Table 4: Cost and margin for the Pre-harvest contractor (PHC) in selected taluks

(Rs. /Qtl)

SN	Particulars	Tumkur taluk	Koratagere taluk
A)	Price paid to the farmers	2400.00	2556.00
B)	Costs in marketing		
1	Harvesting cost	22.48 (6.37)	24.91 (5.99)
2	Packing Charges	50.35 (14.27)	54.47 (13.11)
3	Transportation	60.00 (17.01)	96.26 (23.16)
4	Labour charges	43.56 (12.35)	45.29 (10.90)
5	Commission charges	120.00 (34.01)	128.00 (30.80)
6	Miscellaneous charges	56.41 (15.99)	66.62 (16.03)
	Total cost in marketing(B)	352.80 (100.00)	415.55 (100.00)
7	Total costs to the PHC(A+B)	2752.80	2971.55
8	Sale price of flowers	3200.00	3280.00
9	Net return	447.2	308.45
10	Producer share in consumer's rupee (%)	75.00	77.92

Figures in parentheses indicate percentage to total marketing cost.



Table 5: Marketing costs and margins in marketing of chrysanthemum flower through different channels

(Rs. /Qtl)

SN	Particulars	Sira Market	Tumkur Market		Bangalore Market	
		Cahnnel -I	Cahnnel -I	Cahnnel-II	Cahnnel-I	Cahnnel-II
1.	Marketing cost incurred by					
a)	Producer	297 (6.76)	362.0 0 (7.60)	0 (0)	423 (8.26)	0 (0)
b)	Retailer	21.12 (0.48)	28.45 (0.60)	26.08 (0.55)	39.18 (0.76)	36.68 (0.66)
c)	Commission agent cum-wholesaler	21.9 (0.50)	32.64 (0.69)	31.37 (0.67)	41.96 (0.82)	41.15 (0.74)
d)	Pre-harvest contractor	0 (0)	0 (0)	352.8 (7.51)	0 (0)	415.55 (7.49)
	Total marketing cost	340.02 (7.73)	423.0 9 (8.88)	410.25 (8.73)	504.14 (9.84)	493.38 (8.89)
2.	Marketing margin received by					
a)	Retailer	578.22 (13.20)	571.55 (12.00)	373.92 (7.96)	560.82 (10.95)	513.62 (9.25)
b)	Commission agent cum-wholesaler	478.10 (10.90)	467.3 6 (9.80)	368.63 (7.84)	458.04 (8.94)	478.85 (8.63)
c)	Pre-harvest contractor	0 (0)	0 (0)	347.20 (7.39)	0 (0)	414.45 (7.47)
	Total marketing margins	1056.32 (24.00)	1038.91 (21.80)	1089.75 (23.19)	1018.86 (19.89)	1406.9 2 (25.35)
3.	Producer's net share	3000.00	3300.00	3200.00	3600	3650
4.	Consumer's price	4396.34 (100.00)	4762.00 (100.00)	4700.00 (100.00)	5123 (100)	5550.3 (100)
5.	Producer's share consumer's rupee (%)	68.24	69.30	68.09	70.27	65.76

Figures in parentheses indicate percentage to the consumer's price.



CONCLUSION

The ratio of MVP to MFC was negative for FYM (-0.478) indicated that the resource was over utilized. The ratios of MVP to MFC were positive and more than unity for human labour (5.680), fertilizer (5.709), plant protection chemicals (44.31) and irrigation charges (37.78) indicated that these resources were underutilized. The underutilized resources can be used optimally in order to get maximum returns from the chrysanthemum cultivation.

Major quantity of chrysanthemum flower was sold through channel-I in selected markets of the study area. Commission charges and transportation charges were major items of marketing cost and producer share in consumer's rupee was more in channel-I of all the selected markets. Channel-I under Bangalore market was superior to others. Proper marketing facilities need to be developed in the study area, and further, there is a need to establish regulated market for floriculture crops like of fruits and vegetables. Chrysanthemum flower need to put under the list of notified commodities and commission charges taken from producer can be strictly prohibited.

No doubt that Indian marketing, on one hand the motive is profit maximization and on second hand the same has to be grounded on certain principles such as offering of fair prices to the growers. Bringing important and critical reforms in Indian Agricultural Marketing by price discovery mechanism will help in strengthening exploited and isolated from the benefit of agricultural product, the farmers should be assimilated with market information and knowledge like demand, supply etc. Marketing of agricultural produce can be effective if there is a collective effort from producers, middlemen, researchers and administrators. It is high time we should bring out substantial strategies in agricultural marketing with advanced and imaginative approaches to bring fruits of labor to the farmers.

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