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Dr. K.VICTOR BABU
Editor-in-Chief

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Editorial ……..

Provoking fresh thinking is certainly becoming the prime purpose of International Journal of Multidisciplinary Educational Research (IJMER). The new world era we have entered with enormous contradictions is demanding a unique understanding to face challenges. IJMER's contents are overwhelmingly contributor, distinctive and are creating the right balance for its readers with its varied knowledge.

We are happy to inform you that IJMER got the high Impact Factor 2.972, Index Copernicus Value 5.16 and IJMER is listed and indexed in 34 popular indexed organizations in the world. This academic achievement of IJMER is only author's contribution in the past issues. I hope this journey of IJMER more benefit to future academic world.

In the present issue, we have taken up details of multidisciplinary issues discussed in academic circles. There are well written articles covering a wide range of issues that are thought provoking as well as significant in the contemporary research world.

My thanks to the Members of the Editorial Board, to the readers, and in particular I sincerely recognize the efforts of the subscribers of articles. The journal thus receives its recognition from the rich contribution of assorted research papers presented by the experienced scholars and the implied commitment is generating the vision envisaged and that is spreading knowledge. I am happy to note that the readers are benefited.

My personal thanks to one and all.

(Dr.Victor Babu Koppula)

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IMPACT OF SOCIALLY RESPONSIBLE BEHAVIOUR OF EMPLOYEES ON CORPORATE SOCIAL RESPONSIBILITY – AN EMPIRICAL STUDY OF SELECT COMPANIES IN HYDERABAD

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1. Introduction

1.1 Background

The term Corporate Social Responsibility has gained prominence, both in business and in the press to such an extent that it seems to have become ubiquitous.[1] There has been a growing acceptance of the plea that corporations should be responsible to the society. Business, being one of the dominant institutions of the present day market-led-economy, wields considerable influence on the resources of the society and plays an important role in the process of socioeconomic and cultural modernization. Being organically linked to the wider socioeconomic and cultural system, it cannot distance itself from its commitment to the society, particularly in a developing country like India (Narwal and Sharma, 2008).

While talking about corporate social responsibility, socially responsible behaviour comes into play that an individual or a firm has to drive that CSR agenda in that firm. Socially responsible behaviour has been described as "action that goes beyond the legal or regulatory minimum standard with the end of some perceived social good rather than the maximization of profits."[2]

It seems reasonable to expect that the executives who have a positive attitude towards socially responsible activities are more likely to champion the activities in the firms they manage. Having these kinds of executives would always lead a firm to implement socially responsible activities. Formal adoption of CSR by corporations could be associated with the changing personal values of managers and that there may be an association between

[1] Crowther, D. & Rayman-Bacchus, L. (2004). Perspectives on Corporate Social Responsibility, In D. Crowther and L. Rayman-Bacchus (Eds.), Perspectives on Corporate Social Responsibility. Aldershot, Ashgate, 229-249.
[2] Slaughter, C. (1997). Corporate Social Responsibility: A New Perspective. The Company Lawyer, 18, 321.

different industries, the personal values of the managers who work in them and their commitment to CSR (Hemingway, 2004).

Literature shows that in India, only a few empirical studies, Singh et al. (1980); Krishna (1992); and Reddy (2006) have been made to assess the state of CSR based on the data generated from the business managers. Manager's behaviour has been considered important in this situation. Hence, it is selected to study the relationship between employees responsible behaviour and effectiveness of CSR in that organization.

2. Literature Review

There have been few methodological debates on how to study both what responsible actions are and why companies act accordingly. Maignan and McAlister (2003) proposed a conceptualization of socially responsible behaviour that accentuates the role of stakeholder and organisational norms, respectively. Schneider et al. (2005) provided a definition of socially responsible behaviour and proposed a model of the psychological antecedents, specifically cognition, values, and emotions that are believed to prime this behaviour.

Krishnan and Balachandran (2004) discussed that the case of Coca Cola proved without doubt that irresponsible corporate behaviour can have repercussion throughout their global markets. Brueck and Hollerweger (2005) found that the success of an organisation is based on managers´ creativeness and correctness, i.e. on a common effort of all workers who ethically contribute to a corporate strategy and qualitative meeting the demand on the market.

Sorsa (2008) discussed how institutional social theory has been and could be used in explaining socially responsible corporate behaviour. Kumari (2008) addressed some major issues of social responsibility in corporate and micro, small and medium enterprises (MSMEs) in India and found that enterprise social responsible behaviour seem to vary generally with the size of the enterprise. Cano et al. (2008) tried to seek answer to the question as to why socially responsible behaviour is good business behaviour. More favorable attitudes formed when warning labels are present that supports the notion that consumers recognize and value the stewardship principle.

Singh (2009) explored the extent of the relationship between the demography and socially responsible behaviour of Indian consumers. Behavioural intentions and manifestations reflect the image of the

corporations in the society. Socially responsible behaviour influences various initiatives today. Tirole and Benabou (2010) drew on recent developments in the "psychology and economics" of prosocial behaviour to shed light on this trend, which reflects a complex interplay of genuine altruism, social or self image concerns, and material incentives.

3. Research Methodology

In this study, two types of variables were used - independent variables and dependable variables. The independent variables are used to find the positive or negative impact of these variables on dependent variable. In line with the research problem, primary data was generated by a survey, conducted in corporate companies in Hyderabad. The respondents are administered a structured survey instrument. This survey instrument is developed on the basis of previous studies. The survey instrument used 5-point Likert type statements.

Simple random sampling method was used to generate primary data. The sample taken for this study is employees from corporate companies in Hyderabad. A total of 100 survey questionnaires were distributed amongst the employees and on final filtration 61 (61%) usable responses were identified and used for the data analysis.

3.1 Hypotheses

Keeping in view the research problem, the following hypotheses are formulated in null form.

$H1_{0:}$ Ethical behaviour of employees does not have significant effect on effectiveness of CSR.

$H2_{0:}$ Employee wellbeing does not have significant effect on effectiveness of CSR.

$H3_{0:}$ Participation in social development activities does not have significant effect on effectiveness of CSR.

4 Data Analysis

After checking the completeness and accuracy of data, it was analyzed with the help of Statistical Package for Social Sciences (SPSS) ver. 17.

4.1 Factor Analysis

4.1.1 Socially Responsible Behaviour

The 10 variables (statements) were subjected to factor analysis by using Principal Component Method with unities in diagonal. Following the recommendation of Kaiser, the extraction of factors was stopped when Eigen value (latent roots) came to be less than 1.00. Three factors were obtained, whose Eigen value exceeded 1.00. The extracted factors were rotated in accordance with the criterion of Kaiser's Varimax Procedure. Factor loadings greater than 0.30 are found significant at .05 level.

Table 1: Factors

Factor No.	Factor Description	No. of variables	Variable Codes	% of variance explained
1	Ethical Behavior	5	Q1(.882), Q2(.914), Q4(.573),Q9(.716),Q11(.651)	32.075%
2	Employee Wellbeing	2	Q3(.881),, Q2(.828)	22.637%
3	Social Development activities	3	Q5(.664), Q6(.854),Q7(.644)	21.253%

4.1.2 Effectiveness of CSR

The 12 variables (statements) were subjected to factor analysis by using Principal Component Method with unities in diagonal. Following the recommendation of Kaiser, the extraction of factors was stopped when Eigen value (latent roots) came to be less than 1.00. Four factors were obtained, whose Eigen value exceeded 1.00. The extracted factors were rotated in accordance with the criterion of Kaiser's Varimax Procedure. Factor loadings greater than 0.30 are found significant at .05 level.

Table 2: Factors

Factor No.	**Factor Description**	**No. of variables**	**Variable Codes**	**% of variance explained**
1	Employee Satisfaction	4	E2(.945), E3(.889), E12(.633),E14(.941	30.662%
2	Satisfaction with Environment	3	E6(.740), E7(.870), E10(0.626)	19.652%

3	Customer Satisfaction	3	E4(.901), E5(.687),E9(.676)	17.259%
4	Community Satisfaction	2	E8(.747), E11(.926)	15.217%

4.2 Correlation Analysis

For testing of hypotheses, correlation analysis was done. The following table is showing the correlation analysis and its level of significance.

Table 8: Socially responsible behaviour and effectiveness of CSR

S.No.	Variables	Effectiveness of CSR
1	Employee Satisfaction	.931** .000
2	Satisfaction with Environment	.750** .000
3	Customer Satisfaction	.684** .000
4	Community Satisfaction	.619** .000
7	Effectiveness of CSR	1

It is evident from the above correlation results table that all the four variables are positively and significantly correlated with 'Effectiveness of CSR'. Further, all the four variables have moderate positive relationship with 'Effectiveness of CSR'' indicating that as the variables improve, 'Effectiveness of CSR' also increases significantly.

4.3 Regression Analysis

For further testing of hypotheses, regression analysis was carried out between the independent variables of socially responsible behaviour and the dependent variable 'Effectiveness of CSR'. The average scores of the different determinants were regressed on the overall score of effectiveness of CSR.

Table 9: Predictor Effects and Beta Estimates

S.No.	Model		Unstandardized Coefficients		Standardized Coefficients		t	Sig.
			β(beta)	Std. Error	β (beta)			
1	(Constant)		23.891	2.523			9.468	.000
2	Ethical Behaviour		.077	.136	.021		.563	.574
3	Employee Wellbeing		-.688	.256	-.101		-2.682	.008
4	Social Development Activities		3.545	.170	.782		20.851	.000
R	R^2	Adjusted R^2	Std. Error of the Estimate		F	df	P=	
.766[a]	.586	.582	5.79567		147.926	3, 313	.000[a]	

The results from the above table revealed that two out of three behaviours came out to be the significant predictors of effectiveness of CSR. To be more specific, 'Social Development Activities' (β=3.545, t=20.851, p=0.000) had emerged as the most significant predictor variable affecting effectiveness of CSR. In other words, if the behaviour of social development activities improves by one unit 3.5 units of effectiveness of CSR increases significantly.

The beta value of the behaviour 'Employee Wellbeing' (β=-.688, t=-2.682, p=0.008) was the negative predictor affecting effectiveness of CSR. If the behaviour of employee wellbeing increases by 1 units, then the effectiveness of CSR decreases by nearly 0.7 units.

The behaviour 'Ethical Behaviour' (β=-.077, t=-.563, p=0.574) failed to have any effect on effectiveness of CSR. In other words, for one unit change in ethical behaviour, effectiveness of CSR would not change. Thus, the following regression model was evolved for effectiveness of CSR initiatives.

$Y = 23.891 - .688X_1 + 3.545X_2$

Where Y= Effectiveness of CSR

X_1= Employee Wellbeing

X_2= Social Development Activities

The coefficients of determination when computed taking all the behaviours together yielded an adjusted R square of .582 which was statistically significant as indicated by the f value (147.926). This indicated that socially responsible behaviour had predicted 58 per cent of change in effectiveness of CSR.

The hypotheses which state that there is no relationship between the socially responsible behaviour of the employees and effectiveness of CSR stands rejected and the employees' the socially responsible behaviour is found to be influencing the effectiveness of CSR.

5. Discussion of Results

Three distinct dimensions emerge out of the data analysis – Ethical behaviour, employee wellbeing, and social development activities. All the three variables have a positive effect on effectiveness of CSR. The results obtained from regression analysis conducted between the dependent and independent variables showed that all the three independent factors are the most influential factors and predict a larger percentage of variance in effectiveness of CSR by 58 per cent.

It is a well established fact that attitude is very fundamental in determining or influencing behaviour in general and actions in specific. CSR initiatives by the firms are influenced by certain attitudes. One such behaviour is called socially responsible behaviour. The more responsible behaviour the employees have, the more the effectiveness of CSR.

7. Conclusion and Suggestions

The primary objective of this research is to identify to how far the socially responsible behaviour of employees influence the effectiveness of CSR in their organizations. The findings showed that employees' behaviour in terms of ethical behaviour, employee wellbeing and social development activities have increased the effectiveness of CSR to a greater extent. Firms need to develop a set of programs influencing employees to become more socially responsible. They need to find out the ways of encouraging employees to partake more in social development activities as well as find ways of addressing the factors that are crucial to the success of CSR.

It seems reasonable to expect that the executives who have a positive attitude towards corporate social responsibility are more likely to champion

the activities in the firms they manage. Having these kinds of executives would always lead a firm to implement socially responsible activities effectively.

References

1. Brueck, F. & Hollerweger, E. (2005). The Socially Responsible Manager: Can He or She be Trained?, Available at
2. http://www.wcfcg.net/gcsr_proceedings/Frank%20Brueck%20&%20Eva%20Hollerweger.pdf
3. Cano, C., Sams, D., & Schwartz, J. (2008), Is Socially Responsible Behaviour Good Business? An Investigation of Tomorrow's Business Leaders, Social Responsibility Journal, 4(4), 491 – 503.
4. Hemingway, C. & Maclagan, P. (2004). Managers' Personal Values as Drivers of Corporate Social Responsibility. Journal of Business Ethics, 50(1), 33-44.
5. Krishna, C.G. (1992). Corporate Social Responsibility in India- A Study of Management Attitude. New Delhi: Mittal Publications.
6. Krishnan, S. & Balachandran, R. (2004). Corporate Social Responsibility as a Determinant of Market Success: An Exploratory Analysis with Special Reference to MNCs in Emerging Markets, Available at http://stdwww.iimahd.ernet.in/~sandeepk/CSR.pdf
7. Kumari, P. (2008). Comparison of Major Issues Pertaining to Social Responsibility in Corporate and Micro, Small and Medium Enterprises (MSMEs) in India, UNIDO-CDP & CSR Project, Available at http://www.weplayfair.com/UserFiles/File/Comparative%20Study%20ESR_CSR.pdf
8. Maignan, I. & Mcalister, D. (2003). Socially Responsible Organisational Buying: How Can Stakeholders Dictate Purchasing Policies?. Journal of Macromarketing,23(2), 78-89.
9. Narwal, M. & Sharma, T. (2008). Perceptions of Corporate Social Responsibility in India: an Empirical Study. Journal of Knowledge Globalization,1(1).
10. Reddy, A.J.M. (2006). Corporate Social Responsibility for Sustainable Development, In Sahay, B.S., Stough, R., Sohal, A., & Goyal, S. Green Business. New Delhi: Allied Publishers Pvt. Ltd.
11. Schneider, S., Oppegaard, K., Zollo, M., & Huy, Q. (2005). Socially Responsible Behaviour: Developing Virtue in Organisations. Available athttp://knowledge.insead.edu/abstract.cfm?ct=15388
12. Singh, N. (2009). Exploring Socially Responsible Behaviour of Indian Consumers: an Empirical Investigation. Social Responsibility Journal, 5(2), 200 – 211.
13. Singh, P., Maggu, A., & Warrier, S.K. (1980). Corporate Social Responsibility: Realities and Expectations. Vikalpa, 5(2), 117-130.

14. Sorsa, V. (2008), How to Explain Socially Responsible Corporate Actions Institutionally: Theoretical and Methodological Critique. Electronic Journal of Business Ethics and Organisation Studies, 13(1), Available at http://ejbo.jyu.fi/pdf/ejbo_vol13_no1_pages_32-41.pdf
15. Tirole, J. & Bénabou, R. (2010). Individual and Corporate Social Responsibility. FEEM Working Paper No. 23, Available at http://ssrn.com/abstract=1573694

ATTITUDE OF WORKERS WORKING IN CEMENT INDUSTRIES IN ODISHA

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Introduction

The deep structure of human behaviour falls into three inters dependent categories: the internal order of mind; the external order of social exchange and extended order of market. Attitude is an internal order of mind. It is a tendency to behave in a particular way to a particular situation. Attitude of a worker is responsible for a particular behaviour towards different variable of HR policy and practices in an organisation. The variables of HR policy and practices include workers participation in management, participative climate in the organisation, communication process, harmonious industrial relations scenario, leadership style, skill development initiatives by training, wage fixation, incentive scheme, bonus determination and payment, payment of DA and HRA, working conditions, welfare amenities, safety measure, job design, promotion policy, employees recognition, right implementation of decision by the participative bodies and grievance redressal mechanism etc. These HR initiatives contribute largely for changing the attitude of worker towards their management. Workers attitude have motivational characteristics. It ranges from strongly positive to strongly negative.

Objective

1. To investigate the attitude of workers working in cement industries of Odisha towards their management.
2. To investigate the attitude of workers working in cement industries of Odisha towards their management with respect to skill, experience, marital status, level of education.

Hypotheses

H01: There exists no significant difference in attitude between skilled workers and unskilled workers.

$H1A_1$: The mean attitude scores of skilled workers is more than the mean attitude scores of unskilled workers.

$H1A_2$: The mean attitude scores of unskilled workers is more than the mean attitude scores of skilled workers.

H02: There exists no significant difference in attitude between experienced and less experienced workers.

$H2A_1$: The mean attitude scores of experienced workers is more than the mean attitude scores of less experienced workers.

$H2A_2$: The mean attitude scores of less experienced workers is more than the mean attitude scores of experienced workers.

H03: There exists no significant difference in attitude between married and unmarried workers.

$H3A_1$: The mean attitude scores of married workers is more than the mean attitude scores of unmarried workers.

$H3A_2$: The mean attitude scores of unmarried workers is more than the mean attitude scores of married workers.

HO4: There exists no significant difference in the attitude between educated and less educated workers.

$HO4A_1$: The mean attitude scores of educated workers is more than the mean attitude scores of less educated workers.

HO4A2: The mean attitude scores of less educated workers is more than the mean attitude scores of educated workers.

Method of study

Both documentary and field research methods were followed in course of the study. Analytic survey method was used in this study.

Universe

The workers working in cement industries of Odisha has been selected for the purpose of the study because of its place in the economy. Being the oldest & major manufacturing industries, workers working in the cement industries constitute the universe of study.

Sample

The employees working in ACC cement, Bargarh, OCL India Ltd. Rajgangpur & Ultra Tech Cement, Jharsuguda are the sample industries

chosen for the study. The sample size is 250 workers taken from the referred industries.

Attitude scale construction, Item selection, Reliability and validity of the Scale

In the present investigation, an attitude scale of workers towards management was developed to meet the required need of the problem under investigation. After taking into consideration the technique of scale construction, 54 statements were formulated and scrutinized. These statements were scrutinized keeping in view the criteria suggested by Likert (1932), Thurstone and Chave (1929), Wang (1932), Bird (1940), Edward (1948) & Krech and Crutchfield (1948). The scale was designed to measure the attitude of workers towards management. Special attention was given to structure the sentence, words used in the statement. After scrutiny, 32 statements were selected for the purpose of the study. Out of 32 statements, there were 15 positive and 17 negative statements.

The reliability of attitude scale was computed by split - half method. The Spearman - Brown Prophecy formula was used for estimating the reliability coefficient of the attitude scale and it came out to be 0.91. So, the reliability coefficient of attitude scale is 0.91.

The construct validity of the scale to measure the attitude of workers towards management was determined. It was established rationally through critical examination by professionally expert judges. The scale was given to 12 Judges for opinion. All Judges were satisfied with the relevance of the test. The Judges opined that the scale is fairly valid and this can be recommended for the use on similar population. In order to investigate the attitude of workers towards management with respect to their skill, experience, marital status and education, attitude scores were tabulated and both descriptive and inferential statistics were also calculated.

Analysis and Interpretation

Favourable attitude of workers towards management results in minimising grievance, reducing the rate of absenteeism, labour turnover and number of strikes which in turn, ensure higher productivity, higher production and higher profit of the organisation.

Understanding the utility of favourable attitude of workers towards management in cement industries of Odisha, a Likert type attitude scale has been developed, standardised to obtain data on the attitude of workers towards management analysed for the purpose of study.

Table No.- 1

Overall Attitude of Workers towards Management in Cement Industries of Odisha

Category	N	Percentage
Favourable	204	81.60
Neutral	05	2.00
Unfavourable	41	16.40

Table No.- 1 shows that about 82 percent of workers were having favourable and 16 percent of workers were having unfavourable attitude towards their management. About 2 percent workers were neutral so far as attitude towards management is concerned.

Table No.- 2

Organisation Wise Attitude of Workers towards Management of Workers in Cement Industries of Odisha

Organisation	N	Favourable	Neutral	Unfavourable
OCL India Ltd.	120	97 (80.83)	02 (1.67)	21 (17.50)
ACC Cement	80	65 (81.25)	02 (2.50)	13 (16.25)
Ultratech Cement	50	42 (84.00)	01 (2.00)	7 (14.00)

(Numerical values given in parentheses are percentages)

A perusal of table no.- 2 shows the percentages of workers having favourable, neutral and unfavourable attitude towards different managements namely OCL India Ltd., ACC Cement and Ultratech Cement. It is evident from the table no.- 4 that in OCL about 80 percent workers were having favourable attitude towards management followed by about 81 percent in ACC. About 84 percent workers in Ultratech Cement were having favourable attitude towards management.

About 2 percent workers of OCL and Ultratech were having neutral attitude towards management. About 3 percent workers of ACC were having neutral attitude towards management.

The number and percentages in different categories were also calculated for all groups of workers working in the cement manufacturing organizations.

i) Attitude of skilled and unskilled workers.

In order to investigate the attitude of skilled workers in comparison to the unskilled workers, the means, standard deviations, standard error of difference between the two means and difference between the two means along with critical ratio were computed.

Table No.- 3

Means, SDs, Standard Error of Difference between two Means, Mean Difference and Critical Ratio of Skilled and Unskilled Workers in Cement Industries of Odisha

Category	N	Mean	Standard Deviation	Standard Error of Difference $(\sigma_D)/(SE_D)$	Mean Difference	Critical Ratio
Skilled Workers	80	111.324	19.968	3.208	9.152	2.853
Unskilled Workers	58	102.324	17.549			

Table No.- 3 shows that the calculated t-value came out to be 2.853. The required values to be significant at .05 and .01 level of confidence with 136 degrees of freedom are 1.98 and 2.61 respectively as given in the table of t. Hence, the difference between means of two groups was found significant at .01 level of confidence. On the basis of the above results the null hypothesis HO1 was rejected in favour of alternative hypothesis $H1A_1$ namely, 'the mean attitude scores of skilled workers is more than the mean attitude scores of unskilled workers'. The examination of their means reveals that the skilled workers are having more favourable attitude towards management than unskilled workers.

ii) Attitude of experienced and less experienced workers.

In order to investigate the attitude of experienced workers in comparison to the less experienced workers, the means, standard deviations, standard error of difference between the two means and difference between the two means along with critical ratio were computed as shown in the table no.- 6.

Table No.- 4

Means,SDs, Standard Error of Difference between two Means, Mean Difference and Critical Ratio of Experienced and Less Experienced Workers in Cement Industries of Odisha

Category	N	Mean	Standard Deviation	Standard Error of Difference (σ_D) /(SE_D)	Mean Difference	Critical Ratio
Experienced Workers	109	109.732	20.531	2.681	7.249	2.704
Less experienced Workers	141	102.483	21.642			

Table No.- 4 shows that the calculated t-value came out to be 2.704. The required values to be significant at .05 and .01 level of confidence with 248 degrees of freedom are 1.97 and 2.59 respectively as given in the table of t. Hence, the difference between means of two groups was found significant at .01 level of confidence. On the basis of the above results the null hypothesis H02 is rejected in favour of alternative hypothesis ($H2A_1$) namely, 'the mean attitude scores of experienced workers is more than the mean attitude scores of less experienced workers'. The examination of their means reveals that experienced workers are having more favourable attitude towards management than less experienced workers.

iii) Attitude of married and unmarried workers.

In order to investigate the attitude of married workers in comparison to unmarried workers, the means, standard deviations, standard error of difference between the two means and difference between two means along with critical ratio were computed. The measures are recorded in the table 7.

Table No.- 5

Means, SDs, Standard Error of Difference between two Means, Mean Difference and Critical Ratio of Married and Unmarried Workers in Cement Industries of Odisha

Category	N	Mean	Standard Deviation	Standard Error of Difference(SE_D)	Mean Difference	Critical Ratio
Married Workers	162	108.311	21.622	2.661	2.859	1.074
Unmarried Workers	88	105.452	19.215			

Table No.- 5 shows that the calculated t-value came out to be 1.074. The required values to be significant at .05 and .01 level of confidence with 248 degrees of freedom are 1.97 and 2.59 respectively as given in the table of t. Hence, the difference between means of two groups was not found significant even at .05 level of confidence. On the basis of the above results the null hypothesis H04 namely, 'there exists no significant difference in attitude between married and unmarried workers' is accepted. The above finding could not provide evidence to reject the null hypothesis H03 in favour of alternative hypothesis. The finding reveals that there exists no significant difference in attitude between married workers and unmarried workers towards management. The difference observed in means is due to contribution of chance. The difference is not statistically significant.

iv) Attitude of educated and less educated workers.

In order to investigate the attitude of educated workers in comparison to less educated workers, the means, standard deviations, standard error of difference between the two means and difference between two means along with critical ratio were computed. The measures are recorded in the table no.- 8.

Table No.- 6

Means, SDs, Standard Error of Difference between two Means, Mean Difference and Critical Ratio of Educated and Less Educated Workers in Cement Industries of Odisha

Category	N	Mean	Standard Deviation	Standard Error of Difference(SE_D)	Mean Difference	Critical Ratio
Educated Workers	128	110.154	21.532	2.62	6.026	2.300
Less educated Workers	122	104.128	20.014			

Table no.- 6 shows that the calculated t-value came out to be 2.300. The required values to be significant at .05 and .01 level of confidence with 248 degrees of freedom are 1.97 and 2.59 respectively as given in the table of t. Hence, the difference between means of two groups was found significant at .05 level of confidence. On the basis of the above results the null hypothesis H04 is rejected in favour of alternative hypothesis $H4A_1$ namely, 'the mean attitude scores of educated workers is more than the mean attitude scores of less educated workers'. The examination of means reveals that educated workers are having more favourable attitude towards management in comparison to less educated workers.

Findings and recommendations

In cement industries of Odisha, the attitude of workers towards their management ranges from strongly positive to negative. The study on the attitude of workers reveals that most of the workers working in the cement industries of Odisha is having favourable attitude towards their management. It is a healthy symptom of HRM. But there exists a disparity in the attitude of workers in case of industry specific cases.

While analysing the overall status of employees attitude towards their managements, it is revealed, about 82 percent of workers are having favourable attitude towards management in cement industries of Odisha.

Approximately 16 percent of workers are having unfavourable attitude towards management and rest 2 percent are neutral.

About 84 percent workers of Ultratech Cement, Jharsuguda are having favourable attitude towards management followed by above 81 percent in ACC Cement, Bargarh Cement Works and 80 percent in OCL India Ltd., Rajgangpur. It shows that Ultratech Cement workers have most favourable attitude towards management in the industry.

About 21 percent of workers working in OCL India Ltd. are having unfavourable attitude towards management followed by 13 percent in case of workers working in ACC Cement, Bargarh Cement Works and 7 percent workers working in Ultratech Cement, Jharsuguda. It shows that a minimum percentage of workers in Ultratech Cement are having unfavourable attitude towards management whereas highest percentage of workers in OCL India Ltd. are having unfavorable attitude towards management.

The mean attitude scores of skilled workers is more than the mean attitude scores of the unskilled workers. Thus, it is evident that skilled workers have a more favourable attitude towards management than their unskilled counterparts.

The mean attitude scores of experienced workers is more than the mean attitude scores of the less experienced workers. Experienced workers have more favourable attitude than less experienced workers.

There exists no significant difference in the attitude of married and unmarried workers.

There is a significant difference between the attitude of educated workers and less educated workers towards management.

Work life is not a question of survival but also of getting happiness from work. Positive attitude of workers towards management provides a basis of such happiness. Positive attitude has an important bearing on HR policy and practices of an organisation. Cement producing organisations in Odisha are not an exception to it. There prevail attitude differentials of workers between the cement producing industries of Odisha as an outcome of the study. These industries should take up appropriate HR initiatives for inculcating desirable positive attitude in workers as well as modifying and restructuring the undesirable ones. It is necessary to plan and build qualities

of life internal work environment around the worker so that workers can take up positive attitude towards their management.

References

1) Bird, C. (1940) " Social Psychology", Appleton - Century - Crofts, New York.

2) Edward, A.L. (1969) "Techniques of Attitude Scale Construction Vakils, Feffer and Simons Pvt. Ltd, Bombay.

3) Krech and Crutchfield, R.S. (1948) " Theory and Problems of Social Psychology" Mc Graw Hill Book Company, New York.

4) Likert, R (1932), " A Technique for the Measurement of Attitude", Arch Psychology No - 140.

5) Thustone, L. L. and Chave, E.J. (1929), "The Measurement of Attitude" Chicago University Press, Chicago.

6) Wang, K.A. (1932) "Suggested Criteria for writing Attitude Statements", Journal of Social Psychology Vol. 3, 367 - 373.

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GANDHIAN APPROACH TO EDUCATION IN INDIA: A SOCIOLOGICAL PERSPECTIVE

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1. INTRODUCTION

Socialization is the process through which an individual becomes a real member of a society. For proper socialization of an individual education is an important tool. It is an instrument of brining perfection in individuality. It is tool which can bring out the best in a child and transform it into a peace loving human personality. But now a days, education itself has assumed different dimensions. In many societies education has virtually become an industry that on the one had attracts huge revenues and on the other it has become the greatest consumer of public revenues. As a result various issues also emerged that demand an attention to the discourse on the true and their realization.

2. METHODOLOGY :

This paper is an attempt to understand the issues related to education system in India and the feasibility of Gandhian approach in addressing those issues. The whole work is based on secondary sources of data found in the form of articles in journals and books. Data thus collected have been treated in the comparative and descriptive method of analysis.

3. GANDHIAN PERSPECTIVE ON EDUCATION:

According to Gandhiji true education does not consist in mere acquaintance with books, but it comes from the habits and knowledge one acquires from the atmosphere as well as from the company one keeps and it is reflected in one's works. He wrote:

> "Education does not mean knowledge of the alphabet. This type of knowledge is only means to education. Education implies a child's learning how to put his mind and all senses to good use."[1]

He again wrote :

[1] S.P. Gain, Moral Contents in Gandhijee's Vision of Education. In R.P. Dwivedi (ed.) Revisiting Gandhi.2007.p-121

"Education is just a means. If it is not accompanied by truthfulness, firmness, patience and other virtues, it remains sterile, and sometimes does harm instead of good. The object of education is not to be able to earn money, but to improve oneself and to serve the country. If this object is not realized, it must be taken that money spent on education has been wasted."[2]

3.1. Education As A Tool For Liberation:

For Gandhi 'that is true education which leads to freedom'. While talking about freedom he had two dimensions of it in mind. One is the freedom of our country from foreign rule. But this is a very worldly dimension of freedom. What is of more importance is the spiritual freedom. That means freedom from one's self. This can also be termed as *moksha* meaning liberation from mundane desires. *Moksha* is also described in Hindu religious scriptures as *paramdharm*a or the ultimate goal of human existence. Attainment of this type of liberation is the highest form of human endeavor. Education is the instrument with which liberation of the self can be achieved.

3.1.Education as Contemplation:

For GandhiJi education, character and religion are three inter-related terms. According to him ' there is no true education which does not tend to produce character, and there is no true religion which does not determine character.' Thus only bookish knowledge and memorizing of books cannot be education I its true sense. Therefore he advocated for that system of education which produce not only man of learning but also man of character.

4. PRIMARY OBJECTIVES OF EDUCATION : GANDHIAN VIEW

4.1.Social opportunities:

According to Gandhi education should aim at providing equal popportunities to each and every section of the society. All men are born equal. Therefore, education should not make a difference between the intellectuals and those who earn their bread through manual labour. Gandhi was a strong advocate of dignity of labour. He thought that education should not only teach an individual the importance, value and beauty of manual labour, but also raise the dignity of labour and make it very respectable. This is also the essence of his concept of Sarvodaya society.

[2] . op cit: p-122

4.2.Nai Taleem:

Gandhiji's *Nai Taleem* strongly believed that work and knowledge are inseparable. Therefore, children can learn best by doing socially useful work in the lap of nature. This is how children's minds would develop and they would imbibe a variety of useful skills.

4.3. Education and Culture:

Culture aspect of education is more important than literacy. Culture should be the foundation of education and it is reflected in the conduct and personal behavior of an individual. Similarly education should also aim to develop inner culture of an individual.

4.4. Instrument against Social Evils:

Education should be able to revolutionize the mentality of the youth of the nation so that they are able to respond to various social evils and other challenges in an effective manner. The educated youth should be to defy any custom which lacks any moral sense.

5. SOME ISSUES IN INDIAN EDUCATION SYSTEM:

At present, primary education is an essential requirement for all sections of society. Even most occupations need a certain minimum learning and knowledge of the alphabet. For higher positions in any business or profession higher education is required.

But even after 67 years of Independence Indian society still fails to ensure basic education for all. In this regard, Prof M. S. Gore [3] explained two sets of factors: the ideological-cultural factors and the operational economic factors. The former refers to the value system that rejects equal educational opportunities for all sections of the society. The rejection of access to education for some sections of society may be based on religious and ethnic considerations. This proposition may look outmoded . But the reality is that it exists and that there is no necessary relationship between the degree of industrialization and the provision of equal opportunities to all sections of the population. The inequality may be maintained in many ways by 'imposing segregation in schools, by outright refusal to admit certain categories of

[3] M.S. Gore, Indian Education. Jaipur: Rawat Publications. 1994. p-183.

students to certain types of institutions, by the simple market device of making education expensive, by enforcing selective recruitment etc.'[4]

On the other hand operational economic factors refer to the limitations on the part of the state machinery to provide secondary and higher education facilities to all sections of the society. In order to provide equal educational opportunities to all, it is necessary to establish a system of education universal education at least at the lower level and the provision of a sufficient number of institutions at the secondary and higher levels which will admit students on merit and which will support at least those who cannot pay for themselves. But most of the developing nations with their limited resource cannot afford to make provision of universal education at every level. The easier option that remains for these countries is to provide universal primary education and leave the secondary and higher levels of education to community initiative. In that case there remains the possibility of deprivation of a good number of meritorious but needy students of secondary as well as higher education.

According to Prof. Gore [5], in societies where mere educational qualifications decide access to job opportunities and where educational opportunities are limited a certificate from educational institute becomes the primary importance and the degrees and diplomas assume the character of status symbols. In some cases, education can become a great divider in the sense that there remains a difference between the educated and the uneducated. This difference is further emphasized where schooling is different from the language spoken by the people and a gulf is created between those who are educated and those who are not. This difference is reflected not only in the standard of living but also in the pattern of living as well.

Besides the issues mentioned above, there are other aspects such as ideas, moral bases and syllabi in the present education system. Now a days, more people are opting for vocational and technical education rather than going for studies in humanity because such degrees are more helpful in earning a living and leading a luxurious s life.

[4] A.N. Singh, Sociology of Education: A Gandhian Approach. New Delhi: Radha Publications. 2007. p- 123.
[5] M.S. Gore, Indian Education. Jaipur: Rawat Publications. 1994. p-183.

6. GANDHIAN ALTERNATIVE:

In the present educational scenario which is beset with a host of issues GandhiJi's ideas can show a path that will lead to proper education of the new generation. Gandhiji was critical of the British system of education which was based on curricula targeted to produce manpower suitable for British administration. He was in favor of the traditional Gurukula system where village school master supported by the community took proper care of the child's education. He had evolved an informal system of education in his Ashrams in South Africa. Children lived with their parents in the ashram where tilling and handicraft were the means of livelihood. Elders taught the children the three "R"s. that was good enough for the children who could pursue their studies in regular schools and colleges later. He was of the opinion that teaching should be in the mother tongue and children must be given the opportunity to work in the fields and learn skills. This system of education is inexpensive and this type of personalized education can be ideal for the people of India.

Gandhi was not in favour of absolute dependence upon machinery. He was of the view that basic education should be intended towards learning handicrafts. Every person should the skill to produce the materials to fulfill their basic needs. In rejection of the colonial system education he put forward a radical alternative. In his collected works he writes, "we will make wicks, as of old, with home-grown cotton and use handmade earthen saucers and lamps. So doing, we shall save our eyes and money and support 'swadeshi' and so shall we attain Home Rule."

According to Gandhiji, schools should be self supporting as far as possible. There are two reasons in favour of this argument. First, a poor society such as India could not afford to provide education for all children unless the schools could generate resources of their own. Second, the more financially independent the educational institutes were, the more politically independent they could be. Self sufficiency and autonomy are of prime importance in this regard.

For Gandhiji, educational opportunities must be equally accessible to all. Equal educational opportunity means education for everybody at every stage of life. True education should be easily available to everyone. It is meant not only for the people living in the cities but also for the millions of people living in rural India. Also such education should not be based on mere

knowledge of the books. Instead, it should be based on the book of real life. The introduction of basic education through manual training can serve a double purpose in a poor country like ours. It will pay for the education of the children and teach them an occupation on which they can fall back later in their lives. Such a system will make the children self reliant.

Gandhiji wanted to improve the quality of higher education in India. He wanted more and better libraries, research institutes and laboratories. Dedicated researchers, technicians and other experts shall be engaged in the pursuit of education and serve the nation besides fulfilling the varied and growing demands of a people who are becoming increasingly conscious of their rights and wants.

6. CONCLUSION:

Gandhiji believed that education can play an effective role in developing a wholesome human personality capable of resisting war, violence, injustice and oppression. Education is also an instrument for building a social order wherein man can live in peace and harmony with others. His ideas on an inexpensive educational system based on egalitarian principle can show policy makers a way to deal with present crises in the educational system in India.

References:

1. A.N. Singh, *Sociology of Education: A Gandhian Approach*. New Delhi: Radha Publications. 2007
2. M.K. Gandhi, *The Collected Works*. Ahmedabad: Navajivan. 1997
3. M.S. Gore, *Indian Education*. Jaipur: Rawat Publications. 1994
4. R. Govinda, (ed.) *India Education Report*. New Delhi: Oxford University Press. 2004
5. S.P. Gain, Moral Contents in Gandhijee's Vision of Education. In R.P. Dwivedi (ed.) *Revisiting Gandhi*. 2007.
6. R.B. Singh, *Educational Crisis and Gandhian Alternative*. New Delhi: Radha Publications. 2007
7. Y. Chadha, *Rediscovering Gandhi*. London: Century. 1997

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PREVALENCE AND PREDICTORS OF HYPERTENSION AMONG THE ELDERLY POPULATION IN RURAL AREAS OF ALLAHABAD DISTRICT: A CROSS SECTIONAL STUDY

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Introduction:

Cardiovascular diseases are one of the dominant contributors for the NCD mortality and morbidity. Hypertensive heart disease is one of the major reasons for the cardiovascular mortality. [1] According to the Framingham Heart Study, by age 60 approximately 60% of the population develops hypertension, and by 70 years about 65% of men and about 75% of women have the disease. [2] The Seventh Joint National Committee on Prevention, Detection, Evaluation and Treatment of High Blood Pressure (JNC-7) Reports hypertension occurs in more than two thirds of individuals after age of 65.[3] In terms of attributable deaths, raised blood pressure is one of the leading behavioural and physiological risk factor to which 13% of global deaths are attributed.[4]

Hypertension is a significant and often asymptomatic chronic disease, which requires optimal control and persistent adherence to prescribed medication to reduce the risks of cardiovascular, cerebrovascular and renal disease.[5]

With background of increasing proportion of elderly in India the study of epidemiology of hypertension among elderly is an important area for

research.[6] Hence the above study has been done with the following objectives: 1. To study the prevalence of hypertension among the persons aged 60 years and above in the rural areas of Allahabad district of U.P, 2. To identify the important factors associated with the hypertension among the elderly population.

Methodology:

The present study was conducted in the rural areas of Allahabad district during the March 2007 to January 2008.

Study Design : Community based Cross sectional study.

Sample Size : Based on a pilot study, the prevalence of hypertension among elderly persons was found to be 50 percent. Also on review of relevant literature the prevalence of hypertension was found to be approximately 50 percent.[7] Sample size was calculated using the formula: n = $\frac{4PQ}{L^2}$ where : n = sample size, P = prevalence of morbidity (50%), Q = 100-P, L = Allowable error (taken as 10 percent for the present study). Sample size was calculated to be 400. Finally, 411 subjects were included in the study.

Sampling Method : Multistage random sampling method was used in the present study. In the first stage, two Community Development Blocks of Allahabad district were selected randomly. The Community Development Blocks were Jasra in the trans Yamuna area and Bahadurpur in the trans Ganga area. In the second stage, 8 villages in each of these blocks were randomly selected. In the third stage, 25 study subjects from each of these villages were randomly selected. [Fig 1]

Study subjects: Persons aged 60 years and above were selected for the study. WHO (TRS-779) report refers to the heterogenous population of those aged 60 years and over as elderly people and the same criteria was used in this study.[8] Any document issued by the revenue or education department (10^{th} marks sheet, voter's ID card, ration card) which contained the age of the person was used while ascertaining the age of the subjects.

Method of Collection of Data: Ethical clearance was obtained from the Institutional Ethics committee. Data was collected by house to house visits. Informed consent was taken after explaining the purpose and objective of the study to the study subjects. The study subjects were interviewed and

examined. The information collected was recorded on a pretested and pre-designed proforma.

Tools Used:

Socio-economic Status *:* Modified BG Prasad classification corrected to the January 2007 AICPI (All India Consumer Price Index) was used. The class I and II (Upper and Upper middle) was considered as upper class, III and IV (Lower middle and upper lower) was considered as middle and V (Lower) as lower class.

Marital status was categorized as currently married and not currently married which included widow, widowers, separated/divorced and unmarried. Literacy status was classified into 3 categories as Illiterates, those with 1 to 10 years of education and more than 10 years of education. Occupational status was categorized into involved and not involved in economically gainful work. Food habits were grouped into pure vegetarian and mixed (included both vegetarian and non vegetarian food). Current tobacco users were the subjects who were using smoked (beedi, cigarettes, chillum etc.) or smokeless (Khaini, gutka, etc.) form of tobacco for the past one year or more. Current alcohol users were the subjects who were using any form of alcohol for the past one year or more.

Weight : Weight was measured using electronic weighing machine with subject standing erect with barefoot and light clothing to the nearest 0.1 Kg.

Height :The height was measured using stadiometer with the elderly standing upright with heals close to each other, arms hanging by the side, eyes looking straight forward and Frankfurt's plane (line joining the floor of the external auditory meatus and floor of the orbit) in the horizontal plane. The height was measured to the nearest 0.5 centimeters.

Body Mass Index(BMI) : BMI was calculated using the formula : $\frac{\text{Weight in Kg.}}{\text{Height in m}^2}$. It was classified as BMI < 18.09 as undernourished, BMI 18.09-22.25 as normal range, and BMI > 22.25 as overweight.[9]

Blood Pressure *:* Blood pressure was measured in the right upper arm, using the auscultatory method with mercury sphygmomanometer (Diamond) in the sitting position. Two separate measurements were made and the average of the two measurements was recorded. In some cases, where high blood pressure was recorded for the first time, the blood pressure was checked more than

twice and took the average of the two close readings. Systolic Blood Pressure was noted at the point at which the first of 2 or more sounds is heard (phase I) and Diastolic Blood Pressure at the point before the disappearance of sounds (phase V).

Staging of Hypertension *:* Joint National Committee (JNC)-VII staging was used. For the purpose of applying tests of significance and for logistic regression analysis subjects with systolic BP of less than 140 and diastolic BP of less than 90 mm of Hg were considered as non hypertensives and those with more than that were considered to be hypertensives.[3]

Diabetes mellitus was identified based on history, review of previous records. Anemia was assessed by physical examination(pallor in palpebral conjunctiva, tongue, nail bed and palmar creases). For assessesing depression Geriatric Depression Scale (Short form) was used. A score of more than 5 was considered as depression.[10] Diagnosis was based on history, physical examination and review of previous records.

Statistical Analysis : All the data collected was analysed using Statistical Software, SPSS Ver. 12, Epi-Info and NCSS. Tests of significance chi square test for the categorical variables. Binary logistic regression analysis was done by enter method including the variables which showed a significance at 10 percent level on univariate analysis. Hosmer and Lemeshow goodness of fit test and Naegelkerke R square were also calculated.

Results:

Among the 411 elderly subjects nearly 59 percent belonged to the 60 to 69 years age group followed by 70 to 79 years group which constituted around 31 percent. Only 10 percent were in the age group of 80 years and above. There were 214 (52.1%) men and 197 (47.1%) women in the study population. Nearly 254(61.8%) were currently married, 288(70%) were illiterate. Among the literates 103(25%) had 1-10 years of education and 20 (5%) had more than 10 years of education. Nearly 64% were current users of tobacco and only 10 subjects were current consumers of alcohol.

Of the 411 elderly subjects 16 were known cases of diabetes mellitus giving a prevalence of 3.9 percent. There were 88(21.4%) elderly who were anaemic and 81(19.7%) were depressed.

The prevalence of hypertension (Systolic BP $\geq$140 and / or Diastolic

BP≥ 90) among the elderly subjects based on JNC VII classification was found to be around 45 percent. Nearly one fourth of the subjects were in the pre hypertension category. (Table 1)

In the univariate analysis occupation, socio economic status, food habits, BMI, diabetes mellitus and anaemia were found to be significantly associated with hypertension at 5 percent level. Age group, education, family type and current tobacco use were significant at 10 percent level. A lower proportion of current tobacco users were found to be having hypertension compared to non users (Table 2).

All the factors which were found to be significant at 10 percent level were entered into binary logistic regression analysis by enter method. On logistic regression analysis upper socio economic class, mixed food habits (consuming both vegetarian and non vegetarian diet), normal BMI (18.09-22.25) and overweight and obese BMI (>22.25) and diabetes mellitus were found to be significant predictors of hypertension among the elderly people (Table 3). Hosmer and Lemeshow goodness of fit was not significant (p=0.793) which indicated good fit of the logistic regression model. Nagelkerke R square showed that 20 percent of the hypertension among the elderly can be predicted by the variables in the model.

Discussion:

The developing countries are undergoing demographic transition with increase in life expectancy. As a result there is increase in the proportion of elderly segment of population. Hypertension is an important risk factor for cardiovascular morbidity and mortality, particularly in the elderly.

The present study was carried out in the rural areas of Allahabad district. The prevalence of hypertension was found to be around 45 percent among the people aged 60 years and above.

The prevalence was found to be over 30 percent among rural population aged more than 30 years in different studies in India.[7,11,12] Higher prevalence of around 55 % was found among the rural elderly population by Hypertension study group and Rashid AK in rural areas of Kerala and Malaysia respectively.[9,13] Prevalence of over 60 percent was reported by the Framingham Heart study.[2] This difference might be because of different geographic area. The studied area belongs to a backward area in the eastern Uttar Pradesh. Epidemiological transition is slowly taking place.

Nearly quarter of the study subjects were in the pre hypertension category which is a cause for concern as they are likely to develop hypertension over time. Moreover pre hypertension is also associated with increased risk of cardiovascular diseases.[14]

The prevalence was nearly similar among the male and female elderly population. Comparable results were found by the Hypertension study group and others . [7,9,14] Hypertension prevalence is less in women than in men until 45 years of age, is similar in both sexes from 45 to 64 years of age, and is much higher in women than men >65 years of age as per NCHS data.[15] In the Framingham heart study elderly over age 70 years, 65% of men and 75% of women have the disease. [2] The prevalence of hypertension increases as the age advances as quoted by different studies across India and world over. [2, 7, 12, 14] In the current study there was increase from 60-69 years group to 70-79 years group. After that there was a decline. Comparable results were found by the hypertension study group with increase in the 2nd tertile of age group and decline in the 3rd tertile.[9] This might be because of the smaller sample in the 80+ age group. Prevalence of hypertension in the present study was not related to marital status which is in conformity with other studies. [7, 9, 16,17]

The association of higher educational levels and upper socio economic class with increased odds of hypertension is in contrast to findings from developed countries, where risk factors for cardiovascular diseases, including hypertension, are more pronounced among the less educated and lower socio economic groups.[17- 22] However, it is important to note that our study was cross-sectional and the communities surveyed are at an early stage of epidemiological transition.

Prevalence of hypertension was found to be higher among the subjects not involved in economically gainful activity. Sedentary type of work or physical inactivity or unemployment has been found to be an important risk factor for hypertension in various studies. [7,12,17,22-28] Elderly population who were involved in economically gainful activity were found to be at lower risk of hypertension.

In a study in Surat city by Momin MH et. al the prevalence of hypertension was significantly higher among nuclear type of family (35.5%) as compared to the Joint type of family (25.8).[29] But in the present study such an association was not seen.

In the present study the subjects consuming pure vegetarian food had significantly lower prevalence of Hypertension compared to those consuming mixed diet. Vegetarian diets have been associated with low BP.[30,31] Even in industrialized countries, where elevated BP is commonplace, individuals who consume a vegetarian diet have markedly lower BPs than do non vegetarians. [32-34]

Current tobacco use has not been found to be associated with hypertension in this study. But tobacco smoking was found to be associated with lower odds of hypertension by the hypertensive study group and others. [9,14] Even though it has been proved that consumption of tobacco is an important risk factor for hypertension such contrasting finding may indicate other complex and significant factors influencing vascular tone among elderly hypertensive subjects.[7, 35,36]

Several studies have indicated higher BMI as a significant predictor for hypertension.[7,9,12, 27,37] Comparable results were found in the current study.

The prevalence of hypertension was found to be significantly higher among the elderly with diabetes in the present study. [12, 38] Hypertension was found to affect approximately 70% of patients with diabetes and was approximately twice as common in persons with diabetes as in those without.[39,40] The association of diabetes mellitus with increased odds of hypertension has been reported on many occasions.[9,12,17,27,37]

The current study shows that depression was not associated with the hypertension. A handful of studies have suggested that depression may be more common among individuals with hypertension.[41-43] While a much larger body of evidence shows no association between hypertension and depression.[44-49] Additional research found no crude or adjusted association between hypertension and depression.[44-47, 49, 50]

Limitation:

Diabetes mellitus was identified based on history, review of previous records. No objective measurement of blood glucose was made. Anemia was assessed by physical examination alone. No laboratory/objective assessment was done. Hence it might be an underestimate.

Conclusion:

Hypertension is highly prevalent among the elderly population of rural Allahabad. The significant predictors for hypertension among them are upper socio economic class, mixed food habits (consuming both vegetarian and non vegetarian diet), normal BMI (18.09-22.25) and overweight and obese BMI (>22.25) and diabetes mellitus.

Recommendations:

Regular screening of all the people aged above 60 years for hypertension. Appropriate management of hypertension including life style modification and better control of diabetes mellitus may go a long way in preventing the complication associated with hypertension. Yoga and meditation can also be included in the strategy.

Conflicts of interest: None declared

Sources of support: None declared

Figure 1. Sampling frame

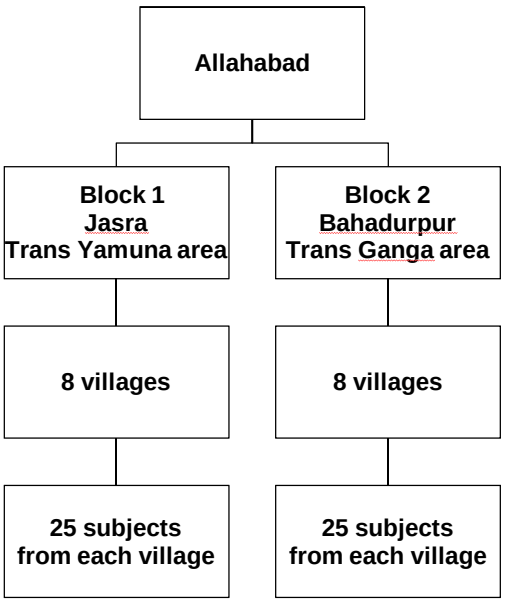


Table 1: Classification of hypertension among elderly according to JNC VII

Blood Pressure (mm Hg)	Male		Female		Total	
	No.	%	No.	%	No.	%
Normal ***SBP <120 & DBP <80**	69	16.8	59	14.4	128	31.2
Pre Hypertension **SBP 120-139 & **DBP 80-89**	51	12.4	48	11.7	99	24.1
Stage I Hypertension **SBP 140-159 &/or DBP 90-99**	59	14.4	43	10.5	102	24.9
Stage II Hypertension SBP ≥160 &/or DBP ≥100	35	8.5	47	11.3	82	19.8
Total	214	52.1	197	47.9	411	100.0

(χ^2 =4.44, df=3, p>0.05 Not significant).

** SBP= Systolic Blood Pressure, ** DBP= Diastolic Blood Pressure.*

Table 2: Univariate analysis of factors associated with hypertension

Factors	Hypertension	No hypertension	P value
	No.(%)	No.(%)	
Age group in years			
60-69	100(40.8)	145(59.2)	0.073
70-79	67(53.2)	59(46.8)	
≥80	17 (42.5)	23(57.5)	
Mean ± SD	69.8 ± 7.2	68.7 ± 8.3	
Gender			
Male	94(43.9)	120(56.1)	0.720
Female	90(45.7)	107(54.3)	
Marital status			
Currently Married	110(43.3)	144(56.7)	0.350

Non married		74(48.1)	80(51.9)	
Education				
Illiterate		125(43.4)	163(56.6)	0.067
1-10 years		45(43.7)	58(56.3)	
>10years		14 (70.0)	06(30.0)	
Occupation				
No Gainful work		139(48.3)	149(51.7)	0.029
Gainful work		45(36.6)	78(63.4)	
Family type				
Joint		64(46.4)	74 (53.6)	0.060
Three generation		70(51.1)	67(48.9)	
Nuclear		36 (34.0)	70(66.0)	
Living alone		14 (46.7)	16(53.3)	
Socio Economic status				
Lower		55(44.4)	69(55.6)	0.001
Middle		111(41.9)	154(58.1)	
Upper		18 (81.8)	04(18.2)	
Food habits				
Pure vegetarian		74 (37.2)	125(62.8)	0.003
Mixed		110 (51.9)	102(48.1)	
Current Tobacco use*				
No		75(50.7)	73(49.3)	0.071
Yes		109(41.4)	154(58.6)	
BMI				
<18.09		49(31.8)	105(68.2)	0.000
18.09-22.25		89(50.3)	88(49.7)	
>22.25		46 (59.0)	32(41.0)	
Mean±SD		18.95±3.21	20.29±3.43	
Co morbid conditions				
Diabetes Mellitus	No	171(43.3)	224(56.7)	0.003
	Yes	13 (81.2)	03(18.8)	
Anemia	No	157(48.6)	166(51.4)	0.003
	Yes	27 (30.7)	61(69.3)	
Depression	No	143(43.3)	187(56.7)	0.237
	Yes	41 (50.6)	40(49.4)	

*Current Tobacco use- both smoked and smokeless tobacco

Table 3: Binary logistic regression analysis of factors associated with hypertension

Factors	OR	95% CI		P value
		Lower	Upper	
Age group in years				
60-69	1.0			
70-79	1.61	0.99	2.61	0.056
≥80	1.48	0.66	3.33	0.339
Education				
Illiterate	1.0			
1-10 years	1.04	0.61	1.77	0.884
>10years	1.61	0.49	5.28	0.432
Occupation				
No Gainful work	1.0			
Gainful work	0.61	0.37	1.02	0.058
Family type				
Joint	1.0			
Three generation	1.24	0.74	2.09	0.420
Nuclear	0.59	0.33	1.05	0.071
Living alone	1.05	0.43	2.58	0.908
Socio Economic status				
Lower	1.0			
Middle	0.98	0.61	1.58	0.939
Upper	5.27	1.45	19.11	0.011
Food habits				
Pure vegetarian	1.0			
Mixed	2.24	1.43	3.51	0.000
Current Tobacco use				
No	1.0			
Yes	0.62	0.49	1.18	0.082
BMI				
<18.09	1.0			
18.09-22.25	1.78	1.02	3.13	0.044
>22.25	2.19	1.10	4.37	0.026

Co morbid conditions					
Diabetes Mellitus	No	1.0			
	Yes	4.20	1.06	16.60	0.041
Anemia	No	1.0			
	Yes	0.57	0.30	1.10	0.095

References:

1. Bloom DE, Cafiero ET, Jané-Llopis E et al. The Global Economic Burden of Non-communicable Diseases. Geneva: World Economic Forum. A report by the World Economic Forum and the Harvard School of Public Health.2011. http://www3.weforum.org/docs/WEF_Harvard_HE_GlobalEconomicBurdenNonCommunicableDiseases_2011.pdf (cited 2013 Aug 5)
2. Chaudhry KN, Chavez P, Gasowski J et al. Hypertension in the elderly: some practical considerations. *Cleve Clin J Med*. 2012;79(10):694-704.
3. Chobanian AV, Bakris GL, Black HR et al. The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure: the JNC 7 report. *JAMA* 2003; 289:2560-2572.
4. http://www.who.int/cancer/publications/national_capacity_prevention_ncds.pdf (cited 2013 Aug 5)
5. Lionakis N, Mendrinos D, Sanidas E et al. Hypertension in the elderly. *World J Cardiol.* 2012;4(5): 135-147.
6. World population prospects 2012 revision. Key findings and advance tables. United Nations, New York 2013. http: //esa.un. org/wpp /Docum entatio n/pd f/WP P201 2_%20KEY%20FINDINGS.pdf (cited 2013 Aug 5)
7. Hazarika NC, Biswas D, Narain K et al. Hypertension in the native rural population of Assam. *Natl Med J India.* 2004;17(6):300–304.
8. WHO. Health of the elderly . TRS. 1989; 779: 8
9. Hypertension Study Group. Prevalence, awareness, treatment and control of hypertension among the elderly in Bangladesh and India: A multicentre study. *Bull World Health Organ.* 2001;79:490–500.
10. Welty C, Palmer RM. Aging and the Geriatric Patient. Chapter 26. Textbook of Clinical Preventive Medicine. 2nd Edition, American Medical Association. 301-312.
11. http://www.japi.org/february_2013_special_issue_hypertension_guidelines/06_epidemiology_of_hypertension.pdf (cited 2013 Aug 5)
12. Yadav S, Boddula R, Genitta G et al. Prevalence and risk factors of pre-hypertension and hypertension in an affluent north Indian population. *Indian J Med Res*. 2008;128:712-720.
13. Rashid AK. Azizah AM. Prevalence of hypertension among the elderly Malays living in rural Malaysia. *Austr Med Jr*. 2011; 4, 6, 283-290.
14. Thankappan KR, Sivasankaran S, Khader SA et al. Prevalence, correlates, awareness, treatment, and control of hypertension in Kumarakom, Kerala: Baseline results of a community-based intervention program. *Indian Heart J.* 2006; 58: 28-33.

15. National Center for Health Statistics. Health, United States, 2007 With Chartbook on Trends in the Health of Americans. Hyattsville, Md: National Center for Health Statistics; 2007.
16. Hazarika NC, Biswas D, Narain K et al. Hypertension and its risk factors in tea garden workers of Assam. *Natl Med J India.* 2002;15:63–8.
17. Abed Y,. Abu-Haddaf S. Risk Factors of Hypertension at UNRWA Primary Health Care Centers in Gaza Governorates*. ISRN Epidemiology.* 2013; Article ID 720760, 9 pages. http://www.hindawi.com/isrn/epidemiology/2013/720760/cta/ (cited 2013 Sept 17)
18. Leino M, Raitakari OT, Porkka KVK et al. Association of education with cardiovascular risk factors in young adults: the Cardiovascular Risk in Young Finns Study. *Int Jr of Epid*. 1999; 28: 667–675.
19. Sorel JE, Ragland DR, Syme L et al. Educational Status and Blood Pressure: The Second National Health and Nutrition Examination Survey, 1976 –1980, and the Hispanic Health and Nutrition Examination Survey, 1982–1984. *Am Jr of Epid*. 1992;135: 1339–1348.
20. Regidor E, Guttiérez-Fisac JL, Banegas JR, *et al*. Association of adult socioeconomic position with hypertension in older people. J Epid Commun Hlth. 2006; 60(1): 74–80.
21. Grimsrud A, Stein DJ, Seedat S et al. The Association between Hypertension and Depression and Anxiety Disorders: Results from a Nationally-Representative Sample of South African Adults. *PLoS ONE*. 2009; 4(5): e5552. doi:10.1371/journal.pone.0005552.
22. Diez Roux AV, Chambless L, Merkin SS et al. Socioeconomic disadvantage and change in blood pressure associated with aging. *Circulation.* 2002 Aug 6;106(6):703-710.
23. Chockalingam A, Ganesan N, Venkatesan S et al. Patterns and predictors of pre-hypertension among "healthy'' urban adults in India. *Angiology.* 2005; *56*: 557-63.
24. Anand MP. Prevalence of hypertension amongst Mumbai executives. *J Assoc Physicians India.* 2000; *48* : 1200-1201.
25. Zachariah MG, Thankappan KR, Alex SC et al. Prevalence, correlates, awareness, treatment, and control of hypertension in a middle-aged urban population in Kerala. *Indian Heart J.* 2003; *55* : 245-51.
26. Whelton SP, Chin A, Xin X et al. Effect of aerobic exercise on blood pressure: a meta-analysis of randomized, controlled trials. *Ann Intern Med.* 2002; *136* : 493-503.
27. Thawor*nchaisit P, de Looze F, Reid CM* et al. Health risk factors and the incidence of hypertension: 4-year prospective findings from a national cohort of 60 569 Thai Open University students. BMJ Open. 2013;3: e002826. doi:10.1136/bmjopen-2013-002826. http://bmjopen.bmj.com/content/3/6/e002826.full.pdf+html (cited 2013 Sept 17)
28. Bassett DR Jr, Fitzhugh EC, Crespo CJ et al. Physical activity and ethnic differences in hypertension prevalence in the United States. *Prev Med.* 2002; *34* : 179-86.

29. Momin MH, Desai VK, Kavishwar AB. Study of sociodemographic factors affecting prevalence of hypertension among bank employees of Surat City. *Indian J Public Health.* 2012;56:44-8.
30. Appel LJ, Brands MW, Daniels SR et al. Dietary approaches to prevent and treat hypertension: A scientific statement from the American Heart Association. *Hypertension.*2006;47(2):296-308.
31. Fraser G. Risk factors and disease among vegans. In: Fraser G, ed. Diet, life expectancy, and chronic disease. Studies of Seventh-day Adventists and other vegetarians. New York, NY: Oxford University Press, 2003:231–9.
32. Armstrong B, van Merwyk AJ, Coates H. Blood pressure in Seventh-day Adventist vegetarians. *Am J Epidemiol*. 1977;105:444 – 449.
33. Sacks FM, Rosner B, Kass EH. Blood pressure in vegetarians. *Am J Epidemiol*. 1974;100:390 –398.
34. Sacks FM, Kass EH. Low blood pressure in vegetarians: effects of specific foods and nutrients. *Am J Clin Nutr*. 1988;48:795– 800.
35. Poulsen PL, Ebbehoj E, Hassen KW et al. Effects of smoking on 24-h ambulatory blood pressure and autonomic function in normalbuminuric insulin dependent diabetes mellitus patients. *Am J Hypertens.* 1998;11:1093–9.
36. Mikkelsen KL, Wiinberg N, Hoegholm A et al. Smoking related to 24-h ambulatory blood pressure and heart rate: A study in 352 normotensive Danish subjects. *Am J Hypertens.* 1997;10 (5 Pt 1):483–91.
37. Shanthirani CS, Pradeepa R, Deepa R et al. Prevalence and risk factors of hypertension in a selected South Indian population - the Chennai Urban Population Study. *J Assoc Physicians India.* 2003; 51: 20-7.
38. Lago RM, Singh PP, Nesto RW. Diabetes and hypertension *. Nat Clinical Pract Endo& Metab.*2007; 3(10): 667. doi:10.1038/ncpendmet0638. http ://ww w.na ture. com/ nrend o/journal/v3/ n10/pdf/ncpendmet0638.pdf (cited 2013 Sept 17)
39. Geiss LS, Rolka DB, Engelgau MM: Elevated blood pressure among U.S. adults with diabetes, 1988–1994. *Am J Prev Med.*2002;22:42– 48.
40. Sowers JR, Epstein M, Frohlich ED: Diabetes, hypertension, and cardiovascular disease: an update. *Hypertension*. 2001;37:1053–1059.
41. Davidson K, Jonas BS, Dixon KE et al. Do Depression Symptoms Predict Early Hypertension Incidence in Young Adults in the CARDIA Study? *Arch Intern Med*. 2000;160:1495–1500.
42. Jonas BS, Franks P, Ingram DD. Are symptoms of anxiety and depression risk factors for hypertension? Longitudinal evidence from the National Health and Nutrition Examination Survey I Epidemiologic Follow-up Study. *Arch of Fam Med*. 1997; 6: 43–49.
43. Coelho R, Hughes AM, Fernandes da Fonseca A et al. Essential hypertension: The relationship of psychological factors to the severity of hypertension. *Jr of Psychosom Res*.1989; 33: 187–196.
44. Paterniti SMD, Alperovitch AMD, Ducimetiere PP et al. Anxiety But Not Depression Is Associated With Elevated Blood Pressure in a Community Group of French Elderly. Psychosom Med. 1999; 61: 77–83.
45. Yan LL, Liu K, Matthews KA et al. Psychosocial Factors and Risk of Hypertension: The Coronary Artery Risk Development in Young Adults (CARDIA) Study. *JAMA*. 2003; 290: 2138–2148.

46. Shinn EH, Poston WSC, Kimball KT et al. Blood pressure and symptoms of depression and anxiety: a prospective study. *Am Jr of Hyp*. 2001;14: 660–664.
47. Jones-Webb R, Jacobs DR, Flack JM et al. Relationships between Depressive Symptoms, Anxiety, Alcohol Consumption, and Blood Pressure: Results from the CARDIA Study. Alcoholism: *Clin and Expl Res.* 1996; 20: 420–427.
48. Levenstein S, Smith MW, Kaplan GA. Psychosocial Predictors of Hypertension in Men and Women. *Arch Intern Med*. 2001; 161: 1341–1346.
49. Wiehe M, Fuchs S, Moreira L et al. Absence of association between depression and hypertension: results of a prospectively designed population-based study. *Jr of Human Hyp*. 2006; 20: 434–439.
50. Scherrer JFMA, Xian HP, Bucholz KKP et al. A Twin Study of Depression Symptoms, Hypertension, and Heart Disease in Middle-Aged Men. *Psychosom Med*. 2003; 65: 548–557.

MULTIMODAL MEDICAL IMAGE FUSION USING MEMBERSHIP FUNCTION OF NEIGHBOURING COEFFICIENT

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I.INTRODUCTION

MEDICAL imaging has become a important component in clinical applications such as diagnosis and treatment planning . However, because each imaging modality only provides information in a limited domain, many studies prefer joint analysis of imaging data collected from the same patient using different modalities . This requirement of joint analysis led to the introduction of image fusion into the medical field and the development of medical data-oriented fusion techniques . The goal of image fusion is to provide a single fused image, which provides more accurate and reliable information than any individual source image and in which fea-tures may be more distinguishable . Such an enhanced image facilitates visual perception or further im-age processing .

Due to its compact and enhanced representation of informa-tion, image fusion has been employed in many medical applica-tions. For instance, T_1 -weighted (T1W) and T_2 -weighted (T2W) magnetic resonance imaging (MRI) scans were fused to seg-ment white matter lesions or cerebral iron deposits and to guide neurosurgical resection of epileptogenic lesions . Com-puted tomography (CT) and MRI images were fused for neu-ronavigation in skull base tumor surgery . Fusion of positron emission tomography (PET) and MRI images has proven use-ful for hepatic metastasis detection and intracranial tumor diagnosis . Image fusion can be performed at three different levels, i.e., pixel/data level, feature/attribute level, and symbol/decision level, each of which serves different purposes .

Compared with the others, pixel-level fusion directly combines the original information in the source images and is more computationally

efficient . According to whether multiscale decomposition (MSD) is used, pixel-level fusion methods can be classified as MSD-based or non-MSD based. Compared to the latter, MSD-based methods have the advantage of extracting and combining salient features at different scales, and therefore normally produce images with greater information content . The general procedure of MSD-based fusion is illustrated in Fig. 2. First, the source images are transformed to multiscale representations (MSRs) using MSD. An MSR is a pyramidal structure with successively reduced spatial resolution; it usually contains one approximation level (APX) storing low-pass coefficients and several detail levels (DETs) storing high-pass or bandpass coefficients. Then, a certain fusion rule is applied to merge coefficients at different scales. Finally, an inverse MSD (IMSD) is applied to the fused MSR to generate the final image.

Two directions can be explored in MSD-based fusion to enhance the fusion quality: advanced MSD schemes and ef-fective fusion rules. Here, we focus on the latter and pro-pose a novel cross-scale (CS) fusion rule, where the belong-ingness/membership of each fused coefficient to each source image is calculated. Unlike previous methods, our fusion rule calculates an optimal set of coefficients for each scale taking into account large neighborhood information, which guarantees intrascale and interscale consistencies, i.e., coefficients with similar characteristics are fused in a similar way and artifacts (e.g., aliasing artifacts at object boundaries) are avoided in the results.

II.FUSION RULES

In addition to the MSD scheme, the other key factor affecting fusion results is the fusion rule. A fusion rule is the processing that determines the formation of the fused MSR from the MSRs of the source images, and it normally consists of four key com-ponents, i.e., activity-level measurement, coefficient grouping, coefficient combination, and consistency verification . In this section, we give a brief review of some representative schemes in these four steps. Please refer to and for more detailed discussions and other types of fusion methods (e.g., estimation theory-based method .

1) ***Activity-Level Measurement****:* The activity-level measurement reflects the salience of each coefficient in an MSR , and it can be categorized into three classes, i.e.,

I.Coefficient-basedactivity (CBA),

II. Window-based activity (WBA),
III. Region-based activity (RBA) .

A CBA measure evaluates each coefficient independently and normally describes the activity level of a coefficient using its absolute value. A WBA measure uses the information within a window to evaluate the coefficient at the window center. A popular choice is the rank filter-based WBA, where the maximum value within a window is normally se-lected as in . The concept of RBA is similar to WBA except that irregular-shaped regions are used instead of regular-shaped windows. In our CS rule, there is no restriction on the type of activity-level measures to be employed. The focus of our CS rule is to provide a unified framework for the other three key com-ponents in a fusion rule, which were usually treated separately in previous methods.

2) ***Coefficient Grouping****:* The coefficient grouping schemes can be roughly divided into three categories

I.No group-ing (NG),
II.Single-scale grouping (SG),
III.Multiscale grouping (MG).
IV.Cross-band SG (CBSG).

NG means that each coefficient is fused independently; SG means that corresponding coefficients between different sub-bands at the same scale are fused in the same way; and MG is more restrictive than SG because it also requires that corre-sponding coefficients between different scales take the same fusion decision. A cross-band SG (CBSG) scheme was pro-posed in , where the same fusion decision for every set of corresponding detail coefficients at the current scale is made based on the sum of their activity levels and their corresponding coefficients at a higher scale. In , an MG scheme was pro-posed in which the fusion decision for every set of corresponding coefficients across all scales is made based on the weighted average of their activity levels. Our CS rule performs similar to MG, but does not impose such a hard constraint on the fusion decision. Instead, the influence on each coefficient from their corresponding coefficients at adjacent scales is reflected in the membership calculation, and the fusion decision of a coefficient is determined based on its calculated membership.

3) Coefficient Combination*:* One common coefficient combination scheme for the DETs is the choose-max (CM) strategy, i.e., selecting the coefficient with the highest activity level at each location from the MSRs of the source images as the coefficient at that location in the MSR of the fused image . Two

common combination schemes for APX are

I.Average (AVG)

II.Weighted average (WA).

In WA, a linear weighting function is applied when the local correlation between corresponding coefficients in a neighborhood in the MSRs of the source images is above a threshold. Our CS rule does not apply combination schemes based directly on coef-ficient activity levels, but combines coefficients based on their memberships, which results in a more effective scheme utilizing interscale and intrascale information.

4) Consistency Verification*:* The consistency verification schemes ensure neighboring coefficients are fused in a sim-ilar manner . A majority filter was used in

I.Window-based verification (WBV).

II.Cross-band verification (CBV).

III.No verification (NV).

scheme was proposed in, where the coefficients at a DET are recalculated if their corresponding coefficients at a lower level do not come from the same MSR. CBV was designed to comply with CBSG. It is also possible that no verification (NV) is applied. Our CS rule does not perform explicit verification, but embeds verification in the coefficient membership calculation process.

III.METHOD

A. Problem Formulation

The source images are assumed to be spatially registered, which is a common assumption in image fusion. Various techniques can be applied to medical image registration. We follow the MSD-based fusion procedure, as illustrated in Fig. 2. Let $c^n_{k,d,i}$ and $\bar{c}^n_{d,i}$ denote the ith coefficients in the dth subband at the nth DET of the MSR of the kth source image and the fused image, respectively, where $n \in [1, N]$. Let $a_{k,d,i}$ and $\bar{a}_{d,i}$ denote the ith coefficients in the dth subband at the APX of the MSR of the kth source image and the fused image, respectively. We assume that a subband at the APX has the same size as a subband at the Nth DET. For PT schemes where the APX is at a higher level, applying an extra step of bandpass filtering can fulfill this assumption. Let $M : \{\bar{c}^n_{d,i}, \bar{a}_{d,i}\} \times \{c^n_{k,d,i}, a_{k,d,i}\} \rightarrow [0, 1]$ be a function

representing the (partial) membership of $\bar{c}^n_{d,i}$ (or $\bar{a}_{d,i}$) to the MSR of the kth source image, i.e., the proportion of the contribution from $c^n_{k,d,i}$ (or $a_{k,d,i}$) to $\bar{c}^n_{d,i}$ (or $\bar{a}_{d,i}$) among all corresponding coefficients $\{c^n_{k,d,i} | k = 1, \ldots, K\}$ $k = 1, \ldots, K\}$). The memberships can be determined based on local and/or global information in the MSRs. To simplify notation, let $M^n_{k,d,i}$ and $M_{k,d,i}$ denote the coefficient mem-berships at the nth DET and the APX, respectively. We have $\sum_k M^n_{k,d,i} = 1$ and $\sum_k M_{k,d,i} = 1$.

For each subband of a DET, where the corresponding coef-ficients among different MSRs are usually quite distinct from each other, a fused coefficient can be determined as the one with the highest membership:

$$\bar{c}^n_{d,i} = \arg\max_{c^n_{k,d,i}, k:1\ldots K} M^n_{k,d,i}. \quad (1)$$

For the APX, where the corresponding coefficients usually ex-hibit less diversity compared to those at a DET, a fused coef-ficient can be determined as a weighted average of all of its corresponding coefficients based on their memberships:

$$\bar{a}_{d,i} = \sum_{k=1}^{K} M_{k,d,i} a_{k,d,i}. \quad (2)$$

B. ***Cross-Scale Coefficient Selection***

The proposed CS fusion rule aims to pass information within and between each decomposition level to achieve intrascale and interscale consistencies so that the fused image preserves the most details from the source images while exhibiting minimal artifacts. The basic steps are: 1) pass salient information from a lower level to a higher level in an MSR until APX is reached; 2) calculate the memberships of each fused coefficient at APX using the passed salient information; 3) use these memberships to guide the coefficient selection at DETs.

Let $A^n_{k,d,i}$ denote the activity level of $c^n_{k,d,i}$. In order to impose interscale consistency, the activity levels of coefficients at a lower decomposition level are passed to a higher level as follows:

$$\tilde{A}^n_{k,d,i} = \begin{cases} \mathrm{erf}(A^n_{k,d,i}), & n = 1 \\ \max(\mathrm{erf}(A^n_{k,d,i}), [\tilde{\mathbf{A}}^{n-1}_{k,d}]^{\downarrow 2}_i), & n \in [2, N] \end{cases} \quad (3)$$

where ˜**A***n k,d* denotes the vector containing all *A*˜*nk,d,i*s in the dth subband of the MSR of the kth source image; [·]↓2 denote downsampling by a factor of 2 in each dimension; and the subscript[·]*i* denotes the ith coefficient. The maximum function is used as a way to ensure interscale consistency by allowing the calculation at higher scales to access the most representative salient information at lower scales, which we take as those with high activity levels. erf : R → [−1, 1] is called the Gauss error function, a sigmoid-shaped function. The magnitudes of activity levels of coefficients across different DETs can vary significantly, which makes it difficult to compare the relative importance of salient information across scales. This nonlinear function erf(·) compresses the activity levels into the same range [0, 1] for non-negative activity levels, which gives a more reasonable comparison of salient information. In addition, it also depresses very high activity levels, which sometimes may be caused by image noise.

At the APX, the passed salient information *A*˜*N k,d,i*s and the approximation coefficients *ak,d,i*s are used together to calculate the memberships*Mk,d,i* s. One simple scheme is to directly take normalized *A*˜*N k,d,i*s as *Mk,d,i* s. However, this scheme does not utilize the visual information embedded in *ak,d,i* s, which is crucial for producing locally smoothed solutions. The generalized random walks (GRW) proposed in has demonstrated good performance in imposing intrascale consistency, while preserving local details in multiexposure fusion. Therefore, here we employ GRW to calculate *Mk,d,i* s, which we consider as the steady-state probabilities in the random walks context, by minimizing *K* similarly defined energy functions. Let**M***k,d* denote the vector containing all *Mk,d,i* s, i.e., memberships of all the approximation coefficients in the dth subband of the fused MSR to the kth source image. The solution to the kth energy function is given by

$$\mathbf{L}_d \mathbf{M}_{k,d} = \tilde{\mathbf{A}}^N_{k,d}. \qquad (4)$$

The matrix **L***d* encodes the similarities between adjacent coefficients. The entry in the ith row and jth column of **L***d* is defined as follows:

$$\mathrm{L}_{d,ij} = \begin{cases} \sum_{\bar{a}_{d,s} \in \mathcal{N}_{d,i}} W_{d,is} + \sum_k \tilde{A}^N_{k,d,i}, & i = j \\ -W_{d,ij}, & \bar{a}_{d,j} \in \mathcal{N}_{d,i} \\ 0, & \text{otherwise} \end{cases} \qquad (5)$$

where *Nd,i* is the first-order neighborhood of ¯*ad,i* . *Wd,ij* represents the expected similarity between ¯*ad,i* and ¯*ad,j* based on the observed approximation coefficients in the MSRs of the source images. *Wd,ij* is defined as follows:

$$W_{d,ij} = \gamma \prod_{k=1}^{K} \exp\left(-\frac{\|a_{k,d,i} - a_{k,d,j}\|}{\sigma}\right) \qquad (6)$$

where γ and σ are weighting factors. Equation (6) assigns a higher penalty to a coefficient pairwith greater similarity. Therefore, similar coefficients are more likely to be assigned similar memberships to ensure intrascale consistency.

Once*Mk,d,i*s are calculated for the APX (*n* = *N*) using (4) to (6), they are passed down to guide the membership calculation at DETs to impose interscale consistency:

$$M_{k,d,i}^{n} = \begin{cases} M_{k,d,i}, & n = N \\ \frac{1}{\alpha}[\phi * (\tilde{\mathrm{A}}_{k,d}^{n} \odot [\mathrm{M}_{k,d}^{n+1}]^{\uparrow 2})]_i, & n \in [1, N-1] \end{cases} \qquad (7)$$

where α is a normalization factor rendering _*k Mn k,d,i* = 1; [·]↑2 denotes upsampling by a factor of 2 in each dimension followed by interpolation; □ denotes convolution; _ denotes component-wise multiplication; and φ is a low-pass filter that helps to achieve intrascale consistency. In our current implementation, φ is taken as a 5 × 5 × 5 Gaussian filter for each decomposition level of a volume. The filter is constructed using the separable generating kernel in [23] with parameter *a* = 0.3751. In the following, we give two specific examples of applying our CS rule with two popular MSD schemes, LPT and DWT. However, the concept may be extended to other MSD schemes as well, such as RoLP and DT-CWT.

1) LPT+CS Based Fusion*:* In order to combine our CS rule with LPT, an extra step of bandpass filtering at the APX is needed to produce a corresponding DET. This DET is only used in the coefficient membership calculation and is not involved in IMSD. Please note that there is only one subband at each decomposition level for LPT. The whole process of LPT+CSbased fusion is summarized in Algorithm 1.

2) DWT+CS Based Fusion*:* Although it is possible to apply the same scheme for LPT-based fusion to DWT-based fusion, each DET for DWT contains $2D - 1$ subbands (D is the number of dimensions of the signal), which will result in significantly increased computational cost and poor consistency among subbands. Therefore, corresponding coefficients in different subbands at the same scale are evaluated together and the same membership is assigned to all of them. Hence, *An k,d,i* used in (3) is substituted with the following:

$$\hat{A}^n_{k,d,i} = \max(A^n_{k,1,i}, \ldots, A^n_{k,2^D-1,i}). \qquad (8)$$

Algorithm 1 Basic steps of the LPT+CS fusion scheme.

1: Apply N-level LPT to each source image
2: Apply band-pass filtering to APXs of each source image
3: Compute $\tilde{A}^n_{k,1,i}$'s for DET 1 to N using Equation (3)
4: Compute $M_{k,1,i}$'s at APX using Equations (4) to (6)
5: Compute $M^n_{k,1,i}$'s for DET N to 1 using Equation (7)
6: Select coefficients for fused APX using Equation (2)
7: Select coefficients for fused DETs using Equation (1)
8: Apply inverse LPT to the fused MSR

IV. EXPERIMENTAL RESULTS AND DISCUSSION

The performance of our CS fusion rule was evaluated on volumetric image fusion ofT1WandT2WMRI scans using both synthetic and real data (see Section IV-A). After this validation, we demonstrate the capability of our fusion rule to fuse other modalities (see Section IV-C). In addition, we have consulted a neurosurgeon and a radiologist. In their opinion, our method not only provides enhanced representations of information, which is useful in applications like diagnosis and neuronavigation, but also offers them the flexibility of combining modalities of their choice, which is important because the data types required are normally application dependent.

A. Validation of the Proposed CS Fusion Rule

In our experiments, only CBA was employed as the activitylevel measurement. This is because: 1) as evaluated in CBA is one of the measures that give the best performance; 2) our CS rule places no restriction on the activity level and employing the same activity-level measure in all methods gives a fair comparison between our CS rule and existing fusion rules. Three grouping schemes (NG, CBSG, and MG) were considered, as were two

combining schemes for APX (AVG andWA). In addition, we considered one combining scheme for DETs (CM) and three verification schemes (NV, WBV, and CBV). Please note that only CM can be used for the APX when MG is used due to the nature ofMGand that CBV can only be used with CBSG due to the nature of CBSG. For WA and WBV, we took a 5 × 5 × 5 neighborhood/window. We used the suggested threshold value of 0.85 in WA . The two suggested threshold values of 0.2 and 0.5 in were used in CBV. Two MSD schemes were considered: LPT and DWT. For DWT, we used the wavelet package provided by [47] and employed the 2-band orthogonal near symmetric filters with $K = 2$, $L = 6$. Five-level decomposition was applied in LPT and four-level decomposition was applied in DWT. Please note that the APX in an N-level LPT has the same size as that in an $(N - 1)$-level DWT. All methods were implemented in MATLAB, run on the same computer, and applied directly to the 3-D volumes rather than 2-D slices. Two free parameters (γ and σ) are in our CS rule. Taking $\gamma = 10$ and $\sigma = 1$ produced the best results in the experiments on the synthetic data; we therefore also used these values in the experiments on real data.

1) Objective Evaluation Metric*:* The objective metric *QAB/F* [49] was employed in evaluating the fusion quality.This metric does not require an ideal composite image, which is difficult to get in practical cases, as a reference image. *QAB/F* has been proven to correspond well with subjective tests among different metrics and is widely used to assess fusion quality. *QAB/F* measures the amount of edge information correctly transferred from source images to the fused image; a *QAB/F* score is within the range [0, 1], where a higher score indicates a better fusion result.

2) Evaluation Using Synthetic Data*:* Our CS rule was evaluated on two sets of realistic simulated 3-D MRI brain images from BrainWeb , which were constructed based on real scans. The scans in each set are spatially registered due to the nature of the simulation. Each scan has 181 × 217 × 181 voxels with 12-bit precision, and the size of each voxel is 1 mm3. One set contains images of a normal brain, and the other contains images of a brain with moderate multiple sclerosis lesions. The objective evaluation results for LPT- and DWT-based fusion are summarized in Tables I and II (first two rows), respectively. Our CS rule has the best performance in transferring edge information on both datasets, as indicated by the highest *QAB/F* scores. LPT performs better than DWT for these datasets. When the other settings are the same, WBV performs better than NV and CBV, and AVG performs better

thanWA. Therefore, for brevity, only NG+AVG+CM+WBV, CBSG+AVG+CM+WBV, and MG+CM+CM+WBV are visually compared with our CS rule on the lesion dataset in Fig. 4. Only one slice along the axial axis from each volume is displayed. The formulation of image fusion as membership calculation, together with the consistency constraints imposed in our CS fusion rule, helps to ensure that associated coefficients are fused similarly in order to avoid fusion artifacts, and to ensure that salient information (e.g., edge information) is correctly transferred from the source images to the fused image. Therefore, compared to other fusion rules, our CS rule not only correctly combined information with high consistency with the source images but also provide the good local contrast.

3) Evaluation Using Real Data: We also tested our method on fifty real datasets of normal brains randomly selected from the NIH Pediatric MRI Data Repository . Each dataset contains stereotaxically registered MRI scans of the same subject. We used the T1W and T2W scans in each dataset to evaluate the proposed fusion method. Each scan has 197 × 233 × 189 voxels with 32-bit precision, and the size of each voxel is 1mm3 . The objective evaluation results on five representative datasets for LPT- and DWT-based fusion are summarized in Tables I and II (last five rows), respectively. According to the *QAB/F* scores, the fusion rules are ranked from 1 (best) to 13 (worst) for each dataset. The average rankings on all the 50 datasets are presented in Table III. Due to the various image conditions in different datasets, a high *QAB/F* score in one dataset may be low in a different dataset (e.g., compare the last two rows in Table II). Therefore, in order to give a relatively fair comparison of the average performance of all the 13 fusion rules on the 50 datasets, we used this average ranking method. Our CS rule has the best performance in transferring edge information on the average. With the other settings the same, AVG and WA have very close performance for both LPT and DWT; WBV has better performance than NV and CBV for LPT; NV and WBV have similar performance for DWT+NG; WBV has better performance than NV and CBV for DWT+CBSG; and NV has better performance than WBV for DWT+MG. The results on a representative case (dataset #1002) are visually compared in Fig. 5. For brevity, only NG+AVG+CM+WBV,CBSG+AVG+CM+WBV, PT+MG+CM+CM+

WBV, and DWT+MG+CM+CM+NV are visually compared with our CS rule. As Table III reveals, MG+CM+CM+NV performs, on average, at a level close to that of our CS rule in DWT-based fusion, and MG performs slightly better

on some datasets as shown in Tables I and II. However, this interpretation is based on the *QAB/F* metric, which only considers edge information. Without correctly transferred neighborhood information, the fusion results (even with higher *QAB/F* scores) tend to contain artifacts. These artifacts will impair further analysis either by a radiologist or by image processing software.

V. CONCLUSION AND FUTURE WORK

In this proposed work, Cross-Scale Coefficient Selection fusion rules are implemented for each decomposition level an optimal set of coefficients are selected. In practice higher quality images are obtained in the image fusion. Using monochrome fusion, results are demonstrated. In addition to this many extra features can be implemented by extending our techniques and also performing for individual applications by this technique.

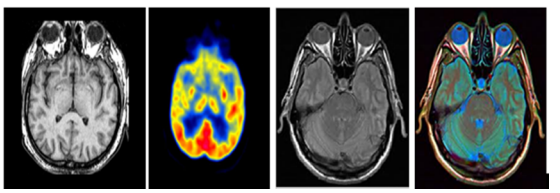


Fig. 1. Overlaying monochrome images using different color channels. Information is transferred from T1W and T2W MRI images into a single image at the cost of reduced image contrast. (a) T1W MRI image. (b) T2W MRI image. (c) Overlaid image using the red and green channels as in [6]. (d) Overlaid image using the yellow and blue channels as in [19].

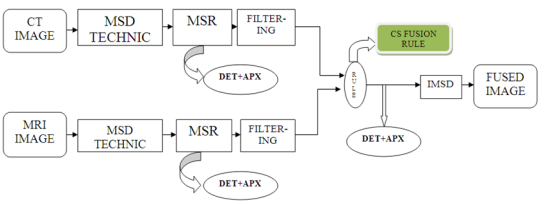


Fig. 2. General procedure of MSD-based image fusion in a 2-D case Our CS rule effectively minimizes the occurrence of such artifacts. Fig. 6 shows an example. Our CS rule produced better neighborhood consistencies in the white matter.

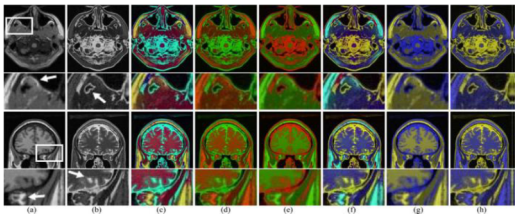


Fig. 3. Comparison between our color fusion scheme and the overlaying scheme. The first rowshows a slice along the axial axis from each volume. The second row shows slices along the coronal axis. Our scheme provides more image contrast, which makes the combined details more distinguishable, such as those indicated by the arrows in the insets. (a) T1WMRI slices. (b) T2WMRI slices. (c) Our color fusion results with $\bar{I}c\ r = I1\ ,\bar{I}cb = I2$. (d) Overlaid images with $\bar{I}\ r = I1\ ,\bar{I}\ g = I2$. (e) Overlaid images with $\bar{I}\ c\ r = I2\ ,\bar{I}c\ g = I1$. (f) Our color fusion results with $\bar{I}c\ r = I2\ ,\bar{I}\ cb = I1$. (g) Overlaid images with $\bar{I}cr = \bar{I}c\ g = I1\ ,\bar{I}\ cb = I2$. (h) Overlaid images with $\bar{I}\ c\ r = \bar{I}c\ g = I2\ ,\bar{I} = I1$.

TABLE 1

OBJECTIVE EVALUATION RESULTS ON DWT-BASED FUSION OF SYNTHETIC AND REAL DATA USING THE *QAB/F* METRIC

Grouping	CS	NG				CBSG						MG	
APX combining	CS	AVG		WA		AVG			WA			CM	
DET combining	CS	CM		CM		CM			CM			CM	
Verification	CS	NV	WBV	NV	WBV	NV	WBV	CBV	NV	WBV	CBV	NV	WBV
Synthetic normal	**0.7727**	0.6566	0.7022	0.6529	0.6965	0.6532	0.6928	0.5982	0.6492	0.6871	0.5974	0.6609	0.6675
Synthetic lesion	**0.7810**	0.6221	0.6867	0.6120	0.6729	0.6265	0.6853	0.5697	0.6163	0.6718	0.5683	0.6763	0.6837
Real #1002	**0.6662**	0.5661	0.6325	0.5656	0.6321	0.5615	0.6181	0.4758	0.5611	0.6177	0.4755	0.6092	0.6149
Real #1037	0.6301	0.5395	0.5941	0.5399	0.5944	0.54	0.5840	0.4601	0.5404	0.5898	0.4605	0.6243	**0.6305**
Real #1215	**0.6803**	0.5835	0.6521	0.5833	0.6520	0.5783	0.6313	0.4843	0.5781	0.6311	0.4843	0.6169	0.6233
Real #1344	**0.6338**	0.5115	0.5874	0.5103	0.5863	0.5117	0.5726	0.4365	0.5105	0.5714	0.4352	0.5748	0.5807
Real #1372	**0.6560**	0.5627	0.6144	0.5630	0.6147	0.5622	0.6123	0.4765	0.5626	0.6126	0.4771	0.6261	0.6313

TABLE II

OBJECTIVE EVALUATION RESULTS ON DWT-BASED FUSION OF SYNTHETIC AND REAL DATA USING THE *QAB/F* METRIC

Grouping	CS	NG				CBSG						MG	
APX combining	CS	AVG		WA		AVG			WA			CM	
DET combining	CS	CM		CM		CM			CM			CM	
Verification	CS	NV	WBV	NV	WBV	NV	WBV	CBV	NV	WBV	CBV	NV	WBV
Synthetic normal	**0.7217**	0.5610	0.6719	0.5481	0.6556	0.5579	0.6405	0.4840	0.5443	0.6248	0.4792	0.6115	0.6220
Synthetic lesion	**0.7195**	0.5343	0.6540	0.5133	0.6213	0.5480	0.6217	0.4659	0.5246	0.5898	0.4528	0.6106	0.5834
Real #1002	**0.6140**	0.4950	0.4896	0.4942	0.4887	0.5144	0.5265	0.4110	0.5136	0.5255	0.4110	0.5828	0.5606
Real #1037	0.5578	0.4688	0.4478	0.4690	0.4481	0.4802	0.5180	0.3917	0.4804	0.5183	0.3917	**0.5824**	0.5513
Real #1215	**0.6338**	0.5081	0.5314	0.5073	0.5309	0.5285	0.5508	0.4211	0.5278	0.5502	0.4211	0.5944	0.5740
Real #1344	**0.5638**	0.4347	0.4489	0.4336	0.4475	0.4583	0.5056	0.3765	0.4571	0.5039	0.3761	0.5598	0.5386
Real #1372	0.5908	0.4955	0.4976	0.4959	0.4981	0.5085	0.5722	0.4090	0.5088	0.5730	0.4089	0.5991	**0.6010**

TABLE III

AVERAGE RANKINGS OF DIFFERENT FUSION RULES ON THE REAL DATA USING THE *QAB/F* METRIC .

Grouping	CS	NG				CBSG						MG	
APX combining	CS	AVG		WA		AVG			WA			CM	
DET combining	CS	CM		CM		CM			CM			CM	
Verification	CS	NV	WBV	NV	WBV	NV	WBV	CBV	NV	WBV	CBV	NV	WBV
LPT-based	**1.02**	9.58	4.04	8.58	3.2	10.42	6.18	12.88	9.42	5.36	12.12	4.7	3.5
DWT-based	**1.58**	9.82	9.76	8.98	8.96	7.12	4.84	12.76	6.34	4.16	12.24	1.66	2.78

References

1. V. D. Calhoun and T. Adali, "Feature-based fusion of medical imaging data," IEEE Trans. Inf. Technol. Biomed., vol. 13, no. 5, pp. 711–720, Sep. 2009.
2. M. C. Vald´es Hern´andez, K. Ferguson, F. Chappell, and J.Wardlaw, "New multispectral MRI data fusion technique for white matter lesion segmentation: method and comparison with thresholding in FLAIR images," Eur. Radiol., vol. 20, no. 7, pp. 1684–1691, 2010.
3. S. F.Nemec, M. A. Donat, S. Mehrain,K. Friedrich, C.Krestan, C. Matula, H. Imhof, and C. Czerny, "CT-MR image data fusion for computer assisted navigated neurosurgery of temporal bone tumors," Eur. J. Radiol., vol. 62, no. 2, pp. 192–198, 2007.
4. A. Boss, S. Bisdas, A. Kolb, M. Hofmann, U. Ernemann, C. D. Claussen, C. Pfannenberg, B. J. Pichler, M. Reimold, and L. Stegger, "Hybri PET/MRI of intracranial masses: Initial experiences and comparison to PET/CT," J. Nucl. Med., vol. 51, no. 8, pp. 1198–1205, 2010.

5. A. Jackson, N. A. Thacker, and S. M. Stivaros, "3D image fusion," in Image Processing in Radiology: Current Applications. NewYork: Springer, 2007, pp. 101–122.
6. T. Z. Wong, T. G. Turkington, T. C. Hawk, and R. E. Coleman, "PET and brain tumor image fusion," Cancer J., vol. 10, no. 4, pp. 234–242, 2004.
7. S. Li, B. Yang, and J. Hu, "Performance comparison of different multiresolution transforms for image fusion," Inf. Fusion, vol. 12, no. 2, pp. 74–2012
8. I. W. Selesnick, R. G. Baraniuk, and N. C. Kingsbury, "The dual-tree complex wavelet transform," IEEE Signal Process. Mag., vol. 22, no. 6, pp. 123–151, Nov. 2005.
9. G. Pajares and J. M. de la Cruz, "A wavelet-based image fusion tutorial," Pattern Recognit., vol. 37, no. 9, pp. 1855–1872, 2004.
10. J.Yang andR. S.Blum, "Image fusion using the expectation-maximization algorithm and a hidden Markov model," in Proc. 60th IEEE Veh. Tech. Conf., vol. 6, Sep. 2004, pp. 4563–4567.
11. H. Li, B. S. Manjunath, and S. K. Mitra, "Multisensor image fusion using the wavelet transform," Graph. Models Image Process., vol. 57, no. 3, pp. 235–245, 1995.
12. V. Petrovi´c and C. Xydeas, "Cross-band pixel selection in multiresolution image fusion," in Proc. SPIE, vol. 3719, 1999, pp. 319–326.
13. C. Wang and Z. Ye, "First-order fusion of volumetric medical imagery," IEE Proc., Vis. Image Process., vol. 153, no. 2, pp. 191–198, 2006.
14. R. Shen, I. Cheng, J. Shi, and A. Basu, "Generalized random walks for fusion of multi-exposure images," IEEE Trans. Image Process., vol. 20, no. 12, pp. 3634–3646, Dec. 2011.
15. C. S. Xydeas and V. Petrovi´c, "Objective image fusion performance measure," Electron. Lett., vol. 36, no. 4, pp. 308–309, 2000.

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A STUPID AS DESCRIBED BY BHARTRIHARI - A SANSKRIT POET

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Brartrihari is a Sanskrit poet of great scholarship. He is known for his wisdom and best understanding of human nature. Mystery shrouds the details of his life. Nothing in particular about his life is known either from his works or from any other sources. His three Shatakas-Neeti Shatakam,Srungara Shatakam and Vairagya Shatakam are famous and widely-read. A shatakam is collection of poems-more than hundred-generally one hundred and eight. The subject matter of a Shatakam may be love or wisdom or philosophy or human nature.

According to Monier Williams:"Numbers of wise sayings have from time immemorial, been constantly quoted in conversation. Many, thus, orally current, were of such antiquity that to settle their authorship was impossible but occasional attempts were made to give permanence to the floating wisdom of the day, by stringing together in stanzas, the most celebrated maxims and sayings, like beads on a necklace, representing a separate topic, and the authorship of a whole series being naturally ascribed to men of known wisdom like Bhartrihari, Chanakya, much in the same way as the authorship of the Puranas and the Mahabharata was referred to the sage Vyasa".

It is very clear from the above opinion that Bhartrihari's slokas are full of aphoristic, moral, wise and philosophical sayings which are useful to one and all.

Bhartrihari's Trisati has brought him name and fame.In the Neeti Satakam he describes a stupid who is stubborn and unconvincing. In the Sloka -No: 4 he describes:

"Labheta sikatasu tailamapi yatnata peedayan
Pibetcha mrigatrishnikasu salilam pipasardhitaha
Kadaa chidapi paryatan sasavishanamasadaye
Nnatu pratinivishta moorkhajana chittamaradhayet"

The meaning of the above Sloka is as follows:

We can get oil from sand by hard work; we can drink water from mirage : we can get the horn of a hare; but we cannot entertain a stupid.

In another Sloka,Bratruhari describes:

"Vyalam balamrunala tantu bhirasau roddham samujmbhate
Bhettum vajramanim sereeshakusumaprantena sannahyati
Madhuryam madhubinduna rachyitum ksharambudherihate
Moorkhanyaha pratinetumitchati balatsooktaihi sudhasyamdibihi"

The meaning of the above Sloka is as follows:

The person who tries to bind an elephant with a lotus root, the person who tries to cut a diamond with a DIRISENNA (That is Mimosa sirissa &Acacia Speciosa) flower, the person who throws a drop of honey into the sea in order to make it sweet, and the person who tries to convince a stupid with soft words are one and the same.

The above images are wonderful. They make the reader to think about the mental condition of a stupid. They are useful to reader to know how difficult it is to convince a stupid. The above comparisons throw light on the poet's capacity in analyzing the mentality of a stupid who is not at all ready to get convinced.

In another Sloka Bratruhari opines that:

"Prahasya manimuddharen makara damstranara
Tsamudramapi samtaretprachala doormi malakulam
Bhujangamapi kopitam sirasi pushpavaddhdrayet
Natu pratinivishta moorkhajana chittamaradhayet".

The meaning of the above Sloka is as follows:

We can pluck out the gem from the mouth of a crocodile; we can cross the deep sea; we can bear the serpent on head by taming it but we cannot convince a stupid.

The above lines make it sure that even the venomous creatures like serpents can be tamed whereas a stupid never allows himself to get convinced. It is because of his ego.

In Sloka No: 10 Bratruhari describes a stupid as:

"Sakyo varayitum jalena hutabhuk chatrena sooryatapo
Nagendro nisitankasena samado dandena gaurgardhabhaha
Vyadhirbheshajanamgrahaischa vividhairmantra prayogairvisham
Sarvasyaushadhamasti sastra vihitam moorkhasya nastyaushadham"

The meaning of the above Sloka is as follows:

Fire can be extinguished by water; the heat of the sun can be escaped with the help of an umbrella; a wild elephant can be controlled with ankusham (goad); an ox or a donkey can be controlled with a stick; diseases are cured by taking medicines; poisonous bites are cured with incantations but no medicine has ever been prescribed by Sastras to control the stupidity of a stupid.

The above Sloka tells us the truth that a stupid is more problematic and dangerous than the serpent and it is hundred percent true

Thus Bhartruhari describes a stupid. His use of images is noteworthy. The above comparisons and contrasts are apt and thought-provoking. They bring out Bhartrihari's worldly wisdom and deep understanding of human nature. Commenting on the greatness of Bhartruhari's Trishati-Three Shatakams Macdonald says:

"Scattered through the various departments of Sanskrit literature are apophthegm in which wise and noble, striking and original thoughts often appear in a highly finished and potential garb. Owing to universality of this mode of expression in Sanskrit literature, there are but few works consisting exclusively of potential aphorisms. The most important are the three collections by the highly gifted Bhartrihari entitled respectively, Niti Shataka or century on conduct, Srugara Shataka(century on sex) and Vairagya Shataka(century on renunciation)".

The above opinion seems to be convincing and is not far from truth.

According to Professor Lasan, "The slokas of Bhartrihari are concise and principled; That is why they are accepted by all. His works will attain the best place in Indian literature". The opinion of Professor Lasan is hundred per cent true because the slokas of Bhartrihari are full of aphoristic statements which contain much wisdom in them.

References:

1. Monier Williams;Essay on Bhartrihari :Website
2. Macdonald; Essay on Bhartrihari :Website
3. Professor Lasan; Essay on Bhartrihari :Website

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A STUDY OF RELATIONSHIP BETWEEN TEACHING COMPETENCY AND TEACHER JOB SATISFACTION AMONG SECONDARY SCHOOL TEACHERS IN VISAKHAPATNAM DISTRICT

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Introduction :

True education, it must be noted at the outset, is a powerful force in bringing about desired change. It is education and education alone that can bring about changes in knowledge, skills, attitudes, appreciations and understanding things around us. The definitions of Education formulated by a group of experts for the dictionary of education stressed two important things in education. Firstly, education is a process, which should develop the required ability, attitude and other forms of behaviour for the full development of the personality. Undoubtedly any philosopher can comment that the ultimate aim of any education is to make a man of good character and useful citizen of the universe. This of education we can achieve through the quality of education, quality of teachers and quality of teaching learning process. Other things remaining, the quality of education largely learning transaction cannot be undertaken in vacuum but it is positively directed action, for which teachers are to be endeavor with satisfaction towards a job and the need of possessing the quality change-prone. This is the right time to focus the significance of Teacher Job Satisfaction in relation to Teacher Change-Proneness among the Primary School Teachers. The keystone in the educational edifice is doubtless the teacher. On him depends much more than any other, the progress and prosperity of children. Nobody can effectively take his place or influence children in the manner and to the degree; it is possible,

for him alone to do. It is strongly believed that to be a teacher is to be the member of a holy order.

The Secondary Education Commission (1953) defined that 'we are however, convinced that most important factor in the comtemplated educational reconstruction is the teacher – his quality, his educational qualifications, his professional training and the place he occupies in the school as well as in the community. The reputation of a school and its influence on the life of the community invariably depend on the kind of teachers working in it.' Similar views were expressed by the Indian Education Commission (1964 – 66) regarding the role of the teacher. The commission opined that 'of all different factors, which influence the quality of education and its contribution to national development, the quality, competence and character of teachers are undoubtedly the most significant'.

'Schools are the nurseries of the Nation' and 'Teachers are the Architects of the future' are no mere figurative expressions but truthful statements, as significant as they are suggestive. Victories are won, peace is preserved, progress is achieved, civilization is built up and history is made in educational institutions, which are the seed beds of culture, where children in whose hands quiver the destiny of the future, are trained and from their ranks will come out when they grow up, statesman and soldiers, patriots and philosophers who will determine the progress of the land. In their attitude to life and their approach to problems they will bear the imprint and the influence of the training they received at the hands of their teachers. The teacher's role is thus as important as his responsibility is onerous. 'The good teacher must enlighten by his example, show wisdom in his discourse and restraint by his silence; he must help the willing with a welcoming encouragement; overcome the recalcitrant with a patient determination and check the exhibitionist with a reasonable superciliousness. What he stands for, important for all times, is of paramount importance in the deepening blackout of spiritual and intellectual values by which our age is oppressed' – C.E.M.Joad.

The imperative that the entire process of teaching learning transaction depend on the efficiency of a teacher, who is in turn able to manifest potentialities of a child into actuality, be accepted with no hesitation. Teaching learning process cannot be undertaken in vacuum but it is a positively directed action, for which teachers are to be endowed with teaching

competency. There has been an enormous amount of research which could answer to such questions as – what teaching behaviours are related to pupil out comes in different areas of classroom learning? In what way they are related. What are the characteristics of effective ad ineffective teachers? How can teaching behaviours be incorporated in teachers during their training? Lot of research efforts have been directed on teaching competency but unfortunately much attention of research is not drawn to correlate teaching competency in relation to Teacher Job Satisfaction. Rao, R.B. (1989) says that 'the quality or effectiveness of teachers is considered to be associated with his satisfaction towards his profession, his satisfaction with his values. Fontana, D. (1986) regarded that 'if the teacher is too rigid or has a doctrinaire belief of that his methods are right and those of any one who disagrees with him are wrong, then he will be depriving his children of a range of possible learning experiences, to their disadvantage and to his own'. Thus, it is clear that an effective and competent teacher will achieve the desired learning outcomes, provided if he satisfied in his profession. But no significant efforts are found to study the competency in relation to job satisfaction among teachers.

Teacher Job Satisfaction:

The term Job Satisfaction is generally used in organizational endeavor in business management. One of the senses signs of deteriorating conditions in an organization is low job satisfaction (Keith Devi, 1993). Job Satisfaction is the favourableness or unfavourableness with which employees view their work (Bruneberg, 1976). It signifies the amount of agreement between one's expectations of the job and the rewards to the job provides. Job satisfaction is concerned with a person or a group in the organization. Job Satisfaction can be applicable more to parts of an individual's job. If each person is highly satisfied with his job then only it will be considered as group job satisfaction.

Generally job satisfaction is related with number of employees variables such as turnover, absence, age, occupation and size of the organization in which he works. The degree of satisfaction of job is largely depends on satisfaction of employee variables. According to Garton (1976), employee's satisfaction and morale are attitudinal variables that reflect positive or negative feelings about particular persons or situations, satisfaction when applied to work context of teaching seems to refer to the extent to which a teacher can meet individual, personal and professional needs as an employees (Strauss, 1974).

Dimensions of Teacher Job Satisfaction:

Of many dimensions, the researcher considered the following dimensions for measuring Teacher Job Satisfaction. They are (1) Professional; (2) Teaching Learning; (3) Innovation; and – (4) Inter-personal relations.

Professional related to job security and social prestige, moulding the young minds, getting appreciation from others, reaching problems of the students. Teaching learning refer to problems of the students, new situations, successfully managing the classes, students active participation in the classes, innovative technique in teaching, systematic plan of the work. Innovation relates to creativity, innovative technique in teaching, participation of cultural activities, co-curricular and social welfare activities. Inter-personal relations refer to relations with colleagues, parents, students, higher authorities or any personnel confined to school.

Measurement of Teacher Job Satisfaction:

Job Satisfaction measuring procedures appear to be complicated at a first glance. It seems simple to go to the employees and get data from them and then interpret. But experiences are shown that careless procedural class can limit seriously the validity and usefulness of the survey. Keen attention should be given to question construction, maintenance of anonymity for employees and sampling procedures (Donald and Charlies, 1975). Even in Education field it is very difficult to measure the teacher job satisfaction. After careful observation of the literature it is fund that teacher's job satisfaction can be measured mainly in two ways. The first one is observation and interviews; and the other is use of tests including inventories and writing scales developed by some psychologists and educational researches like Crook, Maslach, Herhier and others, and Gaba Teacher Job Satisfaction Scale, Gupta and Srivatsava – teacher job satisfaction scale, Lodahl and Kejher's Job involvement scale and Job Satisfaction scale developed by Dixit are some of the tools available for measuring job satisfaction. However, they are context specific and may not be suitable for the present study. Hence, the researcher developed a Teacher Job Satisfaction self-rating scale.

Teacher Change-Proneness:

Change-Proneness, though quite recent in origin, with astonishing rapidity has become almost a catch word. It is the tendency to accept anything which is new, novel, to be imbibed in their style of work. It is the state of flux

and dilemma brought about by devotion to a cause which may promote and result at expected rewards or fail to produce unexpected revolts (Uday Koundinya, 1999). Change is the order of day. Everybody should acdept this truth and those changes too. From ancient times, whenever a new discovery, a strange concept and a novel theory has proposed, there has been an 'up-surge' among others. As Vivekananda rightly quoted 'every new activity evidently has to pass through the three stages – bitter ridicule, sever opposition and final acceptance.. To accept that earth is round but not flat also requires much commotion in the minds of people. Members of 'Flat earth society opposed the truth severely. Accepted truth are really difficult to be wiped off from the minds and the new changes in those areas really take a long time and they evidently be the butt of ridicule.

Rigidity and Flexibility:

The change-proneness evidently rely upon two opposing ideological aspects rigidity and flexibility. A clear understanding of the two aspects rigidity and flexibility, will evidently help the investigator by throwing enormous light on the concept 'change-proneness'. The main hurdle to accept a new theory and invite a novel, sudden change is rigidity. Warner defined 'Rigidity' as a lack of variability in a response or lack of adaptability in behavior. In life situations, some people are rigid in their behavior, some are not. The same people, who are rigid in one type of situation, may be non-rigid in other situations. For example some may be good at problem solving in the science laboratory but may not apply the problem solving techniques to their day to day social problems in the community (Klausner, 1972). The dictionary meaning of rigidity is a personality trait characterized by inability to change one's attitudes opinions or manner of adjustment (Atkinson). From various studies it seems that there are the few basic factors, which go to make up this rigid tendency. Goldstein defined rigidity – as adherence to a performance that is inadequate for the present task i.e., a rigid term does not shift from one performance to another as required by the fresh to be fulfilled. Research tries to relate problem solving rigidity with attitudinal dispositions of persons. He stated that it is the inability to change one's set or attitude.

Teacher Change-Proneness:

How a teacher should be, is a puzzling question. Teacher at his best should be active not reactive, must strive rather than submit he must be author of his behavior rather than have ti dictated by authority. The teacher

should perform his duties in his own style. The pattern of functioning of teachers reveals the existence of two categories of teachers.

Relation between Teacher Job Satisfaction Teacher Change-Proneness:

Accomplishment of the goals of education and the objectives of teaching is possible when teachers are competent in teaching with satisfaction in their profession. These two variables are conceptually independent and practically interactive. B.R.Rao (1989) rightly pointed out that 'the quality or effectiveness of a teacher is considered to be associated with his attitudes towards his profession, his satisfaction with his values and adjustment in the job and professional interest.'

Similarly Dr.D.S.Kothari (1964-66) advocates 'of all the different factors, which influence the quality of education and its contribution to national development, the quality, competency character and job satisfaction of teachers are undoubtedly the most significant'. Reviewed the previous investigations made on Teacher Job Satisfaction and Teacher Change-Proneness in India and Abroad. These researchers (viz., investigations made on Job Satisfaction and Change-Proneness subjects) helped the investigator in planning, defining and delimiting the present research study. These reviews have also helpful in deciding the procedure of the present study and the interpretation of the findings.

Teacher Job Satisfaction:

Studies Abroad:

Many research studies made on Teacher Job Satisfaction from different angles with different independent variables.

Anna F.Lobosco and Dianna L.Newman (1992) studied 'Teaching Special Needs Populations and Teacher Job Satisfaction'. Teachers' perceptions of their jobs are strongly related to their perceptions of their students. This article confirms what one might expect: Working with students who are gifted and talented positively predicts job satisfaction, whereas working with students who have learning difficulties has a negative effect. Yet teachers 'self-reports of general job satisfaction reverse when asked about how the reality of their teaching experience compares to ideal conditions. This has clear implications for urban school districts involved in massive

mainstreaming efforts. Teacher preparation and the impending merger of general and special education are discussed. (Anna.Lobosco and Dianna L.Newman, 'Teaching Special Needs Populations and Teacher Job Satisfaction', Journal Urban Education, Vol.27, No.1, Pp.21-31, 1992, DOI:10.1177/ 0042085992027001003 (Sage Publications).

Studies in India:

The investigations made in this country on Teacher Job Satisfaction on various nook corners with the help of demographic variables by using the statistical procedure to obtain the results according to their needs. Lavinga (1974) took a sample of 1600 and find that female teachers were more satisfaied than male teachers. Muthaiah (1981) and Meera Dixit (1984) findings confirms the same. In the studies of Virachari, S (1987), Bhandarkar (1980), Gupta (1980), Girens Rebay (1988), primary, secondary school teachers and college teachers are investigated. Bhandarkar, Rebay found a positive relation between age, experience of Job satisfaction. There is no significant difference to sex or level of education and job satisfaction. Regarding pay and supervision the teachers are dissatisfied. Gupta states that marital status; age and experience were not associated with job satisfaction. Rebay states that not only the gender, marital status, age, qualifications but also the location of the schools have no relationship with job satisfaction and at the same time the experience and salaries of the teachers have a significant relationship with job satisfaction. Clemence, S.M. (1989) found that role conflict affected job satisfaction of women teachers but social dimension of value influenced their job satisfaction rather favourably.

TEACHER CHANGE-PRONENESS:

In the post independence era, bringing change in educaton and revising qualitative improvement has been a major concern of the educational planners and administrators, with this intention quite a few new institutes and organizations were established with considerable investments at national and state levels. As result they designed and diffused quite a large number of innovations in education. The change was not, however, commensurate with the number of innovations and investments therein. Hence only stray number of researches prevails in this field related to the concept of the change-proneness. Change-Proneness indicates a person's mental orientation towards change. It is more a global concept than either of 'cosmopolitans' or 'open

mindednesses', which are often used in early research studies with different connotation and in totally varied context.

Studies Abroad:

Karen Douglas (2009) studied 'Sharpening our Focus in Measuring Classroom Instruction'. According to the opinion of the Author that this commentary highlights convergent themes from four articles in the March 2009 issue of Educational Researcher on measuring classroom instruction. Classroom instruction is a complex enterprise that occurs at the intersection of teachers, students, and texts within the surrounding classroom, school, and community environments. Progress in studying the complexity of classroom instruction on a large scale relies on our ability to pose research questions at the appropriate levels of analysis and to attempt to answer the questions using rigorous methods. These articles contribute to this task by sharing theoretical and practical viewpoints based on systematic programs of mixed methods research. The value of this body of research is reinforced through evidence of its impact on teaching practices and student learning. (Karen Douglas, International Reading Association, 'Sharpening Our Focus in Measuring Classroom Instruction', Journal of Educational Researcher, Vol.38, No.7, Pp.518-521, 2009, Sage Publications (online) DOI:10.3102/0013189X09350881). C.Day; P.Sammons and Q.Gu (2008) studied 'Combining Qualitative and Quantitative Methodologies in Research on Teachers' lives, Work and Effectiveness: From Integration to Synergy'. The authors of this article discuss how a mixed-methods research team designed and conducted a 4-year study (Variations in Teachers' Work and Lives and Their Effects on Pupils) that tracked 300 teachers in 100 schools in England over a 3-year fieldwork period. The authors discuss processes that led to new knowledge. Although mixed methods are becoming more popular, few published accounts describe in detail how researchers have moved beyond the use and integration of mixed methods to arrive at more synergistic understandings.

Studies in India:

Rao, D.S. (1967) made an attempt by conducting a study 'An inquiry into the factors that contributes to the promotion or inhibition of educational innovations' listed out a few factors, which influence and govern educational innovations. Singh, T. (1977) in his doctoral study thoroughly discussed about adoption and dis-contribution of innovations in the preparation of secondary

school teachers. In India and listed out a few strategies to be adopted for bringing innovations which enable effective preparation of secondary school teachers who were to be flexible and adaptable and impact effective instruction. Mukhopadhyaya and Saxena (1980) in their research study 'the factors contributing to teacher's change proneness' concluded that change-proneness has been found to be related significantly and positively to urban back ground, teachers relation with principal, satisfaction in teaching, rapport among teachers, perceived leadership behavior of the principal, attitude toward teaching profession, perceived status of teachers and job satisfaction. Vinaitheerthan (1981) in his doctoral thesis concluded age of teachers, sex, teaching experience and professional training influenced the state of dissonance of innovations, controlled climate significantly contributed to teaching learning process attitude to innovation, change-proneness and intimacy. Open climate showed significant relationship with complexity conversation and change-proneness. Mukhopadhyaya (1981) with the help of multivariate analysis concluded that the change proneness of a teacher can be predicted to the tune of more than 59% variance by set of above mentioned variables. In the field of research in the area of change-proneness, Mukhopadhyaya (1982) name was to be definitely reckoned with. He constructed and standardized tool Mukhopadhyaya's change-proneness inventory (MCPI). The tool was administered on 60 secondary school teachers. He computed split half reliability with the help of Spearman-Brown Prophecy formula. It was noticed to be 0.82, which is significant 0.01 levels. Chi-square test was carried out soon a 2 (innovative)/non-innovative schools, 3 good/moderate/poor scores of change-proneness). Contingency table was found significant at 0.05 levels. This research finding clearly indicates that change-proneness of teachers successfully differentiate innovative schools from the non-innovative schools. Dr.Udayagiri Nageswara Rao, in his study on Change-proneness among the primary school teachers as determining factor to meet the needs of hard-to-reach pupils concluded. This study reveal that male teachers are highly change prone than female teachers; urban teachers are more change prone than their counterparts i.e., rural teachers. Residential school teachers are more change-prone than non-residential school teachers.

Strangely post-graduate trained teachers lag behind trained graduate teachers. Teaching working in Municipal schools is ahead in possession of change-proneness than Missionary school teachers and teachers working in Mandal Parishad schools.

The four aspects of CPDQ differ in the extent of influencing change-proneness. An inclination to change-proneness will enhance teacher competency and creativity if commitment and creativity are associated with a favourable attitude in accepting new strategies put forth by others and which are innovated and initiated by themselves, then the exemplary teacher can easily dart into the minds of individual making reaching hart-to-reach pupils not a myth but a reality and possibility.

The extensive review of related literature pertaining to the two variables teaching competency, teacher adjustment and teacher attitude and their inter-relationship is presented in the preceding pages. The researchers after a thorough study of the reported past studies, smelt some gaps and deficiencies.

Even though there is lot of research on teaching competency there is much scope for further research. It is found from the extensive view of related research that many studies are conducted on Teacher Job Satisfaction, but little effort is made to study the relationship between Teacher Job Satisfaction and Teacher Change-Proneness.

The opinion of Indian Education Commission (1964-66) that of all the different factors, which influence the quality of education and its contribution to national development, the quality, competence, character and job satisfaction of teachers are undoubtedly the most significant, is the real inspiration behind the present study. Hence the present study is intended to explore relationship between Teacher Job Satisfaction and Teacher Change-Proneness.

Definitions of terms used:

In the present study the present investigator is concerned with Teacher Job Satisfaction and Teacher Change-Proneness and definitions of these constructs are dealt with.

Teacher:

The term 'Teacher' used in this present study is refers to the Teachers working in Primary Schools in Visakhapatnam District only.

Teacher Job Satisfaction:

Teacher Job Satisfaction in this study has been defined as a 'Job satisfaction' is an affective attitude – (a) feeling relative like (or) dislike toward

something). Job Satisfaction emerges as an employee gives more and more information about the work place. So the satisfaction played a vital importance in presenting relationship between the individual teacher and his environment in respect of four dimensions viz., Professional, Teaching Learning, Innovation, Interpersonal relations. The influence on the Teacher in relations to head of the institute, colleagues and students in the school and his activities, relations and participation in the society aspects are occupied the paramount importance in the present study.

Teacher Change-Proneness:

The concept of 'Change-Proneness' is the congregations effect of curiosity, open mindedness and mental flexibility. According to Miller (1967) gave the comprehensive nature of the concept – radical change, innovativeness, tendency to inquire, being shrewd and proneness in thought, inquisiteness, all these traits facilitate change-proneness. In the present concept – Innovativeness refers the new ideas keeping the time to time changing situations; Hesitating nature refers the open mindedness expressing unwillingness or action; Considerations refers the accepting new ideals or actions and implementation of strategies with reference to changes occurred day by day; and Acceptance of help is refers to associate with the individual keeping the changing situations prevailed and possessing their change prone in terms of needs.

Problem:

The problems posed in this study are to establish reliability and validity of Teacher Job Satisfaction and Teacher Change-Proneness -

(1) Development of suitable tool to measure the Teacher Job Satisfaction.
(2) Development of suitable tool to measure the Teacher Change-Proneness.
(3) Finding out the relationship between Teacher Job Satisfaction and Teacher Change-Proneness.

Objectives of the Study:

Studying the significance of relationship between Teacher Job Satisfaction and Teacher Change-Proneness.

Studying the significance of relationship between the dimensions of Teacher Job Satisfaction.

Studying the significance of relationship between the dimensions of Teacher Change-Proneness.

Studying the significance of difference between various demographic variables in respect of Teacher Job Satisfaction and Teacher Change-Proneness.

Studying the significance of difference between high and low Teacher Job Satisfaction in relation to Teacher Change-Proneness.

Studying the significance of difference between high and low Teacher Change-Proneness. in relation to Teacher Job Satisfaction.

Hypotheses:

Modern investigators are unique agreed that whenever hypothesis possible research come to light that it should be form a hypothesis only. According to W.Stanely Jevons defined the importance of hypothesis as it serves a sort of guiding light in the world of darkness. In the words of Deobold D.Van Dalen a hypothesis serves as powerful beacon that lights the research worker. While Carter V.Good thinks by guiding the investigator the hypothesis serves as the investigators' 'eye' in seeking answers as to tentatively adopted generalization. While Travers (ed.) discloses that 'postulates may be considered are fore-runners of laws. As more and more evidence concerning the validity of postulates is accumulated through to the accepted be called laws.

In the present study the investigator felt the need of the hypotheses to be framed before pursuing the study as they act as the beacon lights, which illuminate the part of research area and facilitate the investigator to pass on through turbulent walkers. Accordingly the investigator has proposed the following hypotheses for testing the tools with reference to the above objectives.

Major Hypotheses:

(1) There is no significant relationship between Teacher Job Satisfaction and Teacher Change-Proneness.
(2) There is no significant relationship between various dimensions of Teacher Job Satisfaction.
(3) There is no significant relationship between various dimensions of Teacher Change-Proneness.
(4) There is no significance of inter and intra relationship between the dimensions of Teacher Job Satisfaction and Teacher Change-Proneness.
(5) There is no significant difference between Low ad High groups of Teacher Job Satisfaction in relation to Teacher Change-Proneness.
(6) There is no significant difference between Low and High groups of Teacher Change-Proneness in relation to Teacher Job Satisfaction.

Subsidiary Hypotheses:

(7) There is no significant difference between the Teachers in their Teacher Job Satisfaction and Teacher Change-Proneness taking the Sex into consideration.
(8) There is no significant difference between the Teachers in their Teacher Job Satisfaction and Teacher Change-Proneness taking the Locality into consideration.
(9) There is no significant difference between the Teachers in their Teacher Job Satisfaction and Teacher Change-Proneness taking the Age into consideration.
(10) There is no significant difference between the Teachers in their Teacher Job Satisfaction and Teacher Change-Proneness taking the Marital status into consideration.

Procedure:

In order to test the hypotheses the investigator is planned and executed in four phases.

In the first phase is developing and standardization of Teacher Job Satisfaction and Teacher Change-Proneness self-rating scales.

In the second phase is measuring the Teachers' opinionnaire with the help of above two self-rating scales.

In the third phase is using appropriate statistical procedure is adopted to find out the significant relationship between Teacher Job Satisfaction and Teacher Change-Proneness.

In the fourth phase using appropriate statistical procedures is adopted to find out the significance of difference between the different demographic variables of teachers in their Teacher Job Satisfaction and Teacher Change-Proneness.

Administration of the Tools:

After developing and standardizing the tools viz., Teacher Job Satisfaction and Teacher Change-Proneness of the present study following the Predictive Validity as suggested by John, W.Best and James V.Khan, the final and fresh scales are prepared for the purpose of final study and to administer with a specific instructions. The Job Satisfaction Scale is consists of 25 items. Strongly, Agree, Neutral, Disagree and Strongly Disagree were provided against each statement. Numerical values of 1, 2, 3, 4 and 5 were given to five alternative responses as mentioned above. A Total count of responses was

obtained by adding the numerical values checked for these 25 items. Separate total values can also be obtained for four different areas. The total can theoretically range from 25 to 125. The Teacher Change-Proneness Questionnaire is consists of 30 items. Four Point Scale viz., Always, Occasionally, Seldom and Never was provided against each statement. Similarly, the numerical values of 1, 2, 3 and 4 were given to four alternative responses as mentioned above. A Total count of responses was obtained by adding the numerical values checked for these 30 items. Separate total values can also be obtained for four different areas. Thus the total scores lies in between 30 – 120. The investigator gave necessary instructions and made appeal to the selected sample of respondents to respond for all the items of the above tools administered among the sample of selected Primary School Teachers in Visakhapatnam District. Each scale is stared with personal data sheet. These two scales are administered among 149 Teachers of different category institutions situated in different areas in and around Visakhapatnam.

Collection of Data:

For collecting the data the investigator visited each school and administered the above scales to the teachers personally. They are requested to record their details as per the demographic data sheet appended to both scales. Teachers are further advised not to leave any item of the scales. Most of the teachers are enthusiastically participated, filled these tools on the spot and return to the investigator. Thus these two tools collected from the selected sample of teachers are scores according to the scoring procedure.

Scoring Procedure:

The responses scored according to the key of each Tool as detailed herewith –

The Teacher Job Satisfaction Measurement Tool is scored from 5 to 1 for all 25 items in respect of positive items and the score 1 to 5 is awarded for negative items. Thus, the total score of this tool will be in between 25 to 125. While in the case of Teacher Change-Proneness tool is scored from 4 to 1 in respect of positive items and 1 to 4 is awarded in respect of negative items. Thus the total score of this tool will be in between 30 to 120.

Sample:

The sample selected for the present investigation is covering with 149 Primary school teachers from different Institutions situated in different areas. Random sampling technique is followed to draw the sample for the present study. In the study the variables like – Sex (Male and Female), Locality (Rural and Urban), Qualification (TTC, B.Ed., and M.Ed.,), Experience (below and above 20 years), Age (below 35 years and above 35 years), Medium of Instruction (English medium and Telugu Medium), Marital Status (Married and Unmarried) and Type of Management (Mandal Parishad, Municipality, Minority, Private Aided and Private Unaided Schools) are taken into consideration.

Limitations of the Study:

The Study is limited to Teachers working in Primary Schools in Visakhapatnam District.

To study the Teacher Job Satisfaction and Teacher Change-Proneness, Scale self-rating scales are used. Of many dimensions used for Teacher Job Satisfaction – Professional, Teaching Learning, Innovations and Inter-personal Relations are used in this study. Similarly, of many dimensions used for Teacher Change-Proneness the dimensions like – Innovativeness, Hesitating nature, Consideration and Acceptance of help are used in the study. Further, this study is limited to the Primary School Teachers in and around Visakhapatnam City. It is also stated that this study is administered among the selected sample of Primary School Teachers taking the selected variables like Sex, Locality, Age, Marital Status, Qualification, Experience, Medium of Instruction, and Type of Management into consideration.

Statistical Techniques used:

After collection of the data from the selected respondents, computation of the scoring procedure is adopted by following the statistical technique procedure to analyze the data.

To find out the relationship between Teacher Job Satisfaction and Teacher Change-Proneness, 'r' values are computed. Coefficient correlations for all the dimensions are calculated. To measure the difference between the selected sample of teachers in their Teacher Job Satisfaction and Teacher

Change-Proneness - Means, Standard Deviations are computed for the entire distributed items tool wise and variable wise and obtained the value of 't'.

Table showing the Comprehensive Inter-correlation Matrix for all Dimensions of Teacher Job Satisfaction and Teacher Change-Proneness

Job Satisfaction

Change-Proneness

	1	2	3	4	5	6	7	8	9	10
1	1.00	0.45	0.62	0.38	0.57	0.32	0.29	0.31	0.19	0.21
2		1.00	0.69	0.54	0.41	0.27	0.18	0.34	0.25	0.19
3			1.00	0.47	0.61	0.38	0.26	0.20	0.24	0.35
4				1.00	0.53	0.26	0.31	0.28	0.32	0.22
5					1.00	0.23	0.17	0.22	0.31	0.29
6						1.00	0.45	0.62	0.38	0.57
7							1.00	0.69	0.54	0.41
8								1.00	0.47	0.61
9									1.00	0.53
10										1.00

Job Satisfaction
Change-Proneness

1.Professional
2.Teaching Learning
3.Innovation
4.Inter-personal relations
5.Total of Teacher
6. Innovativeness
7. Hesitating Nature
8. Consideration
9. Acceptance of help
10.Total of Teacher

Besides testing the other hypothesis, the investigator has also conducted the study of Comprehensive Inter-correlation Matrix for all the Dimensions of Teacher Job Satisfaction and Teacher Change-Proneness. The above table is clearly disclosed that inters and intra relationship between all the dimensions of Teacher Job Satisfaction and Teacher Change-Proneness. The coefficients of correlation between all the values of 'r' are in accordance with the principles stipulated by Garrette, H.E. (1981). With reference to verification of values of 'r' drawn from the above table, it is concluded that there is positive and significance of relationship between Inters and Intra-dimensions of Teacher Job Satisfaction and Teacher Change-Proneness. Hence, the hypothesis is rejected. Further, the researcher has observed that

there is a high and positive significant relationship between the dimensions of Teacher Job Satisfaction like – Professional, Teaching Learning, Innovation, Inter-Personal Relations, Total of Teacher Job Satisfaction and all other dimensions of Teacher Change-Proneness remaining aspects are substantially correlated each other. It is also observed that there is high positive relationship between the dimensions of Teacher Change-Proneness like – Innovativeness, Hesitating nature, Consideration, Acceptance of help, Total of Teacher Change-Proneness and other dimensions of Teacher Job Satisfaction aspects are substantially correlated each other.

CONCLUSIONS:

From the above discussion with reference to the statistical profiles presented earlier, the following conclusions are arrived at. There is positive significant relationship between Teacher Job Satisfaction and Teacher Change-Proneness. There is positive significant relationship between the dimensions – Professional, Teaching Learning, Innovation and Inter-personal relation aspects of Teacher Job Satisfaction. There is positive significant relationship between the dimensions – Innovativeness, Hesitating nature; Consideration and Acceptance of help aspects of Teacher Change-Proneness. There is positive significant relationship between inters and intra dimensions of Teacher Job Satisfaction and Teacher Change-Proneness aspects.

Teacher Job Satisfaction:

a. There is no significance of difference between Male and Female Teachers.
b. There is significance of difference between Rural and Urban area Teachers. The mean vale obtained by Rural area teachers is greater than Urban area Teachers.
c. There is no significance of difference between below 35 years age and above 35 years age teachers.
d. There is significance of difference between Married and Unmarried Teachers. The mean vale obtained by Unmarried Teachers is greater than Married Teachers.
e. There is significance of difference between the Teachers with TTC., and Teachers with B.Ed. The mean value obtained by the Teachers with TTC., is greater than the Teachers with B.Ed.
f. There is no significance of difference between the Teachers with TTC., and Teachers with M.Ed.

There is no significance of difference between the Teachers with B.Ed., and Teachers with M.Ed.

There is no significance of difference between below 15 years experience teachers above 15 years experience teachers.

There is no significance of difference between the Teachers of English Medium instruction and Telugu Medium instruction.

There is no significance of difference between the teachers working in Mandal Parishad Schools and Municipal Schools.

There is no significance of difference between the teachers working in Mandal Parishad Schools and Minority Schools.

There is no significance of difference between the teachers working in Mandal Parishad Schools and Aided Schools.

Teacher Change-Proneness:

There is significance of difference between Male and Female Teachers. The mean value obtained by Female Teachers is greater than Male Teachers.

There is significance of difference between Rural and Urban area School Teachers. The mea value obtained by Urban area School Teachers is greater than the Teachers of Rural area School Teachers.

There is no significance of difference between below 35 years age teachers and above 35 years age teachers.

There is significance of difference between Married teachers ad Unmarried teachers. The mean value obtained by Married Teachers is greater than Unmarried Teachers.

There is significance of difference between the Teachers with TTC., and Teachers with B.Ed. The mean value obtained by the Teachers with B.Ed., is greater than the mean value obtained by the Teachers with TTC.

There is no significance of difference between the Teachers with TTC., and Teachers with M.Ed.

There is no significance of difference between the Teachers with B.Ed., and Teachers with M.Ed.

There is significance of difference between below 15 years experience teachers and above 15 years experience teachers. The mean vale obtained by below 15 years experience teachers is greater than above 15 years experience teachers.

There is significance of difference between Teachers of English Medium Instruction and Telugu Medium Instruction. The mean value obtained by the Teachers of English Medium Instruction is greater than the Teachers of Telugu Medium Instruction.

There is no significance of difference between the teachers working in Mandal Parishad Schools and Municipal Schools.

There is no significance of difference between the teachers working in Mandal Parishad Schools and Minority Schools.

Implications of the Study:

The above research is confined to study the relationship between the aspects Teacher Job Satisfaction and Teacher Change-Proneness and also to study the significance of difference between the independent variables like sex, locality, Age, Marital Status, Qualification, Experience, Medium of Instruction and Type of Management. The results of the study disclosed the following implications. In respect of Teacher Job Satisfaction, it is observed that the aspects high relationship is found between Professional and Innovation, Teaching learning and Innovation, and Innovation and Total of Teacher Job Satisfaction. Moderate relationship is found between the aspects of Professional with Teaching learning and Total of Teacher Job Satisfaction aspects; Teaching Learning with Inter-Personal Relations and Total of Teacher Job Satisfaction aspects; Innovation with Inter-Personal relations aspects, Inter-Personal Relations with total of Teacher Job Satisfaction aspects. Where, low relationship is found between Professional and Inter-Personal Relation aspects. Hence, the need of attention of the Administrators and Educational Planners are required to inquire into the causes of low relationship between the Teachers and invent the ways to overcome the grievances among the Teachers and enable them to provide better education to the future generation.

While in the case of Teacher Change-Proneness of Teachers is one of the latest trend considered in the present environmental society – high relationship is found between the dimensions viz., Innovativeness with Consideration, and Total of Change-Proneness. Moderate or substantive relationship is found between the dimensions viz., Innovativeness with Hesitating nature and total of Change-Proneness; Hesitating Nature with Acceptance of help and Total of Change-Proneness; Consideration with Total

of Change-Preness – and Acceptance of help with Total of Change-Proneness. While low or negligible relationship is found between the dimensions viz., Innovativeness with Acceptance of help. Therefore, the need of attention of educational planners is required to invent the grievances among the teachers so to create better environment in the classroom teaching. In respect of Job Satisfaction of Teachers, comparison between the variables – significance of difference is found between the Teachers in respect of Locality, Marital Status, Qualification are needs to be examined to enquire their differentiation so as to prove their performance better. In respect of Change-Proneness of Teachers, significance of difference is found between the variables like Sex, Locality, Marital Status, Qualifications, Experience and Medium of Instruction. This indicates that the Teachers are needs more prone towards day to day changes in the global society. Hence, the policies and techniques in teaching learning are needs to be modified with reference to the un-precedential changes in the universe, which help the future generation to achieve the challenged tasks.

Suggestions for further Research: The emerging further research problems can be listed out as follows –

A study of Creativity and Teacher Change-Proneness as determinant factors to enhance 'Professional Pleasure' among the Teachers of Junior College Teachers. A comparative study between Teacher Job Satisfaction and classroom Climate of Junior/Degree College Teachers may be taken up. Studies on Teacher Job Satisfaction, Teacher Effectiveness and Professional Pleasure have quite started in India but a great number of studies in the allied aspects will open a new arena of vital reforms in the system of creating supportive ethos in Institutions if teachers are amply rich in Professional Pleasure. They will make the budding citizens of the country to be happy ideal, democratic citizens and teachers will be the creators of aspiring youth to be work minded, committed, socially useful and ideal patriotic citizens to our nation.

Reference :

1. Aggarwal, J.C., 'Thoughts and Educaton', Arya Book Depot, New Delhi.
2. Anuradha Joshi & Preethidar, 'Personality, correlative of teaching competency', Journal of Education and Social change, Vol.X, Indian Institution of Education, Pune, December, 1996.
3. Anuradha Joshi and Preethidhar Parija 'Personality Correlative of Teaching Competency', Journal of Education and Social Change', Vol.X, Indian Institute of Education, Pune, December, 1996.
4. Butt, Graham; Lance, Ann, 'Secondary Teacher Workload and Job Satisfaction: Do Successful Strategies for Change Exist?, Journal of Educational Management Administration & Leadership, Vol.33, No.4, Pp.401-422, 2005.
5. Fourth Survey of Educational Research in Education, 1993, NCERT, New Delhi.
6. Karen Douglas, International Reading Association, 'Sharpening Our Focus in Measuring Classroom Instruction', Journal of Educational Researcher, Vol.38, No.7, Pp.518-521, 2009, Sage Publications (online) DOI:10.3102/0013189X09350881
7. Third Survey of Research in Education, NCERT, New Delhi, 1983
8. Tirupati Reddy, D. 'A critical study of Professional Pleasure in relation to creativity and cange-proneness among secondary school teachers', unpublished Ph.D., Mysore University, 2000.
9. Undurthy, L.Narayana (1980) 'A Study of Dimensions of Creativity in relation to Teaching Research Ability', Ph.D., A.U.,
10. Vinaitheerthan, V. 'A study of Innovation Dissonance and its correlates in Secondary Schools, Unpublished Ph.D., M.S. University, 1981.
11. Wali, M.N. (1985) 'Factorial study of Teaching Correlates of Teaching Effectiveness', Ph.D., Edu., BHU.
12. Zembylas, Michalinos; Papanastasiou, Elena (2004) 'Job Satisfaction Among School Teachers in Cypus', Journal of Educational Administration, Emarald Publishing Ltd., Vol.42, No.3, 2004, Pp.357 – 374.

CUSTOMER SATISFACTION IN CO-OPERATIVE URBAN BANK AT GUDIYATTAM

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OBJECTIVES OF THE STUDY

- To study the customer perception towards service quality of Co-operative Urban Bank.
- To know the satisfaction level of the customers from bank lending policies.
- To identify how they manage loans and conditions in issues of loan.
- To identify the future improvements requirements in the bank to get future potential customers.
- To suggest the appropriate measures to improve the efficiency of the Co-operative Urban Bank, Gudiyattam.

SCOPE OF THE STUDY

- To study about the customer satisfaction provided by the Co-operative Urban Bank, Gudiyattam.
- To know what type of services & schemes are available in the Co-operative Urban Bank.
- To find out the extend level of Co-operative Urban Bank services is better than other banks.

LIMITATIONS OF STUDY

- This study was conducted at Co-operative Urban Bank in and around Gudiyattam Taluk.
- The sample size was confined up to 50 respondents only.
- This study has been conducted only for the gold loan, savings account and deposits customers.
- Information collected through structured questionnaire customers may feel free to express their opinions.
- The researcher limited the sample size up to 50 respondents only due to budgetary and time constraints.

- The report contains details to known about the level of customer satisfaction of Co-operative Urban Bank, Gudiyattam.

HISTORY OF CO-OPERATIVE URBAN BANK

The Gudiyattam Co-operative Urban Bank is one of the oldest and the most successfully functioning Co-operative banks in the state of Tamil Nadu. It was registered on 11.02.1912 license number of 812. The bank has been opened on 09.03.1912. The bank is situated in Bazaar Road, Dharnampet, and Gudiyattam. The bank operates its functions entire Taluk of Gudiyattam, the bank is started mainly for the purpose of weavers. The motto of the bank is saving, safety and security. Co-operative Urban Bank was started on 09.03.1912 with 48 members has its shareholders. The term Co-operative Urban Banks (CUBs), though not formally defined, refers to primary Co-operative banks located in urban and semi-urban areas. These banks, till 1996, were allowed to lend money only for non-agricultural purposes. This distinction does not hold today. These banks were traditionally centered on communities, localities work place groups. They essentially lent to small borrowers and businesses. Today, their scope of operations has widened considerably. The origins of the urban Co-operative banking movement in India can be traced to the close of nineteenth century when, inspired by the success of the experiments related to the cooperative movement in Britain and the Co-operative credit movement in Germany such societies were set up in India. Co-operative societies are based on the principles of cooperation, mutual help, democratic decision making and open membership. Co-operatives represented a new and alternative approach to organization as against proprietary firms, partnership firms and joint stock companies which represent the dominant form of commercial organization. Co-operative Urban Banks provide banking and credit facilities to urban and semi urban population. As of now 138 Co-operative Urban Banks are functioning in the State and there are several branches associated with one main bank. They mobilize deposits from the public and extend credit facilities for specified purposes. Their lending operations include provision of credit facilities to small traders, artisans and persons belonging to low and middle income group for purposes ranging from housing, business, education, consumer and other non-farm sector activities.

The various types of loans issued by the bank are NFS Loan small business, NFS Loan Self Employ, NFS Education, NFS Consumption, NFS House Repair, House Building Construction, and HMT Loan for Medium and

Long term, TAMCEDCO Loan, TAMCO Loan, Jewel Loan, Disabled Loan, SHG Loan, Men Group Loan, Women Group Loan, Women Petty Traders, Working Women Group Loan, Women Maternity Loan, Employee Housing Loan, Employee Consumer Loan, Government Security Loan, Cash Credit Loans, Employee Personal Loan etc. The Banking Regulation Act 1949 as applicable to Co-operative societies had come into force on 1st March 1966. Even though, the powers regarding establishment, incorporation, management of these banks, continue to vest in the Registrar of Co-operative Societies, the Banking Regulation Act 1949 has been amended in 1983 (Bank Laws Amendment Act) and in 1991 (Banking Regulation Amendment Act). The provision of this Act will prevail over the provision of the Co-operative societies Act. The principal objective of Co-operative Urban Bank is to transact the Banking business, the paid up share capital and reserves of the bank are not less than one lakh rupees, the bye laws of the banks do not permit admission of any other Co-operative society as a member. The concept of co-operation has its practical relevance in the Indian context especially in agricultural sector. With the help of Co-operative movements India could achieve a remarkable milestone in the area rural development. Because of limited financial support and some practical problem in the National level policy on co-operation, some of the Co-operative organizations started losing its importance and leading to potential sickness. In this study a sincere attempt has been made in this study to identify the lapses in the policy, legal measures and lacunae in the existing system of functioning both in administrative and financial front and to suggest for any remedial measure to overcome the same. "In any programme of social and economic development of an underdeveloped economy, co-operation has a very valuable role to play". "Co-operation represents institutionalization of the principle and impulses of mutual aid. It has the merit of combining freedom and opportunity for the small man with the benefit of large-scale organization and management. Co-operation is therefore, eminently suited to bring about the desired social-economic changes in the context of the existing conditions in the country. There is no other instrument potentially and full of social purpose than the Co-operative movement". Co-operative movement in India is one of the largest voluntary movements in the world dedicated to the well being of the people at large. The Co-operative movement frees its members from user and profiteers. It was introduced in India at the beginning of the present century for the benefit of people having small means and common economic

needs. It was visualized as essential instrument for activating the aspirations of the people in order to establish socio-economic equality.

COMPANY PROFILE

The Co-operative Urban Bank is an innovative and respected operator in the banking industry. Since its inception, the bank has introduced a number of revolutionary initiatives, which have shaped the contours of the banking and financial services landscape today. A pioneer in its field, the Co–operative bank was the first to introduce free banking to its entire personal customer in 1973. The bank prides itself on its ethical stance, which forms a large basis of its overall strategy along with the provision of a quality service to its customers. Co-operation with its customers and addressing their needs has been one of the keys to the bank's success but the banking landscape can be a difficult terrain-competitive, fast moving, yet highly regulated. The Co-operative Urban Banks goal is to lead the way in the provision of customized financial products and service and ensure that new services are available to customers via kiosk, telephone and the interne. The Co-operative Urban Bank also faces the challenges of preparing itself for new Government and industry driven initiatives, such as the nationwide introduction of PIN at the point of sale and smart cards in 2005. To ensure commercial success, the bank needs a 360 degree view of its customers and services. As a result, the Co-operative Urban Bank has increasingly come to rely on information technology as a source of competitive advantage. For the last ten year, mainframe FOCUS has been used extensively with in the Co-operative Urban Bank IT operations at its Manchester headquarters in Balloon Street. Mainframe FOCUS is used to run reports for analysis and reporting on performance of financial services. Recognizing the wealth of information residing on legacy systems, the bank has used FOCUS as a tool to develop innovative applications in-house and reduced the costs of outsourcing IT in the process.

REVIEW OF LITERATURE

Anil Kumar Sunil and Dr. Harjinder Pal Singh Saluja (ROLE OF CO-OPERATIVE URBAN BANK IN AGRICULTURAL CREDIT) revealed that the Co-operative banking sector is one of the main partners of Indian banking structure, the Co-operative Urban Banks have more reach to the rural India, through their huge network of credit societies in the institutional credit structure. He found the performance of cooperative banking in respect of agricultural credit and rural development. Primary data were collected from

the members and actual own experience in the field and discussion with all concerns. Co-operative Urban Banks belong to the oldest forms of the collective action in India playing essential role in the realization of the agricultural and in local development. They serve both rural and urban population, and are main banks in India supporting development of agriculture and rural areas. Their key role is to give credits financing various rural based entrepreneurships.

Mr. A. Gowthaman and Dr. T. Srinivasan (Non-farm Sector Loans by the Erode Central Co-operative Bank in Tamil Nadu) revealed that the non-farm sector (NFS) is seen as a promising sector for the creation of sustainable employment and as a solution to the problem of poverty. It often complements agricultural income and labor flows, and hence, helps to build livelihood, stability and growth. The study on the NFS loans by the ECCB analyses the loans and it's overdue between 2000-01 and 2012-2013. The reasons for overdue of loans are fixing the loan target without adequate financial products, absence of staff incentives and poor assessment of loan application. He also suggest that in this context, if efforts are initiated to encourage loans to income –generating NFS loans with high rate of return, promoting financial products for different market segments and appropriate staff incentives, NFS finance can be profitable.

Dr. Padmaja. B, Dr. BhanuKiran. C and Dr. Rama Prasada Rao. C.H. (AN EMPIRICAL STUDY ONFINANCIAL PERFORMANCE OF ANATAPUR CO-OPERATIVE URBAN BANK) revealed that they are the back bone of banking system and contribute for growth of the nation. The researcher aims to analyze the financial performance of Anantapur Co-operative Urban Banks. The study used exploratory research design which relies on secondary date. The analyzed data reveals that there was significant growth in the deposits mobilization, loans and advances, working capital, reserves and owned funds. There is no significant growth in the deposits mobilization, loans and advances, working capital, reserves and owned funds. There is no significant growth in membership but there was significant growth in share capital per member with CGR of 9.43. There was significant growth in share capital per member with CGR of 12.44. There was no significant growth in CDR. There was significant difference in the growth and composition of income. The total expenses were increasing significantly with CGR of 16.61. Even though there was increasing trend in the Net Profits earned during the study period except in the year 2006-07 but it was statistically in significant.

RESEARCH METHODOLOGY

Research Design	:	Descriptive Research – To find solution to current problems & questioning of 7w's
Sampling Technique	:	Probability Sampling ⟶ Simple Random Sampling ⟶ Lottery Method
Sampling Size	:	50 customers of Co-operative Urban Bank
Survey Area	:	Gudiyattam
SOURCE OF DATA		
Primary Data	:	Primary data collect from customers with the help of using questionnaires and direct interview
Secondary Data	:	Banks information, manual etc.,
Statistical Tools	:	Percentage Analysis & Chi-square
Questions	:	Direct questions, closed ended questionnaire, multi choice single option
Survey Technique	:	Personal interview

DATA ANALYSIS AND INTERPRETATIONS

CLASSIFICATION OF GENDER

Gender	No of Respondents	Percentage
Male	26	52%
Female	24	48%
Total	50	100%

INTERPRETATION:
From the table the researcher infers that 52% of respondents are males and 48% of respondents are females.

QUALIFICATION OF RESPONDENTS

Qualification	No of Respondents	Percentage
Below SSLC	5	10%
SSLC	19	38%
HSC	11	22%
UG	11	22%
PG	2	4%
Others	2	4%
Total	50	100%

INTERPRETATION:
The table represent that 38% of respondents are SSLC qualified; 22% of respondents are UG holder 22% of respondents are HSC qualified; 10% of respondents are below SSLC; 4% of respondents are PG holder; 4% of respondents are educational qualification in others.

INCOME OF RESPONDENTS

Income	No. of Respondents	Percentage
< 10000	30	60%
10000-20000	15	30%
> 20000	5	10%

INTERPRETATION:
The table shows that 60% of respondents earn income below or less than Rs.10000; 30% of respondents earn income between Rs.10000-20000; 10% of respondents earn income above Rs.20000.

Total	50	100%

CUSTOMERS IN CO-OPERATIVE URBAN BANK

Years	No of Respondents	Percentage
0-1	6	12%
1-3	10	20%
3-5	4	8%
> 5years	30	60%
Total	50	100%

INTERPRETATION:
From the table we infer that 60% of respondents are have more than 5 years of account in CUB; 20% of respondents have account for 1-3 years; 12% of respondents have less than 1 years of account in CUB; 8% of respondents are operating 3-5 years of account in CUB.

PURPOSE OF BANK ACCOUNT

Bank Account	No of Respondents	Percentage
Loan	24	48%
Saving	15	30%
Funds Transfer	11	22%
Total	50	100%

INTERPRETATION:
From the table the researcher infer that 48% respondents holding a/c in CUB for the purpose of loan transaction; 30% of respondents holding a/c in CUB for small saving; 22% of respondents holding a/c for fund transfer.

TRANSACTION IN A MONTH

Transactions	No of Respondents	Percentage
0-3	26	52%
3-6	9	18%
6-9	5	10%
6-12	10	20%
Total	50	100%

INTERPRETATION:
The table shows that 52% of respondents transaction only 3 in a month ; 20% of respondents make 6-12 transaction in a month ; 18% of respondents made 3-6 transaction in a month ; 10% of respondents made 6-9 transaction in a months.

REGULAR USAGE OF BANK SERVICES

Services	No of Respondents	Percentage
Weekly	5	10%
Monthly	26	52%
Quarterly	19	38%
Total	50	100%

INTERPRETATION:
The table shows that 52% of respondents are access bank once in a month regularly; 38% of respondents are access bank once in quartos; 10% of respondents are access bank daily.

OTHER BANK ACCOUNTS

	Bank	No of Respondents	Percentage
YES	SBI	19	38%
	CANARABANK	3	6%
	INDIAN BANK	6	12%
	OTHER	12	24%
NO		10	20%
	Total	50	100%

INTERPRETATION:
From the table the researcher infer that 38% of responds have maintain conditional account in SBI ; 24% of respondents have maintain account in other bank ; 20% of respondents having only CUB account ; 12% of respondents have maintain additional account in Indian bank ; 6% of respondents have maintain additional account in Canara bank.

INTEREST RATE IN CO-OPERATIVE URBAN BANK

Rating	No of Respondents	Percentage
Agree	40	80%
Disagree	10	20%
Total	50	100%

INTERPRETATION:
The table represents 80% agree that there in nominal interest rate in CUB; 20% of respondents disagree that the interest rate in CUB are high.

TIME DURATION OF CLARIFICATION IS LONGER

Rating	No of Respondents	Percentage
Agree	13	26%
Disagree	37	74%
Total	50	100%

INTERPRETATION:
From the table we infer that 74% of respondents disagree that longer duration for clarification of; 26% of respondents agree that CUB employees take longer duration to clarify their queries.

FAST AND EFFICIENT SERVICES

Rating	No of Respondents	Percentage
Agree	43	86%

INTERPRETATION:
From the table the researcher infer that 86% of respondents agree that faster and efficient services

Disagree	7	14%
Total	50	100%

provide in CUB; 14% of respondents disagree that there is no proper services in CUB.

OVERALL SERVICE QUALITY

Rating	No of Respondents	Percentage
Satisfied	46	92%
Dissatisfied	4	8%
Total	50	100%

INTERPRETATION:
From the table the researcher infer that 92% are satisfied with over all services rendered by CUB; 8% of respondents are dissatisfied with the services of CUB.

KNOWLEDGE OF NEW SCHEMES & SERVICES

Rating	No of Respondents	Percentage
Personal visit	19	38%
Advertisement	2	4%
Words of mouth	24	48%
Others	5	10%
Total	50	100%

INTERPRETATION:
The table represents 48% of respondents came to know about new schemes and services of CUB through words of mouth; 38% of respondents came to know about new schemes and services of CUB through personal visit; 10% of respondents came to know about new schemes and services of CUB through others; 4% of respondents came to know about new schemes and services of CUB through advertisement.

TRANSACT IN BOOK

Rating	No of Respondents	Percentage
Good	33	66%
Bad	12	24%
Poor	5	10%
Total	50	100%

INTERPRETATION:
From the table we infer that 66% of respondents stated that transact in CUB is good; 24% of respondents stated that transaction in CUB is bad; 10% of respondents stated that transact in CUB is poor.

TIME TAKEN TO SANCTION LOAN

Rating	No of Respondents	Percentage
7days	9	18%
8to15days	15	25%
> 15days	13	26%

INTERPRETATION:
The table represents 26% of respondents said that time taken for sanction loan is more than 15days; 26% of respondents said that time taken for sanction loan is within a month; 25% of respondents said that time

1Month	13	26%
Total	50	100%

taken for sanction loan is 8 -15 days; 18% of respondents said that time taken for sanction loan with in 7days or a week period.

SATISFACATION LEVEL OF REPAYMENT PERIOD

Rating	No of Respondents	Percentage
Satisfied	23	46%
Neutral	25	50%
Dissatisfied	2	4%
Total	50	100%

INTERPRETATION:
From the table researcher infer that 50% of respondents are neither satisfied nor dissatisfied with repayment periods; 46% of respondents are satisfied with repayment periods; 4% of respondents are dissatisfied with repayment periods.

PREFERANCE OF LOAN IN OTHER BANKS

Rating	No of Respondents	Percentage
CUB	39	78%
SBI	5	10%
HDFC	5	10%
Indian Bank	1	2%
Total	50	100%

INTERPRETATION:
The table its infer that 78% of respondents prefer CUB bank for avail loan; 10% of respondents prefer SBI bank for avail loan; 10% of respondents prefer SBI bank for avail loan; 10% of respondents prefer HDFC bank for avail loan; 2% of respondents prefer Indian bank for avail loan.

RANGE OF LOAN AMOUNT

Range	No of Respondents	Percentage
>20000	12	24%
10000-20000	21	42%
>10000	17	34%
Total	50	100%

INTERPRETATION:
From the table we infer that 42% of respondents avail loan range 20000-40000; 24% of respondents avail loan range more than 100000; 24% of respondents avail loan range less than 20000; 10% of respondents avail loan range more than 500000.

OPINION OF SERVICE CHARGES

INTERPRETATION:

Rating	No of Respondents	Percentage
Good	16	32%
Satisfaction	28	56%
Bad	6	12%
Total	50	100%

The table infer that's 56% of respondents are satisfied with services and charges in CUB; 32% of respondents are said that good services in CUB; 12% of respondents are said that CUB offers bad services and charges.

IMPROVEMENT IN SERVICE QUALITY

Rating	No of Respondents	Percentage
Strongly Agree	23	46%
Strongly Disagree	27	54%
Total	50	100%

INTERPRETATION:
From the table we infer that 46% of respondents strongly agree and agree that CUB need improvement in service quality; 54% of respondents are disagree that CUB need improvement in service quality.

INTRODUCTION OF NEW SCHEMES

Rating	No of Respondents	Percentage
Strongly Agree	17	34%
Agree	14	28%
Neutral	11	22%
Disagree	4	8%
Strongly Disagree	4	8%
Total	50	100%

INTERPRETATION:
From the table the researcher infer that 62% of respondents strongly agree and agree that introduction of new scheme is needed on CUB; 22% of respondents no idea about it; 16% of respondents disagree & strongly disagree that introduction of new scheme is needed on CUB.

RECOMMENT TO OTHERS

Rating	No of Respondents	Percentage
Agree	33	66%
Disagree	17	34%
Total	50	100%

INTERPRETATION:
From the table infer that 66%of respondents agree that they recommend CUB bank to others; 34% of CUB respondents disagree that they recommend bank to others.

FIXED DEPOSIT IN CO-OPERATIVE BANK

	No of Respondents	Percentage
Yes	30	60%
No	20	40%
Total	50	100%

INTERPRETATION:
From the table we infer that 60% of respondents have fixed deposit in CUB; 40% of respondents don't have fixed deposit in CUB.

EMPLOYEES OF CO-OPERATIVE BANK

Rating	No of Respondents	Percentage
Agree	49	98%
Disagree	1	2%
Total	50	100%

INTERPRETATION:
From the table the researcher infer that 98% of respondents agree that employees of CUB is always willing to help; 2% of respondents disagree that employee of CUB is always willing to help.

QUALITY OF SERVICES

Services	Excellent	Good	Satisfied	Bad	Very Bad
Cheque	2	6	8	17	17
D.D	0	7	15	15	13
Jewel loan	34	8	8	0	0
SB A/C	23	18	9	0	0

INTERPRETATION: From the above table we infer that quality of services in CUB for jewel loan and SB account services are excellent; DD and cheque services are poor; Jewel loan: 84% of respondents stated that service is excellent; 16% of respondents stated that service is satisfactory level; SB account: 16% of respondents stated that SB a/c service is excellent; 18% of respondents stated that SB a/c service is at satisfactory level; DD: 56% of respondents stated that DD facilities are poor; 30% of respondents stated that DD facilities at satisfactory level; 14% of respondents stated that DD facilities is good; Cheque: 68% of respondents stated that cheque facilities are poor; 16% of respondents stated that cheque facilities are at satisfactory level; 16% respondents stated that cheque facilities are good.

FINDINGS

- 52% of respondents are male.
- 38% of respondents are qualified.
- 60% of respondents earns income below RS.10000
- 60% of respondents have more than 5 years of accounts in CUB.
- 48% of respondents holding a/c in CUB for the purpose of loan transaction.
- 52% of respondents access CUB bank once in a month regularly.
- 52% of respondents transact only 3 times in a month.
- 38% of respondents have ma of respondents maintain additional account in SBI.
- 80% of respondents agree that their in nominal interest rate in CUB.
- 46% of respondents disagree that longer duration for clarification of queries.
- 86% of respondents agree that faster and efficient services provide in CUB.
- 92% of respondents are satisfied with overall quality of services rendered by CUB.
- 48% of respondents came know about new schemes and services of CUB through word of mouth.
- 66% of respondents stated that transact in CUB is good.
- 26% of respondents said that time taken for sanction of loan is more than 15 days.
- Quality of services in CUB for jewel loan and SB a/c services are excellent.
- 50% of respondents are neither satisfied nor dissatisfied with repayment period.
- 78% of respondents prefer CUB bank for avail loan.
- 42% of respondents avail loan range between Rs.20000-40000.
- 56% of respondents are satisfied with services and charges in CUB.
- 46% of respondents agree that CUB need improvement in service.
- 62% of respondents agree that introduction of new scheme is needed in CUB.
- 98% of respondents agree that they recommend CUB bank to other.
- 60% of respondents have fixed deposit in CUB.
- 98% of respondents agree that an employee of CUB is always willing to help.

SUGGESTION

- Customer complaints and queries have needed to be clear quicker in order to get more customers.
- The repayment of loan period need to be consider for small scale formers.
- Modernization of banking like ATM, E-Banking, Mobile banking is require in our bank.

- Mobilization of savings through term deposits is one of the strategies to increase growth rate of Co-operative Urban Bank.

CONCLUSION

- In this study the researcher team came to know about satisfaction level of customer and the areas to improve to create future potential customer for Co-operative Urban Bank, Gudiyattam.

References

1. Marketing Management 12th edition – Philip Katter.
2. Marketing Research – Green & Tull, Rajender Marlundar.
3. Research Methodology – C.R.Kothari.
4. Services Marketing – Mary.Jo Bither.

ADVANCE IDENTITY BASED PUBLISHER SUBSCRIBER ARCHITECTURE

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1 INTRODUCTION

The publisher/subscriber (pubs/subs) communication paradigm has obtained more popularity because of its inherent decoupling of publisher from subscriber in terms of space, time, and synchronization. Publisher inject information into the publish/subscribe system, and subscriber specify the event of interest by making of subscriptions. Published events are routed to their relevant subscribers, the publisher unknowing the relevant set of subscriber, or vice versa. This decoupling is traditionally ensured by intermediate routing over a broker network [10]. In more recent systems, publisher-subscriberorganize themselves in a brokerless routing infrastructure, forming an event forwarding overlay [24]. Identitybased publish/subscribe is the variant that provides the most expressive subscription model, where subscription define restrictions on the message content. Its expressive-ness and asynchronous nature is particularly useful for largescale distributed applications such as stock exchange, news distribution, traffic control, environmental monitoring, and public sensing.publish/subscribe needs to provide supportive mechanisms to fulfill the basic security requirements of these applications such as accesscontrol and confidentiality.

Access control in terms of publish/subscribe system means that only authenticated publisher is allowed to disseminate events in the network and only those events are delivered to authorized subscribers. Moreover, the content of events should not be provide to the routing infrastructure and a subscriber should receive all relevant events without revealing its subscription to the system. To solve these security issues in a content based

pubsher/subscriber system imposes new challenges for PKI. In proposed system Public Key Infrastructure (PKI) , publisher must maintain the public key of interested subscribers to encrypt events. Subscriber must know the public keys of all related publishers to verify the authenticity of the received events. Furthermore, traditional mechanisms to provide confidentiality by encrypting the whole event message conflict with the content basedrouting. Hence, new mechanisms are needed to route encrypted events to subscribers without knowing their subscriptions to allow subscribers and publishers authenticate each other without knowing each other through key server.

2 SYSTEM MODEL

We consider publish/subscribe in a setting where there not exists dedicated broker infrastructure. Subscriber and publisher contribute as peers to the maintenance of a self-organizing overlay structure. To authenticate publisher, we use the term of advertisements in which a publisher announces before-hand the set of events which it wants to publish.

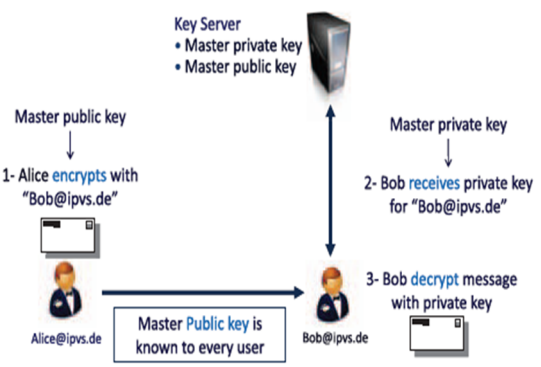


Fig. Identity Based Encryption.

In our proposed approach, publishers-subscribers interact with a key distribution server. Both provide credentials to the key distribution server and receive keys which fit the expressed capabilities in the credentials. Those keys can be used to encryption, decryption, and sign relevant messages in the content-based publish/subscribe system, i.e., the credential becomes authorized by the key distribution server. A credential consists of following two parts: 1) a binary string describes the capability of a peer in publishing and receiving event and 2) a proof of its identities. The latter is used for authentication

against the key distribution server and verification whether the capabilities match the identity of the peer.We pay our attention mainly on expressing the capabilities of a credentials, i.e., how subscriber and publisher can create a credentials. This process needs to address the many possibilities to partition the set of events described by an advertisement or subscription and exploits overlaps in subscriptions and publications. Subsequently, here we use the term credentials only for referring to the capability string of a credentials.

3 PUBLISH/SUBSCRIBE AUTHENTICATION AND EVENT CONFIDENTIALITY

3.1 Security Parameters and Initialization:

Let GG1 and GG2 denote the bilinear groups of prime order q, i.e., |GG1|= |GG2| = q, e : GG1 × GG1 →GG2 denote an admissible bilinear map, and g denote a generator in GG1. Moreover, let H1 : {0,1}*→{0,1} ^ nu , H2 :{0,1}*→{0,1} ^ nm,H3:{0,1}→GG1, and H4 : GG2→{0,1} ^ log q designate collusion resistant cryptographic hash functions.

The initialization algorithm:

1. chooses α.¥ € Zq,
2. computes g1= g ^ α and h=g ^ ¥,
3. chooses g2.u',a'€ G1, and
4. select vectors ū=(ui) and ā=(ai) of length nu and na, respectively, with every element chose nonformly at random from GG1.

The Master Public Key MPu is composed of (e,g,g1,g2,h,u',a',ū,ā).This master public key is known to every peer in the system and is used for encryption and signature verification. The Master Private key MPris (¥,g ^ α2), and is only known to the key server. The master private key is used for generating private keys for publishers and subscribers.

3.2 Key Generation for Publishers:

Before starting to publish events, a publisher contacts the key server along with the credentials for each attribute in its advertisement. If the publisher is allowed to publish events according to its credentials, the key server will generate separate private keys for each credential. Let Credi;j denote the credential with label j for the attribute Ai,for example, CredTemp,0 denotes credential 0 of attributeTemp. The public key of a publisher p for credential Credi,jis generated as:

$Pu^{p}_{i,j}$= ($Cred_{i,J}$ || Ai || PUB || Epoch)

The key server will generate the corresponding private keys as follows: For each credential Credi;j and a publisher p, let,vp= H1(Pup i;j) be a bit string of length nu and let vp[k]denote thekth bit. Let Γi;jC_{1,2, . . . ; nu} be the set of all kfor which vp[k] = 1. The key server chooses γi;j €Zqatrandom and computes

$Pr^{p}_{i,j:=}$(g ^ α($u'\prod_{k€\Gamma i,j} uk$ ^ γi,j,g ^ γi,j) =:$Pr^{p}_{i,j[1].}Pr^{p}_{i,j[2]}$

3.3 Key Generation for Subscribers:

Similarly, to receive events matching its subscription, a subscriber should contact the key server and receive the private keys for the credentials associated with each attribute Ai. In case of subscribers, the public key for a credential Credi,j is given as:

$Pu^{p}_{i,j}$= ($Cred_{i,J}$ || Ai || PUB || Epoch)

A different symbol SUB is used to differentiate the keys used for the verification of valid events from the ones used to provide event confidentiality. The private keys are generated as follows: The key server chooses γs€Zqatrandom. The same γs is used for all credentials associated with a subscription. For each credential Credi;j, it calculates Γi;jsimilar to the publisher's case, chooses γi;j€ Zqand computes,

$Pr^{s}_{i,j}$ =:(g2 ^ γs ($u'\prod_{k€\Gamma i,j} uk$) ^ γi,j,g ^ γi,j, H3($u'\prod_{k€\Gamma i,j} uk$) ^ ¥) =:$Pr^{s}_{i,j[1].}Pr^{s}_{i,j[2],}Pr^{s}_{i,j[3]}$

4. SECURE OVERLAY MAINTENANCE

we propose a secure protocol to maintain the desired pub/sub overlay topology without violating the weak subscription confidentiality. For simplicity and without loss of generality, here we discuss the overlay maintenance w.r.t. a single tree associated with a numeric attribute

Ai and each of the subscribers owns a single credential. The secure overlay maintenance protocol is based on the idea that in the tree, subscribers are always connected according to the containment relationship between their credentials, for example, a subscriber with credential 00 can only connect to the subscribers with credentials 0 or 00. A new subscriber s generates a random key SW and encrypts it with the public keys Pubi,j for all credentials that cover its own credential. The generated cipher text areadded to a

connection request (CR) and the request isforwarded to a random peer in the tree. A connection isestablished if the peer can decrypt any of the cipher-textusing its private keys.

Filling the security gaps. By looking at the number ofcipher-text in the connection request, a peer can detect thecredential of the requesting subscriber s.In the worst case, a subscriber has a credential ofthe finest granularity. This can be covered by log2bZip othercredentials, and therefore, a connection request contains inthe worst case that many cipher-text. To avoid any informationleak, cipher-texts in the connection request are alwayskept in Olog2 Zip by adding random cipher-text if needed. Furthermore, the cipher-textare shuffled to avoid any information leak from their order.

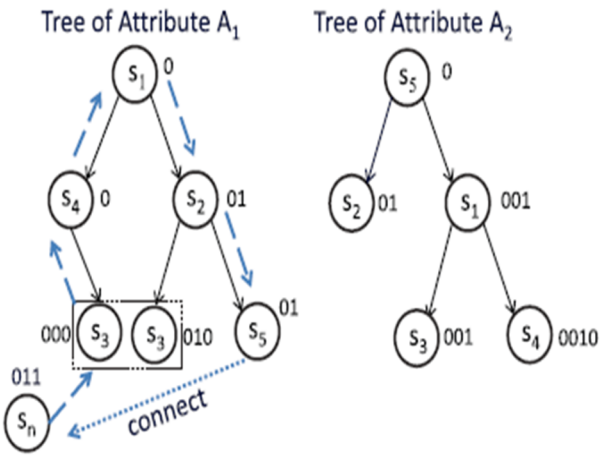


Fig.2 Publish/Subscribe system with two numericattributes

A different random key SW is used for the generation ofeach cipher-text to avoid any information leak to the peerwho has successfully decrypted one of the cipher-text and,thus, has recovered the random key SW. Otherwise, thepeer can try to generate cipher-text by encrypting the(recovered) SW with public keys for Olog2Zip credentials and can easily determine the random cipher-text in the connection request and, thus, the credentials of the requesting subscriber s. Finally, to avoid an attacker to generate arbitrary connection request messages and try to discover the credential of other peers in the system, the connection request is signed by the key server. This step needs to be performed only once, when a newly arriving subscriber authorizes itself to the key server in order to receive private keys for its credentials.

Algorithm 1. Secure overlay maintenance protocolat peer sq.

1: upon event Receive (CR of s new from sp) do
2: if decrypt request (CR)= = SUCCESS then
3: if degree (sq) = = available then //can have child peers
4: connect to the s new
5: else
6: forward CR to {child peers and parent} - sp
7: if decrypt request (CR)= = FAIL then
8: if sp = =parent then
9: Try to swap by sending it own CR to the snew.
10: else
11: forward to parent

A child peer sq receives CR (of subscriber snew) from the parent sp only if the parent cannot accommodate more children. If sq cannot be the parent of snew, i.e., snew's credential is coarser than that of sq, then it tries to swap its position with snew by sending its own connection request

(cf. Algorithm 1, lines 7-9). However, if none of the children of parent sp can connect or swap with snew, then there is no containment relationship between the credentials of the children and snew. In this case, a parent should disconnect one of its children to ensure the new subscriber is connected to the tree.

5.CONCLUSIONS

In this research paper, we have presented a new method to provideauthentication and confidentiality in a broker-less identity basedpub/sub system. The approach is highly scalable in terms of number of subscribers and publishers in thesystem and the number of keys maintained by them. Inparticular, we have developed mechanisms to assigncredentials to publishers and subscribers according to theirsubscriptions and advertisements. Private keys assigned topublishers and subscribers, and the cipher-textare labeledwith credentials. We adapted techniques from identity-basedencryption 1) to ensure that a particular subscribercan decrypt an event only if there is a match between thecredentials associated with the event and its private keysand 2) to allow subscribers to verify the authenticity ofreceived events. Furthermore, we developed a secureoverlay maintenance protocol and proposed two eventdissemination strategies to preserve the weak subscriptionconfidentiality in the presence of semantic clustering

ofsubscribers. The evaluations demonstrate the viability ofthe proposed security mechanisms and analyze attacks onsubscription confidentiality.

References

1. E. Anceaume, M. Gradinariu, A.K. Datta, G. Simon, and A.Virgillito, "A Semantic Overlay for Self- Peer-to-Peer Publish/ Subscribe," Proc. 26th IEEE Int'l Conf. Distributed Computing Systems (ICDCS), 2006.
2. J. Bacon, D.M. Eyers, J. Singh, and P.R. Pietzuch, "Access Control in Publish/Subscribe Systems," Proc. Second ACM Int'l Conf. Distributed Event Based Systems (DEBS), 2008.
3. W.C. Barker and E.B. Barker, "SP 800-67 Rev. 1. Recommendation for the Triple Data Encryption Algorithm (TDEA) Block Cipher,"technical report, Nat'l Inst. of Standards & Technology, 2012.
4. J. Bethencourt, A. Sahai, and B. Waters, "Ciphertext-PolicyAttribute-Based Encryption," Proc. IEEE Symp. Security andPrivacy, 2007.
5. D. Boneh, G.D. Crescenzo, R. Ostrovsky, and G. Persiano, "PublicKey Encryption with Keyword Search," Proc. Int'l Conf. Theory and Applications of Cryptographic Techniques on Advances in Cryptology(EUROCRYPT), 2004.
6. D. Boneh and M.K. Franklin, "Identity-Based Encryption from therein Pairing," Proc. Int'l Cryptology Conf. Advances in Cryptology,2001.
7. S. Choi, G. Ghinita, and E. Bertino, "A Privacy-Enhancing Content-Based Publish/Subscribe System Using Scalar ProductPreserving Transformations," Proc. 21st Int'l Conf. Database andExpert Systems Applications: Part I, 2010.
8. V. Goyal, O. Pandey, A. Sahai, and B. Waters, "Attribute-BasedEncryption for Fine-Grained Access Control of Encrypted Data,"Proc. ACM 13th Conf. Computer and Comm. Security (CCS), 2006.
9. M. Ion, G. Russello, and B. Crispo, "Supporting Publication and Subscription Confidentiality in Pub/Sub Networks," Proc. SixthInt'l ICST Conf. Security and Privacy in Comm. Networks (SecureComm),2010.
10. H.-A. Jacobsen, A.K.Y. Cheung, G. Li, B. Maniymaran, V.Muthusamy, and R.S. Kazemzadeh, "The PADRES Publish/Subscribe System," Principles and Applications of Distributed Event-Based Systems.IGI Global, 2010.
11. M. Jelasity, A. Montresor, G.P. Jesi, and S. Voulgaris, "PeerSim: APeer-to-Peer Simulator," http://peersim.sourceforge.net/, 2013.
12. H. Khurana, "Scalable Security and Accounting Services for Content-Based Publish/Subscribe Systems," Proc. ACM Symp.Applied Computing, 2005.

13. A. Lewko, A. Sahai, and B. Waters, "Revocation Systems with Very Small Private Keys," Proc. IEEE Symp. Security and Privacy, 2010.
14. B. Lynn, "The Pairing-Based Cryptography (PBC) Library,"http://crypto.stanford.edu/pbc/, 2010.
15. F.P. Miller, A.F. Vandome, and J. McBrewster, Advanced EncryptionStandard.Alpha Press, 2009.
16. M. Nabeel, N. Shang, and E. Bertino, "Efficient Privacy Preserving Content Based Publish Subscribe Systems," Proc. 17th ACM Symp.Access Control Models and Technologies, 2012.
17. L. Opyrchal and A. Prakash, "Secure Distribution of Events in Content-Based Publish Subscribe Systems," Proc. 10th Conf.USENIX Security Symp., 2001.
18. [18] L.I.W. Pesonen, D.M. Eyers, and J. Bacon, "Encryption-Enforced Access Control in Dynamic Multi-Domain Publish/Subscribe Networks," Proc. ACM Int'l Conf. Distributed Event-Based Systems (DEBS), 2007.
19. P. Pietzuch, "Hermes: A Scalable Event-Based Middleware," PhD dissertation, Univ. of Cambridge, Feb. 2004.
20. C. Raiciu and D.S. Rosenblum, "Enabling Confidentiality in Content-Based Publish/Subscribe Infrastructures," Proc. IEEE Second Creat Net Int'l Conf. Security and Privacy in Comm. Networks(SecureComm), 2006.
21. A. Shikfa, M. O ¨ nen, and R. Molva, "Privacy-Preserving Content-Based Publish/Subscribe Networks," Proc. Emerging Challenges for Security, Privacy and Trust, 2009.
22. M. Srivatsa, L. Liu, and A. Iyengar, "EventGuard: A SystemArchitecture for Securing Publish-Subscribe Networks," ACMTrans. Computer Systems, vol. 29, article 10, 2011.
23. M.A. Tariq, B. Koldehofe, A. Altaweel, and K. Rothermel,"Providing Basic Security Mechanisms in Broker-Less Publish/Subscribe Systems," Proc. ACM Fourth Int'l Conf. Distributed Event-Based Systems (DEBS), 2010.
24. M.A. Tariq, B. Koldehofe, G.G. Koch, I. Khan, and K. Rothermel,"Meeting Subscriber-Defined QoS Constraints in Publish/Subscribe Systems," Concurrency and Computation: Practice andExperience, vol. 23, pp. 2140-2153, 2011.
25. Y. Yu, B. Yang, Y. Sun, and S.-l. Zhu, "Identity Based Signcryp tionScheme without Random Oracles," Computer Standards & Interfaces,vol. 31, pp. 56-62, 2009.

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BUDDHISM AND ITS INFLUENCE ON DR AMBEDKAR'S IDEOLOGY

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"Know Truth as Truth and Untruth as Untruth" ***-Buddha***

Dr Ambedkar had a deep influence of Saint Kabir on his mind during his early childhood days. After passing matriculation, he was felicitated by a book on the life of Lord Buddha gifted by his master. This book left a great impact in his mind. Apart from father, three names or figures-Gautam Buddha, Jotibha Phule and Kabir are the most important. They were regarded by Ambedkar as his three masters or gurus.[1] Ambedkar's conversion to Buddhism had not been an isolated decision but seemed to draw together the different strands of his personality. It expressed his personal convictions as well as his political and social vision.[2] Eleanor Zelliot proposes Ambedkar's interest in Buddhism in seven categories.[3]Zelliot provides a list of the early converts to Buddhism, who might have direct and indirect connections with Ambedkar such as a high-caste Dharmanand Kosambi, the Marxist maverick Rahul Sankrityanan, Anand Kausalyayan, Jagdish Kashyap, S. Radhakrishnan, Ananda Kentish Coomaraswamy, Ananda Nair, U. Chandramani (who transmitted the Buddhist vows to Ambedkar in 1956), and others. Dr Ambedkar embraced Buddhism because it is based on scientific reasoning. Buddhism tends a men to achieve freedom, equality, liberty and fraternity. According Dr Ambedkar, Buddhism is the only religion advocating equality among all. In fact, they provide equal opportunity to women to attain the excellence of spirituality. Buddha had given the freedom to women for attaining monkhood with special rules and regulations. According to him, Buddha taught, "Social freedom, intellectual freedom and political freedom. He taught equality, equality not between man and man only but between man and woman. His concern was to give salvation to man in his life on earth and not to promise it to him in heaven after he is dead."[5] Buddism was against the inequality in society. He always suggested democracy and equality to be implemented in the good governance.

Ambedkar's frequent exposure to living Buddhist traditions in Burma, Sri Lanka, and others, and his appreciation of Buddhist art in various places such

as the Ellora and Ajanta caves might have influenced on his religious endeavor too.[6] His idea of equality, liberty and fraternity was taken from Buddhism not from French Revolution. This idea of Social Justice can be seen from Part III and part IV of the Constitution. After the comparative study of all the different religions, Dr Ambedkar realized that Buddhism is best among all the religions. In his article, "Buddha and the future of his Religion" published in 1950 in the Mahabodhi Society Journal, Ambedkar has summarized his views on religion and on Buddhism in following manner:

1. The society must have either the sanction of law or the sanction of morality to hold it together. Without either, the society is sure to go to pieces.
2. Religion, if it is to survive, it must be in consonance with reason, which is another name of science.
3. It is not enough for religion to consist of moral codes, but its moral code must recognize the fundamental tenets of liberty, equality and fraternity.
4. Religion must not sanctify or make a virtue out of poverty.[7]

Dr Ambedkar was totally fed up with inequality in society. Buddha established Universal brotherhood with the model of Sangha which were free from any kind of differences in religion, race, caste, sex etc. Violence, another name for the use of force, can be used in two ways: as energy for creative purposes; and as violence for destructive purposes. Buddhism opposed strongly the use of force in a violent way. Communism also follows the dictatorship or State government that has the right to enforce and severely discipline its citizens through the Rule of Law. Instead, Buddhism prefers the Rule of Righteousness, in which the citizens should be trained morally that they are sentiment for the government of righteousness without resorting to any brutal force.[8]

According to Gokhale some Buddhist Character attracted Dr Ambedkar are as follows:

1. **Scientific Reasoning**-In Buddhism, there is no place for superstition. They always give logic behind everything. Buddha always taught to find and then believe. In Sanghas also monks were taught to study and then find out the truth.

2. **No God or Soul Exist**- Buddhism rejected the presence of God or Soul. They never believed in the existence of God. They only believed in Pratitya Samutpada. This doctrine means cause and effect

relationship. According to Buddha, we get according to our karma. So, he always advocated the importance of Good Karma. According to Buddhism, if we do good karmas, we will have good life and vice-versa.

3. **Rejected Casteism**-Buddhism rejected caste system. They were open to every person irrespective of their caste. Lokamitra expressed Dr Ambedkar's vision and its influence upon him in these lines, "I visited India in 1977 and met Sangharakshita's Ambedkarite disciples. I caught a glimpse of Dr Ambedkar's great vision of a society in which society in which everyone was free to develop themselves to the fullest, and all related to each other on the basis of equality and friendship, not by political means but through Buddhist practices. Devoting his life to the eradication of Untouchability, he had, after a long and arduous journey, realized that effective social change will only come about through change within the individuals, deep attitudinal and ethical change. I wanted to be a part of it, and encouraged by my teacher, Sangharakshita and his Indian disciples decided to live in India."[9]

4. **Teaches Morality**-Buddhism emphasized morality as an essence of good life. This morality according to Buddhism was essentially human-centric and had no reference to soul or to God. Ambedkar not only took these features seriously, but he also tried to elaborate some of them to their logical limit and attempted a reconstruction of Buddhism in that approach of bringing out a real essence of Buddhism according to his variant thoughts and ideas.[10]

5. **Liberty and Fraternity**-He said that —I have derived my philosophy from religion of the Buddha in liberty, equality, and fraternity, not from political science.[11] This idea was taken from Buddhism only. Universal brotherhood was there anthem. Buddhism ideology is the best to run a good government. Democracy was also one of his ideology.

6. **Buddha's personality**-Also, the Buddha's physical image, his compassionate and colorful figure, his stories, the way in which he dealt with life, the way he is represented by artists throughout times made Ambedkar's Buddhism an appealing and satisfying religion.[12]

Thus we can elucidate that Buddhism greatly influenced Dr Ambedkar with its unique qualities. There should not be any difference among each other. As everyone knows that God has given equal freedom to all. Then, why can we not provide them this basic right. All these basic understandings, he could only find in Buddha Dharma. Dr Ambedkar also demarcate between Dhamma and religion. He says, "Religion, it is said, is personal and one must keep it to oneself. One must not let it play its part in public life. Contrary to this, Dhamma is social. It is fundamentally and essentially so."[13] In May 1956, a talk was broadcasted by British broadcasting cooperation, London titled "Why I like Buddhism and How is it useful in present circumstances?" In his talk, Ambedkar said, "I prefer Buddhism because it gives three principles in combination, which no other religion does. Buddhism teaches Prajna(understanding as against superstition an supernaturalism), Karuna(Love) and Samata(Equality). This what man wants for a good and happy life. Neither God nor Soul can save society.[14] Dr Ambedkar understood the role of Bible in Buddhism. So, he wrote a book as Buddha and his Dhamma to clarify and reach common man. He gave some keen points in favour of Buddhism. He gave a gift to Buddhism as a book. He wanted Buddha's message to be read by all the people. He used the common language to make people understand because most of the literature is in Pali language which is not prevalent these days. So, he tried to decode the ideas in local language.

Spiritually, since he was interested in Buddhism during his youth, he made a commitment to become a Buddhist together with a half million of his followers, mainly the untouchables, in October 1956 at Nagpur, two months before his death.[15]He also said that this conversion had given him enormous satisfaction and pleasure unimaginable. He felt as if he had been liberated from the hell.[16] He adopted Navayana(Neo-Buddhism) neither Hinyana nor Mahayana. He adopted actual teachings of Buddha only. This step started the new beginning for Buddhism in India. After this Buddhism was more respect and a number untouchables adopted Buddhism especially in the state of Maharashtra. Ambedkar's books and articles on Buddhism include**: *Buddha or Karl Marx; The Buddha and His Dharma; Buddha and the future of His religion,* and others**. **He also established the Siddharth College in Bombay in 1946, the Buddha Society in India in 1955, and others.** Ambedkar's effort to reconstruct Buddhism probably might be seen as a deviation from the *traditional* Buddhism, though it may or may not be a

deviation from *original* Buddhism. Gokhale pointed out four features of Ambedkar's reconstruction of Buddhism. First, Ambedkar merely included Buddhist belief and practices to this world and this life, and excluded the belief in other worlds and past and future as well as the existence of consciousness independent of the body. Second, Ambedkar emphasized scientific rationality as a core of the Buddhist approach to the nature of the world and the individual. Essentially, Ambedkar considered whatever violated the authority of experience and reason as non-Buddhistic elements. Third, Ambedkar pushed aside the mystical elements from Buddhism such as *dhyāna* and Samadhi. Fourth, according to Ambedkar morality is the root of Buddhism, while other religions placed morality on the hands of metaphysical gods.[17] According to some research scholars, the former untouchables who have embraced Buddhism have obtained worthy gains. They have got rid of their inferiority complex. They have a fresh sense of identity and a newly acquired confidence. Their young people have completely shed the old superstitions that had oppressed their existence and have adopted a more positive view of life. A new cultural and social renaissance has transformed Buddhist youth. They no longer believe in pre-ordained fate or in any of the ancient rituals. Dr Ambedkar had a good intellect. He found the logics of Buddha very realistic and relevant. This was the reason he chose Buddhism. Before adopting Buddhism, he went to all religions because he was little confused regarding this. He visited the religious places and also met their heads. But nowhere he could find out originality as he found in Buddhism. According to Ambedkar, "What is called religion by Hindus is nothing but a multitude of commands and prohibitions."[18] He has enumerated the evils of Hinduism in the following manner:

1. It has deprived moral life of freedom.
2. It has only emphasized conformity to commands.
3. The law was unjust because they are not the same for one class as of another. Besides the code is treated as final.

Dr Ambedkar derived certain things from Buddhism. These are like:

Karma

Ambedkar said that —Dr Ambedkar clearly understood the idea of Karma. According to Buddhism, the effects of Karmas are the real sources of life. He emphasized the cause and effect religion. Inspiring from it, he worked diligently for the sake of his country. He tried to work on cause and effect relationship directly. Furthermore, his view on soteriology might have been

greatly influenced by his Columbia University professor, John Dewey. Ambedkar used a passage from Dewey's *Democracy and Education*: —An individual can live only in the present. The present is not just something which comes after the past; much less something produced by it. It is what life is in leaving the past behind it. The study of past products will not help us to understand the present.[19]

The Four Noble Truths

Buddha defined sufferings, origin of sufferings, causes of suffering and the paths to get rid of these sufferings in his four Noble Truths. Ambedkar criticized these paths. According to this path, this is a discouragement for life. If we would feel like this way, how will we get encouraged to live life. These ideas lead to dissuade someone towards life. Regarding the Buddha's basic teachings, the Four Noble Truths, Ambedkar criticized them because, in his view, they deny hope to man and make the gospel of the Buddha a gospel of pessimism. Instead of recognizing the attribution of sufferings to the mental states of ignorance and craving, Ambedkar blamed social conditions as the cause for massive sufferings such as poverty and injustice.[21]Ambedkar considered the Four Noble truths as a later monkish accretion. He did not find hope and joy in the third and fourth noble truths, which speak of the cessation of suffering in a state of inner peace and the path to its cessation, involving both ethical and spiritual practices. He also thought that Buddhist monks are for the purpose of self-culture and social service.[22]

Buddhist doctrine as the basis for morality

In theistic religions, morality is considered in terms of reward and punishment given by God to individuals. Atheistic religion justified morality in terms of the karmic doctrine, which defines the good or bad consequences according to good or bad actions, respectively.[23] Morality is the basic idea of Buddhism. Buddhism raises the standard of morality. According to one scholar, the study of Buddhism in curriculum can lead to the rise in the level of morality. The morality should be the basis of every religion. In his perspective, the Buddha defined religion as a way to create a kingdom of righteousness in the world. Also, since morality is essentially social, Ambedkar excluded in his model the individualistic, spiritualistic aspect of Buddhism, especially the aspect of meditation. Ambedkar also defined morality as sacred, because it is universal and cannot be violated.

Buddha and His Dhamma

This was written by Ambedkar during the year 1951-1956 and was published by People's Education Society in November 1957, almost a year after the great leader's death. In this book he mentioned that Buddhism is the only religion which is based on the scientific fundamentals which can easily be accepted by the society. Ambedkar said that all the religions have their own scriptures like Christains have Bible, Hindus have Geeta, Muslims have Quran Sharif. So, Buddhism also needs a written scripture. Buddha and his Dhamma is a kind of Bible of Buddhist. As he wrote of the work in the (recently published) preface, 'How good it is I must leave it to readers to judge. As for myself, I claim no originality. I am only a compiler. All I hope is that the reader will like the presentation. I have made it simple and clear.'[24] Between the work of the American scholar-scientist and the work of the Indian scholar-statesman there is, in fact, a closer resemblance than there is between *The Buddha and His Dhamma* and any of the other anthologies which have been mentioned. Both *The Gospel of Buddha* and *The Buddha and His Dhamma* are divided into eight books (as Ambedkar styles them), each book being subdivided into chapters and verses. More remarkable still, in the case of both works the verses are all numbered, the numbering being separate for each chapter. *The Buddha and His Dhamma*, on the other hand, was meant for those who were disillusioned with Hinduism, or who were even in active revolt against it, and the terms in which Ambedkar speaks of Hinduism are definitely critical rather than appreciative. What is perhaps more important still, whereas Carus presents data of the Buddha's life in the light of what he terms its religio-philosophical importance Ambedkar presents them in the light of what may be termed its socio-political importance. Ambedkar's approach to Buddhism thus is social and ethical rather than philosophical and mystical, as even a short account of *The Buddha and His Dhamma* will be sufficient to reveal. Before embarking on such an account, however, we shall have to try and clear up some of the doubts by which the work became surrounded at the time of its original appearance, nearly a year after Ambedkar's death, and which for some of his followers surround it still.

Because the Buddha never claimed any supernatural origin or supernatural powers for himself it naturally followed that he never claimed any supernatural sanction, or divine authority, for his teaching, in the way that Jesus, Muhammad, and Krishna did. All he claimed for it was that it was a reasonable teaching, and that it was possible for a sincere and open-minded

person to experience the truth of it for himself, in this very existence. In Ambedkar's words, the Buddha 'preached his gospel as a common man', that is, he preached it not as something thundered by God in the ears of a reluctant humanity but simply as something communicated by a man to his fellow men – by a man who was an Enlightened One to men who were not, as yet, Enlightened Ones – and which the latter were free to accept or reject as they saw fit. The Buddha did not issue orders, but only advised, encouraged, and inspired. He did not pick men up and carry them bodily to the goal of the spiritual life, as it were, but only showed them the way by which they could reach it on their own two feet. Ambedkar is therefore able to say, 'The Buddha made a clear distinction between *Margadata* [or Giver of the Way] and *Mokshadata* [or Giver of Salvation]. Jesus, Muhammad, and Krishna claimed for themselves the role of *Mokshadata*. The Buddha was satisfied with playing the role of *Margadata*.'[25] To this one can only add that the Buddha was not satisfied with the role of *Margadata* in the sense of being content with an inferior role, for according to Buddhism there is in fact no such role as that of *Mokshadata* and to think so is a delusion.

Besides being distinguished from the three other founders of religions by his self-abnegation the Buddha is distinguished from them by the fact that he did not claim infallibility for his teaching. This was the natural consequence of his preaching his gospel 'as a common man', for infallibility can be claimed only for the word of God and for it to be the word of God a teaching must come either from a messenger of God, as in the case of Jesus and Muhammad, or directly from God himself, as in the case of Krishna, and the Buddha claimed to be neither God nor a messenger of God. From the fact that the Buddha did not claim infallibility for his teaching there follow certain consequences of great practical significance – consequences which Ambedkar is not afraid to draw. 'In the *Mahaparinibbana Sutta*,' he says, '[the Buddha] told Ananda that his religion was based on reason and experience and that his followers should not accept his teaching as correct and binding merely because it emanated from him. Being based on reason and experience they were free to modify or even abandon any of his teachings if it was found that at a given time and in given circumstances they did not apply.'[26] In other words, that which is not infallible is capable of revision. The passage of the *Mahaparinibbana Sutta* or 'Book of the Great Decease' to which Ambedkar refers is probably the well known one where the Buddha, on the eve of his departure from the world, tells his faithful attendant, 'When I am gone,

Ananda, let the Order, if it should so wish, abolish all the lesser and minor precepts.'[27] As it happened, the Order did not so wish. On considering the matter shortly after the Buddha's death, they declined to avail themselves of his permission, maintaining – according to tradition – that he had given it simply in order to test the Bhikkhus, 'to try whether, if leave were granted them, they would, after his death, revoke the lesser and minor regulations, or still adhere to them.'[28] To this Ambedkar would doubtless have replied that if there was any question of a test the Order had failed it, for obviously the Buddha 'wished his religion not to be encumbered with the dead wood of the past. He wanted that it should remain evergreen and serviceable at all times. That is why he gave liberty to his followers to chip and chop as the necessities of the case required.'[29] In drawing such a conclusion Ambedkar must have been aware that, nearly 2,500 years after the Buddha's death, Buddhism as practiced in the Buddhist countries of Asia was by no means unencumbered with dead wood and that if it was to be made serviceable to him and his followers a good deal of chipping and chopping would have to be done. Not that Ambedkar saw such chipping and chopping as a negative thing. For him the fact that the Buddha had given liberty to his followers to 'chip and chop' was nothing less than a direct expression of his teaching and a triumphant affirmation of the nature of Buddhism as a religion based not on authority but on reason and experience. It demonstrated the Buddha's faith in his teaching and in his followers. Indeed, it demonstrated his courage – a courage that, Ambedkar believes, no other religious teacher had shown. 'They were afraid of permitting repair. For they felt that the liberty to repair may be used to demolish the structure they had reared. The Buddha had no such fear. He was sure that even the most violent iconoclast will not be able to destroy the core of his religion.'[30]

Conclusion-Dr Ambedkar embraced Buddhism because they rejected casteism and is related to scientific notions. Dr Ambedkar wanted Indian society to enjoy the environment of equality and fraternity. He throughout his life worked hard to remove the plight of inequality. He advocated the need of democracy in social, economical and political parameters. Dr Ambedkar embraced Buddha because he always accepted all the people of society with open heart. Buddha never discriminated among human which was strictly required for the secular country like India.

References-

1. S K Gupta "Lecture delivered on the Nirvana Diwas of Baba Saheb "Dr B R Ambedkar", p-05.
2 , Beltz, Jahannes. —Introduction, in *Reconstructing the world: B.R. Ambedkar and Buddhism inIndia*. Edited by Surendra Jondhale and Johannes Beltz. 1-17. New York, NY: Oxford University Press, 2004.p.2.
3 Zelliot, —B.R. Ambedkar and the Search for a Meaningful Buddhism, 18.
4 Ibid., 19, 20.
5 Ambedkar's citation from remembering Dr Ambedkar, p-02.
6 Zelliot, —B.R. Ambedkar and the Search for a Meaningful Buddhism,26-27
7 Ramendra, Why Dr Ambedkar renounced Hinduism? P-01.
8 C.D. Naik, *Ambedkar's Perspective on Buddhism and other religion.* Delhi, India: Kalpaz Publication, 2009., 274, 275.
9 Dharmachari Lokamitra, Seeds of Social Transformation, p.03.
10 Pradeep P. Gokhale, —Universal Consequentialism: A Note on B.R. Ambedkar's Reconstruction of Buddhism with Special Reference to Religion, Morality, and Spirituality, in *Reconstructing the world: B.R. Ambedkar and Buddhism in India*, ed. Surendra Jondhale and Johannes Beltz (New York, NY: Oxford University Press, 2004), 121.
11 C.D. Naik, *Ambedkar's Perspective on Buddhism and other religion.* Delhi, India: Kalpaz Publication, 2009. 283.
12 Zelliot, , Eleanor. —B.R. Ambedkar and the Search for a Meaningful Buddhism, in *Reconstructing the world: B.R. Ambedkar and Buddhism in India*. Edited by Surendra Jondhale and Johannes Beltz. 18-36. New York, NY: Oxford University Press, 2004 "Ambedkar , B. R 29.
13 D C Ahir, The legency of Dr Ambedkar,p.251.
14 Ambedkar' citation from Dr Ambedkar: Life and Mission, p-490.
15 Zelliot. Eleanor. —B.R. Ambedkar and the Search for a Meaningful Buddhism, in *Reconstructing the world: B.R. Ambedkar and Buddhism in India*. Edited by Surendra Jondhale and Johannes Beltz. 18-36. New York, NY: Oxford University Press, 2004 "Ambedkar , B. R."287.
16. D C Ahir, The legency of Dr Ambedkar,p-11

17. Gokhale, Pradeep. —Universal Consequentialism: A Note on B.R. Ambedkar's Reconstruction of Buddhism with Special Reference to Religion, Morality, and Spirituality, in *Reconstructing the world: B.R. Ambedkar and Buddhism in India*, edited by Surendra Jondhale and Johannes Beltz. 120-131.New York, NY: Oxford University Press, 2004. P-124.
18. Ramendra, Why Dr Ambedkar renounced Hinduism? P-02.
19. Queen, Christopher. —Ambedkar's Dhamma: Source and Method in the Construction of Engaged Buddhism, in *Reconstructing the world: B.R. Ambedkar and Buddhism in India*. Edited by Surendra Jondhale and Johannes Beltz. 132-150. New York, NY: Oxford University Press, 2004.p-138
20. Queen, Christopher. —Ambedkar's Dhamma: Source and Method in the Construction of Engaged Buddhism, in *Reconstructing the world: B.R. Ambedkar and Buddhism in India*. Edited by Surendra Jondhale and Johannes Beltz. 132-150. New York, NY: Oxford University Press, 2004.p-140
21. Ibid-p.139.
22. Pradeep P. Gokhale, —Universal Consequentialism: A Note on B.R. Ambedkar's Reconstruction of Buddhism with Special Reference to Religion, Morality, and Spirituality, in *Reconstructing the world: B.R. Ambedkar and Buddhism in India*, ed. Surendra Jondhale and Johannes Beltz (New York, NY: Oxford University Press, 2004),p-125
23. Ibid., 125, 126.
24. Bhagwan Das (ed.), *Rare Prefaces Written by Dr Ambedkar* (Jullundur 1980), P-29
25. B.R. Ambedkar, *Buddha and the Future of His Religion* (third edition, Jullundur 1980), P-4
26. Ibid, p-4
27. T.W. and C.A.F. Rhys Davids, *Dialogues of the Buddha,* Part II (fourth edition, London 1959), p.171
28. T.W. Rhys Davids, *The Questions of King Milinda* (The Sacred Books of the East vol.xxxv. Oxford 1890), p.202
29. *Buddha and the Future of His Religion*, p.4
30. 60 Ibid., p.4

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AN APPRAISAL OF JUVENILE JUSTICE SYSTEM WITH SPECIAL REFERENCE TO INDIA

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"Let hundred culprits may scot free but one innocent should not be punished"

Introduction:

The Delhi Gang Rape held on 16th December,2012 has triggered a nation-wide debate on a number of issues, one of them being the quantum of punishment for Juveniles involved in heinous crimes. Literally speaking that children are the greatest national assets and resources. They should be allowed and bestowed opportunity to become robust citizens, physically fit, mentally alert and morally healthy, endowed with skills and activities needed by the society. Children are expected to be obedient, respectful and imbibe virtues and good qualities in them. But haplessly due to various reasons, they don't follow the settled social and legal dictum. *Raison de'tre* in the recent past, Juvenile delinquency became a subject matter of criminology. Against this back drop, an exertion has been made to focus attention with a bird's eye view on the meaning and definition, important case laws by reckoning 2012 Delhi Gang Rape Case, for and against arguments for capital punishment, analytical appraisal, followed by certain suggestions and logical conclusion.

Meaning and Definition of Juvenile delinquency:

'*Juvenile delinquency'* is an integral part of Criminology. It is a big breading centre of criminals. The word *'delinquency'* is derived from the Latin Word *'delinquere',* which means away and '*linquere*' to leave. Thus delinquency means to leave or abandon. '*Juvenile*' can be defined as a child, who has not attained a certain age at which he, like an adult person under the law of the land, can be held liable for his criminal acts. Juvenile Justice Act,1986 defined " *a Juvenile or a child to be a person who in case of a boy has not completed the age of 16 years and in case of a girl 18 years of age*". Subsequently, the JJA, 1986 was repealed by JJ(C&P) Act,2000 and according to which, the age of Juvenile in conflict with law for male and female has been fixed at 18 years. The Act says that Juvenile is a child who unlike an adult

person, having not attained the prescribed age, cannot be held liable for his criminal acts. Thus delinquency is an act or conduct of a Juvenile, which is socially undesirable. It is the failure of the children to meet certain obligations expected by them by the society. It can also be said that *'a child trying to act like a grownup'*. It is an expression of unsatisfied desires and urges.

Concept and approaches of Juvenile Deliquency:

Quite a good number of legal experts and luminaries such as W.H. Sheldon, Cyril Burt, Robinson Holt, Frederick B. Sussmann, Edwin powers and Helen Witmer and Clyde B. Vedder have defined the Juvenile Delinquency in different angles with common compendium. Albeit, there are two generally accepted approaches to interpret the term – the sociological and the legal. According to sociological view, Juvenile Delinquency refers to the anti –social acts of children and of young people under age. Such acts are either specifically forbidden by law or may be lawfully interpreted as constituting delinquency, or requiring some form of official action. It means deviation from the normal behavior. On the other hand, the legal approach defines it as any act prohibited by law for children up to the prescribed age limit and it follows, therefore that a child found to have committed an act of Juvenile Delinquency by a court.

Objects of JJ Act:

The first and foremost object of JJ Act is to provide for proper care, protection and treatment by catering to their needs and by adopting a child – friendly approach in the adjudication and disposition of matters in the best interest of children and for their ultimate rehabilitation and re-socialization. The Act enables a multi-disciplinary inquiry by a JJB to conduct enquiries in to the Juvenile crime in a child –friendly manner to pursue and meet the ends of Justice.

Some Important Case Laws delivered by various Judicatures in respect of implementation of the Juvenile Justice System:

(A)**: IN INDIA:**

1. **Laxmikant Pandy Vs Union of India(1984(2)SC.244,249)**:-

It was held that Children are supremely important national asset.

2. **Bandhu Mukti Morcha Vs Union Of India(1997,10 SC 551-553):-**

In this case, the Supreme Court recognized and highlighted importance of the Child by comparing the children to the lights in the society. It added that if children are deprived of their childhood socially, economically, mentally, the nation will be deprived of the potential human resources for social progress, economic empowerment and peace and order, the social stability and good citizenry.

3. **M.C.Mehta Vs State of Tamil Nadu (AIR 1997 SC 701):**

In this case, it was held that ' *child is the father of man'* and in order to enable fathering of a valiant and vibrant man , the child must be groomed well in the formative years of his life. He must receive education, acquire knowledge of man and materials and blossom in such an atmosphere that on reaching age, he is found to be a man with a mission, a man who matters so far as the society is concerned.

4. **Sheela Barse Vs Union of India(AIR 1986 SC 1175):**

In its landmark Judgment, the Supreme Court held that a Central Act is needed for ensuring social, economic and psychological rehabilitation of the children who are either accused of offences or are abandoned or destitute or lost. It further stressed the need , not only of having legislation, but to enforce it with all earnestness and plea like financial constraints would not serve our purpose in building up of powerful Human Resources who are to take the reins of nation in its forward march. By questioning the non-enforcement of the Children's Acts, the Supreme Court directed all the states to ensure that the Act is brought into force and implemented in accordance with the provisions contained therein.

5. **Raisual Vs. State of Uttar Pradesh(AIR 1977 SC 1822):**

It was held that penalty of death should not be imposed on a person below 18 years of age.

6. **Raghubir Vs State of Haryana (1981 SC Cri L .J. 1497)** and

7. **Rohtash's Case (AIR 1979 SC 1939):**

It was held that accused of an offence U/s 302 of IPC if Juvenile is also entitled to benefit

of the Children's Act.

8. **Miss Sangeetha jain Vs S.A.Dwivedi (1996 Cr L. .J 24):**

It was held that being a Juvenile, should not be tried by General Court Martial.

9. **Ranjith Chandra Vs State of Chattisgarh and Another (MANU/SC/005/2002); Prathap Singh Vs State of Jarkhand and Another (JT2005 (2) 271); and Arvind Vs State (1999(2)/JCC Delhi 311):**

It was held that the gravity of offence can't be criteria for declining the bail. It was further held that even if the children are guilty of serious offence U/s 302 of IPC, they should be dealt under the children Act only.

10. **2012 Delhi Gang Rape Case:**

On 16-12-2012, while travelling in a private bus by Jyothi Singh Pandey, a 23 year old femal physiotherapist accompanied by her boy friend, was raped and fatally assaulted by six delinquents. The Case eventually reached to the Supreme Court step by step from Fast Track Court. The Supreme Court dismissed all the 8 W.Ps alleging the JJA and its several provisions to be un-constitutional by holding JJA to be constitutional. Demand of reduction of Juvenile from 18 to 16 years was also strictly turndown, when the Union Of India stated that there is no proposal to reduce the age of Juvenile. On 13.03.2014, the Delhi High Court found guilty of Rape, Murder, Unnatural Offences and destruction of evidence. Hence it confirmed the death sentense by treating it as "*rarest of rare Category".* Among six Culprits, One died during the Course of trial and one is below the age of 18 years. The High Court has sentensed for 3 years imprisonment only to the culprit who is below the age of 18 years. The rest were sentensed for death by the Delhi High Court. Albeit on appeal, on 14.07.2014, the Supreme Court granted stay for execution of the 4 culprits.

(B): IN ABROAD:

1. Standford Vs.Kentucky(192 u/s.361 at 395 -96 1989 US SC):

It was held that "Youth Crime ....., is not exclusively the offender's fault; offences by young represent a failure of family, school and social system, which share responsibility for the development of America's youth".

2. **Roper Vs.Simmons (2005 US SC):**

In this case, the Supreme Court abolished the Juvenile Death Penalty.

3**. Graham Vs. Florida (2010 US SC):**

In this case, the Supreme Court prohibited sentencing Juveniles of Crimes other than homicide to life sine parole.

4.**In Re Robert Thompson and Jon Veneables (2000 UK House of Lords):**

In this case, CJ Lord Woolf agreed an 8 year sentence because the main object of juvenile sentence was to reform and ultimately rehabilitate the juvenile.

Epitome of the above Case Laws:

The Supreme Court and various judicatures of India and Abroad have put all their exertions to advance the cause of a beneficial legislation to the juveniles and to protest the interests of the Juveniles but still much needful is required to be done.

For and against arguments over the Verdicts delivered in Rape Cases by various Judicatures both in India and Abroad with Special Reference to Delhi Gang Rape Case:

Arguments for capital punishment:

Most of the people agreed that the case has resulted in a tremendous increase in the public discussion of crimes against women and statistics displayed that there has been an improvement in the number of women willing to file a crime report. On the eve of memorial held in Dec,2013, when the press interviewed a young women, who had taken part in the protests a year earlier, strongly protested that "*It is a welcoming change that the taboo on discussion of rape and sexual violence has been broken*", she saw " *absolutely no change in the rape culture and related brutality*". On 5th Jan,1913, the victim's father quoted before the media by saying "*We want the world to know her real name. My daughter did not do anything wrong, she died while protecting herself. I am proud of her . Revealing her name will give courage to other women who have survived these attacks. They will find strength from my daughter".* He further stated that "*we will get complete closure only if all the accused are wiped off from the face of the earth"*. Like-wise the victim's mother stated that " *We were waiting with bated? breath, now we are relieved. I thank the people of my country and the media*". Further after the verdict was delivered, humangous people waiting outside the court room, and

majority of the people of India applauded and heaved a sigh. Subramaniyam Swamy, President of the Janatha Party filed a W.P. in the Case Law of Dr. Subrahmanian Swamy Vs. Raju, member of JJB against the accused who has been declared as 17 years and six months old on the day of the crime reckoning extreme violent nature of crime besides committing rape, murder, kidnapping, destruction of evidence and attempted murder of the Victim's male companion. Justice yogesh Khanna, who delivered the verdict in this case by vehemently rejecting the pleas for a lesser sentence has stated that " *the brutal incident shocked the collective conscience of India and the courts cannot turn a blind eye to such crimes*". In July,2014, it was reported that Pakisthan –based terrorist organization, Lashkar-e-Toiba instructed its members to declare their age to be below 18 years, which would ensure that they are tried under the JJA instead of the IPC since the maximum punishment under JJA is only 3 years. Thus the above discussion and instances indicates that there should be draconian capital punishment against the '*rarest of the rare category*'.

Arguments against capital punishment:

According to the National Crime Records Bureaus Crime in India-2011, the percentage of IPC crimes committed by Juveniles against the total IPC crimes reported in the country is only 1.1%. In 2011, against a total of 33,887 Juveniles apprehended,63.9% of Juveniles were between the age group of 16-18 years. Approximately, 67% of Juveniles were apprehended for IPC offences punishable with more than 7 years imprisonment. The overall increase in Juveniles apprehended at the national level was 11.8%(3584) in 2011 over 2010. The highest number of Juveniles were apprehended for property-related offences such as theft (6552) and burglary(3334). Further, 5016 were apprehended for hurt, 1149 for rape, and 888 Juveniles for murder. The U.S. re-criminalisation model has hardly any relevance for India where, for a period between 2001 and 2011, the Juvenile Delinquency rate has ranged between 1.6% to 2.1% of the total crimes(as against half of the total crime rate in the U.S) and of these only 5 to 8% are violent crimes like murder and rape (as against a substantial percentage of violent crimes in the U.S.). Thus these number points to a modest but very Vulnerable population that requires to be handled with much more care and caution so as to prevent racidivsim,engineer reform and re-integration, and counter the regressive and out dated idea that children who commit adult crimes, deserve adult time. Thus the raise of demand for a revision with vast modifications in law on the basis of Juvenile

crimes are sans any base. On the other hand , the panal of Varma Committee has also not recommended the death penalty for rapists and in lieu of that, suggested the punishment for rape should be RI for 7 years to life. For the Gang –rape, it suggested that punishment should be not less than 20 years, which may also extended to life and gang rape followed by death, should be punished with life imprisonment.

Critical Review of the JJA:

It has been noticed that many a times parents are responsible for putting their children where they are exploited and abused. The education, recreation and training of the children in observation homes has not been properly provided for. The Act has also failed to consider basic or school education. The Act has failed to provide for procedural guarantees like right to speedy trial. The Act of 2000 is silent on inter-country adoption. Lack of institutional infrastructure and trained manpower has contributed a lot to blur the objective of the legislation. There is no specific provision ensuring services for children relating to education, health, legal and social. Even identification of the 'juvenile in need of care and protection is not done for want of proper mechanism. Coordination is missing and the Juvenile Justice Act, 2000 does not have any provision to ensure the continuous supervision, monitoring and evaluation of the functioning of juvenile justice system as a whole. The coverage of the Act is quite limited and a large number is still away from its purview. The children affected by drug abuse, HIV/AIDS, militancy, disaster etc. do not have any redressal under the Act and the issues like marriage, female factors, working children, street children is also not covered under it. The problem gets engraved due to lack of support services to venerable families which are factors for turning their children into delinquency. There is no yardstick to standardize the facilities and services in the institutions in different states. There is no way to know the quality of performance of various institutions working in the area of juvenile justice. The police which has a direct and immediate contact with the juvenile delinquents often violates the procedure for handling the juvenile and police indifference in implementing the law is most disappointing. At times the goals of such laws are too ambitious and they do not relate well to the ground level situation. The problem of special care and needs of the disabled children have been ignored by the Act. The standards of quality care have also not been laid. The expansion of definition of 'child in need of care and protection' could lead to undue influence in the lives of poor children and the families by the system.

Suggestions for robust implementation of the JJ Ssystem :

1. For effectual functioning of the Juvenile Justice Board

A special training programme must be prepared and the officers of the Board including the Principal Magistrate should be given training of the child psychology and child welfare. Ambience of the place where the Board holds enquiry should be child friendly. Basic infrastructure like computer, typewriter, stenographer, furniture and buildings should also be provided to the Board for smooth discharge of duties. There should be a proper maintenance of files and case records. Video linking of the homes should be provided for children to facilitate inspection and supervision by the Board to keep a check on anything done against the best interests of the child. At least one of the two social workers in a Board should be a person with a minimum qualification of law degree. The Board should be provided with a list of experts in the field of psychology, counseling, clinical psychiatrist, NGOs, panelists of advocates and fit institutions and fit persons, observation homes, special homes and voluntary organizations who are dedicated to the field of child welfare. A psychologist and one social worker, who has awareness of the relevant law, must be appointed in the Juvenile Justice Board. Co-operation of NGOs and other social organizations may also be sought for by the J J Board in addition to the special juvenile police unit and probation officer. Probation officer should be given sufficient training . One government welfare official should be appointed by the government to work as a liason officer between the NGO and Juvenile Justice Board child welfare committee.

2. Procedure to be followed in respect of Treatment of the Juveniles:

Juvenile should be brought before the J J B within 24 hours. A detailed scientific investigation for determination of the age is not required. The Board should ensure that privacy rights of the juvenile are not violated and section 21 of the J J Act is strictly complied in true letter and spirit. The juvenile shall have the same Constitutional safeguards like other adult offenders. In no case the juvenile shall be sentenced to death. Whenever a juvenile is produced before a magistrate, such magistrate should without any delay record such opinion as regards the juvenile and forward the records and the juvenile to the Board and the board shall hold the enquiry as if the juvenile had originally been brought before it. Judges in the juvenile courts should be trained to recognize the educational, social and treatment needs of the

children in crisis. There should be proper infrastructure for proper implementation of the JJA. It needs to be under uniform law not based on religion and a comprehensive inter-country adoption law is also required. For proper implementation and giving relief to the juveniles, there should be proper mechanism to determination the age

3. Procedure to be followed with regarding to Inquiry of the Juveniles:

Principal Magistrate should not be entrusted any other work except the JJB as the Board is required to complete the enquiry within 4 months. Therefore, common rules should be followed throughout India in all JJ Boards. Stay is to be ordered only in exceptional cases and strong reasons are to be recorded. The board should conduct independent and private inquiries. The Board should also ensure that the police officer who apprehends a juvenile should inform the parent or guardian of the juvenile regarding such apprehension. The Board shall not adjudicate the proceedings or affect the dispositions of the enquiry without calling the report of the probationary officer. Summary procedure should be adopted during enquiry instead of summons procedure trial. No joint proceeding of a juvenile and an adult accused should be held. Monthly group meeting should be organized of all the departments for the welfare and betterment of children. JJ B should conduct awareness programmes about offences against children in every school situated in their jurisdiction through legal aid campaign. The Board may also be complainant and lodge the case in any regular court when ever it is found that the provisions of section 21,23,25,26 have been violated.

4. Procedure to be followed for Rehabilitation and reformation in respect of Juveniles:

There should be separate homes for juveniles and the destitute should not be mixed with the juveniles. Homes should not be constructed like jails. Schooling of the children in the homes up to the age of 14 should be made compulsory. For better welfare of the juveniles, games, sports and other functional and cultural programmes may be organized in observation home and institutions. Adoption used in section 41 should be defined so as to avoid conflict. The property right of the juvenile on adoption be incorporated in the Act in clear terms.

5. Procedure to be followed by the Police in respect of Juveniles:

The state governments should be directed to establish a special juvenile police unit in every district and the unit must be specially instructed and trained in child psychology and child welfare. As soon as a juvenile *'in conflict with law'* is apprehended by the police he/she should be placed under the charge of the special juvenile police unit or the designated police officer. Juvenile police officers who investigate the case, must submit the final report within 60 days or 90 days depending upon the nature of the offence from the date of complaint. A social worker may be associated in the investigation made by the police officer. In the child cell, at least one lady police officer should be appointed. Awareness programmes should be conducted at the police station level wherein Principal Magistrate and members of the J JB, members of child welfare committees and NGOs should also be involved.

5 Other Measures which robusts in implementation of the JJ System:

The High Court should take initiative to create and establish sufficient Juvenile Justice Boards in order to dispose Juvenile cases within specified period as intended in J. J. Act., of 2000. The Juvenile Justice Board should be made functional on all working days and the proceedings shall be held on all working days. The Act should be amended to enable the JJB to directly entertain complaints of child for offence against them. Female juvenile needs special protection even at observation home or at a place of safety. Provision should be made to divert at least 25% of the fine amount so collected by the criminal courts towards creation of a juvenile welfare and rehabilitation. Section 16(1) of the Act should be amended the expression “life imprisonment", be substituted by expression "any imprisonment”. The juveniles of the Act should specifically provide for bail even in cases of TADA/POTA/NDPS. Necessary provisions/ amendments should be made to the victims who have been victimized by the Juveniles. Protective custody should be defined in Juvenile Justice Act to avoid any confusion. The Act should make it clear as to when enquiry commences since Section 14 being silent about it may create confusion. Voluntary social organisation with necessary government supervision and assistance should be allowed to run after care programmes, trained police officers shall be appointed, training should be imparted to them. Orientation courses, seminars and awareness programmes should be organized by the government on juvenile justice on regular intervals. The functionaries of the JJS should enforce the Act honestly,

strictly and without any fear or favour. It is required to adopt measures for keeping the child integrated with the family and within the mainstream of the society. The Advisory Boards should be provided infrastructure and facility so that desired qualitative output can be rendered by them. The community participation should be maximised. NGOs working on the street and with children should be increasingly involved. Community services for education, vocational training and recreation alongwith other children in the society may be used. The community based programmes should be under close supervision. The NCPCR should focus and evolve programmes for all categories of children co-ordinating various programmes, undertaking follow-up of its recommendations with various other bodies and departments to create a data base for policy formulation and review. The states should establish a clear relationship between JJA and other legislations that affect the life of the children covered under its scope. The state should start experimental projects with alternative ways for dealing with children and after successful evaluation they should be made part of the enforceable law. Probation and other community based programmes, apart from being cost effective should be preferred for their potential for ensuring better care and rehabilitation of the juveniles.

Recommendations of the Justice Varma Committee:

1. The panel has not recommended the death penalty for rapists. It suggests that the punishment for rape should be RI for seven years to life. It recommends that punishment for causing death or a "persistent vegetative state" should be RI for a term not be less than 20 years, but may be for life also, which shall mean the rest of the person's life. Gang-rape, it suggests should entail punishment of not less than 20 years, which may also extend to life and gang-rape followed by death, should be punished with life imprisonment.
2. The panel recognised the need to curb all forms of sexual offences and recommended that Voyeurism be punished with upto seven years in jail; stalking or attempts to contact a person repeatedly through any means by up to three years. Acid attacks would be punished by up to seven years of imprisonment; trafficking will be punished with RI for seven to ten years.

3. Every complaint of rape must be registered by the police and civil society should perform its duty to report any case of rape coming to its knowledge. "Any officer, who fails to register a case of rape reported to him, or attempts to abort its investigation, commits an offence which shall be punishable as prescribed".
4. As a primary recommendation, all marriages in India should mandatorily be registered in the presence of a magistrate.
5. The panal suggested that the proposed Criminal Law Amendment Act, 2012, should be modified "Since the possibility of sexual assault on men, as well as homosexual, transgender and transsexual rape, is a reality the provisions have to be cognizant of the same".
6. A separate Bill of Rights for women that entitles a woman a life of dignity and security and will ensure that a woman shall have the right to have complete sexual autonomy including with respect to her relationships.
7. The panel has observed that there is an imminent need to review the continuance of AFSPA in areas as soon as possible. It has also recommended posting special commissioners for women's safety in conflict areas.
8. The panel said, "police officers with reputations of outstanding ability and character must be placed at the higher levels of the police force and law enforcement agencies do not become tools at the hands of political masters." It said, "Every member of the police force must understand their accountability is only to the law and to none else in discharge of their duty."
9. The judiciary has the primary responsibility of enforcing fundamental rights, through constitutional remedies. The judiciary can take *suo-motu* cognizance of such issues being deeply concerned with them both in the Supreme Court and High Court.
10. The panel has suggest that, in the event of cognizance has been taken by a magistrate of an criminal offence, the candidate ought to be disqualified from participating in the electoral process.

Conclusion:

Beyond any skepticism that Children are the greatest assets and resources of the nation. Todays, refined, reformed and well disciplined children are tomorrow's good citizens of any nation. Thus by and large, it can be said that Juvenile Justice system in India has gained momentum. Attitude and perception towards Child Rights needs a Change. On the legislative side, a lot of work has been done in India but implementation part still requires improvement. The laws enacted requires to be effectively implemented to achieve the desired goal of welfare of the children. The society must encourage children's participation in matters effecting their rights as services to the children are no longer a charity. The judiciary has played an appreciable role and contributed a lot in proper and beneficial implementation of the juvenile justice legislation by interpreting the provisions of Juvenile Justice Acts so as to provide maximum benefit and relief to the maximum number of the Juveniles covered under the beneficial and favorable legislation. A good intended legislation, properly and sincerely implemented and visionary interpreted, can significantly reverse the crime trends in the juveniles. Thus, the most urgent reform in the JJ Law is to enhance the ranking of custodial sentence and increase its maximum limit, during which meaningful reform program can be implemented to ensure that the Juveniles in conflict with law are really redeemed and society feels it is and equality protected. Therefore, just because of the public is angry against the Juvenile criminals, including Delhi Gang Rape juvenile, should we disregard and scientific evidence and reverse the long accepted juvenile Justice Policy?. Before epilogue it would be apt to quote here the opinions of Legal Luminaries across the world. Lawrence Stein, Mec Arthur Foundation, Washington, who staunchly supported the Brain Science Insights in his paper "Should the science of adolescent brain development inform public policy?"(Issues in S&T, Spring 2012) has stated that "Adolescents should be viewed as inherently less responsible than adults and should be punished less harshly than adults, even when crimes they are convicted of are identical". Like-wise while delivering Judgment, In Re Robert Thompson and Jon Enables in 2000, CJ Lord Woolf stated that " In the case of both these young men, the information before me makes it clear that they have done all that is open to them to redeem themselves. While their crime remains horrendous, they are entitled to credit for this". Not retribution but rehabilitation and reformation is only the panacea to cure all the diseases of the Juveniles in the society. Thus we can conclude this topic with the buzz

words of our Father of the Nation, Mahatma Gandhiji that " Punish the sin but not the sinner".

References:

1. The Eenadu Page No. 4 dt.09.01.2013.
2. The Hindu Page No.4 dt.18.04.2013
3. The Hindu Page No.8 dt.24.09.2013
4. Confidence monthly news magazine oct,2013 Page No.3 and 15
5. The Hindu Page No.13 dt.05.08.2014
6. The Hindu Page No.8 dt.14.08.2014
7. Forwarded by Kofi A.Annan in " The State of World's Children,2000" quoted in Mata Rao, Law relating to women and Children(Eastern Book Company,2005) PP.444-445.
8. http smile Foundation Organisation Child Right HTM Access.
9. V.R.Krishna Iyar,"Jurisprudece of Juvenile Justice : A Preambular perspective", quoted in preambular perspective", quoted in article " Right of Child and Child Labour; A Critical Study" by Srinivas Gupta JILI, XXXVII(1995)p.531
10. 6Edwin R.A.Saligaman(Editor-in-Chief),"Encyclopedia of the Social Sciences" Vol.III, Macmillan Company 1951 reprint, Page380.
11. 7Alice Jacob and Kusum Kumar, "Child Welfare", published n S.N.Jain(Ed),"Child and the Law",(1979) Page41.
12. Ruth Shonle Cavan Theodore N.Ferdinand, Juvenile Delinquency(III Edition):27
13. Hirish.N., Dynamic Causes of Juvenile Crime. Cambridge; Mass, Sci-Art Publisher,1937.
14. Kvaraceus,W.C.and Miller, W.B.Deliquent Behaviour; Culture and The individual Washington; National Education Association,1959.
15. Healy and Bronner,'A Delinquent & Criminals'- Their making and unmaking P.179.
16. Current Issues in Juvenile Justice Administration; Paper presented at the National Consultation on Juvenile Justice held at the National Law School of India University, Bangalore during 11-13 February 1999.
17. The Andhra Pradesh Children Act,1951, Section2(d).
18. Glanville L.Williams, The Criminal Responsibility of children, Cr.L.R.1954 p.493 at 494.
19. K.Kusum,'Juvenile Delinquency- A Socio-legal Study(1979) published by KLM Book House, New Delhi.
20. Hirish,N.Dynamic Causes of Juveline Crime. Cambridge; Mass, Sci-Art publisher,1937.
21. http://www.nls.ac.in/ccl/cclpositionpaper.pdf

22. http://www.wcsap.org/sites/www.wcsap.org/files/uploads/webinars/Juveniles%20Who%20Commit%20Sex%20Offenses/Slides.pdf
23. Natioanl Crime Records Bureau, Crime in India-2011, Chapter10 Juvenile Delinquency, http://ncrb.nic.in/CD-CII2011/cii-2011Chapter%2010.pdf.
24. NCRB,Crime in India-2011, Chapter 10,pg138.
25. http://wed.nic.in
26. http://haqcrc.org/sites/default/files/BUDGET%202013-14_Print%20Final-I.pdf
27. http://www.haqcrc.org/sites/default/files/BUDGET%202013-14_Print%20Final-I.pdf
28. Article 37(a),UN Convention on the Rights of the Child,1989.
29. Preamble and Section 54(1), JJ Act, and Rules 9(2),13(2)(b)&(e),and 13(4), JJ Model Rules2007.
30. Andrew Von Hirsch, "Proportionate Sentences for Juveniles: How Different than for Adults?" Punishment & Society 2001 3:at 225.
31. Elzibeth S.Scott and Laurence Steinberg,"Adolescent Development and the Regulation of Youth Crime", the Future of Children, VOL.18NO. 2,FALL 2008,P 15 at 20-21.
32. National Crime Records Bureau, Crime in India-2011, Chapter 10. Juvenile Delinquency, http://ncrb.nic.in/CD-CII2011/cii-2011/Chapter%2010.pdf
33. National Crime Records Bureau, Crime in India-2011, Table 10.2.
34. Miner et al, Standards of Care for Juvenile Sexual Offenders of the International Association for the Treatment of Sexual Offenders, Sexual Offender Treatment, Volume I(2006),Issue 3, available at http://www.iatso.org/index.php?option=com_phocadownload&view=category&id=4&itemid=24
35. Kevin Howells and Andrew Day, " the rehabilitation of Offenders: International Perspectives Applied to Australian correctional Systems",Trends and issues in crime and criminal justice, No.112 May 1999,p.2 at http://www.aic.gov.au/documents/B/D/%7BBD027F93-A5CF-497C-B4A2-85B1987B4668%7Dtil12.pdf

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LAND USE AND LAND COVER CHANGE IN MURSHIDABAD DISTRICT USING REMOTE SENSING AND GIS TECHNIQUE

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1. INTRODUCTION

Land use and land cover change is a major issue of global environment change. Land use and land cover refers to man's activities on land which are directly related to the land and the varied uses which are carried out on land. Land cover states that the natural vegetation, water bodies, rock/soil, artificial cover and others noticed on the land cover. Comprehensive information on the land use /land cover categories and pattern of their change is prerequisite for planning, utilization of the land resource of the district. Historically, the driving force for most land use changes is population growth (Ramankutty et al., 2002) although there are several interacting factors involved (Lambin et al., 2001, 2003). At the global and supranational scales, population growth is often used as a proxy for land use change (Kok, 2004) but at lower scales a set of complex drivers are important (Lambin et al., 2001). In developed countries, land use change is based on economic reasons such as large-scale farming or urban development and an increasing need to conserve biodiversity and environmental quality for current and future generations (Bouma et al., 1998), whereas in the developing countries, rapid population growth, poverty and the economic situation are the main driving forces (Lambin et al., 2003; Ramankutty and Foley, 1999).The satellite remote sensing data with their repetitive nature have proved to be quite useful in mapping land use/land cover patterns and changes with time. Quantification of such changes is possible through GIS techniques even if the resultant spatial datasets are of different scales/ resolutions (Sarma et al., 2001). Such studies have helped in understanding the dynamics of human activities in space and time. Over the years, remote sensing has been used for land use/land cover mapping in different parts of India (Gautam and Narayanan, 1983: Sharma et al, 1984: Jain, 1992; Brahabhatt et al, 2000). Application of remotely sensed data made possible to study the changes in land cover in less time, at low cost and with better accuracy. Remote sensing and Geographic Information System (GIS)

provide efficient methods for analysis of land use issues and tools for land use planning and modeling.

2. STUDY AREA

The study area of Murshidabad District is situated between the latitudes $24^0$50´20´´and $23^0$43´30´´ in Northern hemispheres. The easternmost of the district is marked by $88^0$46´00´´ East longitude and its western most extremity by $87^0$49´17´´East longitudes (Figure: 1). It is located in the Centre position of West Bengal on the left bank of the river Ganges. Soil of the district is very fertile, covering an area of 5,324 km² and having population of 7102430 (Census 2011). Berhampore town is the headquarters of the district.

This district plays a significant role in inter connecting both the ends of West Bengal. It borders with Malda district in the North, Jharkhand's Sahebgunj district and Pakur district in the Northwest, Birbhum in the West, Bardhaman in the Southwest and Nadia district due South. It is the northern most district of presidency division of West Bengal. The international border with Bangladesh, Rajshahi Division is on the East.

The district comprises two distinct regions separated by the Bhagirathi River. They are Rarh areas and Bagri areas. To the west lies the Rarh, a high, undulating continuation of the Chota Nagpur plateau. The eastern portion, the Bagri, is a fertile, low-lying alluvial tract, part of the Ganges Delta. The district is drained by the Bhagirathi and Jalangi rivers and their tributaries. It has a tropical wet-and-dry climate (Koppen climate classification). The annual mean temperature is approximately 27 °C; monthly mean temperatures range from 17 °C to 35 °C and means rain annual fall is 360 mm. Population growth is the one of the major factor for the Land use and Land cover change in the study area. Most of the people are directly connected with the land as an agriculture, establishment new building / settlement and forestry. Murshidabad is located centrally in the lower Ganges Valley of West Bengal.

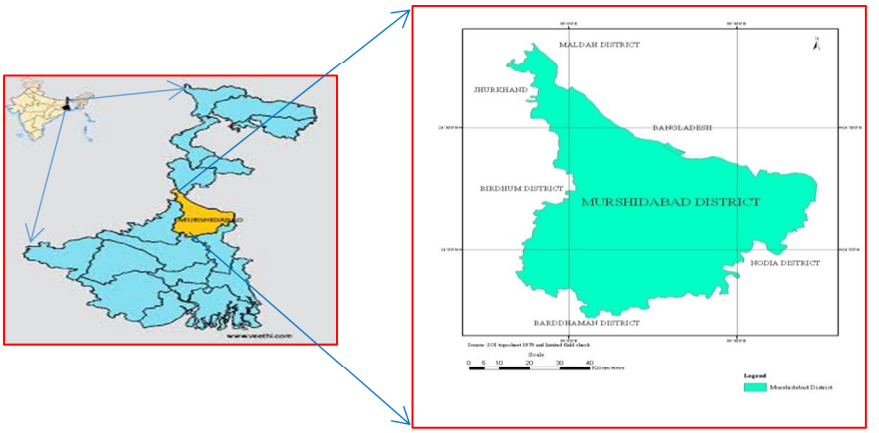


Fig: 1.The Map of Study area

Agriculturally these lands are so rich and lucrative that the ever-present risk of recurring floods cannot dissuade people from flocking there in ever greater numbers (Swati, M, et al, 2012). Land use change was mainly due to increasing population pressure which leads to intense the land use without proper management practices in the study area. In this regard a study has been carried out to systematically study the Land use / Land cover of Murshidabad district.

3. MATERIALS USED

The present study is based on both primary and secondary information. Primarily satellite images were used for this study to classify the land use of the region. This included both field survey and map studies and computer based analysis. In primary session, fieldworks were conducted to acquire first hand data required for the research. Most of the essential data for improving mapping accuracies of spatial changes were collected through the fieldwork. Landscape observations, meetings with experts, and structured interviews also were conducted in the sub-Metropolitan.

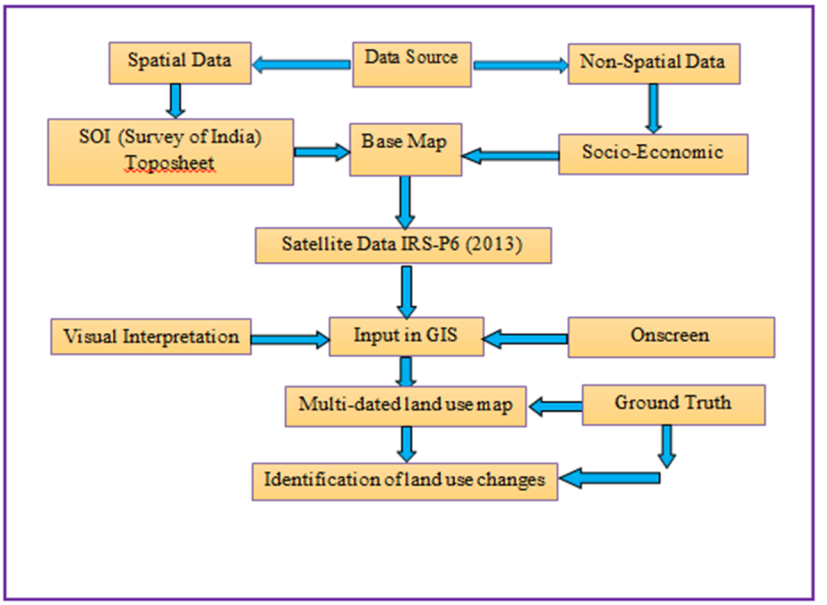


Fig: 2, Methodology of the study area

The socio-economic data were collected from different government department like District disaster management authority (DDMA), Irrigation and water way department, Agricultural department, Food and Supplies department, Population Statistics department, Public health engineering department, Animal resource and development department, Metrological department and P.W.D (Road).In this study area the software (ArcGIS 9.1, ERDAS Imagine 9.1), Survey of India (SOI) topographic Maps (1979), National Atlas & thematic maps (2002), Satellite imagery- IRS-P6 (Feb. 2013), GPS-Garmin etrex & Garmin vista, Scanner, Printer, camera etc. were used. ERDAS (Leica) and ArcGIS software (ESRI) have been used to generate various thematic layers like boundary map, roads, rivers, settlements and administrative boundary map using the Toposheets and other available maps.

4. METHODOLOGY

The methodology is attempting to cover the study area for land use and land cover pattern of the study area. The entire methodology is based on spatial and non-spatial data analysis using Remote Sensing and GIS technique. There were two primary methods used for capturing information on land

cover. They are field survey and analysis of remotely sensed imagery. Base map was prepared based on geo-referenced Toposheets and they were used for co-registration of the satellite imagery (IRS-P6 (01 Feb. 2013). These were used for the preparation of other thematic maps like district map, land use/land cover map and population density map. The GPS and field information is used for the preparation of final map and the quantified areas.

Remote Sensing (RS) and Geographic Information System (GIS) are now providing new tools for advanced ecosystem management. One concept that has much merit is that land use refers to, "man's activities on land which are directly related to the land" (Clawson and Stewart, 1965). Land co+ver, on the other hand, describes, "The vegetational and artificial constructions covering the land surface" (Burley, 1961). These images were classified based on the photo reorganization elements like tone, size, shape, shadow, and in association with the guidelines provided by Space Application Center (SAC, 1991) as furnished in (table 3). Changes in land use were calculated. Ground touching was conducted using Germin GPS for validating and assessing the accuracy of the image interpretation. All the analysis was executed in Arc Map 9.1 and ERDAS Imagine 9.1 software's. Area of land use was calculated using Arc Map software. The detailed methodology was exposed in the fig 2**.**

5. RESULT AND DISCUSSION

Land is one of the most important natural resources in the district. All agricultural, animal and forestry productions depend on the productivity of the land. The entire eco-system of the land, which comprises of soil, water and plant, meets the community demand for food, energy and other needs of livelihood. The land use and land cover pattern of a region is an outcome of natural and socio-economic factors and their utilization by man in time and space. Land use statistics and transition matrices are important information to analyze the changes of land use. The change analysis presented in this paper is based on the data extracted from the land use and land cover maps of Murshidabad with using remote sensing and GIS. Population growth and land use changes in the study area is an important component in understanding the interactions of human activities with the environment and thus it is necessary to be able to simulate changes. Tremendous changes were observed in Land use and land cover patter using remote sensing and GIS in Murshidabad. The status of various land use and land cover like agriculture, non-agriculture, forest, plantation and settlement are given in Table 1and discussed below:

Table: 1. Land use and land cover change statistic of Murshidabad district

Land used area	2003 (area in 000ha.)	2013 (area in 000ha.)	Land use changes (2003 – 2013)	% of change
Agricultural land	406.53	392.23	-11.45	-41
Forested area	0.77	0.53	-0.24	-1
Urban area	2.90	8.09	+5.19	+19
Rural area	121.16	132	+10.84	+39
scrubs	0.04	0.03	-0.01	0
Total area	5324.00	5324.00	27.73	100

5.1. AGRICULTURE AND NON-AGRICULTURAL LAND

The present study carried out with the help of remote sensing and GIS. Agricultural land area was identified by its dark red colour with regular pattern. In 2003 Agricultural land use area was estimated of 406.53(000ha) and during 2013 and it was decreased for about 392.23(000ha). It shows that there was a decrease of about 11.45(000ha) or41% overall cultivation area from 2003-2013(table: 1).

The largest area of the district is flatted with alluvial soil deposition carried out by the river Ganga from highland area. Therefore 76% area the district is under cultivation. The district is under the influence of Gangetic alluvial soil therefore, the district of Murshidabad has been earmarked as "Major Agricultural District" and the climatic condition and soil of this district are congenial for cultivation of almost every field crops and for this; the district can be designated as "Crop Museum". Agriculture is the main occupation in the low-lying fertile soil of the district. The net area under cultivation in the district is 365 (000 ha) constitutes 69% of the total geographical area and the cropping intensity is 238%. More than 70% of the population of the district depends on agriculture. Intensive agricultural practices are common in this area because to increasing high pressure of population growth on arable land. The major crop grown in this district are Paddy (Aus, Aman&Boro), Wheat, Oilseeds, Vegetables, Pulses, Sugarcane, Jute, Maize and to some extent cotton. The paddy, which occupies 66% of the gross cropped area followed by jute, wheat, oilseeds, vegetables, pulses etc. Besides agriculture crops, there is ample scope of growing Horticultural crops, fruits and Flowers etc. Increasing the high pressure of population the district

people are practices small and fragmented land holdings with almost 100% farmers belonging to small and marginal category in the district. Enormous land use and land cover change was found in Raninaga-I, Raninagar-II, Jalangi, Domkal, Bhagawangola-I, Bhagawangola-II, Lalgola, Raghunathganj-I, Raghunathganj-II, Bharatpur-II, Sagardighi and Suti-II block are importance areas (fig:3).

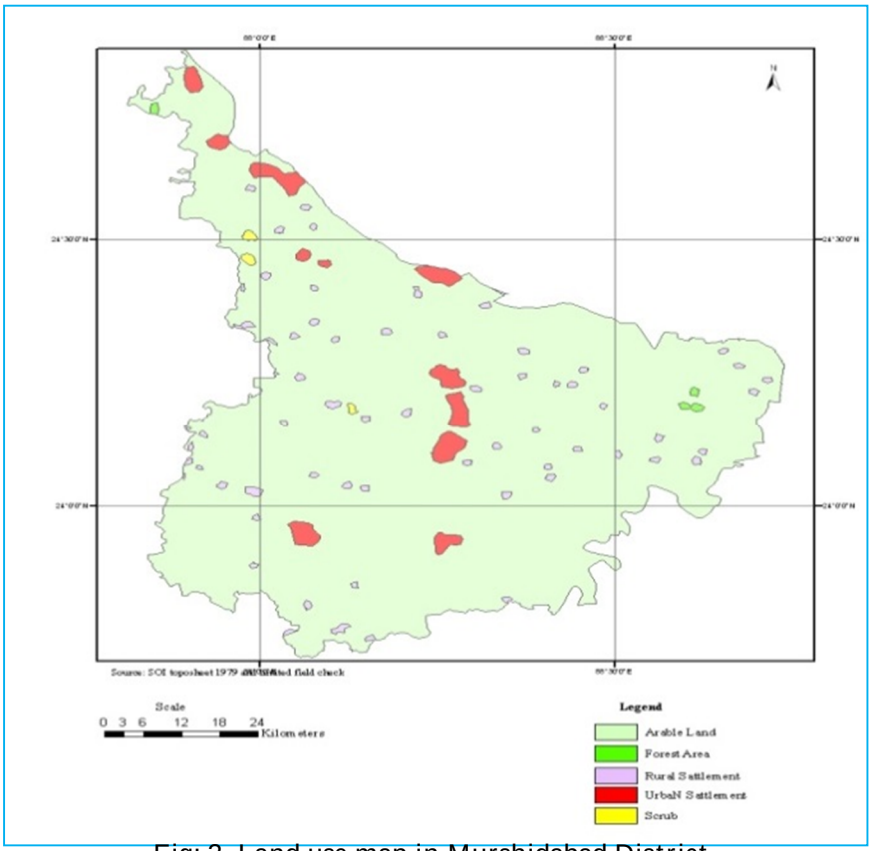


Fig: 3. Land use map in Murshidabad District

5.2. FOREST AREA

Dense forest has been identified in some area of the district. These plantations are being commenced at irregular and serrated patches and were renewed by the government of west Bengal. In the satellite imagery forest was observed by its red tone, irregular shape and smooth texture. During 2003forest cover was estimated to be77 (000 ha) but during 2013 it was

estimated to be 0.53(000ha). Now total forested area was estimated 0.24(000 ha) or 1% of the total area (Table: 1). Dense forest was identified in Domkal subdivision, western part of Jalangi and Farakka block. There are different varieties of trees are found like the Mango, Bamboo, Jackfruit, Lichi, Sal, Neem etc. The mangoes and bamboos are well distributed all over the district. The mangoes tree was identify in Berhampore, Giyaganj, Lalbagh, Lalgola, Bhagawangola-I, Raninagar-I and Raninagar-II. And Raninagar –I And Raninagar-II, Lalgola and Bhagawangola –II, Bamboos are Densely Distributed.

5.3.SETTLEMENT AREA

The settlement areas were observed by satellite image nearer to the agricultural and forest land. These impacts are uncontrollable because of the lack of education in the people. During the year of 2003 urban area of Murshidabad district was 2.9 (000ha) and rural was 121.16 (000ha) but during2013 after the assessment, it was estimated to be8.09 (000ha) and 132 (000ha) respectively. It was changed into 5.19(000ha) and 10.84(000ha) in the last ten years and about 19% urban and 39% rural area were increased. From the satellite imagery it was identified by its colour, shape, tone, pattern and site. Rural settlements were shown in the map as brown in colour and urban settlements were shown as red in colour (figure: 2).Urban area was observed in a few areas of the district in Berhampore, Lalgola, Farakka, Samserganj, Suti-I, Beldanga –I and Beldanga –II block and rural settlements were distributed unevenly in the district. Highly populated area was found in Berhampore and the lowest in Bhagawangola II and moderate in Raninagar –I, Raninagar-II, Jalangi, Farakka, Lalgola-I, Lalgola-II, Burwan, Kandi, Beldanga-I, Beldanga-II and Samserganj.

5.4.SCRUBS AND PASTURE LAND AREA

Pasture land was identified by its yellow colour in the satellite imaginary. Pasture land was estimated of 0.04 (000ha) during 2003 and it was decreased 0.24(000ha) during 2013 (table: 1.) Scrubs land was identified in the Suti-I and Raghunathganj block.

6. CONCLUSION

The district Murshidabad is located in the Centre position of West Bengal on the left bank of the river Ganges. The study has been carryout by remote sensing and GIS technique. These are powerful tool for mapping and

evaluation of land use and land cover changes of a given area. Space Application Centre (SAC) guidelines were followed for the identification of land use and land cover changes for the period 2003 - 2013.The greatest change was find in the agricultural area about 41% and it was decreased 11.45 (000ha) on the other hand urban and rural area was increased 5.19 (000ha) and 10.84(000ha) but in the forest area, small change has been found out only 1% and total account was decreased 0.24 (000ha) with the help of onscreen digitization. The agricultural land, forest area shows a decreasing trend whereas the fallow land, non-agriculture and settlements area shows an increasing trend. The reasons attributed for this are due to the changes in the pattern of agricultural activity and increased activity of urbanization. For the study area there is need a proper plane to management land use and land cover. This research gives a clear statistical view of LULC in Murshidabad which is useful to decision maker for future planning.

References

1. Bouma, J., Varallyay, G., Batjes, N.H., 1998. Principal land use changes anticipated in Europe. Agriculture Ecosystems and Environment 67, 103–119.
2. Brahabhatt, V.S., Dalwadi, G.B., Chhabra, S.B., Ray, S.S., &Dadhwal, V.K., 2000. Landuse/land cover changes mapping in Mahi canal command area, Gujarat, using multi-temporal satellite data J.Indian Soc. Remote Sensing. 28(4), pp 221-232.
3. Gautam, N.C., & Narayanan, L.R.A., 1983. Landsat MSS data for land use/land cover inventory and mapping: A case study of Andhra Pradesh, J.IndianSoc, Remote Sensing, 11(3), pp 15-28.
4. Jain, S.K., 1992. Land use mapping of Tawi catchment using satellite data. Report No.CS72, National Institute of Hydrology, Roorkee, 52.
5. Kok, K., 2004. The role of population in understanding Honduran land use patterns. Journal of Environmental Management 72, 73–89.
6. Lambin, E.F., et al., 2001. The causes of land-use and land-cover change: moving beyond myths. Global Environmental Change 11, 261–269.
7. Lambin, E.F., Geist, H.J., Lepers, E., 2003. Dynamics of land-use and land-cover change in tropical regions. Annual Review of Environment and Resources 28, 205–241.
8. M. Swati et al (2012) "Environmental Hazards and Migration: Is relocation a secondary Disaster?Vol.1,Issue.X/April 2012pp.1-4
9. Ramankutty, N., Foley, J.A., Olejniczak, N.J., 2002. People on the land: changes in global population and croplands during the 20th century. Ambio 31 (3), 251–257

10. Ramankutty, N.; Foley, J. A. 1999. Estimating historical changes in global land cover: croplands from 1700 to 1992. Global Biogeochemical Cycles. 13(4): 997– 1028.
11. Sarma, V.V.L.N., Murali Krishna, G., HemaMalini, B., &NageswaraRao, K., 2001. Landuse/Landcover Change Detection through Remote Sensing and its Climatic Implications in the Godavari Delta Region, Journal of the Indian Society of Remote Sensing.Vol. 29, No. 1&2.
12. Sharma, K.R., Jain, S.C., &Garg, R.K, 1984. Monitoring land use and land cover changes using landsat imager, J. Indian Soc. Remote Sensing 12(2), pp 115-121.

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STRESS AT SPORTS: HOW DO ATHLETES COPE

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Stress has been identified as crucial in sport, influencing performance as well as social functioning. Stress, it's always there, but something we need to effectively recognize and manage in the world. Athletes perform their tasks with varying stress levels. Over 3.5 million Canadians report that they experience varying levels of stress making some health experts believe that at least 80 per cent of doctor visits are stress related, yet few people realize that stress is the root of their problems. Experts also estimate that up to 90 per cent of illnesses are stress-triggered and a recent study showed stressed workers cost the health care system almost 50 per cent more than their less-stressed colleagues. This makes stress and its related ailments a billion dollar treatment industry. Athletes are increasingly being placed under demanding and extremely pressurised scenarios, requiring them to cope with stressors in order to become professional sports performers. It is a critical aspect in sport, influencing individual and team performance as well as social functioning. We all cope with stress in some way, either consciously or unconsciously, however this type of response is anything we do that assists in managing our stress. Developing coping techniques is the most crucial element in balancing stress levels so that they optimize instead of inhibit performance level.

According to the World Health Organization stress, especially that relating to work, is the second most frequent health problem, impacting one third of employed people. The impact of stress on health can also be recognized from the fact that the prescription of drugs especially those which treat stress have been on the rise. Due to the dysfunctional aspects of stress, an individual is prone to increased absenteeism, reduced productivity, increased intention to leave the job, lack of loyalty and commitment to the organization. In this sense, not only the individual but organizational interests are also jeopardized by dysfunctional level of stress. It is a well known factor for low motivation and morale, decrease in performance, high turnover and sick - leave, accidents, low job satisfaction, low quality products and services, poor internal communication and conflicts, etc. which have an effect on overall

organizational efficiency and effectiveness. It also affects customer orientation and has direct and indirect effects on job performance.

Against this background, the present paper aims at impacts of sports on Athletes and their coping strategies to relieve from stress. The study is based on primary data. The primary data is collected from 60 sample athletes, who are selected randomly from Guntur district of Andhra Pradesh. Primary data is collected using questionnaire.

Results and discussion

Profile of the sample respondents

The entire sample respondents belong to young age group. Educational qualifications of the sample respondents are given in Table – 1. It is revealed from the table that significant proportion of the sample respondents are graduates (56.70 per cent), while 30 per cent of the sample respondents are Post graduates. The study consists of 10 per cent of the sample respondents, who are engineering graduates. The study also comprises of sample respondents, who are MCA/MBA students (3.30 per cent).

Causes for stress

Sample respondents are asked to state the reasons for their stress. Distribution of the sample respondents by reasons for stress are presented in Table – 2. It is obvious from the table that basal state anxiety is found to be the main reason for stress in the opinion of the majority of the sample respondents (53.30 per cent), while about 18 per cent of the sample respondents reported that self esteem is the cause for their stress. The data further shows that pressure and competition is also the cause for the sample respondents (20 per cent). Sample respondents, who reported stress due to game win – loss (post game stress), constitute about 8 per cent of the sample respondents.

Kinds of stress

Sample respondents are asked to state the kinds of stress they are facing. Distribution of the sample respondents by kinds of stress is given in Table – 3. It is noticed from the table that huge percentage of the sample respondents are facing mental stress (53.30 per cent), while about 37 per cent of the sample respondents reported physical stress. Both mental and physical stresses are being faced by 10 per cent of the sample respondents.

Level of stress

An attempt is made in the present study to know the level of stress. Distribution of the sample respondents by level of stress is given in Table – 4.

The data shows that very high level of stress is being faced by 30 per cent of the sample respondents, whereas about 23 per cent of the sample respondents reported high stress. Moderate stress level is reported by one third of the sample respondents, while low level of stress is expressed by about 13 per cent of the sample respondents.

Kind of inconvenience due to stress

Sample respondents are asked to state the kind of inconvenience they are facing due to stress. Table – 5 furnishes the distribution of the sample respondents by kind of inconvenience faced by the sample respondents. It is delineated from the table that large chunk of the sample respondents are facing headache (48 per cent), while digestive problem is being faced by 30 per cent of the sample respondents. Nervousness due to stress is reported by about 15 per cent of the sample respondents, whereas sample respondents, who high blood pressure constitute, around 7 per cent of the sample respondents.

Stress management techniques followed by the sample respondents

There are various stress coping strategies. An attempt is made in the present study to know the stress coping strategies followed by the sample respondents. It is found from the study that sample respondents are adopting various coping strategies in order to relieve from the stress.

Submissive coping strategy

An attempt is made in the present study to know the submissive coping strategies followed by the sample respondents. Table – 6 shows the submissive coping strategies followed by the sample respondents. It is inferred from the table that about 78 per cent of the sample respondents are sleeping more to relieve from the stress, while day dreaming is the strategy in the case of around 22 per cent of the sample respondents.

Functional coping strategy

An examination of the functional coping strategies of the sample respondents reveals that setting goals is found to be the major coping strategy in the case of large proportion of the sample respondents (51.70 per cent). Managing time is reported by 35 per cent of the sample respondents. Sample respondents, who reported preparing action plans, comprises of about 13 per cent of the sample respondents (Table – 7).

Diversion coping strategy

As regards diversion coping strategies followed by the sample respondents, it is evident from the study that diversion coping strategies

include entertainment (30 per cent), engaging in hobbies (38.30 per cent) and internet browsing (31.70 per cent) (Table – 8).

Relaxation coping strategy

A perusal of relaxation coping strategies of the sample respondents reveals that majority of the sample respondents are engaging in physical exercises (51.70 per cent). The data further shows that anxiety control is found to be followed by about 33 per cent of the sample respondents. Anxiety control is found to be another technique that is obtained through muscle relaxation exercises as well as mental relaxation through modalities such as meditation or listening to music. No relaxation coping strategy is reported by about 15 per cent of the sample respondents (Table – 9).

Third party support coping strategy

Regarding third party support coping strategies of the sample respondents, it is seen from the Table – 10 that seeking professional help is the strategy followed by majority of the sample respondents (60 per cent). Further, planned break is reported by 35 per cent of the sample respondents. No third party support coping strategy is reported by 5 per cent of the sample respondents.

Cognitive restructuring coping strategy

An analysis of cognitive restructuring coping strategies of the sample respondents shows that talking with friends/family members is found to be strategy followed by most of the sample respondents (56.70 per cent). Sample respondents, who reported trying to look at things differently as the strategy, consists of about 18 per cent of the sample respondents. On the contrary, 25 per cent of the sample respondents reported no cognitive restructuring coping strategy (Table – 11).

Transitory reinforcement coping strategy

As far as transitory reinforcement coping strategy is concerned, it is found from the study that taking coffee, tea, etc. is found to be major transitory reinforcement coping strategy in the case of around 62 per cent of the sample respondents. On the other hand, about 23 per cent of the sample respondents reported leaving the tension at work as the strategy. By contrast, 15 per cent of the sample respondents reported no transitory reinforcement coping strategy.

Conclusion

The study finds that anxiety is found to be major cause for their stress. Most of the sample respondents are facing mental stress. High levels of stress

are reported by more than half of the sample respondents. Headache is found to be major inconvenience faced by the sample respondents due to stress. There are other inconveniences as well like digestive problem, nervousness and high blood pressure. Sleeping more, goal setting, engaging in hobbies, engaging in physical exercises, seeking professional help, talking with friends and family members, and taking coffee, tea, etc. found to be stress coping strategies followed by majority of the sample respondents. Anxiety control is found to be another technique that is obtained through muscle relaxation exercises as well as mental relaxation through modalities such as meditation or listening to music.

It is suggested that there are a number of techniques that can be helpful in preventing or reducing sports induced stress. Practice for perfection is necessary but as we talk about anxiety control, too much practice can actually lead to overpressure which obviously leads to anxiety beyond the optimal level necessary for the given task. In addition, self-doubts regarding one's performance and a desire to impress others will create a high level of anxiety which leads to "choking" as the athletes' focus on the game is lost as is his/her physical control. Athletes that maintain a proper combination of honing their physical skills and developing their mental game are able to adapt to any unfamiliar situation/circumstance that they encounter. Further, It is suggested that the four relaxation techniques that help to ease pressure include deep breathing, muscle relaxation, visualization (thinking happy thoughts) and mindfulness (watching out for and disposing of negative thoughts). Relaxation training, meditation, hypnosis, breath control, yoga, prayer, and biofeedback are all techniques the help to relieve stress. It is recommend that athletes who are under excessive sports-induced stress work with sports contact medicine clinicians or psychologists who can teach them some of these methods.

References

1. Scanlan TK, Passar MW (1978), "Factors related to competitive stress among male youth sport participants", *Medicine and Science in Sports*, Summer, Vol.10, No.2, pp.103-8.
2. Agarwal, Rita (2001), 'Stress in Life and At Work', Response Books, New Delhi

Table – 1
Distribution of the sample respondents by literacy level

Literacy Level	No. of respondents	Percentage
Degree	34	56.70
Post graduation	18	30.00
B.Tech.	6	10.00
MBA/MCA	2	3.30
Total	60	100.00

Source: Field Survey

Table – 2
Table showing reasons for stress among sample respondents

Reasons	No. of respondents	Percentage
Self esteem	11	18.30
Basal state anxiety	32	53.30
Pressure and competition	12	20.00
Game win – loss	5	8.30
Total	60	100.00

Source: Field Survey

Table – 3
Table showing kinds of stress among sample respondents

Kinds of stress	No. of respondents	Percentage
Mental	32	53.30
Physical	22	36.70
Both	6	10.00
Total	60	100.00

Source: Field Survey

Table – 4
Table showing level of stress among sample respondents

Level of stress	No. of respondents	Percentage
Very high	18	30.00
High	14	23.30
Moderate	20	33.30
Low	8	13.30
Total	60	100.00

Source: Field Survey

Table – 5

Table showing kind of inconvenience among sample respondents

Opinion	No. of respondents	Percentage
Digestive problem	18	30.00
Nervousness	9	15.00
Headache	29	48.30
High Blood pressure	4	6.70
Total	60	100.00

Source: Field Survey

Table – 6

Distribution of the sample respondents by sample respondents using submissive coping strategy

Coping strategy	No. of respondents	Percentage
Day dream	47	21.70
Sleep more	13	78.30
Total	60	100.00

Source: Field Survey

Table – 7

Distribution of the sample respondents by sample respondents using functional coping strategy

Coping strategy	No. of respondents	Percentage
Goal setting	31	51.70
Prepare an action plan	8	13.30
Manage time	21	35.00
Total	60	100.00

Source: Field Survey

Table – 8

Distribution of the sample respondents by sample respondents using diversion coping strategy

Coping strategy	No. of respondents	Percentage
Entertainment sources	18	30.00
Engage in hobbies	23	38.30
Browse internet	19	31.70
Total	60	100.00

Source: Field Survey

Table – 9

Distribution of the sample respondents by sample respondents using relaxation coping strategy

Coping strategy	No. of respondents	Percentage
Anxiety control	20	33.30
Engage in physical exercises	31	51.70
No strategy	9	15.00
Total	60	100.00

Source: Field Survey

Table – 10

Distribution of the sample respondents by sample respondents using third party support coping strategy

Coping strategy	No. of respondents	Percentage
Seek professional help	36	60.00
Planned break	21	35.00
No strategy	3	5.00
Total	60	100.00

Source: Field Survey

Table – 11

Distribution of the sample respondents by sample respondents using cognitive restructuring coping strategy

Coping strategy	No. of respondents	Percentage
Try to look at things differently	11	18.30
Talk with friends/family members	34	56.70
No strategy	15	25.00
Total	60	100.00

Source: Field Survey

Table – 12

Distribution of the sample respondents by sample respondents using transitory reinforcement coping strategy

Coping strategy	No. of respondents	Percentage
Take coffee, tea, etc.	37	61.70
Leave the tension at work	14	23.30
No strategy	9	15.00
Total	60	100.00

Source: Field Survey

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AN EMPIRICAL STUDY ON BUSINESS DYNAMO WITH SPECIAL REFERENCE TO QUALITY POPULATION- UTTAR KANNADA DISTRICT KARNATAKA STATE

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INTRODUCTION:

Business in the 21st Century is basically based on the market forces like demand and supply of quality products, product utility and cost, shopping convenience and customizing the demand of the customer may breed the success. In the 21st Century, absolutely the customer is the lifeblood of business and quality population is lifeline. The industrial revolution, green revolution, windfall growth of information technology, use of advanced technology in production and liberalization of economy has opened up new business windows in all the sectors.

It is needless to mention that, demand (quality population, increasing per capita income, growing literacy rate, better life style) is the main market force to envisage and forecast the better business and its has various related chain factors like money, material, machine and manpower. The power house of demand generation is the population and it is the core anchor sheet in general and more particularly quality population is driving force for the niche demand. Thus quality population is the strength and is being played a vibrant and catalyst role for dynamo of business.

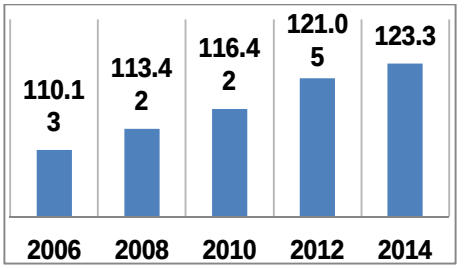
In other words population can be termed as vital source of demand to ignite for growing business. The root cause why the entire world is eyeing on India for their business is because of quality population in India. The problems whatsoever is being resolved with distinct permutations and combinations variables like Technological factors, Economic factors, Cultural factors, Environmental issues and most important is safety factors and keeping the business growing.

The scenario of Indian Population is shown in table/chart No. I herein,

Table/Chart No. I

Growth of Indian Population at a Glance

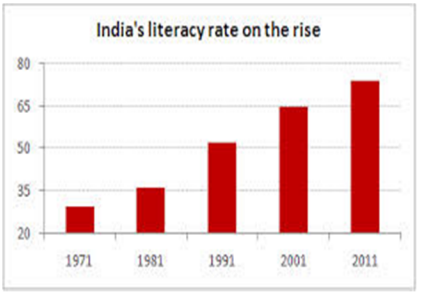
(Figure in crores)



Source: Ministry of Statistics and Programme Implementation (MOSPI)

The total population in India was last recorded was in 2013 at 123.30 crores from 35.90 crores in 1950, it increased to 243 percent during the last 50 years. Population in India averaged 73.66 crores from 1950 until 2013. Population in India is reported by the Ministry of Statistics and Programme Implementation (MOSPI). The literacy position in India is very strong point which is growing at the rate of 9 percent. The following table/chart No. II read the same,

Table/Chart No. II



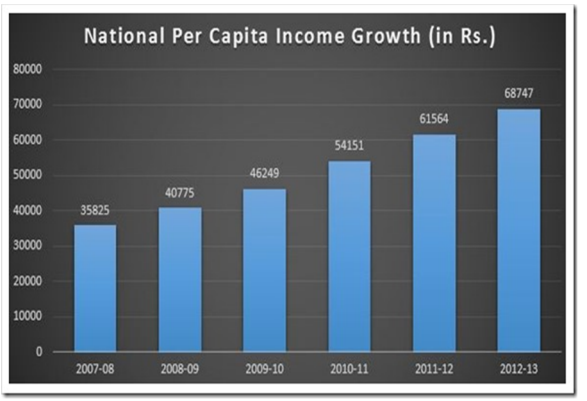
Source: Secondary Study

As per Population Census of India 2011, the literacy rate of India has shown as improvement of almost 9 percent. It has gone up to 74.04% in 2011 from 65.38% in 2001, thus showing an increase of 9 percent in the last 10 years. It consists of male literacy rate 82.14% and female literacy rate is 65.46%. Kerala with 93.9% literacy rate is the top state in India. Lakshadweep and Mizoram are at second and third position with 92.3% and 91.06% literacy

rate respectively. Bihar with 63.08% literacy rate is the last in terms of literacy rate in India.

Literacy and literate population is always a key for socio-economic progress and over all development of a nation as well as India. In India the literacy has grown to 74.04% (2011 figure) from 12% in the year 1947 after independence of India, with six fold increase. The 2011 census, however, indicated a 2001–2011 decadal literacy growth of 9.2%. The gender composition of literacy is 82.14% for men and 65.46% for women. The census provided a positive indication that growth in female literacy rates (11.8%) was substantially faster than in male literacy rates (6.9%) in the 2001–2011 decadal period, which means the empowerment of women sector is taking place. The following table/chart No. III shows the position of per capita income in India,

Table / Chart No. III



Source:http://trak.in/tags/business/2013/02/27/ indian-economic-survey-2012-13-10-key-highlights/

The basic pull-factor of per capita income is the quality population and per capita income is a gauge for measuring living standard and the development of the nation as a whole. The per capita income at current prices during 2012-13 is estimated to be Rs 68,747 as compared to Rs. 61,564 during 2011-12, showing a rise of 11.7%, an official release by the Central Statistic Office (CSO) on Advance Estimate of National Income.

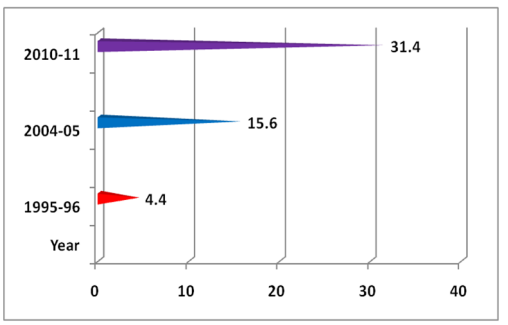
SIGNIFICANCE OF THE STUDY: The scholar with the help of this research will find out ways and means of healthy and endemic demand and shall further identify sources of quality population in the sense of education,

awareness and other variable which will create better business and healthy environment. By virtue of this research an earnest attempt has made to unify business strategies with the help of strengths and the apprehension challenges, which may give booster to the demand, by shaping the population into quality one. It is indicated that, the likely consuming Indian market is estimated around 720 million with 450 million less than 21 years of age (quality population). The following table / chart No. IV shows increase in middle class in India (quality population).

Table / Chart No. IV

INCREASE IN MIDDLE CLASS

Annual Household (million) Income between Rs 3,40,000/- to Rs17,00,000/-



Source: Reform 2020, November 2011

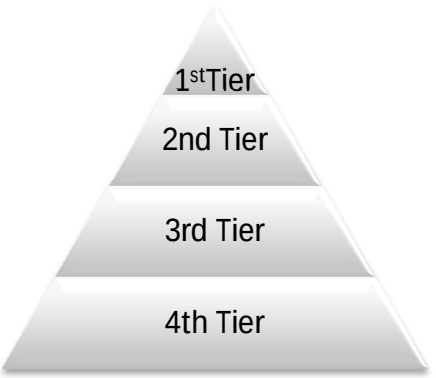
In the year 1995-96 the middle class household was just 4.40 million, who were drawing income less than Rs 17 /- lakhs but the household has increased manifold in the year 2010-11 to 31.40 million. It means the middle class household has increased with better earning in such situation but naturally, better income group household certainly focus on better standard of living and increasing demand of products and services. India is a leading economy with vast and massive market potentials. Indian economy is growing rapidly in all facets and created very good congenial feel good environment on the market and industry. Indian consumer is the focal point and a driving anchor for the growth.

Further it is said that, there is lot of buying potentials and quality population is mostly in the 4th tier. According to a recent article in Foreign Policy by University of Michigan Business School, Professor C. K. Prahalad, and Allen Hammond of the World Resources Institute, the 18 largest

developing nations are home to some 680 million families earning USD 6,000 a year or less. These low-wage earners take in USD 1.7 trillion a year - roughly the size of Germany's gross domestic product. The 4th tier marketing segment is an intrinsic driving force of Indian market and the future path of high potential market in India. Hence 4th tier of market is a highly potential market,

Table / Chart No. V

Indian Market Pyramid



1. 1st tier market is the richer market more profitable, small in number & quantity, brand sensitive and highly niche market. Only branded items will move, highly customers focused. Marketing organized in the exclusive plushy ambience showrooms.
2. IInd tier market is upper middle class who are having better standard of living and always pave way with standard products and look for value of product.
3. IIIrd tier in this customer has definite ceiling of price and look for best available benefits at that price. The product quality, price and service will be the main strength to have favor of customer. The variants in the products mix and customer benefits over the competitor's products will be main deciding factor.
4. IVth tier has vast range of customers. This is consumption basket-first time purchaser based on their purse-not brand conscious. The product placement and availability of products in all sales points-mass marketing will increase the sales. In this tier little-drop-strategy (sales in small

quantity) is the main to pull-customer towards product. Mainly the rural market and unorganized retailer are feeding centre to such demand. The demand potentials and scope of demand is very vast and one can generate good business, it is real indeed a great opportunity of future business.

RESEARCH OBJECTIVES: The major objectives of the study are shown below,

1. To examine the strength and challenges of quality population.
2. To analyze the application of education among population.
3. To find out the impact of quality population as a dynamo of business.
4. To study the insight and intricacies of business at Uttar kannada-Dist.
5. To strategize methods for improving business with distinctive tools to overcome the discrepancy in the general population an educated.

RESEARCH METHODOLOGY: The study and research on "A Study on Business Dynamo With Special Reference to Quality Population- Uttar kannada District, Karnataka State" is a descriptive study and applied research with the help of primary survey / secondary data. Research methodology is a process of systematically solving the research problem. It may be understood as a science of studying how research is analyzed scientifically. Secondary data is collected from the literature review and related publications. As as per the requirement the statistical tools have been used like simple average, table, chart, diagram and co-relation.

STATEMENT OF THE PROBLEM: The main crux is that, most of the economist and social leader seldom to mention that quality population is opportunity rather than bog for economy. Hence it gives call for an applied research on the subject "A Study on Business Dynamo With Special Reference to Quality Population- Uttar kannada District, Karnataka State" with this holistic work of research, hope to get real and realistic picture of the situation, whether the quality population is source of business or dwindling the business.

Study reveals that in the developed and developing country the quality population is playing significant role to gain more from the various variables like technological factors, economic factors, cultural factors, health care, safety, value and spiritual factors etc., such distinct permutations are certainly the Dynamo of Business in days to come. The scope and limitation of the study

is Uttar Kannada District in Karnataka State; hence it may pave way for further research work/study.

GLIMPSE OF UTTAR KANNDA DIST A CASE IN ISSUE: Karnataka State population as on March 2011 stood at 52,850,562 and population of Uttar Kannda district is 1,353,644. Population growth rate is 17.5% and Uttar Kannada is 10.9%, the gender ratio is equal to 946 male to 946 female. The District has forests covering 80% of the total Geographical Area. Literacy rate is more than 60%. The District has a coast line of 144 Kms. Horticultural Products and Spices are grown and the growth rate is increasing year by year. Uttara Kannada District is an ideal District for eco-friendly industries. The District has number of Tourist, Picnic Spots and Beaches. Konkan Railway, National Highway and Ports.

I. **Literacy Rates;** Literacy is a very important requirement of quality population. Obviously, only a well educated citizen can make intelligent choices and undertake research and development projects. The literacy rate in the Karnataka as per the Census of 2001 is 66.60 per cent; 76.1 per cent for males and 56.9 per cent for females. But according to the Census of 2011 the literacy rate of Uttar Kannada District is 76.6 which is higher than the literacy rate of State.

II. **Schools Education Units;** according to report published in District statistic report there around 6000 school in district which includes around 4000 school provide free education and promote education facilities. There are around 60 professional and non professional colleges in district which offered different education scheme such as B.com, BSC. B.tech and Master Courses and around 4000 Student complete all professional courses in District.

III. **Employability and occupation;** the employability and occupation of district is in agriculture around 65% of people engage in farming and Cultivation. Around 12% of women employee works in factories and manufacturing industry and around 42% male employee worked in different area and around 20% of people are self employed and around 21% of people worked in abroad in different countries.

IV. **Industries**; industry is most important source of revenue for economic development of countries and development of any state or district. There are around 14813 industrial units established under which around 9543

unit are registered and around 75613 daily workers employed. Some the industries include manufacturing unit and agro based as well as small and medium scale. Around 28395 lakhs of turnover of these industries which contribute around 0.6% of state GDP.

V. Natural Resources; the abundant availability of Forest products, Mineral resources, Fruits and Medicinal Plants has attracted several large investors to go in for Large & Medium Industries. The West Coast Paper Mill at Dandeli of Haliyal Taluk which uses Bamboo in large quantity produces Paper & Paper Boards of export quality. West Coast Paper Mill with an investment of Rs. 16100.00 lakhs has not only provided employment to 2081 persons but also generated several types of jobs in service sector.

a) Ballarpur industries Binga-Karwar in addition to its major product Caustic Soda produce Chlorine & Phosphoric Acid. This unit is popularly known as Bilt is having investment of Rs. 2600/- lakhs providing jobs for 694 persons is also responsible for the promotion and support for Automobile Industries & Engineering Industries.

b) Dandeli Ferro Alloys whose main raw material is manganese is manufacturing good quality Ferro Alloys. The western fruit vegetables Banavasi Sirsi with an investment of Rs. 350/- lakhs have employed nearly 100 persons.

c) The units are manufacturing Fruit Concentrates and Pulps. Although their consumption is substantial but still lot of surplus horticulture products are available for projects likely to come in the near future.

d) There is no dearth for the medicinal plant in the District. Though there are several Tiny Industrial units processing medicinal plant, The Ganya Chemical Agasur, Ankola project with an investment Rs. 244/- lakhs is engaged in the production of several Herbal Medicines having huge demand in local market.

e) Medium & Large Scale Industries has Investment of Rs 42384 lakhs and providing direct employment to. 4496 persons.

VI. **Other Resources;** being coastal, district has abundant resources and means for resources for industrial development and trade. Tiny and Small Scale Industrial existing in District shows that 5836 Tiny

& Small Scale Industrial Units have been registered with an investment of Rs.11,473-26 lakhs providing employment opportunity to 33988 persons. **Food and Beverages** Industry is major activity of the District 1351 Tiny & SSI units of Food & Beverages with an investment 10/- lakhs providing employment to 8937 persons. Rice Mill, Phova Mill Processing, Soft Drinks & Ice cream units have provided an opportunities as well as promoted several micro enterprises. Dandeli Teak Wood and Yellapur Rose Wood which has strength commands huge demand for furniture. There are 722 Wood Based units with an investment of Rs. 1003/- lakhs providing an employment to 3901 persons. Several Saw Mills, Furniture units have come up in the recent years so as to meet the growing demand for furniture. There are 149 Printing & Stationery units with; investment of Rs.577/- lakhs providing an employment to 1049 persons. **Glass & Ceramics**, there are 201 Glass & Ceramic Tiny & SSI Units in the District with an investment of Rs. 1095/- lakhs providing an employment to 2660 persons. Uttara Kannada Tiles are known for their quality and reasonable price. Availability of suitable Clay, Fire Wood and hot climate helped these industries to invest nearly Rs. 900/- lakhs and employing about 2600 persons. **Jewelry,** Uttara Kannada District is known for renowned Gold & Silver Artisans. In Karwar Town itself there are about 1500 Goldsmith families engaged in production of Gold & Silver Ornaments. **Service Units,** there are 747 Tiny Units with an investment of Rs.1001/- lakhs providing an employment to 2853 persons which are engaged in Job work, Repair & Servicing. **Engineering & Fabrication,** about 312 Tiny & SSI Units with an investment of Rs.802/- lakhs providing an employment to 2009 persons are Engineering & Fabrication Industries.

FINDINGS: Based on the study following are the findings;

1) The overall performance of Karnataka State is good and well going. The Uttar Kannada District has very constructive contribution in the leading economy of the State.

2) The literacy rate of Uttar Kannada District is 76.6 which is higher than the literacy rate of State. Hence it is main power-house to generate more business to the State.

3) District has around 6000 school in that around 4000 school provide free education and promote education facilities. There are around 60 professional and non professional colleges in district. Such facilities in the District certainly improve the quality of the population and that will work as business dynamo in the District.

4) The main point to be noted is that, District is full of industries, around 14813 industrial units established and registered and 75613 persons are employed.

5) The very significant finding is that, these industries has turnover of Rs.28395/- lakhs, which contribute around 0.6% of state GDP. It clearly indicates the dynamo in business by the quality population.

6) Due to the costal belt almost 144 kms it has abundant natural resources and forest area. And it has influence of migration to gulf countries which bring more job opportunities and better purchasing power.

7) The increased per capita income, literacy rate, migration, urbanization, increasing number of industries and investment is due to the quality population, which working one of the very important factor to brings more business.

8) It is found that, the potential and scope of employability in Uttar Kannada District is beyond expectation and essentially giving one of the best leverage for quality population and infuse enhancing business dynamo.

CONCLUSION: In this study, it has been revealed that, population has power to gear economy and quality population certainly a dynamo for perennial business and overall development and progress. Quality Population means, well educated, knowledgeable, better income, high standard of living, good life style, healthy practices, good average age, etc., is a power-house and a strength which is being played a vibrant and catalyst role for dynamo of business in Uttar Kannada Dist.

It can be concluded that, quality population is not curse, not a bog and not a cause for dragging the economy but an opportunity, strength and source to increase business and development of a State. Due to the quality population in Uttar Kannada Dist is growing in all sector particularly education, trade

and social-economy fold. Every source is being used at optimum level since the users (population) is qualitative and has applied skill and knowledge to get more of resources.

References:

1. "Census of India". Retrieved 2011-03-31.
2. "Unicef Study Predicts 16% World Illiteracy Rate Will Increase", New York Times, retrieved 2009-11-27
3. Literates and Literacy Rates – 2001 Census (Provisional), National Literacy Mission, retrieved 2009-11-27
4. Adult and Youth Literacy UNESCO (September 2012)
5. Census of India | url = http: // www. censusindia.gov.in/2011-prov-results / india atglance.html
6. "India's Literacy Panorama". Source: Education for all in India. Retrieved 2011-09-15.
7. Economic Survey 2004–05.
8. "Literacy Rate on the Rise, 11th Plan Targets 80%", The India Post, 4 September 2008, retrieved 2009-11-28, "... In all the States and Union Territories the male literacy rate except Bihar (59.68%) is now over 60% ..."
9. "National Literacy Mission website". NIm.nic.in. Retrieved 2010-09-01.
10. UNESCO Education Sector, The Plurality of Literacy and its implications for Policies and Programmes: Position Paper. Paris: United National Educational, Scientific and Cultural Organization, 2004, p. 13, citing an international expert meeting in June 2003 at UNESCO.http://unesdoc.unesco.org/images/0013/001362/136246e.pdf

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SCIENCE EDUCATION: STRATEGIES FOR EFFECTIVE TEACHING LEARNING PROCESS

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Introduction

Distance Education institutions in India traditionally offered liberal education programs in Humanities, social sciences and commerce. Recently various Universities turned to provide Science and Technology related programs. Making Science education through the distance mode is more relevant and applicable in the present global context. In order to make this type of system effective, it would be necessary to give a good deal of planning and organization of the system. The study of the institutional experience on critical issues would help in developing a suitable model for science programs in various Distance learning institutions. Effective learning depends on the ability of the teacher effectiveness. Helping students develop the learning strategies that best fit a specific content will result in more effective and efficient teaching and learning. A strategy is a pattern or plan that integrates the major goals, policies and action sequences into a cohesive whole. It is a process of developing and defining a sense of direction. The goal of education is better conceived as helping students develop the intellectual tools and learning strategies needed to acquire the knowledge necessary to think productively. If teachers teach students learning strategies that best fit the structure of the knowledge of course content, they will be able to bring success to the student. Their preparation and delivery efforts are better rewarded because more students are able to learn the course material, which is the goal of teaching. The students get succeeded because their learning becomes more efficient and effective, often resulting in greater academic success and a larger collection of learning strategies to use elsewhere. The process of integrating learning strategies into content teaching begins with deciding what kinds of thinking, learning, and studying students need to do for being successful in a particular course. Innovative learning strategies used in enhancing student learning, it is a relative easy task to pick an appropriate strategy, such as a note taking method or using summary writing as a comprehension tool, and to show students how to use it. The author wants to explain when to use the learning

strategies like Co-operative Learning, Individualistic Learning and Competitive Learning, for effective teaching learning process of Science for enhancement of student understanding and fruitful results.

Importance of Science Education

The capability for solving complex logical problems may be what differentiates humans, more than anything else, from other living beings. Logic is what makes us understand that things are not what they seem. Our ability to visualize hypothetical situations makes it possible to develop solutions to problems. Once we have visualized a solution, our analytical skills can lead us toward practical solutions. We may not be able to see in the ultraviolet range, but we may design instruments to do so. We may not be able to see atoms, but we can design experiments that enable us to know their properties. Each stage of scientific advancement has usually been made by trying to reach a logical conclusion consistent with our observations.

The Scientific and Technological changes in the recent period are making teaching a more crucial than any other. The society needs a continuous change in the role and working of the Teachers. Teaching is an art required for imparting education effectively and educationalists have been working and experimenting continuously to find out new and effective methods of teaching. Science education occupies a very eminent place in curriculum, both at school and University stages of education in India. Continuous advances in scientific and technological research have led to the growth and greater application of Science in contemporary society. Science plays a key role in the development of the society in all aspects. Thus science education is crying need for mankind. Modern age is the scientific advancement and technological process. It is also important to remember that the university aims to develop a scholarly and scientific outlook.

Traditional Teaching

Traditional teaching is concerned with the teacher being the controller of the learning environment. Power and responsibility are held by the teacher and they play the role of instructor in the form of lectures and decision maker in regards to curriculum content and specific outcomes. They regard students as having 'knowledge holes' that need to be filled with information. In short, the traditional teacher views that it is the teacher that causes learning to occur. Learning is chiefly associated within the classroom and is often

competitive. The lesson's content and delivery are considered to be most important and students master knowledge through drill and practice such as rote learning. Content need not be learned in context.

Student-Centered Teaching

The teaching role in a student-centered learning environment is, at most, one of facilitator and guide. The students are in control of their own learning and the power and responsibility are the students concern. Learning may be independent, collaborative, cooperative and competitive. The utilization and processing of information is more important than the basic content. Learning takes place in relative contexts and students are engaged in constructing their own knowledge. The teacher who utilizes this method effectively is constantly on the move. They may be engaged with the students as a classroom collective, individually or in groups. Their involvement would include questioning, disciplining, guiding, validating, monitoring, motivating, encouraging, suggesting, modeling and clarifying. The teacher must make the appropriate decision when deciding how instruction should take place.

Teacher Effectiveness

Effectiveness of the teacher can be measured basing on the effective guidance on the learning strategy to be followed for better attainment of the students. The teacher who can forecast the strengths and weaknesses of their students can act as a good facilitator for them. The teacher should be aware of what strategy can be adopted for teaching different concepts in Science. As the students feel science as a difficult and abstract one. The teacher should mould the students to overcome the difficulty in understanding by eradicating the abstractness.

Learning Strategies

Use of suitable learning strategies by the students will be based on the teacher guidance. An effective teacher can suggest the suitable learning strategy. This is possible to the teacher only if he take individual care for each student. He will be in a position to take decision when to use a particular strategy. Co-operative learning, Individualistic learning and competitive learning are some of the different kinds of learning strategies which a teacher can use. Let us see each of them, its importance and usage.

Co-operative Learning Strategy

In a *co-operative* learning strategy students engage in dialogue that is monitored by the teacher. They are allowed to discuss and bring up their own ideas, but the teacher intervenes to help them sharpen up and clarify their ideas and to encourage higher-order and creative thinking. In this type of learning strategy students have more authority than in the competitive ideas, and discuss these freely with one another. The teacher's role is to stimulate discussion, arbitrate the discussion and make sure disagreements between students do not get out of hand. At the end of discussions the teacher will summarize and organize the ideas presented by students. During individual work students can be made to co-operate with their neighbor by exchanging papers, checking each other's work or sharing ideas.

This type of learning strategy lends itself particularly well to group work, in which students can co-operate by discussing a topic or working out problems with all students being allowed to contribute. A major advantage of this type of learning is that it will help develop students' social and co-operative skills, which are becoming more and more important in the classroom. Students often enjoy working with one another, which means that co-operative work can be highly motivating. Being able to articulate their own ideas can help develop students' thinking skills.

Disadvantages are that exchanges can easily become dominated by one or two highly self confident individuals, with others allowing them to do all the work, the so-called 'free-rider effect'. Also, students can strengthen each other's misconceptions, and there is a risk of classrooms getting out of hand with students shouting out answers if not managed well. Co-operative learning occurs when students work collaboratively towards a common goal. Achievements are positively correlated with the other cooperating students. Students work together in small clusters or groups.

Effective co-operative learning strategy promotes:

- Positive interdependence - a feeling of connection with other members of the group as they accomplish a common goal
- Individual accountability - every member of the group is held accountable for the group's achievements
- Face to face interaction - group members engage at close range and are influenced by each other's verbal communication

- Social skills - students become aware of the human interaction skills involved in effective group cooperation
- Group processing - groups may reflect and discuss how well they are functioning as a unit and how effective their working relationships are.

Effective cooperative learning strategy relies on group management techniques, social skills training and student-centered teaching methods.

Group Management

Group management is important for maintaining on-task activities and dealing with students that may be gifted, socially challenged, disruptive or lazy. Additional management techniques may be employed or utilized with Indoctrinating social skills in the students. Some examples of effective group management strategies include the following-

- Ensure that the target student is grouped with members that are proven to be constructive
- Groups may be pre-trained in techniques that will assist them in ensuring that the target student will be readily accepted and encouraged to participate appropriately
- Training the target student with appropriate collaborative and social skills
- Assigning different roles for the individuals in each group
- Assigning one student to an observation role. This student can report back to the teacher on where they think the group might be struggling and what strategies they believe would assist the group.

Individualistic Learning strategy

In this *individualistic learning strategy* the emphasis will be on students getting through work independently and testing themselves. Students will complete assignments monitored by the teacher, and are encouraged to give those answers that they think are best, rather than answers that are considered to be 'right' or 'wrong'. The students' role will then be to complete the assignment with the best possible responses, while the teacher's role will be to assign the work and make sure that orderly progress is

made towards completing it. When group work is used in the individualistic classroom, subgroups will complete their own assigned topic which will be independent of topics undertaken by other groups. Results are not shared with the class. During individual work, students will complete seatwork on their own without direct teacher intervention. Advantages of this type of classroom are the freedom it allows for students to work at their own level and develop their own answers to questions. This will encourage students' individual problem solving and independent learning skills.

Individual learning implies that knowledge and cognitive skill are assets that teacher can transfer to the learner. This type of learning strategy exists when the learning or achievement of one student is independent and separate from the achievements of the other students in the class. This learning strategy can be described as teacher-centered learning strategy; that is, the teacher provides the major source of information, assistance, criticism and feedback. Students work alone and are not expected to be interrupted by other students. In this regard, students may be seated as far from each other as space permits. Learning resources and materials need to be organized so that each student has immediate access to the appropriate materials. This type of learning strategy aims to be individually beneficial and assessment is commonly judged against a set criteria.

Negative effects can be that particularly less able and averagely able students will suffer from lack of teacher guidance and make insufficient progress when left to learn in this way. Students will also not have the opportunity to develop co-operative skills, and for most students using too much individualized instruction has been found to be ineffective.

Competitive Learning strategy

In a *competitive learning strategy* students will compete among themselves to give the right answer or to attain a standard set by the teacher. The teacher is the sole arbiter of the correctness of the response, and no authority is given to students. The teacher leads the class, presents and organizes the material and evaluates the correctness of the students' responses. In group work groups can compete against each other, for example through group games. Individual work the teacher can get students to compete by giving a prize to the student who has correctly completed answers on a worksheet most quickly or for having the largest number of correct answers. A competitive learning strategy can motivate students and can thus

enhance student achievement. This type of classroom also allows for a large amount of teacher guidance, which can be important to student learning.

Competitive learning strategy exists when one student's goal is achieved and all other students fail to reach that goal. This strategy can be interpersonal i.e. between individuals, where rows are most important or intergroup i.e. between groups, where a group setting is appropriate. There have been many criticisms of this type of learning strategy. These criticisms include

- As there is only one winner, all other students must fail
- This may be linked to high anxiety levels, self-doubt, selfishness and aggression
- This may promote cheating
- It may interfere with the capacity to solve a problem
- The possible negative effects are damaging the self-confidence of less able students through the constant comparison involved, which may lead to them becoming disengaged from the lesson and possibly school and learning in general, and the fact that this method will not inculcate co-operative skills in students.

In light of these criticisms teachers must identify what kinds of competitive activities would have destructive or constructive outcomes. Groups can be arranged to host interpersonal competitions separately from one another. This is one strategy to maximize the number of winners the class. Competitive learning strategy is most appropriate when students need to review learned material. This bypasses the need to problem solve in regards to any new material. Inter group competition can be seen as an appropriate competitive strategy as it maximizes the number of winners. It is also important to ensure homogeneous grouping to maximize the chance of winning for all groups.

Homogeneous grouping allows the groups to be as evenly matched as possible to provide a challenging environment for competition. One particular grouping strategy is called bumping. This involves ranking groups from highest to lowest in achievement through cooperative learning. Then through interpersonal competition in clusters students are ranked in their clusters. The highest achieving member is then moved up to the higher ranked group, and the lowest ranked member is moved down to a lower ranked group. Competitive learning strategy can also be a cooperative activity when the

students formulate their own term and rules of the contest, giving them ownership of the activity.

Problems for Lack of Effectiveness

In the existing system of science education both teachers and students are engaged in understanding the formalities of the prescribed curriculum and are ignorant with regard to the aims and objectives of education. Hence clarity of national goal of science education in general and that of teaching objectives of a subject and lesson in particular is of paramount importance. The teachers and students approach to education should be objective standard. Laboratory is the part and parcel of science education. Every school possesses one laboratory, but most of the schools are in the name. Shortage of accommodation and different kind of apparatus create a big problem at the time of experiment. Without proper laboratory facility students can never progress in their education. Number of students in the class is more, but accommodation for them is not sufficient. Only in the old schools apparatus and facilities are available, but all apparatus are old and students suffer a lot of grievances in these schools also. Most of the schools try to help students with facilities as many as they can.

Conclusion

Science education occupies a very eminent place in curriculum, both at school and University stages of education in India. Continuous advances in scientific and technological research have led to the growth and greater application of Science in contemporary society. Science learning is not an easy task for most of the students. Teacher has to guide the student by suggesting a suitable learning strategy for the better understanding of the concept. Science learning activities sometimes needs group work in doing laboratory work, research work or projects. Students must be competent to secure high academic attainment. Indoctrinating Social skills is an imperative strategy when students are engaged in collaborative learning activities. This is important to ensure that the groups are working efficiently and effectively. Intervention of Social skills is important especially when students are failing to communicate and collaborate effectively with each other. Interpersonal and small group skills are the driving force of cooperative and collaborative learning groups. These skills are also linked to career and life success. They facilitate the building and maintenance of positive, personal relationships and psychological health.

Recommendations

Classroom Climate

- Build a rapport with students
- Establish a positive relationship with the students
- Teacher should be open minded
- Teacher awareness of group dynamics is important to effective classroom control

Co-operative Learning

- Build positive rapport among the students.
- Involve the students in team work.
- Assigning some project works to the students may lead the co-operation among the students.
- Involve the merit students in remedial teaching.
- Create awareness on the importance of co-operative learning.

Individualistic Learning

- Heuristic approach develops the individualistic learning
- Own pace of learning is possible by this
- Increase focus on thinking skills

Competitive Learning

- Teacher should develop the competitive spirit among the students
- Issue of incentives to the bright students can develop competitiveness
- Teacher should give challenging tasks for improving their competencies
- Assign leadership roles, rotate them among the students

References

1. Ranganathan R (1996) "Effectiveness of Adapted instructional material in teaching science to the visually impaired children of VI, VII and VIII classes in integrated education programme".
2. Ranganathan R (2005) Methods of Teaching Science Material prepared for the Special Education Course.
3. Lakshmana Rao S.V (2006) A study on Academic motivation and Classroom Climate in relation to Academic achievement 2006, Dissertation submitted for M.Phil Degree. Research Advisor: Prof.R.Ranganathan.
4. Kochhar S K Methods and Techniques of Teaching Sterling Publishers Pvt Ltd. New Delhi.
5. Mohd. Saheel Khan(2007) Effective Classroom teaching EDUTRACKS Feb 2007 Vol 6 No. 6 Pages 21-23.
6. Marlow Ediger (2004) Science learning and the student The Educational Review Sep 2004 Vol 47 No. 9 Pages161-163.
7. S.K.Kochhar Methods and Techniques of Teaching Sterling Publishers Pvt Ltd. New Delhi.
8. Amarjit Singh (2003) Classroom Management Kanishka Publishers New Delhi.
9. Kalyani Devi T(1997) Home and School Environment Discovery Publishing House New Delhi.
10. Lakshmana Rao S.V (2008) Science Education reforms in relation to the Learning Environment Poster presented in the 95th Indian Science Congress.
11. LaxmaReddy, G. (2008) Science Education Through Distance Mode - A Study of Academic Issues in DR. BRAOU. In K. McFerrin et al. (Eds.), *Proceedings of Society for Information Technology & Teacher Education International Conference 2008* (pp. 4721-4728).

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ENVIRONMENTAL PHILOSOPHY IN ITS DIALOGUE WITH THE GANDHIAN WAY

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Inventor of the concept of deep ecology Arne Næss, along with others like E. F. Schumacher, shared common ideas with Gandhi that science and technology has its own limitations that can be overcome if science is supplemented with an intuitive kind of knowledge that seeks to provide the missing link between man, nature, and the environment. Deep ecological elements are prevalent in Gandhi's environmental philosophy as well. Gandhi, believed that nature could exist without humans, a prospect that fascinated and frightened him, which eventually prompted him to focus on the relation between human beings and the environment."I need no inspiration other than Nature's. She has never failed me as yet. She mystifies me, bewilders me, and sends me to ecstasies."[2] However Gandhian position on environmentalism is more akin to human centric shallow ecology than bio- centric deep ecology. The basic difference between deep and shallow ecology is that the latter takes an anthropocentric (human-centered) view of the world, whereas deep ecology is ecocentric, placing equal value on non-human organisms and, indeed, physical features.

GANDHIAN IMPACT ON SOME ENVIRONMENTAL MOVEMENTS IN INDIA

The strength of human ecology, and also of Gandhian philosophy, lies in its ability to see human beings and their environment as mutually interlinked, as part of an integrated whole. Unlike in the West, almost all the Indian environmental movements paved way for sustainable development in a Gandhian way. These reflected worries and apprehensions of the ecosystem people who share natural and spiritual bond with nature, and for these tribes, fisher folk, other underprivileged section of the society, forest preservation or river preservation became synonymous with a movement for safeguarding their own local, ethnic and marginal identity that faces threat of extinction along with the forest, river,and the mother earth ,who sustains them all. Following the footsteps of Mahatma Gandhi, leaders like J.C. Kumarappa, contemporary Gandhian environmentalists like, Baba Amte,Medha Patkar and

Sundarlal Bahuguna among others ,could see cities as corrupting and polluting , both morally as well as ecologically. In its extreme form this may lead to some kind of demarcation between the two: cities versus villages, sustainability versus development, and so on.

Staunchly Gandhian in its ideology, the *Narmada Bachao Andolan* , is committed to holding on non-violence even in the face of extreme provocation. Among its prominent leaders, Gandhian reformers like Baba Amte, Medha Patkar , and others creatively sought out ways to breakdown and reconnect the local/global. Set up in 1986 under the leadership of Medha Patkar, NBA emerged as a social movement consisting of tribal people, Adivasis, farmers, environmentalists and human rights activists against the Sardar Sarovar Dam being built across the Narmada river, Gujrat, India . Critiquing the social and environmental impact of large development projects specially on the life of the tribals , and looking toward a new environmentally sustainable water policy , it also raises issues related to human rights and justice, alternative development policies, environmental issues related to big dams in general and the Narmada project in particular."A fundamental question that the NBA has raised has been about the financial costs incurred by the State on huge development projects such as the SSP and the social costs incurred by ordinary people for the sake of a privileged few. Inherent in these questions have been the role of the state as it unequivocally alters the lives and livelihoods of lakhs of people through its persistent and seemingly blind facilitation of this unequal cost-benefit balance." [i]Some others of environmental movements of its kind namely like the *Krihsnk Mukti Sangram* ,led by Akhil Gogoi in Assam , are protests against big dams that will cause harm to ecosystem, local people and their river related trades and the folk culture and their sense of identity. Nature and environment are thus seen as social and cultural constructs.

Contemporary environmental writers such as Vandana Shiva, Anil Agarwal, Madhav Gadgil and Ramachandra Guha , among others, have acknowledged their debt to Gandhi's ideas. Gandhi drew on a number of Western thinkers from John Ruskin to Henry David Thoreau , to name a few, who, although were not against the modernist project, romantically cherished the preindustrial order. All these shades and layers of his deeper self realization have inspired different kinds of Environmental Movements particularly in India. A committed Gandhian leader and the founder of the Chipco movement Chandi Prasad Bhatt,was of the rare progressive minds. He claimed that their movement was not against science and technology as such,

but against misuse of science when nature is used for profit motive alone. Born in the Alakananda valley the Chipco movement with its main aim of fostering of love for trees in the hearts of humans. Later it moved eastward to Kumaon to protest against commercial forestry relentlessly fighting for re-cosonstruction than de-construction and for preservation. Its pet slogan *"sal for Jharkhand* ', *sagwan for Bihar'* ",showed its concern for felling down *sal* trees *shorea robusta* , which is of highly prized firewood for local community and replacing it with teak wood plantation for the benefit of commercial purpose. It was a symbolic move against deforestation. Preventing a group of labourers ,who were sent by a distant Dehradun based contractor to fell down *Sal* trees from the forest as these tress were auctioned off to him, the leader of the Himachal Mahila Mandal Gaura Devi ,along with other female members of the *panchaya*t, rushed to meet them and to plead them not to fell down trees. This is how this simple housewife and village woman explained to them why they care for the forest and for the trees and why everyone else should develop love for trees:"Brothers, these forests are like our maternal home [*maika*].We get herbs ,fuel, fruits and vegetables from them. Cutting the forests will result in floods. Our field will be washed away. Please have your food and come with u to our village. When our men come back we will collectively take a decision.'[3]

In his documentation of the socio-cultural uniqueness of Indian conservation movements, Ramchandra Guha pays glowing tribute to these moral and spiritual Gandhian leaders like Gaura Devi , Medha Patkar , who could take on a dishonest bureaucracy and swear by the community's commitment to nature .Guha pays tribute to the "subaltern social ecology" of Chandi Prasad Bhatt, another Chipko pioneer, and the scholarly Madhav Gadgil , for his democratizing influence on environmental thought and biodiversity conservation. All these leaders followed the footsteps of Gandhi in some form or other.

Gandhi's crusade was neither against growth and development, nor against science and technology as such. It was a crusade against the misuse of science and technology that leads to unsustainable and inhumane and unfair mode of development. If development wears a humane face and is welfare-centric, this is the way Gandhi would have liked it to proceed .This would be a new *avtar* of Gandhian brand of sustainable development in some form. From a Gandhian perspective, the present environmental mess, ranging from deforestation, soil and biodiversity loss, to pollution and climate change, is not a disease but only a symptom. A good doctor treats the disease and not the

symptom. The disease is the very concept and patterns of growth and development that are being followed everywhere. If the perspective changes the disease is diagnosed by a good doctor.

We can say that Gandhi's environmentalism fitted in with his overall vision for India and the world that sought to extract from nature what is absolutely necessary for human sustenance. His ideas on environment are intimately linked with all his ideas relating to the polity, economy, health and development. His asceticism and simple living, a rural- centered civilization based on village autonomy and self-reliance, handicrafts and craft- centered education with emphasis on manual labor ,and absence of exploitative relationships, are infused with elements of an ecological vision (Jones 2000) . Even his approach to gender he did not attempt to break the connection with nature.

Louis Fischer has rightly asserted :"If man is to survive and flower in freedom ,truth and decency ,the reminder of the 20th century and what lies beyond must belong not to Lenin or Trotosky ,not to Marx or Mao ,or Ho or Che ,but to Mahatma Gnadhi" .[4]

References

1. Rabindranath Tagore, " Atmashakti" (Strength of One's Own), Rabindrarachnabali, (Viswa-bharati, Calcutta, 1975: 2nd edition, 3rd reprint ,vol. 3),p. 555
2. Guha, Ramachandra (2006). How Much Should A Person Consume?(Permanent Black :The University of California Press, Berkeley)., pp. 60-61.
3. ibid.
4. Louis Fischer, Gandhi: His Life and Message to the World. New York: Penguin, 1982.

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SOCIETAL MORALITY VS SELF MORALITY A STUDY OF VIJAY TENDULKAR'S SAKHARAM BINDER

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Vijay Tendulkar, the prolific Marathi playwright, has become a name to be reckoned with not only as far as Marathi stage is concerned but also in Indian theatre. A journalist by profession, Tendulkar has tried his hand at various genres during the last forty years as a creative writer. These include articles, short stories, one-act plays, dramas, screen-plays and dialogues, literary criticism and translations. Though he has been successful in whatever he has tried but his forte remains dramas. An excellent wielder of the pen, he has won the SangeetNatakAkademi Award, the Kamla Devi Chattopadhyay Award and the Padma BhushanAward.For Tendulkar, the inspiration comes from the society around him. He is a keen observer of human relationships especially in lower and middle class society. He has written twenty-eight full-length plays and in almost all of them, women play crucial roles in the plot. Whether it is Sakharam Binder, Shantata! Court ChaluAahe ,Kmala, Gidhade, Baby, GhasiramKotwal, MitraciGosta, Kandyadaan or EkHatti of sympathy towards the women charcters created by him. In Shantata Court ChaluAahe, although Tendulkar is looking closely at the tangled web of human relationships, yet in the end it is the heroine who comes out to be stronger than the male character. Being a sensitive writer he observes the social,political, cultural and moral degeneration of contemporary society. In his plays he deals with themes of love, sex, marriage, violence, gender inequality, social inequality, alienation and individual isolation. While exploring the depths of human life and its complexities he also exposes hypocrisy , promiscuity, and emptiness of value systems found un the traditional Indian society.

The play Sakharam Binder was written in November 1971 and was first performed in march1972 and received with a critical acclaim. There was also some adverse reaction by critics who proclaimed that the play dealt with baser human instincts. [1]

The play is about a character called Sakharam who is supposed to be working as a binder in printing press. He is a sex starved creature with his own laws of personal morality. Sakharam is the hero of the play. He is a man devoid of ethics and morality .He opposes the social codes and conventional marriage system and he doesn't believe in the laws of wedlock that's why he does not want any permanent partner. Talking about why he behaves so and who is responsible for his aggressive behaviour towards society ,KavithaThyagi says, culture , history,religion, and society around him are undoubtedly responsible for this deviation.[2] He was born in Brahmin community. But his father used to beat him terribly so he ran away from his house when he was only eleven years old." I have been like this right from birth. Born naked, I was. My mother used to say, the brat's shameless. He 's a Mohar born in a Brahmin home. And if I was , who 's to blame . It wasn't my doing"[3] As he was against the social system, he disliked to get married. And he began to bring the cast –off women , estranged women and abandoned women from the streets to his house. He has had a half dozen affairs as such.

The play opens with the seventh woman laxmi following sakharam to his door. She comes with a bundle of clothes clutching to her bosom. Sakharam sternly tells her what to expect.he says that he is poo but she will get two square meals , clothes and aroof over he head. She will have to be a wife to him and he will brook no nonsense. He is very frank and outspoken and his rough idiom seems the right vehicle for the values he has evolved for himself. He tries to work out an independent philosophy of life, with no sense of false obligations. "It's sakharam binder's house. And sakharam binder is not like your previous man. You will find out what he's like. No free and easy ways here, see? I am hot headed. When I lose temper, I beat the life out of people. I have a foul mouth. I am not rich but I pull on. You 'll get two square meals. Two saris to start with and then one every year. I won't hear any complaints later. I like every thing in order here. If you are careless I will show you the door... I am the master here. I don't care if they treat me like dirt outside...you understand?"[4]

Laxmi is very religious but not so attractive. Sakharam treats her like a slave and uses her for his needs. She lives with him for a year. Laxmi is a helpless woman ,steeped in traditional morality but compelled to submit to sakharam. Bringing the woman who is not his wife is not wrong to him. Moreover he thinks that he is helping the helpless women by giving shelter and food and security. He has six wives earlier before Laxmi comes to him. He

demands everything from them . He strictly orders them to do all duties done by a wife including sharing his bed. In the pretext of doing help , he is actually fulfilling all his sexual desires. He encashes their utter helplessness. But he always justifies himself.Talking to his friend Dawood he says" I have done every kind of thing, but never a dishonest act in my whole life. I womanise. I am a drunkard and I am ready to announce it to the whole world. Sure... with my hand on my heart. All the women I 've been to , the number of times I have visited them... in this bloody place the men are all the same. They slink out at night, on the sly. They 'd like us to believe that they are an innocent lot! Damn them all! Don't have the guts to do a thing openly! Damn it all, the body has its appetites!" [5] So it is very clear that he is doing everything to gratify his physical desires but he says it is not at all wrong. It shows his chauvinistic behaviour. He never bothered or cared for societal moral standards , he is always self righteous.

The base for indian society is family system. Sakharam has no respect and honour for marriage and family relations. He can easily send the woman out of his house without any regret and feeling of detachment. He believes that he treats the women better than the husbands do. His point of view is that the mode of relationship he believes in and practises better than the custom of marriage. He does not want to be a husband. He abhors the wife and husband entanglements of emotions and commitments. He says " its good thing I am not a husband... it's only a woman gets married then she goes wrong. She begins to feel , " now I have got my man"but the husband he is the proper swine![6] We see that nowhere he accepts the moral standards or customs or traditions of society. He is completely going against the accepted norms of society. He always tries to work out an individual philosophy andself morals. Whatever he does it is right in his sight. But very ironically he says to his friend Dawood " as long as one manages to be happy , without doing any harm , that's about all. But no dishonesty is allowed. If you sin – you must be ready to slap your face and say , "yes , I have sinned" [7] thus laxmi is exploited physically and psychologically by sakharam. At the time of the Ganapathi festival laxmi objects to sakahram 'smuslim friend Dawood participating in the aarti. Infuriated by her attitude he beats her up. There is a deterioration of their relationship. Inspite of her reluctance to leave ,sakharam sends laxmi out.

Later sakharam gets another woman called champa. He repeatesthe same formula. But champa is different , vibrant and earthy being.Sakharam is

not able to gain ascendency over her. Champa also deserts her husband when sakharam asks she says that he had ruined her life and he wanted to make a whore out of her. Sakharam is infatuated by champa. When champa is asleep in the kitchen , he approaches her but she resists him. But sakharam threatens to throw her out . " we made a deal. The woman I bring here has got to be awife to me. That's all fixed when I keep her here. There were seven and not one said no".[8]Then she comes to terms with he own helpless conditions but she submits to him only when she is in an inebriated condition by numbing her senses with liquor. I the words of kavithathyagi" lusty and gredysakharam partakes in life's pleasures and the woman in his company as a means of furthering his quotidian satisfaction"[9]Thus it is very clear and confirm that he brings woman only to satisfy his sexual desires. It's very apparent that woman is not treated as she ought to be by him. Thoughhe has no0 faith in being husband he always tries to control the women he brings to his house but his self set standards and values can not save him at the end of the play when he murders champa for her infidelity and unfaithfulness to him it is Laxmi who buries the dead bodyof champa and helps him to save himself.

As P.D..Dubbe said "Sakharam binder hits out at hypocrisy itself. Sakharambinder is not so much about women as their helpless position in society. It is about Sakharam the binder the cocksure male, so confident if his self made morality, so obvious to his society and it's norms, and so sure of his horizontal activities."[10] Thus the play deals with a character who has evolved hisown approach to life and marriage.

References

1. "Sakharam Binder",Vijay Tendulkar,Hind Pocket Books Publishers, New Delhi. 1973
2. Man woman relationship in Vijay Tendulkar's Sakharam Binder and Silence! The Court in Session, Quarterly English Journal, Vol. LXXXVI(no 1&2), Jan-Mar/Apr-Jun.2012
3. "Sakharam Binder",Vijay Tendulkar,Hind Pocket Books Publishers, New Delhi. 1973
4. Ibid
5. Ibid
6. Ibid
7. Ibid
8. Ibid
9. Ibid
10. Vijay Tenulkar's – Sakahram Binder, P.D.Dubbe, Indian Scholar vol.11 no 2, July 1989

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EFFECT OF BHAGAVAD-GITA DISCOURSE ON AHANKĀRA

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Bhagavad-Gita (BG) is one of the major Hindu scriptures, usually translated in English as 'the song celestial' because it is in the form of verses and it is essentially a spiritual teaching delivered by the protagonist Krishna who is a divine incarnate. . It is an integral part of the well-known Indian epic Mahābhārata, which is a depiction of the war between two kingdoms of ancient India. It is in the form of dialogue between Krishna who serves as a charioteer for the hero Arjuna who is a great warrior. When Arjuna, a brave and great warrior standing in the battle field of Kurukshetra to fight against Kouravas (who are his kith and kin) for the sake of righteousness, momentarily became despondent and wishes to withdraw from his duty, Krishna counsels Arjuna and motivates him to engage in warfare. The details of that counselling are provided in 700 versus spread over 18 chapters. In this process Krishna covers many topics that include 'sense of shame, social consequences, idea of heaven, impermanence of pain and pleasure, one's duty and obligations, righteousness, sin and virtue, distinction between actor and action, the doer and doership, nature of one's true identity, the distinction between empirical and transcendental self, and so on. Krishna also discusses individual differences in motivation and behaviour with reference to the concept of the triguna (sattva, rajas and tamas). He also explains to Arjuna how mind gets disturbed and the ways to overcome one's disturbed state of mind. He portrays the ideal state of mind in the concept of stitaprajna, and urges Arjuna to attain the same. Thus, BG has a rich content of psychological aspects related to counselling and psychotherapy.

In the Gita Krishna uses both worldly and transpersonal views in his intervention. When Arjuna saw the opponents he showed physical and mental turmoil and strongly rejected to fight against them with many reasons which were merely coming from his emotions. Krishna emphasizes on the reality of self and non self. It is one of the major aspects and there is an extensive discussion about one's identity, but it is not merely ego as modern psychology interprets. Krishna distinguishes between the spiritual or transcendental

identity and empirical identity. According to Gita, the spiritual Self, is supreme, is unborn, eternal, everlasting and primeval. Even though the body is slain, the soul is not. He who considers the soul to be capable of killing and he who takes it as killed are both ignorant. When there is no death to the Self, there is no point in mourning over the death of the body (BG-2:19, 20, 30). Weapons cannot cut it nor can fire burn it; water cannot wet it nor can wind dry it. For this soul is incapable of being cut, or burnt by fire; nor can it be dissolved by water and is undriable by air as well; this soul is eternal, omnipresent, immovable, constant and everlasting. Soul is unmanifest; it is incomprehensible and it is spoken of as immutable. "The unreal has no existence, and the real never ceases to be". (BG-2:16, 21, 23, 24, 25). This is the transpersonal vision of self highlighted in the BG as contrasted to the view of identity in modern psychology.

When actions are performed with the knowledge of the distinction between self (spiritual) and non self then one will not be bound by karma (action). According to the Gita and the Indian tradition, non-self includes everything else in the universe apart from the spiritual self known as atman. Therefore, even one's body-mind complex along with objective reality are included under non-self and is termed as anātman. The main goal of the Gita is to bring Arjuna from ajnāna (ignorance of this distinction between atman and anātman) to Jnāna (awareness of this distinction)). Ātman is imperishable. That) is our true nature and it has always existed and it will never cease to exist even in future. Ātman pervades the whole universe; and it is indestructible. Krishna teaches this reality to Arjuna to develop a proper perspective on one's true identity and engage in worldly affairs (BG-2:12, 17).

In the Indian tradition aha□kāra is derived from the word aham. Aham simply means a feeling of 'I', as in the question 'who am I?' (ko'ham). The Sanskrit term 'aham' is a nominative singular of the term asmad, a pronominal base from which several cases of the first personal pronoun are derived. Asmad refers to individual soul or embodied soul (Apte, 1988). In the Indian tradition, the experience of personal identity or the self-sense is designated in Sanskrit as aham, which is equivalent to 'I' of English language. But aham is a generic term and it has been used to understand the nature of one's self, at psychological, empirical and transcendental level (Salagame et al, 2005).

Generally self is attributed to bio-psycho-social aspects for ex, biological attribution like I am tall, I am short, I am fair, I am dark, I am strong etc;, psychological attributions like I am intelligent, I am clever, I am emotional, I am dull etc,; and social attributions like I am a father, I am a mother, I am a student, I am a leader etc.,. But according to the Indian tradition our true self is beyond all these attributions. Krishna makes use of this distinction between bio-psycho-social and spiritual self-sense in counselling Arjuna extensively.

Chinmayanand (1996) explains that individual is the subject who gains experiences of the world through the instruments of experiencing. Through the body, the person experiences the world of objects; through the mind, one experiences the world of emotions, and through the intellect, the world of ideas. When the subject identifies with the intellect, he becomes the thinker, experiencing the world of thoughts and ideas; when he identifies with the mind he becomes the feeler, experiencing the world of emotions and feelings; and when identifies with the body, he becomes the perceiver, experiencing the world of objects. Therefore each individual acts out the various roles of a perceiver, feeler and thinker as he seeks his happiness in the world of objects, emotions and thoughts.

According to the Gita all this is non-self and is the cause of all sufferings. One will be free from suffering when the true Self is realized and one is firmly established in the Self. In India, from ancient times people used to do many practices to get rid of their worldly sufferings viz., pray/worshipping God, attending spiritual discourses, visiting temples, giving to charity, etc. Even today these practices are performed by the people. Attending spiritual discourses is a very popular way of gaining insight into one's life and overcoming the turmoil of existence. In many parts of India discourses on Ramāyana, Mahābhārtha, Bhagavad-Gita, and others have served as group counselling to maintain the mental health both at the personal and societal level. It is a is a common feature such discourses happen throughout the year for short duration of three days to a long duration of 30 days.. Hence, the present study investigated the effect of Gita on various psychological aspects as a doctoral work. In the main study five tools were used viz., Mini-International Neuropsychiatric Interview (M.I.N.I) (Sheehan DV, et al., 1998), Vedic Personality Inventory (V.P.I) (David Wolfe, 1999), Ego-function Questionnaire (Kumar and Raj, 1999), aha□kāra Questionnaire (Kumar and Raj, 1999) and Self Expansiveness Level Form (S.E.L.F)

(Friedman, 1983). All the tests were translated into Kannada language and were administered. In this paper only the results pertaining to ''aha□kāra is reported and discussed.

METHOD

In the present study the data was collected from men and women who were attending, a month long Bhagavad-Gita discourse, delivered by a Hindu traditional scholar in Mamadapura village Gokak Taluk, Belgaum District. Pre-post assessment was conducted.

Details of the participants

A total of 306 persons consented to participate in this study and answered the five questionnaires, both before and after the Gita discourse. The data was collected one week before the commencement of the discourse and again at the end of the discourse. Out of these the data collected from 14 participants was omitted for final analysis. The remaining 292 participants were in the age range between 21 to 60 years. The participants consisted of 202 males (69.2%) (mean age is 33.95 and SD=11.180) and 90 females (30.8%) (mean age is 32.63 and SD=10.274). All of them could read, write and understand Kannada language. Participants' background was different in terms of marital status, education qualification, profession, religion and caste.

Ahankāra Questionnaire (Kumar and Raj, 1999). This questionnaire comprises 18 items to measure four core components of ahankāra viz., 'individuality', 'identification', 'agency' and 'separation'. ChronbachAlpha was used to estimate the reliability and the obtained value was 0.8550The descriptions of the components are as below (Raj and Kumar, 1999; Salagme, 2014).

Individuality

The essential nature of ahankāra is that it asserts 'I-ness'. ahankāra generates abhimana or self love in the individual. It individualizes all human experiences. ahankāra, through the creation of the sense of I and mine, pre-occupies the mind with whether we are better or worse, possess more or less, and have greater or lesser power than others. It is related to our sense of uniqueness.

Identification

Since the feeling of I and mine is inherent in ahankāra, the individual consciousness gets attached to objects and experiences and identifies with the body, mental abilities, social status etc. This leads to the development of likes and dislikes and as a result desire builds up. This desire leads to miseries.

Separation

When the sense of 'I' develops in the human being, naturally, a sense of 'not-I' also develops in him. As an individual grows, the boundary between the two rigidifies. This artificial polarity makes man a limited being. The 'I-ness' provides a sense of separation from the rest of the world. But when an individual frees himself from attachment to this needs, status etc., he develops the universal outlook; he develops a greater understanding and compassion towards other persons in society.

Agency

The very word ahankāra means 'I-making'; that is inherent in it is the feeling of agency, viz., I am the doer. This state occurs because the human being forgets that essentially he is a limitless being. This leads to the delusion that the limited self is all powerful. According to Upanishads this limited self is the source of miseries. According to the Samkhya system, the self, the pure consciousness, is the knower and experiencer, ahankāra is merely the apparatus for knowing. However, the pure consciousness and the individual consciousness exist at the same spot at the same time. When the individual consciousness realizes that he is really the witness and not forever the participant, the human being becomes free from misery. Gita summarizes that all suffering is caused by wrongly identifying with the ahankāra. The second chapter of the Gita mainly emphasizes on Self and non Self and the distinction between them and it teaches one should consider himself to be Ātman which is pure consciousness. It is hypothesized that listening or attending the Gita discourse the sense of I experienced with reference to the four components discussed above will reduce.

Scoring

A four point rating scale with the categories 'Always', 'Often', 'Sometimes' and 'Rarely' was used. In order to keep the relation between numerical values of the scores and the magnitude of ahankāra unidirectional,

it was assumed that high score would indicate high ahankāra and low score would indicate low ahankāra. Hence the items were scored with the values 4, 3, 2, 1 or 1, 2, 3, 4 (reverse scores) depending on the wordings of the items.

Analysis and Results

In this study RM MANOVA was used to analyse the data and the obtained results are discussed.

Table-1 Significant within subjects' effects

Gender, Marital Status, Education Qualification,	DF	MS	F	Sig
Tests	26	140058.291	7383.276	**.000**
Tests * gender	26	63.031	3.323	**.000**
Tests * Marital Status	26	49.890	2.630	**.000**
Tests * Education	52	20.701	1.091	.303
Tests * gender * Marital Status	26	55.493	2.925	**.000**
Tests * Gender * Education	52	15.246	.804	.843
Tests * Marital Status * Education	52	41.830	2.205	**.000**
Tests * Gender * Marital Status * Education	52	19.255	1.015	.444
Error(Tests)	7280	18.970		
Pre-Post	1	345.167	11.316	.001
Pre-Post * Gender	1	13.910	.456	.500
Pre-Post * Marital Status	1	196.702	6.449	.012
Pre-Post * Education	2	8.282	.272	.762
Pre-Post * Gender * Marital Status	1	98.772	3.238	.073
Pre-Post * Gender * Education	2	31.589	1.036	.356

Pre-Post * Marital Status * Education	2	111.498	3.655	.027
Pre-Post * Gender * Marital Status * Education	2	29.582	.970	.380
Error(Pre-Post)	280	30.503		
Tests * Pre-Post	26	115.469	6.113	**.000**
Tests * Pre-Post * Gender	26	52.469	2.778	**.000**
Tests * Pre-Post * Marital Status	26	40.887	2.164	**.001**
Tests * Pre-Post * Education	52	29.730	1.574	**.005**
Tests * Pre-Post * Gender * Marital Status	26	27.361	1.448	.066
Tests * Pre-Post * Gender * Education	52	31.122	1.648	**.002**
Tests * Pre-Post * Marital Status * Education	52	43.162	2.285	**.000**
Tests * Pre-Post * Gender * Marital Status * Education	52	22.399	1.186	.170
Error(Tests*Pre-Post)	7280	18.890		

Table-2 Significant between subjects effects (interaction between variables)

Source	DF	Mean Square	F	Sig.
Gender	1	1.044	.030	.862
Marital Status	1	85.590	2.479	.117
Education	2	80.854	2.341	.098
Gender * Marital Status	1	101.217	2.931	.088
Gender * Education	2	80.171	2.322	.100
Marital Status *Education	2	170.547	4.939	**.008**
Gender * Marital Status * Education	2	131.228	3.800	**.024**
Error	280	34.532		

Since there is significant difference in some areas in within subject effects and between subject effects as mentioned above it is inferred that there is a significant effect of the Gita discourse on the scores of the components of ahankāra, which is given in Table 3. .

Table-3mean and standard deviation of four components of ahankāra.

		INDIVIDUALITY				IDENTIFICATION				SEPERATION				AGENCY			
		PRE TEST		POST TEST		PRE TEST		POST TEST		PRE TEST		POST TEST		PRE TEST		POST TEST	
		M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
MARRIED MALE		12.24	1.96	12.39	2.1	13.06	2.54	13.19	2.12	9.83	1.67	10.03	2.09	10.25	2.13	10.4	2.2
	N	135				135				135				135			
UNMARRIED MALE		11.99	1.79	12.58	2.08	13.4	1.92	13.36	2.02	9.73	1.68	9.82	1.95	9.9	1.74	10.06	1.94
	N	67				67				67				67			
TOTAL MALE		12.16	1.9	12.45	2.09	13.17	2.36	13.25	2.08	9.8	1.67	9.96	2.05	10.13	2.01	10.29	2.12
	N	202				202				202				202			
MARRIED FEMALE		12.2	2.29	12.71	2.08	12.98	2.28	13.29	1.9	**10.16**	**1.94**	**9.86**	**1.85**	10.23	2.06	10.27	2.02
	N	56				56				56				56			
UNMARRIED FEMALE		13.03	2.19	13.29	2.17	**14.03**	**2.08**	**13.41**	**1.67**	9.09	2.21	9.24	1.76	**9.97**	**2.04**	**9.38**	**1.86**
	N	34				34				34				34			

TOTAL		12.51	2.28	12.93	2.12	**13.38**	**2.25**	**13.33**	**1.81**	**9.76**	**2.1**	**9.62**	**1.83**	**10.13**	**2.05**	**9.93**	**2**
FEMALE	N	90				90				90				90			
		12.23	2.05	12.48	2.09	13.04	2.46	13.22	2.05	9.93	1.76	9.98	2.02	10.25	2.1	10.36	2.14
MARRIED	N	191				191				191				191			
		12.34	1.99	12.8	2.12	**13.61**	**1.99**	**13.38**	**1.9**	9.51	1.89	9.62	1.9	**9.92**	**1.84**	**9.83**	**1.93**
UNMARRIED	N	101				101				101				101			
		12.27	2.03	12.60	2.11	13.23	2.32	13.28	2	9.78	1.81	9.86	1.99	10.13	2.02	10.18	2.08
TOTAL	N	292				292				292				292			

In the test of ***individuality***, total pre mean is 12.27 SD=2.03 and total post-test mean is 12.60 SD=2.11. So there is slight increase in post assessment results compared to the pre assessment results. In the test of ***identification***, total pre - test mean is 13.23 SD= 2.32 and total post- test mean is 13.28 SD=2.00. So there is slight increase in post assessment results compared to the pre assessment results. In the test of ***separation***, total pre-test mean is 9.78 SD=1.81 and post-test total mean is 9.86 SD=1.99. So there is slight increase in post assessment results compared to the pre assessment results. In the test of ***agency***, total pre-test mean is 10.13 SD=2.02 and post-test total mean is 10.18 SD= 2.08. So there is a slight increase in post assessment scores compared to the pre assessment scores in some participants.
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Discussion

This study examined the effect of Bhagavad-Gita discourse on the four components of ahankāra. Compared to pre discourse assessment scores, there is a slight increase in all components of ahankāra in post assessment, i.e. after Bhagavad-Gita discourse in some participants in certain groups. But when we consider the interaction between level of education, marital status and gender there is a slight decrease of the scores of the components. Hence, the findings in this study does not support the hypothesis that attending the discourse on Gita reduces the sense of I associated with the components of ahankāra in general.

The possible causes of non-significance could be(a) one month discourse may not enough to understand the concept of ahankāra; (b) the concept of ahankāra (self) is difficult to comprehend (c) living in the worldly life and experiencing it through the sense organs, mind and intellectual faculty, generally we believe this transitory world as the reality and hence we function with the self-no-self or subject-object duality and fail to appreciate the real or true self; and (c) the way discourse is delivered and the characteristics of the person who discourses can also contribute, if the self-non-self distinction is not focused during the discourse. By observing this we cannot conclude that the Gita has no effect on the sense of self, but there is need for more studies in this direction to come to a definite conclusion.

Reference

1. Chinmayanand (1996). *Gita's words of Guidance.* Mumbai. Central Chinmaya Mission Trust Sandeepany Sadhanalaya Saki Vihar Road-400072. India.
2. Friedman, H (1983). The Self Expansiveness Level Form: A conceptualization and measurement of a transpersonal construct. *Journal of Transpersonal Psychology 15.* 37-50
3. Friedman, H. MacDonald, D and Kumar, S. K. K (2004). Validation of the Self-Expansiveness level from with an Indian sample. *Journal of Indian Psychology*. 22 (special issue) 44-56.
4. Goyandaka, J (1999). *SrimadBhagavadgita.*Gorakhpur. Govinda Bhavana Karyalaya, Gita Press.
5. http://vaniquotes.org/wiki/Purpose_of_Bhagavad-gita
6. Kumar, S.K.K and Raj, A. (1999). Ahamkara and Ego-Functions among Meditators and Normals *Journal of Indian psychology*. 17, 1. 46-56
7. Kumar, S.K.K, et al (2005). Concept of Ahamkara: Theoretical and empirical analysis. In K. R. Rao & S. Marwaha (Eds.). *Towards a spiritual psychology*. New Delhi: Samvad India foundation.
8. Salagame K. (2014). Ego and aha· kāra: Self and identity in modern psychology and Indian thought, In Cornelissen M, Mishre.G, Verma S. (Eds) *Foundations and Applications of Indian Psychology.* Dorling Kindersley (India) Pvt. Ltd., licensees of Pearson Education in South Asia. 164-173
9. Sheehan DV *et al* (1998). The Mini-International Neuropsychiatric Interview (M.I.N.I): The development and validation of a structured diagnostic interview DSM-IV and ICD-10. *Journal of Clinical Psychiatry* 517-526
10. Wolf D (1999). A psychological analysis of three Gunas, *Psychological reports*, 84, 1379-139

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AN EXPERIMENTAL STUDY OF TEACHING ENGLISH THROUGH TRADITIONAL METHOD AND COMMUNICATIVE ELECTRONIC MEDIA AT SECONDARY LEVEL

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Introduction:

Educational Technology is playing conspicuous role in all sorts of teaching learning situations. In traditional learning situation the teacher tends to generate a charged atmosphere in the classroom situation by the mere application of the verbal skills with the help of text books. In the phase of target language learning, the second language teacher seeks to generate productive skills (speaking and writing) and receptive skills (listening and reading) among the learners by means of rendering adequate verbal exposure of the second language in the conventional method. But the skill development can be made more feasible if second language learning situation is manipulated by the relevant application of some audio-visual electronic media.

Objectives of the Study

Teaching a target language through some textual reading is probably the least effective endeavour in the sphere of second language teaching. Traditional teaching is generally operated inside the classroom situation in a hackneyed manner, whereby, the teacher maintains a connected discourse following the principles of grammar translation method without bothering how much the learners get activated in the target language process. Keeping this view in mind the investigator undertakes an experimental project to know-----

1. Whether the usage of specific technological application enhances the requisite degree of learning behaviour in terms of second language acquisition among the learners belonging to the secondary level under W.B.B.S.E.in the district of Birbhum
2. Whether the electronic teaching aids are more effective in concept attainment than the traditional mode of teaching English texts

3. Whether second language leaning with the proper use of audio-visual electronic media in classroom situation enhances the performances of the learners in language proficiency tests related to specific textual readings
4. Whether the attention and motivational factors to learn English get activated among the learners when they are taught with the help of technological devices.
5. Whether the appropriate use teaching materials enhances the performance of the low achievers and high achievers in English learning in comparison to teaching them through traditional method.

Review of Related literature

Means & Olson (1997) found that technology can support teacher's effort to engage students in long term complex projects by dramatically enhancing student motivation, encouraging greater collaboration, and giving students additional impetus to take on an advisory role. **Vigotsky** (1972) found that in shared learning resources the students and the teachers enjoy the facility of shared information wherever they are in school through television monitor**. Browse** (1986) reviewed research on learning from films and concluded that i) films are effective in teaching inquiry learning and problem solving, ii) low aptitude students tend to benefit more from films, iii) films can positively influence self concept. **West Laboratory** (1994) conducting review of current research and evaluation has determined that the integration of technology and telecommunication into education i) increases performances when interactivity is prominent, ii)improves aptitude and confidence –especially at risk students iii) can increases opportunities for student constructed learning iv) increases the preparation of students for solving any problems.

Statement of the Problem

The problem under the present study is entitled as:

"An Experimental Study of Teaching English through Traditional Method and Communicative Electronic Media at Secondary Level"

Terms Definitions

Traditional Method: The traditional method of teaching implies the strategy of teaching that employs grammar and translation as prime vehicle for

teaching any sort of second language texts. Here mother tongue is used as a point of reference to translate the meaning of the literary texts or vice versa.

Communicative Electronic media: The use of Computer, LCD projector are referred to here as the communicative media as they aim to develop the basic language proficiency in terms of listening speaking, reading and writing with the effective and relevant use of the electronic media. The use of these media accelerates the process of communicative competence by generating the learners' productive skills.

Hypotheses

In order the relative effectiveness of second language teaching with the help of technological devices in the form of audio-visual aids and second language teaching in the traditional method having no application of audio-visual teaching aids or electronic media, some null hypotheses are formulated. The null hypotheses state that there exists no significant difference between the achievement levels of two groups of pupils upon whom the two types of teaching strategies have applied experimentally separately. The following null hypotheses are formulated:

1) There exists no significant difference between the mean scores of the experimental group and the control group on pre-test.(**urban schoo**l)
2) There exists no significant difference between the mean scores of the low achievers of the experimental group and the control group on pre-test (**urban school)**
3) There exists no significant difference between the mean scores of the high achievers of the experimental group and control group on pre-test (**urban school)**
4) There exists no significant difference between the experimental group and the control group on post-test. **(urban school)**
5) There exists no significant difference between the mean scores of the low achievers of the experimental and control group on post-tests. (**urban schoo**l)
6) There exists no significant difference between the mean scores of the high achievers of the experimental and control group on post-test. (**urban school**)

7) There exists no significant difference between the mean scores of the experimental group and the control group on previous achievement tests. (**rural school**)

8) There exists no significant difference between the mean scores of the low achievers of the experimental group and control group on previous achievement test. (**rural school**)

9) There exists no significant difference between the mean scores of the high achievers of the experimental group and the control group on previous achievement tests. (**rural school**)

10) There exists no significant difference between the mean scores of the experimental group and the control group on post-test. (**rural school**).

11) There exists no significant difference between the mean scores of the low achievers of the experimental group and the control group on post-test. **(rural school)**

12) There exists no significant difference between the mean scores of the high achievers of the experimental group and the control group on post-test, (**rural school)**

5. Design of the Study

Keeping in mind the objectives of the Present research the researcher has devised the necessary design which comprises the following components:

I. Method of Study
II. Population of Study
III. Sample of the Study
IV. Sources of collection of data
V. Procedure for investigation and data collection
VI. Date treatment

5.1 .Method of Study

The present study has been planned and implemented under experimental method. It aims at enumerating the effectiveness the second language teaching with communicative electronic media in comparison with the traditional method of teaching the second language at secondary level classroom situation under West Bengal Board of Secondary Education. For the proper implementation of experimental design two schools, one from the rural backdrop and other from the urban backdrop have been selected. The two

schools have been taken from two different blocks of the Birbhum district. Class X has been chosen for the purpose of experimentation of the teaching methods.

5.2. Population of the Study

The two schools belonging to two different blocks, namely, Suri I, and Dubrajpur have been selected deliberately selected for the specified purpose of investigation. The school from the urban background is, Benimadhab Institution and The rural school is Jashpur High School. Thus the pupils of the two schools constitute the population of the present study.

5.3. Sample of the Study

The 10th class of the two schools have been fixed up for experimentation. Two sections of the 10th class of each schools comprising 30 students have been taken up for present study. Thus taken together total 120 students constitute the sample of the present study.

5.4.Sources of Collection of Data

In order to achieve of the present study The following **tools** were employed for collection of data:

1) Pre-test of the students of the urban school
2) The previous achievement records of the pupils of the rural school
3) The post-tests of both schools

The following scores will constitute the **data** for the present experiment

a) The scores of the pre-test of the 10th class students under urban schools
b) The scores of the previous achievement records of the10th class students belonging to rural school
c) The scores of the post-test of the 10th class students of the rural school
d) The scores of the post-test of the 10th class students of the urban school

5.5.1 Procedure for Investigation and Data Collection

As mentioned earlier, two sections of 10th class of an urban school and two sections of the 10th class of a rural school are definite backdrop for the present experimental research. A pre-test of the 10th class students of the urban school is taken. On the basis of the scores of the pre-test of the pupils of the said class of the urban school the pupils are equalized and they are divided into Experimental and Control group by using **pair random sampling technique.** Pupils of the rural students are also divided into Experimental and Control group on the basis of the previous achievement test by using the

same pair random sampling technique. It is to be mentioned at the outset that the number of pupils under each group is 30. The Soloman Four Group Design is selected as the proper design for the present research. The design is as follows:

1. Pupils are randomly assigned to four Groups (R)
2. Two groups will receive Experimental treatment (T)
3. Two groups will receive Control treatment (C)
4. One Experimental Group will receive a Pre-test (O_1)
5. One Control Group will receive a Pre-test (O_2)
6. All the four groups will receive Post-tests ($O_3O_4O_5O_6$)

5.5.2.Experimentation

After careful observation of the teaching learning situation of the Birbhum district two schools from two different blocks are selected. The rural school, namely, Jashpur High School, belong to Dubrajpur Block, whereas, Benimadhab Institution is the urban school belonging to Suri I block. Two English teachers, one belonging to rural school and one from urban school, having equal qualification are selected to teach the Experimental group and the Control group. The teachers were provided with necessary orientation regarding the following points on the use of the electronic teaching aids:

The use of **computer** as an instructional aid, the use of **LCD** projector, the use of **Power Point Presentation** in the classroom situation.

The following prose texts of the Learning English book for class X is selected to teach the students. 1**) Engine Trouble**, 2) **A Great National Hero**

The Experimental group is taught with the relevant use of the electronic media to help them gather concepts on the above mentioned texts. For the first text a movie on **Engine Trouble** of short duration taken from the Malgudi Days series is shown with the help of LCD projector. On the subsequent day a power-point presentation highlighting the conceptual domain and also the specific structural pattern of the said texts is made in order to help them retain and also to consolidate their conception on the said text. A documentary movie on Netaji Subhas Chandra Bose is shown to the pupils and the next day a power point presentation highlighting the sequence of the events as depicted in the said text is made before the pupils to crystallize their notion on the second text. The teacher here did not go through the text and explain verbally anything but after watching the movie the motivational

level of the pupils was so high that they feel themselves to go through the text in a mode of self learning. As a result their concepts formation gets geared up by the proper use of the teaching aids.

The Control Group, on the other hand, is taught without the application of the electronic teaching aids. The texts are taught using the principle of Grammar translation Method. The teacher taught the texts in a teacher-centric way by translating the English texts into mother tongue and pointing out the implied grammatical rules embedded in the structures of the texts. The pupils are taught in a passive manner.

Test Construction

After the experimentation of teaching comprising two weeks duration is over, a teacher-made post-test is taken to compare the effectiveness of the experimental method. The investigator constructed both the pre-test and post-test after a thorough of the techniques of the principles of test construction relevant sections of selected prose units. In addition, the consent of the class teacher and teaching experts were also weighed in the construction of the tests. Each test comprises50 multiple choice types items based on the selected prose units of 10^{th} class. While constructing the texts the dimensions of the language and structures are taken into consideration.

Reliability of the Test

Spearman-Brown Prophecy formula is used to determine the reliability of the pre-test and post-test. Here the reliability is estimated by comparing the halves of the pre-test and post-tests. In this way the reliability co-efficient is found to be 0.75.

Analysis of Data

Raw scores obtained from pre-tests, school record, and post-test were presented in a tabular form for the purpose of interpretation. For the manipulation of data the means, standard deviations, and differences of means were calculated for each group. Significances of difference between the mean scores of both the experimental and control groups on the variables of pre-test scores, school record scores and post-tests scores was tested at 0.05 level by applying T-tests. The Soloman Four group Design is employed for the treatment of the data. The symbolic representation of the SFGD is as follows:

Urban Backdrop

	Experimental	Control
High Achievers	Cell-1	Cell-2
Low Achievers	Cell-3	Cell-4

Rural Backdrop

	Experimental	Control
High Achievers	Cell-1	Cell-2
Low Achievers	Cell-3	Cell-4

H_0 1: There exists no significant difference between the mean scores of the experimental group and the control group on pre-test**.(urban school)**

Table-1:Significance of difference between the mean scores of Experimental and Control groups on pre-test.

Group	N	df	M	SD	SE_D	T-value
Experimental	30	29	55.34	12.38	3.32	0.59
Control	30	29	53.41	11.01		

Table 1 indicates that the difference of mean scores of the Experimental and Control Group is not significant at 0.05 level. Hence the null hypothesis is accepted so that both the groups could be treated as equal on the variable of pre-test.

$H_0$2: There exists no significant difference between the mean scores of the low achievers of the experimental group and the control group on pre-test (**urban school)**

Table 2: :Significance of difference between the mean scores of the low Achievers of the Experimental and Control groups on pre-test.

Group	N	df	M	SD	SE_D	T-value
Experimental	15	14	42.22	7.35	2.94	0.14
Control	15	14	42.62	7.51		

Table 2 reflects that the obtained t value is 0.14 which is less than the statistical table value i.e. 2.14 at 0.05 level. Thus the null hypothesis is accepted so that we can safely state that there exists no significant difference

between the mean scores of experimental and the control group on pre-test. Thus both the groups could be treated as equal.

$H_0$3: There exists no significant difference between the mean scores of the high achievers of the experimental group and control group on pre-test (**urban school)**

Table 3: Significance of difference between the mean scores of the High Achievers of the Experimental and Control groups on pre-test.

Group	N	df	M	SD	SE_D	T-value
Experimental	15	14	65.34	8.35	3.32	0.57
Control	15	14	63.41	8.51		

Table 3 reflects that the obtained t value is 0.57 which is less than the statistical table value i.e. 2.04 at 0.05 level. Thus the null hypothesis is accepted so that we can safely state that there exists no significant difference between the mean scores of the high achievers of the experimental and the control group on pre-test. Thus the high achievers of both the groups could be treated as equal.

$H_0$4: There exists no significant difference between the experimental group and the control group on post-test. (urban school)

Table-4: Significance of difference between the mean scores of Experimental and Control groups on post-test.

Group	N	df	M	SD	SE_D	T-value
Experimental	30	29	75.43	3.26	3.64	7.12
Control	30	29	55.67	3.12		

The table 4 exhibits that the obtained t value is 7.12 which is greater than the statistical table value which is 2.04 at 0.05 level. So we can assert that that there exists significant difference between the mean scores of the experimental and the control group on post-test. So the null hypothesis is rejected and we can say that the students of the experimental group have performed better since they were taught by the communicative electronic media.

$H_0$5: There exists no significant difference between the mean scores of the low achievers of the experimental and control group on post-tests. **(urban school)**

Table-5: Significance of difference between the mean scores of the low Achievers of the Experimental and Control groups on post--test.

Group	N	df	M	SD	SE_D	T-value
Experimental	15	14	64	4.71	0.87	6.28
Control	15	14	44	3.02		

The table 5 exhibits that the obtained t value is 6.28 which is greater than the statistical table value which is 2.04 at 0.05 level. So we can assert that that there exists significant difference between the mean scores of the low achievers of the experimental and the control group on post-test. So the null hypothesis is rejected and we can say that the low achieving students of the experimental group of the urban backdrop has performed better since they were taught by the communicative electronic media.

$H_0$6: There exists no significant difference between the mean scores of the high achievers of the experimental and control group on post-test. (**urban school)**

Table 6: Significance of difference between the mean scores of the High Achievers of the Experimental and Control groups on post--test.

Group	N	df	M	SD	SE_D	T-value
Experimental	15	14	82.24	5.12	3.28	4.02
Control	15	14	67.87	9.43		

The table 6 exhibits that the obtained t value is 4.02 which is greater than the statistical table value which is 2.04 at 0.05 level. So we can assert that that there exists significant difference between the mean scores of the high achievers of the experimental and the control group on post-test. So the null hypothesis is rejected and we can say that the high achieving students of the experimental group of the urban backdrop has performed better since they were taught by the communicative electronic media.

$H_0$7: There exists no significant difference between the mean scores of the experimental group and the control group on previous achievement tests. (**rural** school)

Table-7: Significance of difference between the mean scores of Experimental and Control groups on previous achievement test

Group	N	df	M	SD	SE_D	T-value
Experimental	30	29	53.24	14.11	3.54	0.14
Control	30	29	52.75	13.81		

Table 7 indicates that the difference of mean scores of the Experimental and Control Group of the rural backdrop is not significant at 0.05 level. Hence the null hypothesis is accepted so that both the groups could be treated as equal on the variable of pre-test.

$H_0$8: There exists no significant difference between the mean scores of the low achievers of the experimental group and control group on previous achievement test. (**rural** school)

Table-8: Significance of difference between the mean scores of the low Achievers of the Experimental and Control groups on previous achievement test

Group	N	df	M	SD	SE_D	T-value
Experimental	15	14	62.87	9.58	3.95	0.61
Control	15	14	61.66	8.26		

Table 8 reflects that the obtained t value is 0.61 which is less than the statistical table value i.e. 2.14 at 0.05 level. Thus the null hypothesis is accepted so that we can safely state that there exists no significant difference between the mean scores of the low achievers of the experimental and the control group on pre-test. Thus both the groups could be treated as equal.

$H_0$9: There exists no significant difference between the mean scores of the high achievers of the experimental group and the control group on previous achievement tests. (**rural** school)

Table-9: Significance of difference between the mean scores of the High Achievers of the Experimental and Control groups on previous achievement test

Group	N	df	M	SD	SE_D	T-value
Experimental	15	14	63.88	9.78	3.85	0.71
Control	15	14	62.97	8.36		

Table 9 reflects that the obtained t value is 0.71 which is less than the statistical table value i.e. 2.04 at 0.05 level. Thus the null hypothesis is

accepted so that we can safely state that there exists no significant difference between the mean scores of the high achievers of the experimental and the control group from the rural background on pre-test. Thus the high achievers of both the groups could be treated as equal.

$H_0$10: There exists no significant difference between the mean scores of the experimental group and the control group on post-test. (**rural** school)

Table-10: Significance of difference between the mean scores of the Experimental and Control groups on post-test

Group	N	df	M	SD	SE_D	T-value
Experimental	30	29	57.2	19.45	3.42	4.47
Control	30	29	55.06	12.77		

The table 10 exhibits that the obtained t value is 4.47 which is greater than the statistical table value which is 2.04 at 0.05 level. So we can assert that that there exists significant difference between the mean scores of the experimental and the control group on post-test. So the null hypothesis is rejected and we can say that the students of the experimental group have performed better since they were taught by the communicative electronic media.

H_0:11 There exists no significant difference between the mean scores of the low achievers of the experimental group and the control group on post-test. (**rural** school)

Table-11: Significance of difference between the mean scores of the low Achievers of the Experimental and Control groups on post- test

Group	N	df	M	SD	SE_D	T-value
Experimental	15	14	63	4.65	92	6.14
Control	15	14	43	2.98		

The Table 11 exhibits that the obtained t value is 6.14 which is greater than the statistical table value which is 2.04 at 0.05 level. So we can assert that that there exists significant difference between the mean scores of the low achievers of the experimental and the control group from rural background on post-test. So the null hypothesis is rejected and we can say that the low achieving students of the experimental group of the rural backdrop has

performed better since they were taught by the communicative electronic media.

$H_0$12: There exists no significant difference between the mean scores of the high achievers of the experimental group and the control group on post-test, (**rural** school)

Table-12: Significance of difference between the mean scores of the High Achievers of the Experimental and Control groups on post- test

Group	N	df	M	SD	SE_D	T-value
Experimental	15	14	85.64	2.87	2.99	0.39
Control	15	14	65.22	5.23		

The Table 12 exhibits that the difference between the mean scores of the experimental and control group on post test is not statistically significant at 0.05 level since the calculated value , i.e. 0.39 is less than the table value at 0.05 level. So the null hypothesis, "there exists no significant difference between the mean scores of the high achievers of the experimental group and the control group on post-test" is accepted, stating that high achievers of both the Experimental and Control group performed equally on post-test.

Results & Discussion

After systematic analysis of data the 12 hypotheses were experimentally verified and necessary results were drawn. The H_0 exhibits that there exists no significant difference between the experimental group and the control group on pre-test. From the hypothesis tests of $H_0$2 and $H_0$4 it was also found that there is no significant difference between the level of the high achievers of the experimental and control group on pre-test in case of the urban school and the low achievers of the both groups were also of the same level. When the experimental groups of both the rural and urban school were subject to specific treatments they exhibit significant better result than the respective control groups. Even the high achievers of experimental group showed better performance than the high achievers of the control group as an effect of the application of the new method of teaching with the help of communicative electronic media in case of the school situated at urban backdrop. Only the H_0 12 which states that there is no significance of difference between the mean scores of the high achievers of the experimental group and the control group on post-test of the students belonging to rural

backdrop, is accepted. This indicates that in the rural school, the experimental effect on the high achievers did not reach the desired level. However we can gather the general notion that the application of the communicative media in case of the English language teaching may yield better result than the application of the traditional method on students belonging to different educational backdrops

References

1. Choudhury, S. S. (1991). Teachers Attitude Towards School Television and its Relationship with Mass Media Behaviour and Job Satisfaction, Ph. D. Thesis University of Delhi, Delhi
2. Combs (2000). Assessing the role of Educational Technology in the Teaching and Learning Process: A Learned Perspective. Department of Education, Washington DC. USA.
3. CIET(1992). A Study on the Impact of ETV Programmes on the Children of Class IV and Class V in Sambalpur District Orrisa, NCERT, New Delhi.
4. Morris, I.1954.The Art of Teaching As a Living Language. London: Macmillan.
5. Gurray, P.1955.1982. Teaching English as a Foreign Language. London: Longman
6. Johnson, K. Communicative Syllabus Design and Methodology.

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JUVENILE JUSTICE: A RELOOK

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Crime has become universal phenomena. No nation, society, age group is any exception. Various commonsense questions are relevant to understand the nature of crime. Why do people commit crime? What action should be defined as criminal? How should offenders be dealt with? How can crime be reduced? What is the appropriate age for considering a person as criminal? These issues all arose considerable discussion and debate and an enormous amount of information has been produced in the attempt to measure and understand crime (Sabhapati, 2004).

The share of violent crimes in total IPC crimes during 2011 was 11.0% (which was reported as 10.9% in 2010). The proportion of IPC crimes committed against women towards total IPC crimes has increased during last 5 years from 8.8% in the year 2007 to 9.4% during the year 2011. 2.8% increase in human trafficking incidence was observed in 3,517 cases in 2011 as compared to 3,422 in 2010. An increase of 24.0% was reported in incidence of crime against Children in 2011 over 2010.

Juvenile delinquency under both IPC and SLL has increased by 10.5% and 10.9% respectively during the year 2011 over 2010. 63.9% of Juveniles apprehended under IPC were in the age group of 16-18 years during 2011.

Deviant behaviour among the children has posed a serious menace for every society since time immemorial. On the other hand, to check such type of deviant behaviour, every society had effective measures of social control through appropriate norms, value and laws. But irrespective of all these, violation or deviation from the set standard remained a matter of great concern for every society. So this phenomena of law violation or deviation from the set standards on the part of an adult is known as Crime but when such violation or deviation is undertaken by a youth under certain age it is called Juvenile Delinquency. (Kumar, 2003).

The word delinquency is derived from Latin word 'delinquere' comprising two parts – 'de' meaning 'away' and 'linquere' meaning 'to leave' or 'to abandon'. In origin the word referred to parents who neglected or abandoned their children. Today, it applies to children who indulge in wrongful activities. In India, the idea of juvenile delinquency was originally limited to the criminality of child offenders, particularly for the non-serious

property offences like theft, burglary and other minor crimes like rioting and ordinary breach of peace. Thus, non-criminal children in bad surroundings were excluded from the ambit of juvenile delinquency (Chauhan and Srivastava, 2010).

The statistics on Juvenile crimes published in the various volumes of 'Crimes in India' (2011) has been presented in Table 1.1 below:

Table – 1.1: Incidence and Rate Of Juvenile Delinquency Under IPC (2001-2011)

Sr. No.	Year	Incidence Of		Percentage of Juvenile Crimes to Total Crimes
		Juvenile Crimes	Total Cognizable Crimes	
1	2001	16509	1769308	0.9
2	2002	18560	1780330	1.0
3	2003	17819	1716120	1.0
4	2004	19229	1832015	1.0
5	2005	18939	1822602	1.0
6	2006	21088	1878293	1.1
7	2007	22865	1989673	1.1
8	2008	24535	2093379	1.2
9	2009	23926	2121345	1.1
10	2010	22740	2224831	1.0
11	2011	25125	2325575	1.1

Table – 1.2: Juvenile Delinquency (IPC) Under Different Crime Heads & Various

Percentage Changes in 2011 Over 2006

S. No.	Crime Head	Year					
		2006	2007	2008	2009	2010	2011
1	MURDER	605	672	743	844	679	888
2	ATTEMPT TO COMMIT MURDER	489 36	547 41	563 23	603 25	543 35	642 51
3	C.H. NOT AMOUNTING MURDER	656 0	746 0	776 0	798 0	858 0	1149 0
4		656 271 208 63 99	746 301 205 96 144	776 354 242 112 161	798 396 275 121 150	858 524 391 133 97	1159 760 600 160 134

5	RAPE	74	87	68	72	51	33
	CUSTODIAL RAPE	321	409	500	481	551	639
	OTHER RAPE	2675	2603	2702	2431	2271	2609
		5316	5606	5615	5253	4930	5320
		1072	1068	1319	1512	1457	1475
6	KIDNAPPING & ABDUCTION	4244	4538	4296	3741	3473	3845
7		988	1440	1574	1422	1081	1347
	I) OF WOMEN & GIRLS	15	40	53	17	28	24
8		94	111	135	108	134	161
	II) OF OTHERS	8	12	17	11	11	20
9		36	63	75	79	59	93
	DACOITY	3585	3810	4257	3646	3800	4096
10		60	70	68	87	57	93
	PREPARATION & ASSEMBLY FOR DOCOITY	488	476	560	474	546	573
		148	129	132	153	174	168
		219	302	239	284	238	322
		0	0	0	0	1	1
11	ROBBERY	163	108	165	165	211	157
12	BURGLARY	4742	5148	5755	6427	5861	5845
13	THEFT	**21088**	**22865**	**24535**	**23926**	**22740**	**25125**
14	I) AUTO THEFT						
15	II) OTHER THEFT						
16	RIOTS						
17	CRIMINAL BREACH OF TRUST						
18	CHEATING						
19	COUNTERFEITING						
20	ARSON						
21	HURT						
22	DOWRY DEATHS						
23	MOLESTATION						
24	SEXUAL HARASSMENT						
	CRUELTY BY						

	HUSBAND AND RELATIVES IMPORTATION OF GIRLS DEATH DUE TO NEGLIGENCE OTHER IPC CRIMES **TOTAL COGNIZABLE CRIMES UNDER IPC**						

Table 1.4 Juveniles Apprehended under IPC and SLL Crimes by age groups (2001-2011).

Sr. No.	Year	7-12 years	%age to total	12-16 years	%age to total	16-18 years	%age to total	Total apprehended
1	2001	3696	11.0	12729	37.9	17203	51.2	33628
2	2002	4488	12.5	13864	38.7	17427	48.7	35779
3	2003	3584	10.8	11687	35.1	18049	54.2	33320
4	2004	2107	6.8	12415	40.1	16421	53.1	30943
5	2005	1645	5.0	13090	40.1	17946	54.9	32681
6	2006	1595	5.0	12535	39.0	18015	60.7	34527
7	2007	1460	4.2	12114	35.1	20953	60.7	33642
8	2008	1281	3.7	12272	35.6	20954	60.7	33642
10	2010	927	3.1	10123	33.4	19253	63.5	30303
11	2011	1211	3.6	11019	32.5	21657	63.9	33887
	%age change in 2011 over 2001	-67.2		-13.4		25.9		0.8
	%age Change In 2011 Over 2010	30.6		8.9		12.5		11.8

With the help of data available from the statistic provided by 'Crime in India' 2010, it can be safely inferred that there are some specific characteristics shown by Juvenile Delinquency in India.

1. The delinquency rates are much higher than in boys than among girls i.e. girls commit less delinquent acts than boys. On the 30,303 juvenile apprehended under the IPC and 'Special and Local Laws' crimes in 2010, 5.1% were girls.
2. The delinquency rates tend to be highest in 16-18 age group, about 2/3 delinquent fall under this age group due to new definition of age of juvenile delinquency i.e. age of male juveniles is 18 years.
3. Majority of children, who are involved in Juvenile Crimes are living with parents and guardians. At the time of arrest in 2010, 81.0% of the delinquents were found living with their parents and guardians. This shows the role of family environment in Juvenile Delinquency.
4. Low Educational background is the prime attribute for delinquency. Out of the total juveniles involved in various crimes 6,6339 were illiterate and 11, 086 had education up to primary level. These two characteristics have accounted for 57.5% of the total juvenile arrested during the year 2010
5. Poor economic background is another important characteristic of juvenile delinquency. A large chunk of juveniles (62.6%) belong to poor families with meager income.

Sidhuraman (2013) reported that Indian Supreme Court issued notice to the Centre seeking its response to two Public Litigations pleading for quashing the Juvenile Justice Act, 2000 that lets minors involved in ghastly crimes go scot free and terrorize the society, particularly women. PILs filed by Chandigarh based Advocate Salil Bali and Delhi based writer, Shilpa Arora Sharma pleaded to strike down law that is soft on Juvenile offenders and Juvenile protection should be based on nature of crime with a special reference to the juvenile accused in Delhi gang rape case. Justice Verma Commission (2013) regarding the juvenile accused in Delhi gang rape case, the Justice J.S. Verma Commission has recently recommended that lowering the juvenile age from 18 years to 16 years is not warranted as was being demanded. Sood (2013) reported that Chief Justice of India Altamas Kabir said that present set of rules for juveniles were adequate in country. "The age at which one know the consequences what he/she is doing was set after a lot of deliberations." he said adding that juvenile age for boys initially was 16 and girls 18, which was subsequently changed. (Commented on reports that the juvenile allegedly involved in Delhi gang rape case could escape with the lighter sentence despite his brutality). Recently. Government of India has repealed and replaced the

Juvenile Justice Act, 2000 by new Juvenile Justice Act, 2014 in which the age of the juveniles have been lowered down to 16 years (Upneet Lalli, 2014).

In India, the Central Children Act, 1960 which was amended in 1978 defined the delinquent child as, a child who had been found to have committed an offence under the India Penal Code, 1860 or any other Act. The said Act defined the child as, a boy who had not attained the age of 16 years or a girl who had not attained the age of 18 years.

The Indian Penal Code exempts all children below 7 years of age from criminal responsibility. It also exempts children between the age of seven and twelve years from all criminal responsibility, who have not attained the sufficient maturity of understanding to judge the nature and consequences of their conduct under the Juvenile Justice (Care and Protection of Children) Act, 2000, Juvenile or child means a person who has not completed the eighteen years of age.

The term 'Juvenile Delinquency' has been used for various anti-social and undesired behaviours on the part of children. This anti-social behaviour signifies only misconduct in certain cases whereas in other cases it refers to a serious deviant behaviour like rape, murder, theft, dacoity and other criminal activities. Hence, delinquent behaviour ranges from waywardness to serious behaviour disorder, from minor infraction to blatant violations of law (Bhattacharya, 1994).

Merriam-Webster (2012) defined Juvenile Delinquency as conduct by a juvenile characterized by anti social behaviour that is beyond parental control and therefore subject to legal action.

Every society has treated its children in accordance with its religious, social and political beliefs. Several rapid socio-economic changes, such as the breakdown of feudalism, onset of industrialization, colonization, migration and urbanization, have influenced societies' attitudes towards children. These attitudes were also shaped by catastrophic events such as epidemic, wars, depressions and breakdown of the family system. Separate justice system for children is the most important goal of the Juvenile Justice System. This category of persons needs a different from of justice, separate court-rooms, separate detention centres and institutions to avoid contamination of juveniles by adult criminals, and separate sentencing guidelines to avoid the harsh penalties of adult sentencing.

According to law enforcers, there is rise in the number of juvenile criminal across the country and there is surge in crimes committed by minors boils down to behavioural issues. We need to know whether they are first time offenders or have a history of behaviour problems. Often their crimes are a result of impulse or aggression, owing to psychiatric problems and problematic childhood and majority of these youngsters are boys. They have a total disregard for social norms and rules and exhibit oppositional behaviour that lacks remorse (Talukdar, 2013). The importance of mass-media in influencing the behaviour of the child has also been emphasized by some experts. Television and films have the maximum impact on the viewers particularly on younger population because at the younger stage, the children always try to imitate what they have seen in film either on television or in cinema hall. Most of the films are full of violence and vulgarity which affect the innocent mind of child and lure child to indulge in anti-social activities.

Factors affecting Juvenile delinquency

The factors for child delinquency discussed in this are categorized into four groups: (1) individual, (2) family, (3) peer, and (4) school and community. A greater understanding of these factors could serve as the basis for future social policies designed to prevent and control delinquency. These factors are from the Study group's final report, Child Delinquents: Development, intervention, and service needs (Loeber and Farrington, 2001).

Individual Factors

Children's behavior is the result of genetic, social, and environmental factors. In relation to child delinquency, the Study Group defined individual as an individual's genetic, emotional, cognitive, physical, and social characteristics. These factors are frequently interrelated, yet the underlying mechanism of how this occurs is not fully understood.

- **Hyperactivity**

Studies have shown that restless, squirmy, and fidgety children are more likely to be involved in later delinquent behavior (e.g., Farrington, Loeber, and Van Kammen, 1990; Lynam, 1997). Clinical studies of hyperactive children have shown that they also are at high risk of delinquency (e.g., Loeber et al., 1995). For example, motor restlessness (hyperactive or hyperkinetic behavior), as rated by kindergarten teachers, was a better predictor of delinquency between ages 10 and 13 than lack of pro-social behavior and low anxiety (Tremblay et al., 1994). Another study concluded that hyperactivity

leads to delinquency only when it occurs with physical aggression or oppositional behavior (Lahey, McBurnett, and Loeber, 2000).

- **Emotional Factors**

How children express emotions, especially anger, early in life may contribute to or reduce their risk for delinquency. Many studies of delinquency have focused on the concepts of behavioral inhibition and behavioral activation. Behavioral inhibition (in response to a new stimulus or punishment) includes fearfulness, anxiety, timidity, and shyness. Behavioral activation includes novelty and sensation seeking, impulsivity, hyperactivity, and predatory aggression. The Study Group found evidence that high levels of behavioral activation and low levels of behavioral inhibition are risk factors for antisocial behavior. For example, high levels of daring behavior at ages 8–10 predicted convictions and self-reported delinquency before age 21, whereas measures of anxiety and guilt did not (Farrington, 1998).

- **Cognitive Development**

Evidence suggests that emotional and cognitive factors play an important role in the development of early delinquency and may affect the learning of social rules. In addition to traditional measures such as IQ, the Study Group considered cognitive development in terms of language development, social cognition, academic achievement, and neuropsychological function. Poor cognitive development and behavior problems during early childhood could explain the association between academic achievement and delinquency. For example, numerous studies have shown that delinquents' verbal IQs tend to be lower than their nonverbal IQs (e.g., Moffitt, 1993). Delinquents also have lower mean IQs and lower school achievement rates compared with non-delinquents (e.g., Fergusson and Horwood, 1995). Mild neuropsychological deficits present at birth can snowball into serious behavior problems by affecting an infant's temperament (Moffitt, 1993). These deficits can affect children's control of behaviors such as language, aggression, oppositional behavior, attention, and hyperactivity. Basic cognitive deficits may also be associated with impaired social cognitive processes, such as failure to attend to appropriate social cues (e.g., adults' instructions, peers' social initiations).

Family Factors

The primary risk factor may be a family risk factor such as lack of parental supervision; for others, it may be an individual risk factor such as a

diagnosis of attention deficit hyperactivity disorder (Cicchetti and Rogosch, 1996). Studies have shown that inadequate child-rearing practices, home discord, and child maltreatment are associated with early-onset delinquency (e.g., Derzon and Lipsey, 2000). In addition, the strongest predictors of early-onset violence include family size and parental antisocial history. Early temperamental difficulties in the child coupled with parental deficiencies that interfere with proactive parenting are also thought to be important in the development of early onset behavior problems. In looking at the clustering of family risk factors, one goal is to identify which combinations of risk factors promote early misbehavior because, more than likely, early misbehavior is the result of an accumulation of a number of factors. The number of risk factors and stressors and the length of exposure to them have a strong impact on child behavior (e.g., Tiet et al., 1998). A number of social adversities in families can affect children's delinquency. These factors include parenting, maltreatment, family violence, divorce, parental psychopathology, familial antisocial behaviors, teenage parenthood, family structure, and family size.

- **Parenting**

Inadequate parenting practices are among the most powerful predictors of early antisocial behavior (e.g., Hawkins et al., 1998). Compared with families in which the children do not have conduct problems, families of young children with conduct problems have been found to be eight times more likely to engage in conflicts involving discipline, to engage in half as many positive interactions, and, often unintentionally, to reinforce negative child behavior (Gardner,1987). Three specific parental practices are particularly associated with early conduct problems: (1) a high level of parent-child conflict, (2) poor monitoring, and (3) a low level of positive involvement (Wasserman et al.,1996). In the Pittsburgh Youth Study, the co-occurrence of low levels of monitoring and high levels of punishment increased the risk of delinquency in 7- to 13-year-old boys. Conversely, attachments to conventional parents and to society's institutions are hypothesized to protect against developing antisocial behavior (Hirschi, 1969).

- **Maltreatment**

Child maltreatment or abuse commonly occurs with other family risk factors associated with early-onset offending. Focusing specifically on the relationship between physical abuse and children's aggression, one study suggests that 20 percent of abused children become delinquent before reaching adulthood (Lewis, Mallouh, and Webb, 1989). Clearly, most physically abused

children do not go on to become antisocial or violent. However, one study that compared children without a history of abuse or neglect with children who had been abused or neglected found that the latter group accrued more juvenile and adult arrests by the age of 25 (Widom, 1989). Abused or neglected children also offended more frequently and began doing so at earlier ages.

- **Family Violence**

Witnessing domestic violence has been linked to increased child behavior problems, especially for boys and younger children (Reid and Crisafulli, 1990). Little is known about the age range in which children may be most vulnerable or how long associations persist. In most families, when the woman is battered, children are also battered (McKibben, De Vos, and Newberger, 1989). The co-occurrence of child abuse and witnessing domestic violence affects children's adjustment more than twice as much as witnessing domestic violence alone (Hughes, Parkinson, and Vargo, 1989). Other factors that impose additional risk in violent families include a high incidence of other behavior problems (e.g., alcohol abuse and incarceration) in male batterers. Maternal psychological distress may also expose children to additional indirect risks, such as the mother being emotionally unavailable to the children (e.g., Zuckerman et al., 1995).

- **Divorce**

Compared with boys whose parents remained married, boys whose parents divorced have been found to be more likely to have continuing problems with antisocial, coercive, and noncompliant behaviors through age 10 (Hetherington, 1989). As with many family factors, establishing the exact effects of divorce on children is difficult because of other co-occurring risks, such as the loss of a parent, other related negative life events (e.g., predivorce child behavior problems, family conflict, decrease in family income), and a parent's subsequent remarriage. When these related factors are considered, the impact of divorce itself is substantially less.

- **Parental Psychopathology**

High rates (as high as 45 percent) of parental antisocial personality disorder have been consistently reported for parents of boys (including preadolescents) referred for conduct problems (e.g., Lahey et al., 1988). Depressed parents show many parenting deficiencies associated with increased antisocial behaviors in children, such as inconsistency, irritability, and lack of supervision (Cummings and Davies, 1994). Parental psychopathology has been

linked to increased rates of psychiatric disorder among school-aged children (Costello et al., 1997).

- **Familial Antisocial Behaviors**

A long history of research demonstrates that aggressive behavior and criminality are more prevalent in some families than in others. Antisocial parents show increased levels of family conflict, exercise poorer supervision, experience more family breakdown, and direct more hostility toward their children. In addition, having an antisocial sibling also increases a child's likelihood of antisocial behaviors (e.g., Farrington, 1995). The influences of siblings are stronger when the siblings are close in age.

- **Teenage Parenthood**

Being born to a teenage mother has been found to strongly predict offending in adolescence (Conseur et al., 1997), although much of this effect may stem from the mother's own antisocial history and involvement with antisocial partners

(Rutter, Giller, and Hagell 1998).

- **Family Structure**

Many single parents are able to raise their children very well. However, children from single-mother households are at increased risk for poor behavioral outcome (Pearson et al., 1994), even controlling for the fact that single-mother households on average have fewer economic resources. Other factors could explain this relationship. Especially as compared with partnered women, single mothers have higher levels of residential mobility (McLanahan and Booth, 1989), and have fewer resources to monitor their children's activities and whereabouts. Each of these factors on its own contributes to increased levels of early childhood behavior problems.

- **Family Size**

The more children in a family, the greater the risk of delinquency. The Cambridge Study found that, compared with boys who had fewer siblings, boys who had four or more siblings by the age of 10 were twice as likely to offend, regardless of the parents' socioeconomic status (West and Farrington, 1973). These associations may be related to diminished supervision in larger families. Teens with high rates of offending compared to teens with lower rates of offending, were more likely to have siblings who also committed delinquent acts at a high rate. Some studies speculate that older siblings who are prone to

delinquent behavior may reinforce antisocial behavior in a younger sibling, especially when there is a close, warm relationship (Rowe and Gulley, 1992).

Peer factors

- **Association with Deviant Peers**

Association with deviant peers is related to increased co-offending and, in a minority of cases, the joining of gangs. According to data from the National Youth Survey on a representative sample of U.S. juveniles ages 11 to 17, the most frequent pattern was a child moving from association with non-delinquent peers to association with slightly deviant peers, and then on to commission of minor offenses. More frequent association with deviant peers and more serious offending followed, leading to the highest level of association with deviant peers (Elliott and Menard, 1996). In a study of Iowa juveniles, involvement in the juvenile justice system was highest for those who engaged in disruptive behavior and associated with deviant peers at a young age (Simons et al., 1994).

- **Peer Rejection**

The evidence that peer rejection in childhood is a risk factor for antisocial behaviors is relatively new compared with evidence about association with deviant peers. Recent findings have shown that young aggressive children who are rejected by peers are at significantly greater risk for later chronic antisocial behaviors than children who are not rejected, whether or not they were aggressive early on (Coie et al., 1995). Three factors combine to account for a juvenile's accelerated movement toward more serious offending in early adolescence (Bagwell et al., 2000):

- The high-risk juvenile's own antisocial tendencies.
- The negative consequences of peer rejection resulting from these tendencies.
- The resulting deviant peer associations.

Research suggests that peer influence has an impact on delinquency in two ways: (1) the initial offending of relatively late starters and (2) the escalation of serious offending among very early starters.

School and Community Factors

Few studies have addressed risk factors that emerge from young children's socialization in schools and communities (Catalano and Hawkins, 1996; Hawkins and Weis, 1985). It proposes that socialization involves the

same processes in producing either prosocial or antisocial behaviors. These processes include the following:

- Children's opportunity for involvement in activities and interactions with others.
- Children's degree of involvement and interaction with others.
- Children's ability (skills) to participate in these involvements and interactions.
- Reinforcements received from individuals for children's performance in involvements and interactions with others.

- **School Factors**

The failure to bond to school during childhood can lead to delinquency. In addition, as stated above, early neurological deficiencies, when combined with the failure of family, school, and community to provide adequate socialization, lead to early-onset offending that persists throughout life. A specific school factor for delinquency is poor academic performance. A meta-analysis of more than 100 studies examined the relationship between poor academic performance and delinquency and found that poor academic performance is related to the prevalence, onset, frequency, and seriousness of delinquency (Maguin and Loeber, 1996). Children with weak bonds (low commitment) to school, low educational aspirations, and poor motivation are also at risk for general offending and for child delinquency (Hawkins et al., 1998).

- **Community Factors**

Numerous risk factors for young children's offending lie within the community domain. For example, findings from studies of childhood exposure to family poverty have been very consistent. Children raised in poor, disadvantaged families are at greater risk for offending than children raised in relatively affluent families (Farrington, 1998). Disorganized neighborhoods with few controls may have weak social control networks that allow criminal activity to go unmonitored and even unnoticed (Elliott et al., 1996;). In addition, having ready access to weapons generally increases the risk for violence (Brewer et al., 1995). Some studies have shown that antisocial behaviors, such as violence, can be learned by viewing violence in the media. For example, children exposed to high levels of television violence at age 8 were found to be more likely to behave aggressively at that age and subsequently, up to age 30 (Eron and Huesmann, 1987). In addition, children of parents who frequently watched violence on television and showed

aggression were found to be more likely than other children to exhibit aggression and to prefer violent programs (Huesmann and Miller, 1994).

To sum up the discussion it could be concluded that the juveniles who indulge into crime are influenced by various social, emotional, developmental, environmental and personal factors. Legal side is only one aspect of it. Lowering down the legal age of the person to be considered as criminal and proceeding the crime to provide serious repercussions for the act does not guaranty reduction in the crime rate, rather the government and the society at large need to work on it from multiple angles to root out the basics of the problem that lies in different determining factors. Broader perspective is required to prevent the new generation from indulging in criminal practices.

References

1. Bagwell, C.L., Coie, J.D., Terry, R.A., and Lochman, J.E. (2000). Peer clique participation and social status in preadolescence. *Merrill-Palmer Quarterly,* 46, 280–305.
2. Bhattacharya, S.K. (1994). *Social problem in India, issues and perspectives*. Delhi: Regency Publications.
3. Brewer, D.D., Hawkins, J.D., Catalano, R.F., and Neckerman, H.J. (1995). Preventing serious, violent, and chronic juvenile offending: A review of evaluations of selected strategies in childhood, adolescence, and the community. In *A Source Book: Serious, Violent, and Chronic Juvenile Offenders,* edited by J.C. Howell, B. Krisberg, J.D. Hawkins, and J.J. Wilson. Thousand Oaks, CA: Sage Publications, Inc., pp. 61–141.
4. Catalano, R.F., and Hawkins, J.D. (1996). The social development model: A theory of antisocial behavior. In *Delinquency and Crime: Current Theories,* edited by J.D. Hawkins. New York, NY: Cambridge University Press, pp. 149–197.
5. Chauhan, B. & Srivastava, M. (2010). Sociological and criminological explanation of juvenile delinquency. *The Indian Police Journal,* 57(1), 37-41.
6. Cicchetti, D., and Rogosch, F.A. (1996). Equifinality and multifinality in developmental psychopathology. *Development and Psychopathology,* 8, 597–600.
7. Coie, J.D., Terry, R.A., Lenox, K., Lochman, J.E., and Hyman, C. (1995). Childhood peer rejection and aggression as predictors of stable patterns of adolescent disorder. *Development and Psychopathology,* 7, 697–713.
8. Conseur, A., Rivara, F.O., Barnowski, R., and Emmanuel, I. (1997). Maternal and perinatal risk factors for later delinquency. *Pediatrics,* 99, 785–790.
9. Costello, E.J., Farmer, E.M., Angold, A., Burns, B., and Erkanli, A. (1997). Psychiatric disorders among American Indian and white youth in Appalachia: The great smoky mountains study. *American Journal of Public Health,* 87, 827–832.
10. Cummings, E.M., and Davies, P.T. (1994). Maternal depression and child development. *Journal of Child Psychology and Psychiatry,* 35, 73–112.

11. Derzon, J.H., and Lipsey, M.W. (2000). The correspondence of family features with problem, aggressive, criminal, and violent behavior. Unpublished manuscript. Institute for Public Policy Studies, Vanderbilt University.
12. Elliott, D.S., and Menard, S. (1996). Delinquent friends and delinquent behavior: Temporal and developmental patterns. In *Delinquency and Crime: Current Theories,* edited by J.D. Hawkins. New York, NY: Cambridge University Press, pp. 28–67.
13. Eron, L.D., and Huesmann, L.R. (1987). Television as a source of maltreatment of children. *School Psychology Review,* 16, 195–202.
14. Farrington, D.P. (1995). The development of offending and antisocial behavior from childhood: Key findings from the Cambridge Study in Delinquent Development. *Journal of Child Psychology and Psychiatry,* 36, 929–964.
15. Farrington, D.P. (1998). Predictors, causes and correlates of male youth violence. In *Youth Violence,* 24, edited by M. Tonry and M.H. Moore. Chicago, IL: University of Chicago Press, pp. 421–447.
16. Farrington, D.P., Loeber, R., and Van Kammen, W.B. (1990). Long-term universal outcomes of hyperactivity-impulsivityattention deficit and conduct problems in childhood. In *Straight and Devious Pathways From Childhood to adulthood,* edited by L.N. Robins and M. Rutter. Cambridge, England: Cambridge University Press, pp. 62–81.
17. Fergusson, D.M., and Horwood, L.J. (1995). Early disruptive behavior, IQ, and later school achievement and delinquent behavior. *Journal of Abnormal child Psychology,* 23, 183–199.
18. Gardner, F.E.M. (1987). Positive interaction between others and conduct-problem children: Is there training for harmony as well as fighting? *Journal of Abnormal Child Psychology,* 15, 283–293.
19. Govt. of India. (2011). *Crime in India*: National Crime Record Bureau. New Delhi.
20. Hawkins, J.D., Errenkohl, T., Farrington, D.P., Brewer, D., Catalano, R.F., and Harachi, T.W. (1998). A review of predictors of youth violence. In *Serious and Violent Juvenile Offenders: Risk Factors and Successful Interventions,* edited by R. Loeber and .P. Farrington. Thousand Oaks, CA: Sage Publications, Inc., pp. 106–146.
21. Hawkins, J.D., and Weis, J.G. (1985). The social development model: An integrated approach to delinquency prevention. *Journal of Primary Prevention,* 6, 73–97.
22. Hetherington, E.M. (1989). Coping with family transitions: Winners, losers and survivors. *Child Development,* 60, 1–14.
23. Hirschi, T. (1969). *Causes of delinquency.* Berkeley, CA: University of California Press.
24. Huesmann, R., and Miller, L.S. (1994). Long-term effects of repeated exposure to media violence in childhood. In *Aggressive Behavior: Current Perspectives,* edited by L.R. Huesmann. Plenum Series in Social/Clinical Psychology. New York, NY: plenum Press, pp. 153–186.
25. Justice Verma Commission (2013). Panel says no to lowering juvenile age. *The Tribune,* Chandigarh. Jan. 24.
26. Kumar, D. (2003). *Juvenile Delinquency*. New Delhi: Solani Publishing House.

27. Lahey, B.B., McBurnett, K., and Loeber, R. (2000). Are attention-deficit/hyperactivity disorder and oppositional defiant disorder developmental precursors to conduct disorder? In *Handbook of DevelopmentalPsychopathology,* 2d ed., edited by A. Sameroff, M. Lewis, and S.M. Miller. New York, NY: Plenum Press, pp. 431–446.
28. Lahey, B.B., Piacentini, J.C., McBurnett, K., Stone, P., Hartdagen, S., and Hynd, G. (1988). Psychopathology in the parents of children with conduct disorder and hyperactivity. *Journal of the American Academy of Child and Adolescent Psychiatry,* 27, 163–170.
29. Lalli, U. (2014). Juvenile justice at crossroads. The Tribune, Chandigarh 8th August, 2014, page no. 9.
30. Lewis, D.O., Mallouh, C., and Webb, J. (1989). Child abuse, delinquency, and violent criminality. In *Child Maltreatment:Theory and Research on the Causes and Consequences of Child Abuse and Neglect,* edited by D. Cicchetti and V. Carlson. New York, NY: Cambridge University Press.
31. Loeber, R., and Farrington, D.P., eds. (2001). *Child delinquents: Development, intervention, and Service needs.* Thousand Oaks, CA: Sage Publications, Inc.
32. Loeber, R., Green, S.M., Keenan, K., and Lahey, B.B. (1995). Which boys will fare worse? Early predictors of the onset of conduct disorder in a six-year longitudinal study. *Journal of the American Academy of Child and Adolescent Psychiatry,* 34, 499–509.
33. Maguin, E., and Loeber, R. (1996). Academic performance and delinquency. In *Crime and Justice: A Review of Research,*vol. 20, edited by M. Tonry. Chicago, IL:University of Chicago Press, pp. 145–264.
34. McKibben, L., De Vos, E., and Newberger, E. (1989). Victimization of mothers of abused children: A controlled study. *Pediatrics,* 84, 531–535.
35. McLanahan, S., and Booth, K. (1989). Mother-only families: Problems, prospects, and politics. *Journal of Marriage and the Family,* 51, 557–580.
36. Merriam – Webster. (2012). *Merriam webster dictionary*. Available on 02/08/2014 at www.meriam-webster.com/ medical/juvenile delinquency.
37. Moffitt, T.E. (1993). The neuropsychology of conduct disorder. *Development and Psychopathology,* 5, 135–151.
38. Pearson, J.L., Ialongo, H.S., Hunter, A.G., and Kellum, S.G. (1994). Family structure and aggressive behavior in a population of urban elementary school children. *Journal of the American Academy of Child and Adolescent Psychiatry,* 33, 540–548.
39. Reid, W.J., and Crisafulli, A. (1990). Marital discord and child behavior problems: A meta-analysis. *Journal of Abnormal Child Psychology,* 18, 105–117.
40. Rowe, D.C., and Gulley, B. (1992). Sibling effects on substance abuse and delinquency. *Criminology,* 30, 217–233.
41. Rutter, M., Giller, H., and Hagell, A. (1998). *Antisocial behavior by young people.* New York, NY: Cambridge University Press.
42. Sabhapati, H. (2004). *Crime and Society*. New Delhi: Dominant Publisher and distributors,. pp.1.
43. Simons, R.L., Wu, C.I., Conger, R.D., and Lorenz, F.O. (1994). Two routes to delinquency: Differences between early and late starters in the impact of parenting and deviant peers. *Criminology,* 32, 247–276.

44. Sood, A. (2013). Juvenile laws adequate, says Justice Kabir. *The Sunday Tribune*, Feb,3.
45. Talukdar, T. (2013). Juvenile justice system abetting crimes by minors. *The Times of India*.
46. Tiet, Q.Q., Bird, H.R., Davies, M., Hoven, C.W., Cohen, P., Jensen, P.S., and Goodman, S. (1998). Adverse life events and resilience. *Journal of the American Academy of Child and Adolescent Psychiatry,* 37, 1191–1200.
47. Tremblay, R.E., Pihl, R.O., Vitaro, F., and Dobkin, P.L. (1994). Predicting early onset of male antisocial behavior from preschool behavior. *Archives of General Psychiatry,* 51, 732–739.
48. West, D.J., and Farrington, D.P. (1973). *Who becomes delinquent?* London, England: Heinemann.
49. Widom, C.S. (1989). The cycle of violence. *Science,* 244, 160–166.
50. Zuckerman, B., Augustyn, M., Groves, B.M., and Parker, S. (1995). Silent victims revisited: The special case of domestic violence. *Pediatrics,* 96, 511–513.

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INTRODUCING ETHICS AND CORPORATE SOCIAL RESPONSIBILITY

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CSR and Business Ethics: The concept of Social responsibility among businessmen, particularly in India, is not new and can be easily seen in the form of magnificient temples, high mosques, large *dharamsalas* and great educational institutions. Indian literature is full of incidents when businessmen have gone out of the way to help extract kings and societies out of crises. Many Indian businesses are known for staying one step ahead of the government, as far as the welfare of employees and societies is concerned. (Agarwal, 2008)

Business until the recent past was purely economic. Profit maximization was the watch word. Business responsibility to society vis-à-vis Corporate Social Responsibility were concepts not clearly defined. Since this study will attempt to highlight the relation between a business firms Social Responsibility and its inherent ethical system of governance, a background of business ethics is also called for. We can safely say that business ethics has no chronicled history but a background of the history that has come down through time is given below:

Business Ethics seems to have no history. It is one of the stranger aspects of a discipline that routinely invokes the names of long dead-philosophers that its history seems murky, unresolved. There appears to be a consensus that in some way Business ethics simply did not exist before the 1970s.(McMahon 2002)Others seem to think that philosophers such as Aristotle spent time expounding on the ethics of business. Cultural theorists may rightly believe that everything is of semiotic value and some moralists see ethical issues in all parts of daily life. Yet to describe business ethics in terms of universal experience is surely to rob the discipline of focus, not to mention to make it *sui generis* in terms of a broader history of ideas. (Bernard Mees, 2005)

Corporate social responsibility (CSR) can be defined as the "economic, legal, ethical, and discretionary expectations that society has of organizations at a given point in time" (Carroll and Buchholtz 2003, p. 36). The concept of corporate social responsibility means that organizations have moral, ethical, and philanthropic responsibilities in addition to their responsibilities to earn a fair return for investors and comply with the law. A traditional view of the corporation suggests that its primary, if not sole, responsibility is to its owners, or stockholders. However, CSR requires organizations to adopt a broader view of its responsibilities that includes not only stockholders, but many other constituencies as well, including employees, suppliers, customers, the local community, local, state, and federal governments, environmental groups, and other special interest groups. Collectively, the various groups affected by the actions of an organization are called "stakeholders." (Tim Barnet, n.d)

Webster's Collegiate Dictionary defines "ethics" as the "discipline dealing with what is good and bad and with moral duty and obligation," "a set of moral principles or value" or "a theory or system of moral values." Ethics assists individuals in deciding when an act is moral or immoral, right or wrong. Ethics can be grounded in natural law, religious tenets, parental and family influence, educational experiences, life experiences, and cultural and societal expectations. Ethics in business, or business ethics as it is often called, is the application of the discipline, principles, and theories of ethics to the organizational context. Business ethics have been defined as "principles and standards that guide behavior in the world of business." Business ethics is also a descriptive term for the field of academic study in which many scholars conduct research and in which undergraduate and graduate students are exposed to ethics theory and practice, usually through the case method of analysis.

Ethical behavior in business is critical. When business firms are charged with infractions, and when employees of those firms come under legal investigation, there is a concern raised about moral behavior in business. Hence, the level of mutual trust, which is the foundation of our free-market economy, is threatened. (James H. Conley, Revised by Tim Barnet, n.d)

Balachandran, Raja and Nair (2003) state the following criteria for ethical evaluation. Values are unique and personal. They differ from person to person. Nevertheless, there are certain criteria, which can be applied in

making evaluations about ethical dimensions in any situation or action. First the question of ethics arises only if the action in question affects another person. Where no other person is involved or affected in any manner there is no question of ethics. The concern for the other, to harm or to help, makes the difference. Words like 'Exploitation', 'Manipulation', 'Taking undue advantage' etc refer to unethical actions which can happen only when there is no concern for the other.

"In the corporate economies of the contemporary West, the market is a passive institution. The active institution is the corporation…an inherently narrow and shortsighted organization…The Corporation has evolved to serve the interests of whoever controls it, at the expense of whoever does not."(Duggar, 1989)

In his book *Organizing America;* Charles Perrow (2002) described the economic, political, and social forces that combined to create the legal revolution that launched organizations in the US. In it he describes how the power to form and run corporations passed from the state to the corporations themselves. This brings up the question, if the corporation is no longer legally required to serve the public interest, what are the divergent and material effects of this new form of organization?

In this introduction a reference is sought to what Clegg and Rhodes state as the core questions of their book. They are: 'What are the ethics of organizing in today's institutional environment and what does this mean for the practice of management and the organization of work and business?'(Clegg and Rhodes, 2006)

The 2005 survey of corporate social responsibility (CSR) reporting in the Asia-Pacific region by Chapple and Moon, shows that nearly three quarters of large companies in India present themselves as having a CSR policy in place. This compares, for instance, with only a quarter of similar corporations in Indonesia, just over 40 per cent in Thailand, and around 30 per cent for both Malaysia and the Philippines respectively, making India the "market" leader in the Asia-Pacific region (Chapple and Moon, 2005). In addition, Chahoud *et al.* (2007) observe that the business community (the Vaishyas) occupied a special place in ancient Indian society, providing relief in times of famine and other calamities, suggesting that CSR initiatives are nothing new for Indian society and also that they have always been conventionally philanthropic in nature. In contrast, however, Saha (2007) reports that at the time of writing in

2007, only five companies based in India had produced corporate responsibility reports that met the standards of Global Reporting Initiative Guidelines, which is the global benchmark for CSR reporting standards. And furthermore, she points to a lack of structure in place to underpin CSR initiatives in the vast majority of the large national corporations and SMEs operating in India, along with a poor understanding of the role of stakeholder engagement that has resulted in several recent high-profile cases that have generated considerable negative publicity (e.g. Tata Motors in West Bengal) (Planken, Sahu and Nickerson. 2010)

In recent years, industry has been increasingly recognized as partners to government and civil society in the process of social development. Corporates and business associations are making serious efforts to address social concerns, in addition to pursuing their business goals. Along with traditional philanthropy, there is a lively debate in developing countries on how corporates can adopt a proactive approach and involvement in development. There is clearly a marked trend, especially in India, towards Corporate Social Responsibility (CSR) or Corporate Social Development (CSD) being business rather than individual driven. CSR is generally seen as an activity that companies add, with varying degrees of integration, towards their mainstream activities.(Bhattacharya, 2006,80)

The Four Step Pyramid of CSR, as proposed by Carroll (1991), and adapted more recently by Visser (2007) for emerging economies, provided the theoretical underpinning in both studies. Carroll sees CSR campaigns as focusing on one or more of four sets of factors, each of which relates to the economic, legal, ethical and philanthropic obligations a business is said/considered to have to the society – or societies – in which it operates. In his original conception of a corporation's obligations (Carroll, 1979), businesses were said to primarily consider their profitability (economic obligation) and their responsibility to conduct business within the law (legal obligation). Once these two obligations have been achieved, then they would take ethical concerns into consideration (norm- imposed obligations) such as minimizing environmental impact, followed by philanthropic or "discretionary" concerns such as contributing corporate resources to the (local) community (Carroll, 1991). For *Fortune 500* corporations, researchers such as Esrock and Leitchy (1998), and more recently Maignan and Ralston (2002), have shown that variants exist in the emphasis placed on these four different platforms, as a result of factors such as sector, geographical location

and size. An example of this is the 2009 advertising campaign developed by Ogilvy for British Petroleum (BP) for the launch of BP ultimate, in which an ethical platform, i.e. consideration for the environment, was used to promote the corporation's products.

In proposing an adaptation of Carroll's original pyramid to accommodate the CSR initiatives pursued in emerging economies, Visser (2007) suggests that although economic responsibilities are given the most emphasis across the globe, philanthropy tends to be given the second highest priority in emerging economies like India, followed by legal and finally ethical responsibilities. (Planken, Sahu and Nickerson. 2010)

The last two decades have witnessed unprecedented excesses by businesses across the world. The recent financial crisis has brought into question the managerial greed and the manner in which incentive structures have perpetuated such dysfunctional behaviors in organizations. With rapid growth and internationalization of businesses, there is an urgent need to examine the vocabulary of business organizations to include deliberately sustainability, ethics, governance and corporate responsibility. (Srinivasan, Srinivasan and Anand, 2012)

It is critical for companies to not only develop CSR initiatives but to effectively communicate them as well. Fortunately, the oppurtunities for companies to highlight their social and environmental achievements are increasing. New Internet and print resources provide outlets for companies to publicise their positive initiatives to interested investors, consumers, employees, media and other stakeholders. (Agarwal,2008).

Business ethics has become a term lightly used and its meaning and significance can only be gauged when we see it against the backdrop of its need in terms of pressing issues called into note by occurrences, to quote one, the Enron fiasco that witnessed a new low in corporate ethics. The very question of whether a corporation is a moral agent, whether a corporation can be deemed as such and if so, can this be measured? There is a link between a corporation's moral side, which can be translated into ethics, and its role as a socially responsible agent of society, which will be the highlight of this study.

Ethics has become big business. But have businesses become ethical? This is a central question in today's context. Large scale corporate collapses; dishonest business dealings, corruption, and worker exploitation all engender

heated debates. Managing ethics is critical in an era characterized by unprecedented corporal power and myriad competing ethical traditions. (Stewart R. Clegg and Carl Rhodes, 2006.)

'Business ethics' seems to permit a set of activities/choices which, within the domain of commerce and economics, can pass of as ethical, even though from a wider human perspective they may not. (Chakraborty, S.K, 1995)

From the examples of cases like 'green washing' in corporates, we have seen that even unethical business houses engage in CSR activities but the connection between an ethical business organisation and resultant Social Responsibility is what this study will aim to prove.

Thus, we can safely surmise that ethics plays a major role in decisions related to CSR. The more ethical a business organisation, the more its participation in CSR activities. This leads us to the ground that ethics and CSR are two sides to the same coin.

References:

1. Agarwal, S.K, (2008) Corporate Social Responsibility in India, Response Books: 11
2. Barnet, T. (n.d), Encyclopedia of Business 2nd edition retrieved from: http://www.referenceforbusiness.com/management/Comp-De/Corporate-Social-Responsibility.html#ixzz2ShRitHtq
3. Bernard Mees, RMIT University (2005) Retrieved from: hhttp://www.academia.edu/1011891/Business
4. ethics-from-a historical-perspective.
5. Bhattacharya, D (2006), Corporate Social Development-A Paradigm Shift, Concept Publishing: 80.
6. Clegg S.R and Rhodes C. (2006), Management Ethic: Contemporary Contexts, Routledge
7. Conley, J. H., Revised by Tim Barnet,(n.d) retrieved from: http://www.referenceforbusiness.com/management/Em-Exp/Ethics.html#ixzz2Shkukeyd
8. Duggar, W.M (1989). Corporate Hegemony, Westport, CT: Greenwood Publishing

9. Ferrell, O.C., John Fraedrich, and Linda Ferrell. Business Ethics. Boston, MA: Houghton Mifflin Company, 2002: 57.
10. Planken B, Sahu S and Nickerson C, (2010) "Corporate social responsibility communication in the Indian context". Journal of Indian Business Research, Vol. 2 No. 1, Emerald Group Publishing Ltd.
11. Srinivasan P, Srinivasan V and Anand R V, IIMB,(2012) Working Paper 362, retrieved from: http://www.iimb.ernet.in/research/working-papers/status-ethics-corporate-governance-csr-and-environment-education-business-schools-ind/

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EMPOWERING WOMEN THROUGH EDUCATION

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Introduction

"Women are less likely to secure favorable outcomes for them in household decision making process. Socio-economic development is not possible without participation and empowerment of rural downtrodden women" - Dr. Amartya Sen, Noble Laureate in Economics Women's role in economic development, in most countries of the world, cannot be undermined. Although women constitute almost half of the total population of the world, their social, economic and political status is lower than that of men and they are subjected to the tyranny and oppression of a particular order for centuries and de facto even today. They are customarily expected to confine themselves to household environs and play a passive role as daughters, daughters-in-law, wives and mothers. They are typically considered as weaker than men. This attitude has constrained their mobility and consequently lack of opportunities for the development of their personalities. Women's empowerment is the process by which women negotiate a more equitable distribution of power , a greater space in the critical decision making processes in the home ,in the community and in the economic and political life. The aim of empowerment of women is the fuller and wholesome development of both men and women. Empowerment of women is anti-men. It is against patriarchy. Changes in law pertaining to marriage , property, sexual harassment ,dowry, rape and other forms of violence, so as to bring in laws favouring or supporting women's empowerment are necessary but not enough. Enabling women to actually access to the benefits of appropriate laws is the key task of the empowerment process.

EMPOWERMENT: CONCEPT AND ITS MEANING

Empowerment can be viewed as means of creating a social environment in which one can make decisions and make choices either individually or collectively for social transformation. It strengthens the innate ability by way of acquiring knowledge, power and experience (Hashemi Schuler and Riley, 1996). Empowerment emphasizes not only increasing the

power of the individual but also the quality of life for the individual, the efficiency and autonomy of the individual. Empowerment has several other dimensions like social, economic, psychological and political aspects. Empowerment refers to increasing the spiritual, political, social or economic strength of individuals and communities. It often involves the empowered developing confidence in their own capacities.

Empowerment is probably the totality of the following or similar capabilities:

- Having decision-making power of their own.
- Having access to information and resources for taking proper decision.
- Having a range of options from which you can make choices (not just yes/no, either/or.)
- Ability to exercise assertiveness in collective decision making
- Having positive thinking on the ability to make change
- Ability to learn skills for improving one's personal or group power.
- Ability to change others' perceptions by democratic means.

Meaning of Women Empowerment : Women Empowerment means to empower women in all aspects of their identity. It is about empowering women to let them take their own decisions. They must be free to be the way they want to be. Empowered women will have better position and better status in the society. Women's empowerment is very essential for the development of society. Empowerment means individuals acquiring the power to think and act freely, exercises choice and fulfill their potential as full and equal members of society. Dr. Ambedkar tried to break down the barriers in the way of advancement of women in India. He laid down the foundation of concrete and sincere efforts by codifying the Common Civil Code for the Hindus and the principle is capable of extension to other sections of the Indian society. Besides, he also made provision in the Constitution to ensure a dignified social status to women. He, by codifying Hindu Law in respect of marriage, divorce and succession rationalised and restored the dignity of women. Empowerment of women needs to begin with her participation in different spheres of life. Education is a great determinant in this regard. To achieve empowerment women have to be educated to be aware of their rights and privileges in a modern society. It is education which can bring about awareness in them related to their social status, injustice and differentiation meted out to them. Besides, economic independence is a major factor which can contribute in empowering women. India in the very beginning realised this need. Educational attainment and economic participation are they key constituents in ensuring the empowerment of women. Educational attainment is essential

for empowering women in all spheres of society, for without education of comparable quality and content given to boys and men, updated with existing knowledge and relevant to current needs, women will be able to have access to well-paid formal sector jobs and advance with men. The economic empowerment of women is a vital element of strong economic growth in any country. Empowering women enhances their ability to influence changes and to create a better society. In India, the empowerment process has already begun. We are now witnessing a steady improvement in the enrollment of women in schools, colleges and even in profession institutes. The empowerment of women is one of the central issues in the process of development of countries all over the world. The International Women's Day celebrated on 8th march every year has become a day of demonstration for equal opportunity and solidarity. But the question arises how relevant is celebration of Women's Day in view of the fact that their position in the society has not changed much. They are still treated as the 'weaker sex' who needs to be protected entire life-be it by her father, husband or son. The 'New Age Women' and the 'Women of Substance' in true terms are just words in books. Women and men are different in four manners. They think and act differently in some given conditions. Men are egoist, arrogant, assertive and dominate. Men and women have their specific areas of strengths and weaknesses but understanding is the mandatory. If they understand each other they can have better relationship. But from the long time, the women on this earth were treated as a sort of thing. Her place in this society was not like other human being. She has no rights even she cannot move nor does anything at her will. In Hindu Shasta's, she has been branded just like animals. 'Great poet of Hindi-"Tulsi Das" said in Ramayan 'Dhol, Ganwar, Shudra, Pashu, Naari-Ye Sab Tadan Ke Adhikari', according to this statement one can easily understand that what status has been granted to our mothers. There is not only one example; we have many examples of this type.

Economic Empowerment of women:

Poverty Eradication: Since women comprise the majority of the population below the poverty line and are very often in situations of extreme poverty, given the harsh realities of intra-household and social discrimination, macroeconomic policies and poverty eradication programmes will specifically address the needs and problems of such women.

1. In order to enhance women's access to credit for consumption and production, the establishment of new, and strengthening of existing micro-credit mechanisms and micro-finance institution will be undertaken so that the outreach of credit is enhanced.
2. Women's perspectives will be included in designing and implementing macro-economic and social policies by institutionalizing their participation in such processes.
3. In view of the critical role of women in the agriculture and allied sectors, as producers, concentrated efforts will be made to ensure that benefits of training, extension and various programmes will reach them in proportion to their numbers.

Social Empowerment of Women:

Education: Equal access to education for women and girls will be ensured. Special measures will be taken to eliminate discrimination, universalize education, eradicate illiteracy, create a gender-sensitive educational system, increase enrolment and retention rates of girls and improve the quality of education to facilitate life-long learning as well as development of occupation/vocation/technical skills by women.

Health: A holistic approach to women's health which includes both nutrition and health services will be adopted and special attention will be given to the needs of women and the girl at all stages of the life cycle. The reduction of infant mortality and maternal mortality, which are sensitive indicators of human development, is a priority concern.

Nutrition: Intra-household discrimination in nutritional matters vis-à-vis girls and women will be sought to be ended through appropriate strategies. Widespread use of nutrition education would be made to address the issues of intra-household imbalances in nutrition and the special needs of pregnant and lactating women.

Violence against women: All forms of violence against women, physical and mental, whether at domestic or societal levels, including those arising from customs, traditions or accepted practices shall be dealt with effectively with a view to eliminate its incidence.

The importance of women empowerment is to be spread across all areas. An awareness campaign must be carried out in regard to issues like violence against women whether be it domestic violence against women **or** discrimination against women**.**

Women from rural India have as much capabilities as much women from urban areas does. It is just that they do not have much entrepreneurial knowledge. There must be opportunities provided to the rural women and taught about Entrepreneurship.

Women in India feel proud to display that they are well protected and pampered by their husbands without realizing that they are making themselves helpless. Such women's economic literacy is so low that they cannot play any role in family's decision regarding family's budget, savings and investments. To such women, the national budget discussion is for men only and soap operas are for them. Such women suffer a lot if something untoward happens to their husbands. This type of extreme dependency is not good for the development of women. Women should remember that they are also rational, intelligent and thinking human beings. Dependent women are not empowered women. If modern women think that they are empowered, it's a myth for them. Empowerment means to inspire women with he courage to break free from the chains of limiting beliefs, patterns and societal or religious conditions that have traditionally kept women suppressed and unable to realize their true beauty and power.

Need for women empowerment

Women represent 50 per cent of the world's population, produce half the world's food supply, account for 60 per cent of the working force, contribute upto 33.3 per cent of the official labour force, perform nearly 66.6 per cent of all working hours, receive 10 per cent of world economy but, surprisingly own less than one per cent of world's real estate. These data apparently justify that there is a need for Women Empowerment which shall be achieved only through providing opportunities and rights to basic civic amenities, education, equal wages; right to question, fight against violence and injustice, make decision and express themselves. Hence, there is an urgent necessity to improve the status of women by well-conceived, planned development programmes which would have active community participation. Empowerment in women should take place from within herself, it cannot be enforced by outer source. Women should exercise their rights to speak out on their own behalf. However, institutions such as NGOs and government agencies could support the process that increase women's self-confidence, develop their self-reliance, and help them to set their own agendas.

National Policy for Empowerment of Women

Realising the need to improve the status of women, a national policy for empowerment of women was adopted by the Union Government in 2001 with the ultimate objective of ensuring womentheir rightful place in the society. The policy recognised the need to empowering them as agents of socio-economic change and development. The national policy identifies the causes of gender inequality, which are related to the social and economic structure.

The objectives of the national policy for the empowerment of women include:

1. Creating an environment through positive economic and social policies for full development of women to enable them to realise their full potential.
2. The dejure and defacto enjoyment of all human rights by women on equal basis with men in all spheres -political, economic, social, cultural and civil.
3. Equal access to participation and decision making in social, political and economic life of the nation.
4. Maintaining a gender perspective in the development process.
5. Equal access to healthcare, quality education at all levels, care and vocational guidance, employment and equal remuneration for equal work on par with men.
6. Strengthening of the legal system, aims at elimination of all forms of discrimination against women.
7. Changing social attitudes and community practices by active participation and involvement of both men and women.
8. Elimination of discrimination and all forms of violence against women and girl child, and
9. Building and strengthening partnerships with civil society particularly women's organisations.

Women empowerment through education

"Education is one of the most important means of empowering women with the knowledge, skills and self-confidence necessary to participate fully in the development process."

—ICPD Programme of Action, paragraph 4.2

Education is important for everyone, but it is especially significant for girls and women. This is true not only because education is an entry point to other opportunities, but also because the educational achievements of women

can have ripple effects within the family and across generations. Investing in girls' education is one of the most effective ways to reduce poverty. Investments in secondary school education for girls yields especially high dividends.

Girls who have been educated are likely to marry later and to have smaller and healthier families. Educated women can recognize the importance of health care and know how to seek it for themselves and their children. Education helps girls and women to know their rights and to gain confidence to claim them. However, women's literacy rates are significantly lower than men's in most developing countries.

Education has far-reaching effects

The education of parents is linked to their children's educational attainment, and the mother's education is usually more influential than the father's. An educated mother's greater influence in household negotiations may allow her to secure more resources for her children.

Educated mothers are more likely to be in the labour force, allowing them to pay some of the costs of schooling, and may be more aware of returns to schooling. And educated mothers, averaging fewer children, can concentrate more attention on each child.

Besides having fewer children, mothers with schooling are less likely to have mistimed or unintended births. This has implications for schooling, because poor parents often must choose which of their children to educate.

The Role of Education in the Empowerment of Women

"If you educate a man you educate an individual, however, if you educate a woman you educate a whole family. Women empowered means mother India empowered".---PT. JAWAHARLAL NEHRU

Women constitute almost half of the population in the world. But the hegemonic masculine ideology made them suffer a lot as they were denied equal opportunities in different parts of the world. The rise of feminist ideas has, however, led to the tremendous improvement of women's condition through out the world in recent times. Access to education has been one of the most pressing demands of theses women's rights movements. Women education in India has also been a major preoccupation of both the government and civil society as educated women can play a very important role in the

development of the country. India is poised to emerge as one of the most developed nations by 2020, more literate, knowledgeable and economically at the forefront. No doubt, women will play a vital role in contributing to the country's development. Women power is crucial to the economic growth of any country. In India this is yet to meet the requirements despite reforms. Little has been achieved in the area of women empowerment, but for this to happen, this sector must experience a chain of reforms. Though India could well become one of the largest economies in the world, it is being hindered due to a lack of women's participation.

Although in the Vedic period women had access to education in India, they had gradually lost this right. However, in the British period there was revival of interest in women's education in India. During this period, various socio religious movements led by eminent persons like Raja Ram Mohan Roy, Iswar Chandra Vidyasagar emphasized on women's education in India. Mahatma Jyotiba Phule, Periyar and Baba Saheb Ambedkar were leaders of the lower castes in India who took various initiatives to make education available to the women of India. However women's education got a fillip after the country got independence in 1947 and the government has taken various measures to provide education to all Indian women. As a result women's literacy rate has grown over the six decades and the growth of female literacy has in fact been higher than that of male literacy rate. While in 2001 only 54.16% of Indian women were literate, by the end of 2011 65.46% female were literate. The growth of female literacy rate is 11.30% as compared to 6.29 % of that of male literacy rate. Women education in India plays a very important role in the overall development of the country. It not only helps in the development of half of the human resources, but in improving the quality of life at home and outside. Educated women not only tend to promote education of their girl children, but also can provide better guidance to all their children. Moreover educated women can also help in the reduction of infant mortality rate and growth of the population.

Women Empowerment is a global issue and discussion on women political right are at the fore front of many formal and informal campaigns worldwide. The concept of women empowerment was introduced at the international women conference at NAROIBI in 1985. Education is milestone of women empowerment because it enables them to responds to the challenges, to confront their traditional role and change their life. So that we can't neglect the importance of education in reference to women empowerment India is

poised to becoming superpower, a developed country by 2020. The year 2020 is fast approaching; it is just 7 year away. This can became reality only when the women of this nation became empowerment. India presently account for the largest number no of illiterates in the world. Literacy rate in India have risen sharply from 18.3% in 1951 to 74.04% in 2011 in which enrolment of women in education have also risen sharply 7% to 65.46%. Within the framework of a democratic polity, our laws, development policies, plan and programmes have aimed at women's advancement in difference spheres. From the fifth five year plan (1974–78) onwards has been a marked shift in the approach to women's issues from welfare to development. In recent years, the empowerment of women has been recognized as the central issue in determining the status of women. The National Commission of Women was set up by an Act of Parliament in 1990 to safeguard the right and legal entitlements of women. The 73rd and 74th Amendments (1993) to the constitution of India have provided for reservation of seats in the local bodies of panchayats and Municipalities for women, laying a strong foundation for their participation in decision making at the local level. In Asia, India has the lowest rates of female literacy. This is attributed to the fact the country has a biased outlook towards the education of women. The Indian society feels that a woman is a liability who will one time get married and will not contribute the economic and social development of the family. The society perceives a woman as somebody who cannot do other duties apart from her traditional duties of cooking and house keeping. As a result, the society considers home training more important as compared to formal education. Another contributing factor is the rapid growth of the population. Most Indian households have a number of children whose needs are much higher than their earning capacity. This leads to the neglect of the girl education and put more emphasis on the education of the boy child. In this instance, marriage is taken more seriously as opposed to education hence a number of Indian girls are married at a younger age. This becomes as an impediment in the education of the Indian woman. Educating an Indian woman creates a vital opportunity for the social and economic development of India. An educated Indian woman will yield a positive impact in the Indian society by contributing positively to the economy of both the country and the society. An educated woman reduces the chances of her child dying before the age of five. The chances of controlling the population are high as an educated woman is likely to marry at a later age as opposed to uneducated woman. The government has made it mandatory for an Indian child between the ages of six to fourteen years to attend school. In addition, the government has availed free

food especially lunch across the country. Overall; educating a woman leads to the progression and development of the family in most instances.

Conclusion

According to the Country Report of the Government of India, "Empowerment means moving from a weak position to execute a power." Education of women in the education of women is the most powerful tool of change of position in society. Education also brings a reduction in inequalities and functions as a means of improving their status within the family. To encourage the education of women at all levels and for dilution of gender bias in providing knowledge and education, established schools, colleges and universities even exclusively for women in the state. To bring more girls, especially from marginalized families of BPL, in mainstream education, the government is providing a package of concessions in the form of providing free books, uniform, boarding and lodging, clothing for the hostilities midday meals, scholarships, free circles and so on.

References

1. Agarwal (2001). "Empowerment of Rural Women in India", Social Welfare, Vol.48, No.4, July
2. Apte, J.S. (1995). Education and Women's Empowerment. Indian Journal of Adult Education, 56, July-September.
3. Bhasin (1992). India:Economic Empowerment of women, New Century Publications, New Delhi, India. PP.66
4. Bimlasen,G.,Women Power: The Changing Scen ario, Bette rBoo ks,Pan chakula,2007
5. Bhoomika,A.,Vismaya:AnewapproachtoWomen'sEmpowermentProgra mme', A Feminist Magazine.2001,pp.54-56
6. Giri, M.V. (1998). Emancipation as Empowerment of Women. New Delhi: Gyan Publishing House.
7. S.K. Matur Rahman et al.Entrepreneurship Development of Women in India: Problems and Prospectus. New Delhi: Discovery Publishing House (1998), p.195.
8. S.P.Agarval(2001), Women's Education in India(1995 98)Present Status, Perspective, Plan, Statistical Indicators with Global View,Vol III Concept Publications Co, New Delhi.
9. http://beingyouthful.com/essay-on-women-empowerment-in-india/
10. http://www.shareyouressays.com/2884/1328-words-essay-on-womens-empowerment-in-india

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LAND USE and GROUNDWATER QUALITY: A CASE STUDY IN SOUTH EASTERN PARTS OF GREATER HYDERABAD MUNICIPAL CORPORATION AND ITS ADJOINING PARTS IN MAHABUBNAGAR DISTRICT, ANDHRA PRADESH

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Introduction:

Land use in geographic areas that replenish potable groundwater and surface water resources is increasingly recognized as an important factor affecting water quality (Levin *et al.,* 2002). For example, releases from commercial/industrial facilities, agricultural runoff (Loague, 1994), and wastewater leaching into groundwater from residential septic systems (Eckhardt and Stackelberg, 1995; Loague *et al.*, 1998) can introduce a variety of chemicals and inert ingredients into water supplies (Eckhardt and Stackelberg, 1995; Richards, 1997; Desbrow *et al.,* 1998).

Hyderabad city is expanding in all directions resulting in the large-scale 'urban sprawl' and change in land use. Rapid and uncontrolled urban sprawl often lead to haphazard development displacing surrounding vegetation cover of agricultural lands, forest, plantations, besides affecting the quantity and quality of surface water bodies and also potential sources of groundwater aquifers (Asadi *et al.,* 2004). An analysis of the nature and rate of land use change and its associated impact on groundwater quality is essential for a proper understanding of the present environmental problems (Krishna *et al*., 2001). The present study is conducted with an aim to present accurate and existing data on the Land use/ Land cover of South Eastern parts of Greater Hyderabad Municipal Corporation and its adjoining parts in Mahabubnagar District, Andhra Pradesh and to study its impacts on the groundwater quality.

Study Area:

The study area is situated in South Eastern parts of Greater Hyderabad Municipal Corporation and its adjoining parts in Mahabubnagar District, Andhra Pradesh between east longitude $78^0$30' to $78^0$45' and north latitude $17^0$0' to $17^0$15'(Figure 1).

The Hyderabad district is situated on $17^0$20' of the north latitude and $78^0$30' of eastern longitude. The Hyderabad district occupies an area of 217sq km with density population of 14,497 per sq km. The total population of district is 38,29,754 as per 2001 census (District Census Hand Book, 2001). The mean daily temperature varies from 30^0 to 36^0 C from April to June and from 20^0 to 24^0 C in the months of December and January with average rainfall of 772.2 mm. The soils are mainly brownish sandy and red loamy. The main source of water supply in the area is Osman Sagar, Himayath Sagar, Singur River and Manjira.

The Mahabubnagar district is situated on 16^0 and 17^0 northern latitudes and 77^0 and 79^0 eastern longitudes. The Mahabubnagar district occupies an area of 18,432 sq km and population of the district is 35,13,934 according to 2001 census (District Census Hand Book, 2001). The Mahabubnagar district climate is generally hot. The average rainfall in Mahabubnagar district is 942.6 mm. The major soil group in Mahabubnagar district is red earth, comprising loamy sands (dubba), sandy loams (chalka) and sandy clay loams. The two rivers of Mahabubnagar district are Krishna and Tungabhadra flowing through the district.

Materials and Method

Data Used: The data source required for the study include the 56K/12 toposheets obtained from Survey of India (SOI) on 1:50,000 scale and fused data of IRS – ID PAN and LISS –III satellite imagery from National Remote Sensing Agency (NRSA) , Hyderabad.

Database Creation : IRS – ID PAN and LISS –III satellite imageries are georeferenced using the ground control points with SOI toposheets as a reference and further merged to obtain a fused, high resolution (5.8m of PAN) and coloured (R,G,B, bands of LISS-III) output in ERDAS v8.5 image processing software. The study area is then delineated and subsetted from the fused data based on the latitude and longitude values and a final hard copy output prepared which is further interpreted for the generation of thematic maps. These thematic maps (Raster data) are converted to vector format by scanning using an A0 Flatbed Deskjet (Singapore) scanner and digitized in AUTOCAD 2000. The maps are further edited in ARC/INFO v3.5.1 and final hardcopy output prepared using ARC/VIEW v3.1 GIS software (Asadi *et al*., 2004).

Spatial Database: The thematic maps such as base map, drainage, road network and Land use / Land cover of the study area are generated through visual interpretation of satellite remote sensing data. The identification and delineation of various units on the thematic maps are based on the colour, tone, texture, pattern and association. The geological map prepared by the Geological Survey of India (1978) has been taken into consideration while generating above thematic maps. All the thematic maps are verified

during the field checks. The thematic details thus finalized were transferred to the base maps prepared from Survey of India topographic sheet.

Attribute Database: Fieldwork was conducted and groundwater samples were collected from 104 predetermined locations (Figure 2) based on the changes in land use and drainage network maps in the study area. The water samples were analyzed for various physico-chemical parameters using standard protocols (APHA, 1998). The water quality thus obtained forms the attribute database for the present study.

Integration of Spatial and Attribute Database: The spatial and the attribute database generated are integrated for the generation of spatial distribution maps of selected water quality parameters like pH, alkalinity, chlorides, sulphates, nitrates, TDS, total hardness and flourides. The water quality data (attribute) is linked to the sampling location (spatial) in ARC/INFO and maps showing spatial distribution are prepared and overlaid on to the satellite imagery to easily identify the variation in concentration of the above parameters in the groundwater at various land use classes of the study area using curve fitting technique of ARC/VIEW GIS Software. GIS enables us to look into the cause and effect relationship with visual presentation (Asadi *et al.,* 2004)

Results and Discussion

Land use / Land cover Distribution: Remote sensing and GIS are effective tools for land cover mapping essential for monitoring, modeling and environmental change detection (Skidmore *et al.,* 1997). The thematic information about Land use / Land cover map (Figure 3) was generated and classified into four major categories as built up land, agriculture, forest, water body and wastelands. From the satellite data, the agriculture area (62%) could be clearly delineated as four categories such as single crop, double crop, fallow land and plantations. Though single crop has been observed at various parts of the study area, double crop has been observed near Ibrahimpatnam cheruvu. Fallow lands and plantations are observed at some places of the study area. About 2.7% of the study area is occupied by water bodies (tanks with water and without water). Some major water bodies (Rawiral cheruvu, Ibrabimpatan cheruvu, Timmapur chervu, Sandamma chervu, Mailamma cheruvu, Mucheruvu) and small tanks are observed at various parts of the study area. About 10% of the study area is occupied by forest. Most of the study area (23%) is under waste land. Under this category land with scrub (83.1%), land without scrub (4.6%) and barren sheet area (3.2%) are observed.

Groundwater Quality Variation: The groundwater samples collected at different sites in the study area were analyzed for various physico-chemical parameters (APHA, 1998) to determine the characteristics of groundwater quality.

Total dissolved Solids: TDS in groundwater originate from natural sources, sewage, urban runoff and industrial wastes (Kurian Joseph, 2001). High concentration of TDS in

Yengalgudam area may be due to the presence of granite mills in that area. Granites contain a high proportion of silica and relatively high soda and potash content along with magnesium and calcium, which may contribute to the TDS in groundwater. A high concentration of TDS in Bongulur, Gudur, Chinnatudla, Vadlavanibhavi, Rawiral Kongara, and Chenduguda is due to the surface water bodies of the areas (Figure 4).

Alkalinity: Large amount of alkalinity imparts bitter taste to water (Saritha *et al.,* 2008). In Yerrakunta alkalinity levels ranging above 300mg/L due to decay of organic matter, weathering of rocks and minerals was observed. High concentration of alkalinity was observed at Gudur, Rachluru, turkaguda and Madigaguda which are residential areas present in the study area where scratch metal bunks are present (Figure 5).

Nitrates: Nitrates are the end products of decomposition of organic matter present in fully oxidized water (Saritha *et al.,* 2008). High nitrate concentrations indicate sources of past or present pollution (Todd, 1980). Places like Mamraj Guda, Sarswathi Guda, Jabar Guda Tanda, Ibrahimpatam, and Lemur showed a range between 200-400 mg/L, this could be due to residential area. High nitrate concentration is due to discharge of sewage into open nallahs. The concentration of nitrate is around 300mg/L in areas like Pillipalli, Guttalgedda Tanda. This is due to residential areas at that particular area with open lands which is used as natural defecating place for the slum people living over there. Yengalgudam (600 mg/L) also showed high concentration owing to the agricultural practices in this pocket that can leach and enter into the groundwater (Figure 6).

Total Hardness: Hardness is an important criterion for determining the usability of water for domestic, drinking and many industrial supplies (Saritha *et al.,* 2009).The high concentration of total hardness found in Vadlavanibhawi (910mg/L) is that the land use pattern is completely BSA (Barren rocky/stony waste/sheet rock area) and some of the land is under agricultural practice. Lemur and Guttalgadda Tanda areas hardness values are found to be more than 900mg/L. This may be mainly due to the presence of small iron and welding industries in these areas. Medpalli Nakkerta and Lingampalli showed a concentration between 300 to 600 mg/L and can be included under hard category which is due to the presence of market yards and open nallahs flowing through these areas (Figure 7).

Flourides: Groundwater usually contain fluoride dissolved by geological formation (Sax, 1974). Fluoride in excess (> 2mg/L) is harmful for humans which causes fluorosis. (Asadi *et al.,* 2004). Fluoride values exceeded permissible limits near Pocharam, Seriguda, Yerrakunta and Bolligutta Tanda which is due to surface waters containing industrial effluents. Fluoride concentration is above 2 mg/l in the water samples collected from Thammapur, Saralapalli, Seriguda, Tatiparti, Lemur, Nandiwanparti etc. High concentrations can be attributed to the presence of land without scrub and activities like

Iron welding and Glass coating works etc. in those areas. Excess fluoride concentration of 3.63 mg/l is found in the water sample collected at Chenduguda, since it is an open well, domestic and wastewater may enter by seepage into the well (Figure 8).

The remaining parameters i.e., pH, chlorides, sulphates and phosphates are well within the permissible limits.

Conclusion

Maps showing the spatial distribution help in understanding the variations in concentrations of water quality parameters at different locations of the study area and its correlation with the land use changes. Based on the water quality data obtained from physico-chemical analysis, the areas under stress with respect to water quality are identified. The results indicated that certain parameters such as fluorides, alkalinity, TDS, hardness, nitrates exceeded the permissible limits as given by Bureau of Indian Standards. Concentration of pH, chlorides, sulphates were observed to be within the permissible limits. Water quality was found to be poor in few residential areas and in areas where small scale industries like iron and welding and granite mills are located. Very poor water quality was found in dense residential areas, which may be due to seepage of domestic sewage. The possibility for the deteriorated water quality in most of the areas is contamination of groundwater by domestic sewage and also due to the fact that sewage is directly discharged into surface water bodies. Based on the results obtained suitable recommendations are suggested for the study area to prevent further deterioration of groundwater quality.

References:

1. APHA, AWWA, WPCF, 1998. Standard Methods for the Examination of Water and Wastewater, 20th Edition, American Public Health Association, Washington, DC, New York.
2. Asadi S.S, Padmaja V, Reddy MA, 2004. An integrated approach towards sustainable management of groundwater quality in zone- VII under MCH using remote sensing, GIS and insitu field studies. Environmental Geochemistry, 7(1): 9-16.
3. Desbrow C, Routledge E.J., Brighty G.C., Sumpter J.P., and Waldock M. Identification of estrogenic chemicals in STW effluent. 1.Chemical fractionation and in vitro biological screening. Environ Sci Technol 1998: 32 (11): 1549–1558.
4. District Census Handbook of Hyderabad (2001) Directorate of Census Operations, Andhra Pradesh, Census of India 2001.
5. Eckhardt D.A.V., and StackelbergP.E. Relation of ground-water quality to land use on Long Island, New York. Ground Water 1995: 33 (6): 1019–1033.

6. Krishna NDR., Maji AK., Krishna YVN and Rao BPS., 2001. Remote Sensing and Geographical Information System for canopy cover mapping, Journal of Indian Society of Remote Sensing, 29 (3) : 108-113.

7. Kurian Joseph, 2001. An integrated approach for management of Total Dissolved Solids in reactive dyeing effluents. Proceedings of International Conference on Industrial Pollution and Control Technologies.

8. Levin R.B., Epstein P.R., Ford T.E., Harrington W., Olson E., and Reichard E.G. U.S. drinkingw ater challenges in the twenty-first century. Environ Health Perspect 2002: 110(Suppl 1): 43–53.

9. Loague K. Regional scale ground-water vulnerability estimates: impact of reducing data uncertainties for assessments in Hawaii. Ground Water 1994: 32 (4): 605–616.

10. Loague K., Corwin D.L., and Ellsworth T.R. The challenge of predicting non point source pollution. Environ Sci Technol 1998: 32: 130A–133A.

11. Richards R.P. Cultural and hydrogeological factors that influence well water quality. Environ Sci Technol 1997: 31 (3): 632–638.

12. Saritha V., Swapnavahini K. and Padmavathi B., 2009. Characterization of groundwater of different activity regions of an urban settlement. Rasayan J. Chem. 2(2): 539-542.

13. Saritha V., Swapnavahini K., 2008. Subsurface water quality in selected areas of Visakhapatnam city. Journal of Current science 12 (1): 89-94.

14. Sax N. Irving, 1974. Industrial Pollution, Van Nostrand Treinhold Company., New York.

15. Skidmore AK., Witske Bijer., Karin Schmidt and Lalit kumar K., 1997. Use of Remote Sensing and GIS for sustainable land management. ITC Journal, 3 (4): 302-315.

16. Todd DK, Mays LW (2005) Groundwater hydrology. 3rd edition, John Wiley & Sons.

Table 1 Land Use / Land Cover Classification

Lu/Lc	Area (sq km)
Tanks with water	2.6
Dry tank	17.79
Major industry	0.06
Single crop	347.26
Double crop	107.21
Fallow land	2.04
Plantation	0.89
Forest plantation	0.93
Scrub Forest	79.92
Barren sheet area	20.9
Land with scrub	141.46
Land without scrub	7. 89
Minning area	0.07
Village	1.8
Other settlements	6.14

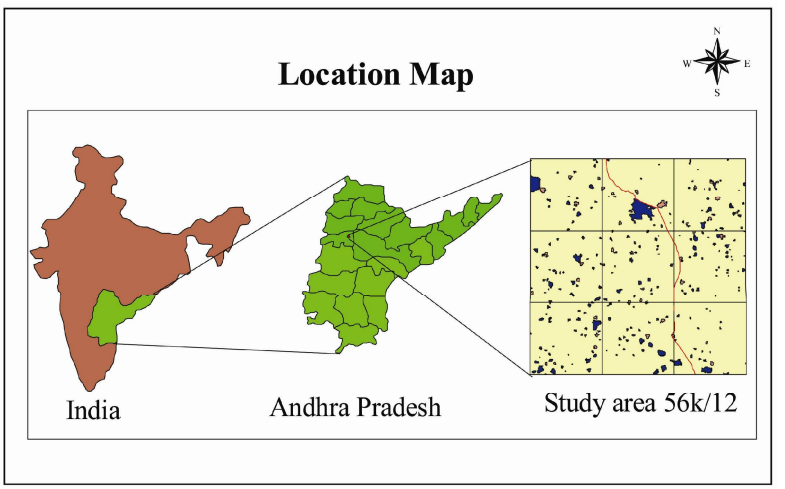
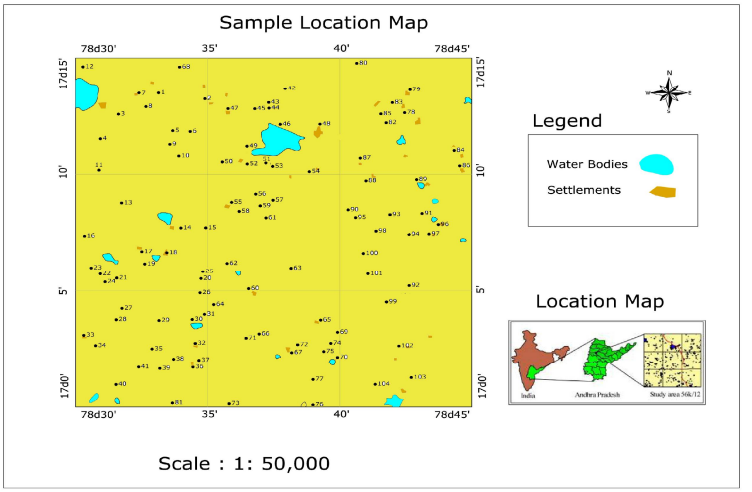


Figure 1: Location Map of the Study Area



Code	Location																							
1	Adibatla	12	Patelguda	23	Gudur	34	Saralapalli	43	Malsetigada	54	Turkaguda	65	Chandharpalli	75	Bolligatta Tanda	85	Lingampalli	95	Gungal
2	Bongulur	13	Agarmigaguda	24	Malngudaru	35	Guttalgadda Tanda	44	Chintalpalli	55	Yelimineedu	66	Ayyawarigudam	76	Medpalli Nakkerta	86	Chittapuram	96	Gadmalayaguda
3	Rawiral Kongara	14	Timmapur	25	Gumudavelli Tanda	36	Kurumidda	45	Kudirabad	56	Jabargada	67	Nandiwanparti	77	Malkeshguda	87	Sitarampet	97	Rawugunur
4	Jonnigaodu	15	Madhapuram	26	Thimmayapalli	37	Porabanda Tanda	46	Sevigunda	57	Kapsipahad	68	Moghalvanpur	78	Poikampalli	88	Nemul	98	Bugga Tanda
5	Kongarkala	16	Lemur	27	Annajigudam	38	Mangaligadda Tanda	47	Mangalpalli	58	Konalaguadam	69	Yacharam	79	Munyagadu	89	Manchal	99	Jalalmiyapalli
6	Sahibguda	17	Rachlur	28	Begarkancha	39	Pochammaralu Tanda	48	Ibrahimpatnam	59	Tule kalam	70	Gandlagudam	80	Nagampalli	90	Aghapalli	100	Chiakel
7	Mamraigada	18	Begumpet	29	Panjagudam			49	Upparguda	60	Chinatundla	71	Vadlavanibhawi	81	Yengalgudam	91	Chandkhanguda	101	Patpalli
8	Nimmagada	19	Turkaguda	30	Mallawaram	40	Mucherla	50	Pocharam	61	Dharmannagada	72	Nazok Singaram	82	Raipol	92	Haslunatpur	102	Gaurelli
9	Kongarkala tanda	20	Gumudavelli	31	Vailakunta Tanda			51	Karmanguadam	62	Bhashyamwanigada	73	Tatiparti	83	Manoharabad	93	Kagnagutta	103	Chinta patla
10	Chenduguda	21	Katikabelli	32	Mirkhanpet	41	Uttupalli	52	Khanpur	63	Somineni Tanda	74	Pittigutli	84	Talagada	94	Japal	104	Takkellapali Tanda
11	Saraswatiguda	22	Madiga guda	33	Jabargada tanda	42	Ramdasepalli	53	Yerrakunta	64	Malagudam								

Fig 3.1 Sample Location Map of the Study Area

Figure 2: Sample Location Map of the Study Area

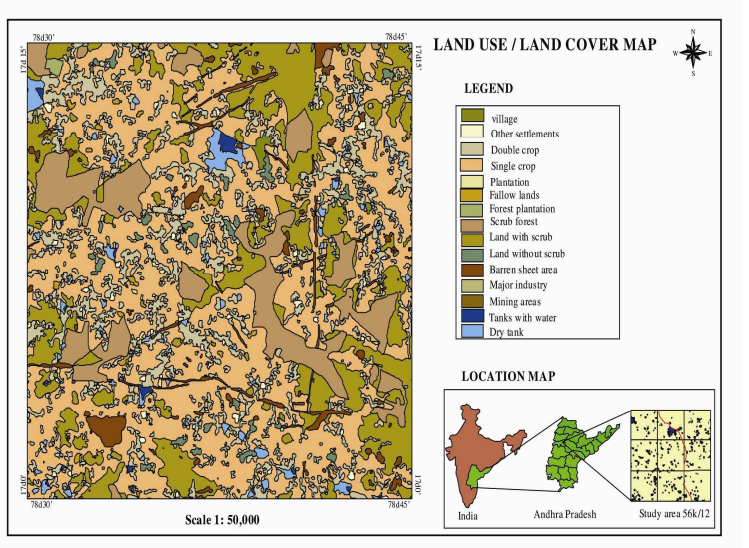


Figure 3: Land Use / Land Cover Map of the Study Area

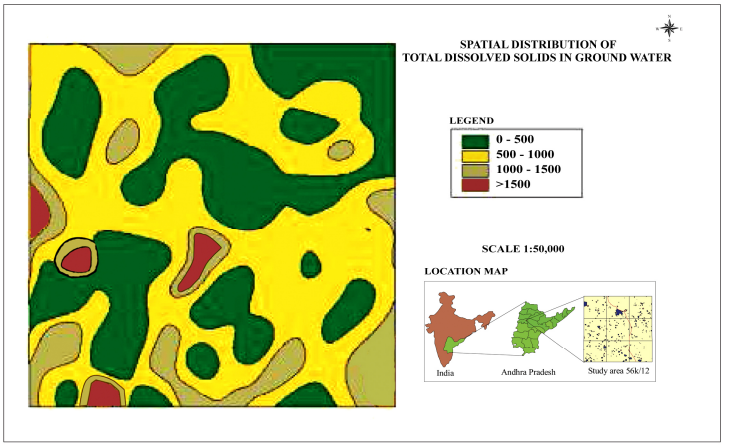


Figure 4: Spatial Distribution of TDS in Groundwater of the Study Area

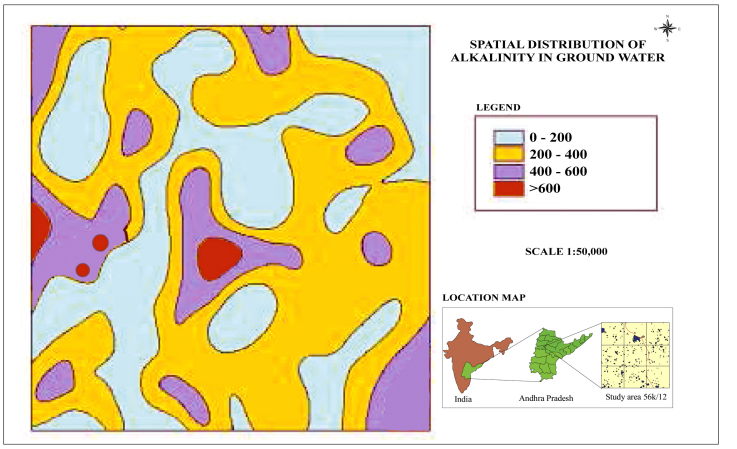


Figure 5: Spatial Distribution of Alkalinity in Groundwater of the Study Areas

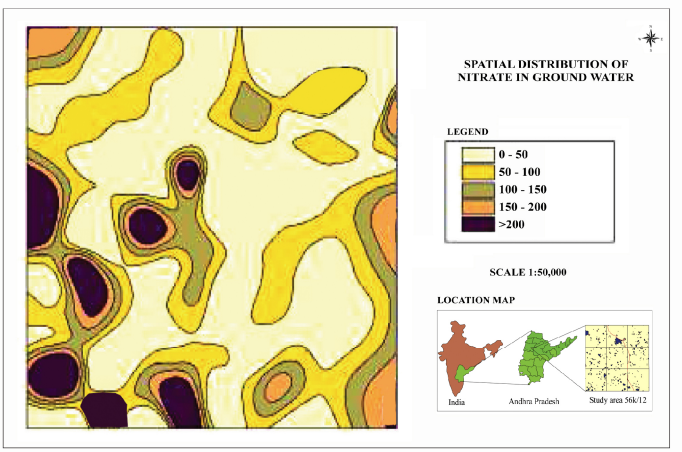


Figure 6: Spatial Distribution of Nitrate in Groundwater of the Study Area

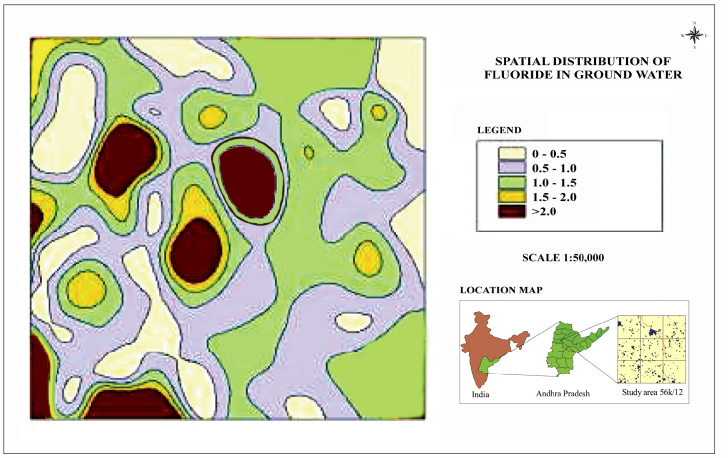


Figure 7: Spatial Distribution of Fluoride in Groundwater of the Study Area.

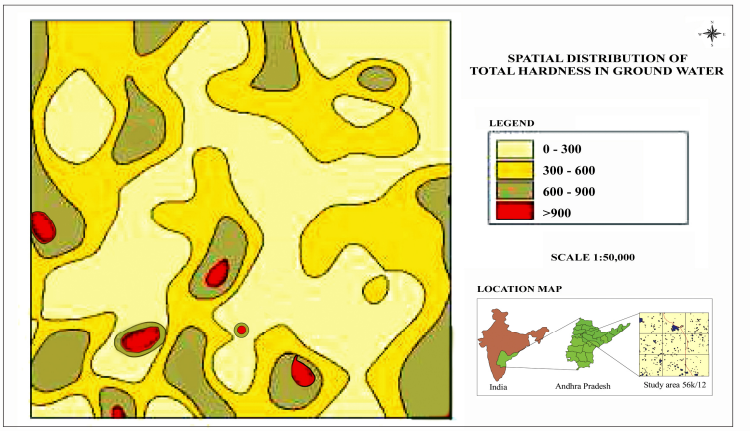


Figure 8: Spatial Distribution of Total Hardness in Groundwater of the Study Area

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IMPACT OF WORKING WOMEN'S IN APPAREL MARKET

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Clothing:

"Dress for the position you want, not the position you have"

There are three basic needs for human beings in this world that is food, Clothes and shelter. Clothing is a second skin of human beings because it protects the skin from sun, wind, mist and insects. It reflects the people's cultural, attitude, modesty, religion, identity, gender and social status through wearable clothes and style of wearing.

India is a diversify country with different cultures, cast and credo, it has familiarity for the own and specific clothes. Human wants and needs are infinitives and it is change time by time. Person to Person differs due to various factors such as preference, taste, needs, attitudes and other factors like socio, economic influences of reference group. Therefore, the choice of cloth is also differ from one to another. Consumer is a golden key for success of business enterprises. Customer satisfaction is a complex task for each retailer.

Women:

"There is no chance for the welfare of the world unless the condition of women is improved. It is Not possible for a bird to fly on only one wing" By Swami Vivekananda.

Each and every thing in the world is starting from women only. A woman is the origin of the universe .The dignity and culture of a society and nation can be detected from the status of women in that society. So that Mahatma Gandhi said "women development is an indicator of the development of a particular country". If you educate a man, you educate a man only, but if you educate a woman, you educate a generation. For all the humans, the first teacher is his/her mother only.

Women constitute around 48.3% of India's population as per 2001 Census and are the precious human resource. There are 50.69 lakhs working

women in the organized sector in India, of these, the Central Government employs about 6 lakhs; the State Government and bodies under the State governments employ about 17 lakhs; local bodies employ a little fewer than 6 lakhs; and the private sector and the smaller establishments employ about 18 lakhs and 3 lakhs respectively Today's woman is no longer confined to the role of a 'homemaker'. She has accomplished this financial freedom by her sheer ability to compete in the male-dominated world. In India, women hold more than 25% of the white-collar jobs in sectors like IT, ITES, Pharmaceutical, biotechnology, market research, financial services, advertising, marketing and media. The new descriptions of Indian women have connotations for the marketers. The NIW today has a greater sense of empowerment and economic freedom and this show in a way that her consumption pattern has changed.

Women & Shopping

I'm still trying to figure out the secrete relationship between the woman and the mall –Ibrahim Taha

Shopping is a gendered activity and it is women who to the largest extent go shopping. To describe shopping as a gendered activity, despite this fact, there are still some general differences between the female and male shopping behaviour. Women claim shopping more than men and see shopping as something important. It is important to emphasize the hedonic and experiential attributes of shopping. Women build buying decisions they include much kind of senses and see a bigger picture.

The women's wear market consists of saris , chudis , salwar , tunics, suits, coats, jackets, tops, shirts, t-shirts, jumpers, sweatshirts, skirts, blouses, sweaters. The women of Tamil Nadu ornament themselves in traditional saris. The ageless charisma of these saris is the uniqueness of women. South Indian saris with zari work reflect the traditions of Tamil Nadu. Kanchipuram sari is known for its exceptional style and famous all over the world. Now a day, salwar kameez has got fame in Tamil Nadu.

Conceptual Framework:

The Indian women apparel market has undergone a transformational part over the past few years due to growth in working women population, changing fashion trends, Income level, Education, rising level of information and media exposure and entry of large number of Choices and brands have given the industry a new height. As a result, various leading industry in men

apparel segment have now started to diversify them into women wear in order to exploit the highly rewarding market. Based on the research report by RNCOS, Women have long been typecast as shopaholics, addicted to shopping. The latest results showing that women spend double what their male counterparts do on fashion.

The women's wear market has proved to be the most dynamic and fast paced arena within the clothing and footwear sector, accounting for over 50 per cent of total sales. Coimbatore is a place for hub of investment opportunities so large of number of retailers step in to the Coimbatore market and tries to get the fame among the customers. Recruiting and retaining the customers is a difficult task for any retailers. So the key function of retailer is to fulfill the expectations and wants of consumers because a satisfied consumer is a real and long term asset of the business. In this context, it is very essential to study in detail about working women buying behaviour, influencing factors, perception, satisfaction, problems, and expectations towards apparels .

Objectives of the Study

1. To study the Correlation between Socio – Economic profile and shopping behaviour of working women.
2. To identify the influencing factors in working women's buying behaviour.
3. To study the level of satisfaction of working women's towards products and services offered by the apparel retailers.

Need of the Study

The purpose of the study is to know the opinion of the working women towards apparels in Coimbatore city. In all industries especially in those predominantly dealing with people, the level of customer satisfaction has an effect on their future of the industry. The competitive state of apparel showrooms is set to intensify in the forthcoming years. Whereas showrooms may have been able to obtain high returns for relatively little efforts previously, the future will most certainly be tougher.

This comprehensive study will benefit a large spectrum of working women consumers and researcher in understanding the buying behaviour of working women's towards apparels. The working woman segment is the one, which has seen a tremendous growth in the late nineties. This segment has opened the floodgates for the Indian retailers. The working woman today has

grown out of her long-standing image of being the homemaker. The study will provide a base for future reference for women's apparel related studies. It would contribute to know more about the women's current needs and preference in apparels. This will guide to retailers for making a strategy to enhance the product and customer values to retain the existing ones and attract the new customer for getting Consistent business in long run.

Findings

- 60 % of the respondents' are found to be impulsive buyers.
- 75 percent of the apparel shoppers' are influenced by the new fashion trends while buying apparels.
- A considerable group i.e., 75 per cent of the sample subjects' have opined that they prefer to buy during festive seasons and 82.40 percent of working women apparel shoppers' are influenced by television advertisements.
- It has been observed that majority i.e., 51.54 per cent of the working women apparel shoppers' have said that they usually visit showrooms 3-6 times in a year to buy apparels.
- From the elaborate data analysis it has been clearly identified that 58.46 per cent of respondents' are using a part of the family income for purchasing apparel and 40 per cent of the consumers' have said that they usually spend over `.5000 – `.10000 for purchasing apparel.
- It has been inferred that 40 per cent of apparel shoppers' have said that they use to spend 1-3 hours for shopping apparel.
- From the detailed data analysis it is evident that majority i.e., 82.60 per cent of the apparel shoppers' have opined that they give more preferences to the cloth style at the time of purchasing apparel.

Suggestions:

- To keep a wide variety of stocks of formal apparels i.e., ready-to-wear clothing, that well suits Indian culture and customers like western tops, read-made churidars, its pants and other formals with strolls/dupattas. Because, the urban market in Coimbatore, comprises of urban consumers and migrants (people who have migrated from rural to urban).

- Wide choice for clothing texture, fabric construction, innovative designs, nostalgic attachment, interdependent and with all price categories.
- Through attractive and though provoking visual in-door displays. Because, the modern day consumers are observed to be more impulsive when a product features truly attract them.
- Promotions of formal apparels through frequency discounts and offer schemes of combo-packages of apparels.

***Conclusion*:**

"Humility is the best dress you can wear"

Apparel is one of the basic necessities of human civilization along with food, water and shelter. The Apparel Industry reflects people's lifestyles and shows their social and economic status. Buying behavior among Indian working women has changed, and education, age, income, economic scenario, media and technology play a predominant role in shaping the way people shop. In short, it has been concluded that the working women buyers' attitude towards apparel shopping seems very positive and they look forward to this communal event with cheerful prospects. Working women claim shopping more than men and see shopping as something important. Since, working women see shopping as something recreational, it is important to emphasize the hedonic and experiential attributes of shopping.

"The beauty of women is not in the clothes she wears, the figure that she carries or the way combs her hair. The beauty of women is seen in her eyes, because that is the doorway to her heart, the place where love resides .True beauty in a women is reflected in her soul"

Reference:

1. Evans, M-"Consumer behaviour towards fashion" European Journal of Marketing"-Vol.23No. 7,pp. 7-16.
2. Chunawalla, S. A. Commentary on Consumer Behaviour (M/e). New Delhi: Himalaya Publishing House, 2000, 1&6
3. Alan D. J. Cooke, Tom Meyvis & Alan Schwartz. Avoiding Future Regret in Purchase Timing Decisions. Journal of Consumer Research, March, 2000, Vol.27
4. Miller, Daniel (1998), "A Theory of Shopping, "Polity Press, Blackwell: Oxford.

5. Chatterjee(2001),online review: do consumers use them? Advances in consumers research, vol. 39(3),pp 129-134
6. Cha j(2001) planning and unplanned apparel purchase typology and related variables, unpublished ph.d thesis, soeul nation university soeul(consult park)), pp79-86
7. Marsh h(2001)pop stars of the retail world,marketing jan,pp 20-32
8. Scott Dawson, Peter.H, Bloch and Nancy .M (2001)shopping motives, emotional states and retail outcomes, journal of retailing vol66(4)408-426
9. Sevgin .A, Eroglue and Karen .A, Machleit,(2001)An empirical study of retail crowding :Antecedents and consequences, Journal of Retailing ,Vol.66(2)pp.204-219
10. Basker Grewel. D., Levy, Parasuramam .A., and Glenn. B (2002) The influence of multi store environmental clues on perceived merchandise value and patronage intentions, Journal of marketing, Vol 66(1),pp 20-41
11. Paco Underhill(2004) why we buy . the science of shopping marketing mastermind,Vol IV(6)pp 93-97
12. Vanitha Swaminathan and Rohn,Andrew.J(2004)Atypology of on-line shopping based on shopping motivation, journal of business research, Vol 57(7) 748- 57
13. Lee, Leonard and Dan Ariely(2006)shopping goal , goal concreteness and condition promotions journal of consumer research Vol 33(1)pp 60-71
14. Shelja Jose Kuruvilla and Nishank Joshi (2010) Influences of demographics psychographics shopping orientation , mall shopping attitude and purchases pattern on mall patronage in india , journal of retailing and consumer services, Vol 17 (4)pp 259-269

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AGRICULTURE SECTOR AND INCLUSIVE GROWTH

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I. Introduction:

At the time of independence, the share of agriculture in total GDP was more than 55 per cent and about 70 per cent of the population was dependent on the agriculture sector for their livelihood. In the post-independence era, stagnant production, low productivity, traditional technology, and poor rural infrastructure were the major challenges for the Government. Not surprisingly, food self-sufficiency became a key national policy goal. To achieve this goal, agricultural development received the highest priority and in the First Five Year Plan, about 17.5 per cent of the plan outlay was allocated to agriculture and about 22 per cent to irrigation, multi-purpose irrigation, and power projects. However, in the Second Five Year Plan, the emphasis shifted from labour-intensive agriculture and small scale production to large-scale capital-intensive heavy industry (Dantwala, 1986). Consequently, food grains production during the first three Five Year Plans remained stagnant, and India faced crisis in food production. The introduction of high yielding varieties (HYV) technology (commonly known as Green Revolution) in mid-1960s yielded spectacular results and the production of food grains increased from about 83.4 million tonnes in the triennium ending (TE) 1964-65 to 104.4 million tonnes in TE 1971-72 (GoI, 2012). Subsequently, the country, which was threatened by hunger and high dependence on imports as late as in mid-1960s, became one of the largest producers of many agricultural commodities such as rice, wheat, pulses, fruits and vegetables, etc., thus being self sufficient in staple foods. In aggregate, the food situation is quite favorable in the country and the problem of hunger is one of access and income distribution rather than shortages. Today, about 407 million people in India live below poverty line (GoI, 2009) and about 42 per cent of all children under 5 years suffer from malnutrition (HUNGAMA Survey Report, 2011). Increase in demand for food due to increasing population, rising income levels, and other demographic changes will require continuous increase in agricultural production. Agriculture and allied Sectors are critical sectors for inclusive growth of India, says India‘s Finance Minister P Chidambaram. The agriculture growth rate for the 11th Plan has been targeted at 3.3 per cent as

compared to 2.2 per cent achieved during the 10th Plan period, the Finance Minister added. He further said that we need sufficient agriculture production not only to meet our domestic requirement but also for exports. The Finance Minister was making his introductory remarks during his first pre-budget meeting with stakeholders from agriculture sector. The food grain production during 2011-12 was 257.4 million tons and during the current financial year 2012-13 equally good food grain production is expected from the country.

Agriculture the backbone of Indian economy and food security: India is principally an agricultural country. The agriculture sector accounts for about 18.0% of the GDP and employs 52% of the total workforce. There is a continuous steady decline in its contribution towards the GDP, and the agriculture sector is loosing its shine and anchor position in Indian economy. The problems with which the Indian agricultural scenario is burdened in present times are many but this in no way undermines the importance of the sector, and the role it can play in the holistic and inclusive growth of the country. Agriculture is fundamental for sustenance of an economy as is food for a human being. It contributes significantly to export earnings and is an important source of raw materials for many industries. Its revival is being taken on priority, through various interventions at different levels, because of its potential in reducing poverty and food insecurity. The global experience of growth and poverty reduction shows that GDP growth originating in agriculture is at least twice as effective in reducing poverty as GDP growth originating outside agriculture. Agriculture is and will continue to be the engine of the national growth and development.

Role of Agriculture in Growth:

A. **Two reasons why agriculture is considered central to growth**

- It has a big share of GDP, and/ or

- It stimulates ―structural transformation‖―the process whereby resources move from low productivity sectors to higher productivity sectors.

B. **Two possibilities for structural transformation**

- It can be driven by productivity improvements within the agricultural sector

- It can be driven by productivity improvement outside the agriculture sector

C. **There is no agreement which underlying process drives the structural transformation in general**

- Without higher agriculture growth, India's 10% economic growth target will be impossible to achieve. In addition, higher real incomes lead to higher food consumption, implying more pressure on demand.

Historically, India's agriculture growth has lagged growth in the overall economy. In fact, long-term average growth in agriculture has been close to 2%. India's population has been growing at 1.4%. Consequently, India has just managed to maintain its per capita growth in food and non-food crop production. Given such a precarious demand-supply position, one year of drought leads to food prices shooting up. This is what we are seeing at this time of the year. With growth in per capita incomes, the supply constraints will hit India even harder in the future.. What are the steps required? To begin with, agriculture has received only 7% of budgetary allocation in the recent past, down from about 20% in the 1980s. Considering the demand-supply imbalances and its importance as a source of livelihood for the rural economy, the budgetary allocation to agriculture should improve. On top of this, investment in the agriculture sector is 2.3% of gross domestic product. With an investment-to-GDP ratio in the country of more than 35%, the Finance Minister has to engage the private and public sector in higher investments in agriculture. The long-term target should be close to 4%. The central government has limited scope to contribute to agricultural reforms through the budget as agriculture is largely a state subject. However, it can certainly take certain concrete steps. With the focus on long-term growth the principal focus areas for increased outlay should be:

- Increased spending in agricultural research and farm extension practices to improve yield and production

- Better supply chain management in both procurement and distribution cycles through improvements in public distribution systems India’s area under cultivation has remained constant since the 1970s. Hence, the two ways to improve productivity are: Yield management and irrigation. Performance on the yield front has been dismal. Yield growth in all major crops has been negligible. Over the last decade, wheat yields in the country have grown at 0.1% and rice at 1.3% per annum. Crops like pulses and sugar have actually witnessed a decline in yields to the tune of 0.2% and 0.4%, respectively. With an increase in population, the yield per person has actually declined. This does not bode well for the food security of the nation. The last time the country saw a productivity boost was during the "Green Revolution" and the adoption of

hybrid crops. With such a huge population dependent on agriculture, India has every reason to push for agricultural research and disseminate such knowledge and practices to farms across the country. If the growth story in India is to be inclusive, farm productivity has to rise for income levels to increase. The research should focus on better farm practices, optimal use of fertilizers and pesticides, productive seed varieties (GM crops), multiple crops in the same land etc. Equally important is the dissemination of such knowledge to farmers. On the irrigation front, the country should invest in building much more sustainable irrigation projects. These will not only help in easing drought conditions but also provide large- scale employment in the rural areas. Another area which needs an urgent revamp is the supply chain. India's vegetable productions increased by 5% this fiscal year but vegetable prices have increased a lot. This bears testimony to the disarray that exists in the current supply chain. A huge amount of produce is wasted in the procurement process due to a lack of timely action. Inadequate storage systems further compound the waste. The nail in the coffin is the ineffective distribution system. Many states are not able to lift their allocated quotas due to inadequate storage facilities and instant ad-hoc cash requirements. With the developments made in the field of supply chain management and their successful adoption in the manufacturing sector, it is high time that better supply chain practices are implemented in the agricultural sector with the necessary investments made to facilitate this. Better crop planning, demand estimation, transportation, warehousing facilities (both normal and cold storage) should be targeted and achieved. The government can also design tax incentives like tax holidays for setting up agricultural supply chains to boost private infrastructure development. The government has taken measures in the last few budgets to increase credit disbursement to the farm sector, resulting in a tripling of lending in five years to about 2.5 lakh crores. It has also promoted crop insurance; however, crop insurance has generally seen dismal results in countries across globe. As a better risk management tool, the government should promote weather insurance primarily due to its transparency, objectivity and ease of administration. These measures call for increased outlays. Agriculture needs to be accorded higher importance in the nation's development. Instead of spending on real assets, the government has doled out relief in terms of loan waivers. A large part of the subsidy given to the sector is in terms of fertilizer subsidies. The government is taking some stern and correct steps in the subsidy arena by linking subsidies to the nutrient content of fertilizer and reducing overall allocations. But such savings

need to be diverted towards the development of agriculture. In increasing spending, the government needs to think beyond short-term populist measures and implement programs that would lead to the long-term growth of agriculture in the country. India should have hard targets to increase productivity in the farm sector. At the same time, wastage should be removed. It would be a good idea to have a national distribution channel. However, for this, private sector capital and technology should be encouraged.

Profiling the growth process: Bosworth and Collins (2008) find:

A. In both China and India, agriculture played a positive role but not a leading role in driving overall growth
   - In China, it was industry which contributed most to growth
   - In India, the main growth driver was services

B. In both countries, the reallocation effect was an important source of growth
   - Gollin (2010) find similar evidence in a broader set of developing countries using the same technique

C. The accounting framework which calculates the resource reallocation effect essentially as a residual
   - Much like Solow residual in the growth accounting, it has well known problem of interpretation

D. The decomposition exercise like this is good for understanding ―what‖ happened but not ―why‖ it happened
   - Is the growth in other sectors that pulls underutilized resources out of agriculture? Or
   - Is it productivity gains in agriculture that releases resources and make available to other sectors?

Understanding the process behind resource reallocation effects: Gardner investigates three alternative hypothesis

1. **"Selective migration"**

(Poor farmers left agriculture faster than richer farmers)

2. **"Labour market integration"**

(Growth in non-farm sector benefited low income farmers through greater off farm jobs and opportunities to leave farming altogether)

3. **"Agricultural specific developments"**

(e.g., changes in farm size, human capital, agricultural productivity at the state level)

Policies for Raising Agricultural growth:

There are three goals of agricultural development. These are: (a) achieve 4% growth in agriculture and raise incomes by increasing productivity (land, labour), diversification to high value agriculture and rural non-farm by maintaining food security; (b) sharing growth (equity) by focusing on small and marginal farmers, lagging regions, women etc.; (c) third is to maintain sustainability of agriculture by focusing on environmental concerns. What are the policies needed to achieve the above goals? There are basically seven factors which need focused reforms in the short and medium terms. These are: (a) price policy; (b)subsidies and investments; (c) land issues; (d) irrigation and water management (e) research and extension; (f) credit; (g) domestic market reforms and diversification. Institutions have to be developed in all these aspects.

(a) Price Policy:

The major underlying objective of the Indian government's price policy is to protect both producers and consumers. Currently, food security system and price policy basically consists of three instruments: procurement prices/minimum support prices, buffer stocks and public distribution system (PDS). One criticism of procurement policy is that it is limited to few crops and few states. Our field visits to different states reveal the following farmers" perceptions about agricultural prices. The cost of cultivation is increasing due to increase in input prices. Particularly agricultural wages have increased due to National Rural Employment Guarantee Scheme (NREGS) in several states. They want to resort to mechanization due to labour shortages in peak season. Farmers respond to prices as shown by increase in yields of wheat in Punjab and other states with significant increase in MSP. Farmers have to undergo distress sales due to lack of procurement in states like Bihar, parts of UP, M.P. and Orissa. If rice production is to be shifted to Eastern region, rural infrastructure including procurement centers has to be improved. Pulses production can be enhanced in several states with higher MSP and procurement. Provision of electricity has to be raised in order to exploit ground

water in Eastern region. In the context of globalization, tariff policy becomes important for agricultural commodities.

In other words, it is important to monitor exports, imports, global supply and demand and fix tariffs accordingly. There is a need to balance between producer prices and consumer prices by careful calibration of minimum support prices and tariff policy (import duties).

b) Subsidies and Investments in Agriculture:

One major reform needed in agriculture sector relates to reduction in subsidies and increase in investments. Agricultural subsidies are fiscally unsustainable and encourage misuse of resources, leading to environmentally malignant developments. There is trade-off between subsidies and investments. Public investment declined from 3.4% of agri.GDP in the early 1980s to 1.9% in 2001-03. At the same time subsidies increased from 2.9% to 7.4% of agri.GDP (GOI, 2007). Rise in public and private investment is crucial for enhancing agricultural growth. Fortunately, gross capital formation in agriculture has increased from 12% of agricultural GDP in 2004-05 to 14.2% of GDP in 2007-08 (Table 4). Public sector investment has increased significantly during this period. However, we need 16% agricultural GDP as investment in order to get 4% growth in agriculture. In this context, the announcement of Bharat Nirman programme in 2005 by the Government of India in order to improve agriculture and rural infrastructure is in the right direction. However, the pace of this programme has to be improved**.**

Issues:

Some argue that small size of farm is responsible for low profitability of agriculture. Chinese and the experience of other East Asian countries show that it is not a constraint. On land market, the Report of the Steering Committee recommended the following. —Small farmers should be assisted to buy land through the provision of institutional credit, on a long term basis, at a low rate of interest and by reducing stamp duty.

At the same time, they should be enabled to enlarge their operational holdings by liberalizing the land lease market. The two major elements of such a reform are: security of tenure for tenants during the period of contract; and the right of the land owner to resume land after the period of contract is over‖ (GOI, 2007). Basically, we have to ensure land leasing, create conditions including credit, whereby the poor can access land from those who wish to

leave agriculture. There are some emerging land issues such as increase in demand for land for non-agricultural purposes including special economic zones, displacement of farmers, tribal's and others due to development projects. There is a need for careful land acquisition. Land alienation is a serious problem in tribal areas.

(d) Irrigation and Water Management:

Water is the leading input in agriculture. Development of irrigation and water management are crucial for raising levels of living in rural areas. Major areas of concern in irrigation are: decline in real investment, thin spread of investment, low recovery of costs, decline in water table, wastages and inefficiencies in water use and, non-involvement of users Both investment and efficiency in use of water are needed. Major areas of reforms needed in irrigation are: stepping up and prioritizing public investment, raising profitability of groundwater exploitation and augmenting ground water resources, rational pricing of irrigation water and electricity, involvement of user farmers in the management of irrigation systems and, making groundwater markets equitable (Rao, 2005). In a recent study, Shah et al (2009) indicate that the impact of the drought of 2009 is expected be less severe than the drought of 2002 due to ground water recharge in the last few years. Ground water can be exploited in a big way in Eastern region. Watershed development and, water conservation by the community are needed under water management. New watershed guidelines based on Parthasarathy Committees recommendations were accepted by the Central Cabinet in March 2009. The implementation has to be stepped up in order to obtain benefits in rain fed areas. National Rain fed Area Authority has big responsibility and, water conservation by the community are needed under water management.

(e) Credit:

According to the expert group on Financial Inclusion (GOI, 2008) only 27% of farmers have access to institutional credit. It is true that there have been some improvements in flow of farm credit in recent years . However, the Government has to be sensitive to the four distributional aspects of agricultural credit. These are: (a) not much improvement in the share of small and marginal farmers; (b) decline in credit-deposit (CD) ratios of rural and semi-urban branches; (c) increase in the share of indirect credit in total agricultural credit and; (d) significant regional inequalities in credit.

Few Other Issues:

Emerging Challenge: Climate Change

Climate change is a reality. India has reasons to be concerned about climate change. Vast majority of population depends on climatic sensitive sectors like agriculture, forestry and fishery for livelihood in the country. The adverse impact of climate change in the form of declining rainfall and rising temperatures and thus the increased severity of drought and flooding, would threaten food security and livelihood in the economy. For example, rise in temperature would affect wheat yields. India has prepared a document namely the National Action Plan on Climate Change. It provides a direction for changes at the national level in policy, planning and public-private partnerships and lays out a global vision for modifying longer time trends for sustainable development. Successful adaptation coupled with mitigation holds the key to food security and livelihoods for the 21st century and beyond in India.

Equity in Agriculture:

Regional Disparities: Growth rates in agriculture SDP were high for many states during the period 1984/85 to 1995/96. However, growth decelerated in all the states except Bihar during the period 1995/96 to 2004/05 (GOI, 2007). The deceleration is the highest in the states with greater proportion of rain-fed areas (Gujarat, Rajasthan, M.P., Karnataka and Maharashtra). Recent experience, however, shows that Gujarat recorded the highest growth of around 9 per cent during 2000/01 to 2007/08 (Gulati, 2009). During this period, six states viz., Gujarat, Rajasthan, Himachal Pradesh, Andhra Pradesh, Chhattisgarh and Bihar recoded more than 4% growth per annum. Public investment in infrastructure like irrigation, power, roads, watersheds, check dams, technology like BT cotton and diversification in agriculture played crucial roles in raising agricultural growth in Gujarat. Other states can learn from the experience of Gujarat. There is a need to shift rice cultivation to Eastern region from Punjab and Haryana for growth, equity and environment reasons. In order to encourage the States to invest more towards agriculture and allied sectors and to achieve 4% growth in agriculture, the government launched the Rashtriya Krishi Vikas Yojana (RKVY) in 2007-08 with an outlay of Rs.25,000 crores for the 11th Five Year Plan. The scheme requires the States to prepare District agriculture plans and provides adequate

flexibility and autonomy to State governments. The States should make use of this scheme to improve the agriculture sector.

India's agriculture growth to remain positive for 2012-13:

India's agricultural growth for the 2012-13 is expected to be positive, largely on the back of normal monsoon prediction. The Gross Domestic Product (GDP) growth in the agricultural sector is forecast at 3% for coming year, according to the National Council of Applied Economic Research (NCAER). India's agricultural growth for the 2012-13 is expected to be positive, largely on the back of normal monsoon prediction. The Gross Domestic Product (GDP) growth in the agricultural sector is forecast at 3% for coming year, according to the National Council of Applied Economic Research (NCAER). India's agricultural growth for the past three has remained in the positive regime and it is expected to continue for coming years too. The positive prediction by NCAER is on the basis of following reasons: Normal monsoon forecast from the Indian Institute of Tropical Meteorology for 2012-13. Surplus food grain stock is expected for next year on the back of record harvest in 2011-12 and food grain stocks with the government may reach 75 million tons by July end. But presently, one of the major problem faced by India is lack of proper storage facility for storing agricultural produces. The inflation rate of the country has dropped but the price hike in milk, crude oil, eggs, meat and oilseeds creating problems for the policy makers.

II. Conclusion:

A. The three key roles agriculture can play in promoting inclusive growth

- stimulating economic growth, reducing poverty, and creating employment

B. Ways in which agriculture can contribute to or pose a challenge to achieving more inclusive growth through any of these links vary

- depends on country context, and within country over time

C. Descriptive tools are useful for ―what‖ question, but additional tools are needed to address ―why‖ questions

- Some of the ―why‖ question tools we‘ve discussed: binary or categorical regressions, convergence (ECM) models, spatial regressions

References:

1. Acharya, S.S. (1997), —Agricultural Price Policy and Development: Some Facts and Emerging Issues‖ Indian Journal of Agricultural Economics, Vol.52, No.1
2. Alagh, Y.K. (2006), —Indian Economic Strategies After Doha‖ in Radhakrishna, R, S.K. Rao, S.Mahendra Dev and K.Subbarao (2006 eds.), India in a Globalizing World: Some Aspects of Macro economy, Agriculture and Poverty, Essays in honour of C.H. Hanumantha Rao, Academic Foundation
3. Bhalla, G.S. (1995), —Globalization and Agricultural Policy in India‖, Indian Journal of Agricultural Economics, Vol.50, No.1
4. Bhalla, G.S. (2006), —Agricultural Growth and Regional Variations‖, in R.Radhakrishna, S.K. Rao,
5. S.Mahendra Dev and K.Subbarao (eds.), India in a Globalising World: Some aspects of Macro economy, Agriculture and Poverty, Essays in honour of Prof. C.H. Hanumantha Rao, Academic Foundation, New Delhi
6. Bhattacharya, B.B. (2003), —Trade Liberalization and Agricultural Price Policy in India Since Reforms‖, Indian Journal of Agricultural Economics, Vol.58, No.3
7. Chadha, G.K. (2009), —Agriculture and Rural Industrialization in India, Recent Developments and
8. Future Concerns‖ in Rao, N.C. and S.Mahendra Dev (eds.,2009) India: Perspectives on Equitable Development, Academic Foundation
9. Dev, S. Mahendra (2008), Inclusive Growth in India, Agriculture, Poverty and Human Development,
10. Gulati, Ashok (2009), —Emerging Trends in Indian Agriculture: What can we learn from these?‖
11. Joshi P K and A. Gulati (2003), _From Plate to Plough: Agricultural Diversification in India', Paper presented at the Dragon and Elephant: A Comparative Study of Economic and Agricultural Reforms in China and India", New Delhi, India, March .
12. Ahluwalia, Montek S (2011). —Prospects and Policy Challenges in the Twelfth Plan,‖ Economic and Political Weekly,

13. Bhalla, G S and Singh, Gurmail (2009). —Economic Liberalisation and Indian Agriculture: A Statewise Analysis,‖ Economic and Political Weekly, 44(52)

14. CSO (2011). Gross State Domestic Products and Net State Domestic Product (2004-05 Series), Central Statistics Office (CSO), Ministry of Statistics and Programme Implementation, Govt. of India, New Delhi, August.

15. CSO (2011a). National Accounts Statistics 2011 and Earlier Issues, Central Statistics Office (CSO), Ministry of Statistics and Programme Implementation, Govt. of India, New Delhi, August.

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A STUDY ON THE IMPACT OF MAHATHMA GANDHI NATIONAL RURAL EMPLOYMENT GUARANTEE ACT (MGNREGA) ON WOMEN EMPOWERMENT

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INTRODUCTION

The high rate of the Indian economy in the recent year has failed to generate adequate decent employment for the labour force. The annual average growth rate of the economy in the last decade has been between seven and eight percent with the growth rate reaching almost nine percent during the past four year s. Against this, the annual rate of growth of employment is very low and it has decline from 2.01 percent over 1983-1993 to 1.84 percent (1.45 percent in rural areas and 3.14 urban areas) over the following decade. T his rate is much below the rate of growth of the rate labour force (around three percent which is higher than the rate of growth of population). The excitement about India's economic growth is now for real and is evident all over the world. A country that was written off for much of the twentieth century came into its own in the last decade of the previous millennium. Income and salaries rose too and suddenly a poor nation had become home to more than 300 million middle class consumers, becoming one of the most inviting markets for the world's manufacturers and service providers. Some sectors took off almost immediately as economic reforms began in the mid eighties. The banking and the airlines sector become big in the mid nineties, insurance followed suit real estate boomed. The software story has been repeated so many times that it is now synonymous with India's rise in the global economy.

OBJECTIVES

1. To study the general impact of MGNREG Act.
2. To understand the working of MGNREGA in the state Andhra Pradesh
3. To study the demographic details of sample women work under Peruru Village of Tirupati rural.

METHODOLOGY

The methodological aspects of the study include selection of the village, the source of the data and tools of the data analysis and scheme of presentation. Illiteracy particularly in rural areas and also among cultivations agriculture labour among other labour is very compared to the urban survey urban areas to this many government programmes are less utilized by the target group political beneficiaries. Hence the researcher is interesting to evaluate the knowledge attitude of practice of government programme Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA).

Selection of the study

The present study is based on successful implementation National Rural Employment Guaranty Programme in the village with special reference to village. To have been chosen purposefully one village *i.e.* Peruru village of Tirupati Rural, Chittoor district of Andhra Pradesh.

Agricultural sector in rural

Indian's reforms concentrated in industry and service while the sectors that have been left untouched are agriculture land labour and retail. Leading the pack of problems that have been left unsolved is ironically the sector where a bulk of population resides. The rural sector in India got completely sidelined by the reforms process. In India rural is synonymous with agricultural and therefore with the exception of a few issues that are non agricultural the rural tragedy is indeed the agricultural tragedy. In the twentieth century agricultural growth stagnated as a result of a series of droughts and famine. The green revolution in the 1960 raised productivity levels was rather on the one hand, but was rather harshly criticized for widening income disparities between rich and poor farmers on the other. The late 1960 and early 1970s witnessed a modernized agriculture with new equipment and farm technology. New fertilizers led to high yielding varieties, tractors replaced cattle and the immediate result was that the production of crops such as wheat and rice increased remarkably. But growth was far from uniform.

Characterizes rural India

Rural India is at the centre – stage of all growth in the feature. However it continues to suffer from lack of basic infrastructure. Caught in the vicious poverty –cycle, rural India, in absence of adequate infrastructure, rural

India finds it difficult to undertake activities that can accelerate economic growth. In absence of infrastructure facilities there is lack of market access to rural population, slow growth in organized retail and thus limited livelihood opportunities, stagnation in agriculture and aggravation of rural poverty-levels. Absence of infrastructure also makes rural markets fragmented characterized by high costs of transactions and high information asymmetry. The retrial sectors offers unprecedented opportunities for rural India and the only thing that can hold this sector back is the lack of infrastructure. Numerous studies the world over have revealed that investments in rural infrastructure is one of the most potent tools that government can use to enhance growth and growth and reduce poverty in rural areas.

Wage employment programmers in India

Direct provision of wage employment is obviously an attractive instrument for poverty alleviation wherever the poor depend heavily upon wage employment for their income and also suffer from considerable unemployment and underemployment. Wage employment programmers have sought to achieve multiple objectives. They not only provide employment opportunities during lean agricultural seasons but also in times of floods droughts and others natural calamities. Also put an upward pressure on market wage rates by attracting people to public work programmers thereby reducing labour supply and pushing up demand for labour. While public work programmers to provide employment in times of distress have a long history major thrust to wage employment programmers in the country was provided only after the attainment of self –sufficiency in food grains in the 1970s.

Timeline of wage employment programmers

National Rural Employment Programme (1980): The National Rural Employment (NREP) was started in 1980.

Rural Landless Employment Guarantee Programme, (RLEGP-1983): To this was added the Rural Landless Employment Guarantee Programme in 1983. These were the first initiatives towards central government t sponsored scheme s for wage employment sources.

Jawahar Rozgar Yojana(1989): The NREP and RLEP were merged in April 1989 under the Jawahar Rojgar Yojana (JRY). The JRY was main to generate meaningful employment opportunities for the unemployed and

underemployed in rural areas through the creating the creation of economic infrastructure and community and social assets.

Employment Assurance Scheme (EAS-1993): The Employment Assurance Shem (EAS) was launched on 2nd October 1993 covering 1,778 brought –prone desert and tribal and hill area blocks. It was later extended to all the blocks in 1997-98. The Employment Assurance Scheme (EAS) was designed to provide employment in the form of manual work in the lean agriculture season.

Jawahar Gram Samridhi Yojana (JGSY-1999): The Jawahar Rozgar Yojana was revamped from 1st April 1999 as the Jawahar Gram Samridhi Yojana (JGSY). It knows became a programme for the creation of rural economic infrastructure with employment generation as secondary objectives. The programme is implemented by the village panchayats and provides for specific benefits to SC/STs the disabled and maintenance of community assets created in the past.

Sampoorna Grameen Rozgar Yojana (SGRY - 2001): The sampoorna Grameen Rozgar Yojana (SGRY) was launched on 25th September, 2001by merging schemes of Employment Assurance Scheme (EAS) and the Jawahar Gram Samridhi Yojana (JGSY) with the objective of providing additional wage employment and food security, alongside creation of durable community assets in rural areas. The programme is self-targeting in nature with provisions for special emphasis on women scheduled castes scheduled tribes and parents of children withdrawn from hazardous occupations. Payment of wages is done partly in cash and partly in kind-5kg of food grains and the balance in cash.

National Food for Work Programme –(NFWP2004): The food for work programme was started in 2000-01as a component of the Employment Assurance Scheme (EAS) in eight notified drought –affected states of Chhattisgarh, Gujarat, Himachal Pradesh, Madhya Pradesh, Orissa, Rajasthan, Maharashtra and Uttaranchal. The programme aims at augmenting food security through wage employment. Food grains are supplied to states free of cost. This programme is now subsumed under the NREGP.

NREGA Act: With a view to providing guaranteed employment to rural house hold of the country who volunteers to do unskilled manual work in their native place, National Rural Employment Guarantee Act was enacted on 2nd February 2006 and was launched from Anantapur in Andhra Pradesh and initially covered 200 of the "Poorest" districts of the country. The act was

implemented in phased manner 130 districts were added from 2007 to 2008. With its spread to over 625 districts across the country, the flagship program of the UPA Government has the potential to increase the purchasing power of rural poor reduce distress migration and to create useful assets in rural India.

SOCIO-ECONOMIC PROFILE OF THE RESPONDENTS

Age distribution of the respondents

Age	Number of respondents	Percentage (%)
20-30	06	15.0
31-40	11	27.5
41-50	16	40.0
51-60 and above	07	17.5
Total	**40**	**100.0**

Age wise distribution of the respondents present in the above table shows that highest percentage (40.00) of the despondence is in the age group of 41 -50 years. Least percent (15.00) of the respondents are in the age group of 20-30 years 27-5 percent of the respondents are in the age group of 31-40 years. 17.5 percent of the respondents are in the age group of above 51-60 years. 31-40 to 41-50 age group participate in the MGNREGA work.

Educational status of the respondents

Education	Number of respondents	Percentage (%)
Illiterate	13	32.5
Primary level	14	35.0
High school level	08	20
Collage level	05	12.5
Total	**40**	**100.0**

The educational status distribution of the respondents present in the above table. The above table shows that 35 percent of the respondents are the primary level. 20 percent of the respondents are the high school level. 12.5 percent of the respondents are the college level. 32.5 percent of the respondents are the illiterate level members in the women's.

Religious distribution of the respondents

Religion	Number of respondents	Percentage (%)
Hindu	21	52.5
Muslim	07	17.5
Christian	12	30.0
Total	**40**	**100.0**

The religious status distribution of the respondents is presented in the above table. The above table shows that high percent 52.5 of the respondents are the Hindu. 30 percent of the respondents are the Christian. Low percent 17.5 of the respondents are the Muslim.

Type of family of the respondents

Family type	Number of respondents	Percentage (%)
Nuclear family	20	50.0
Joint family	17	42.5
Extended family	03	7.5
Total	**40**	**100.0**

The family status distribution of the respondents shows in the above table. The table shows that high percent 50 percent of the respondents are the nuclear families. 42.5 percent of the respondents are the joint family. 7.5 percent of the respondents are the extended families.

Type of house status of the respondents

Education	Number of respondents	Percentage (%)
Own	10	25.0
Rent	14	35.0
Pakka house	16	40.0
Total	**40**	**100.0**

The house status distribution of the respondents present in the above table. The above table shows that high percent 40 of the respondents are the pakka house. 35 percent of the respondents are the rented house. 25 percent of the respondents are the Own house.

Shows awareness about MGNREGA scheme

Awareness about NREGA	Percentage (%)				
	Yes	No	Yes (%)	No (%)	Total
Objective	14	46	35	65	100
Aware of the MGNREGA	22	18	55	45	100
Aware of the smart card	38	02	95	05	100

The awareness about MGNREGA scheme stat us distribution of the respondents present in the above table. The above table shows that 35 percent of the respondents yes are the objective awareness women's 55 percent of the respondents Yes are the aware of the MGNREGA. 95 percent of the respondents Yes are the aware of the smart card.

Type of work wise distribution of the respondents

Type of work	Number of respondents	Percentage (%)
Water work	15	37.5
Road work	10	25.5
Plantation work	07	17.5
Other work	08	20.0
Total	**40**	**100.0**

The work status distribution of the respondents present in the above table. The table shows that high percent 37.5 of the respondents are the water work. 25 percent of the respondents are the Road work. 17.5 percent of the respondents are the plantation work. 20 percent of the respondents are the other work.

Income wise distribution of the MGNREGA respondents

Annual Income	Number of Respondents	Percentage (%)
<20,000	05	10
20,001-50,000	32	64
50,001-1,00,000	12	24
>1,00,000 above	01	02
Total	**50**	**100**

With regarding to annual income of the respondent in the study area is presented in the above table. The highest number of respondents (64 percent) are expressed the averring their annual family income in between rupees Rs.20,000-50,000. Remaining two percent respondents have expressed that these annual family income is more than Rs.1,00,000.

SUMMARY

The village survey confirms most of the evidence already gathered. Most people do not access the scheme, as they have not heard of the programme. They would like a more proactive role of the panchayat in deciding the infrastructure to be constructed. Almost everyone wants more work form the scheme and better facilities at the work place. There is enough evidence of funding and mismanagement of records. Large number of works relating to water conservation has been taken up. Faulty measurement of work results in lower payment of wages. Minimum wages are still not paid. Distress migration has been partially affected due to NREGA in Andhra Pradesh. Due to inbuilt transparency norms, beneficiaries are receiving wages but delay in payment remains key issue. Allegations of tampering of muster roll are rampant. Maintenance of structure created under NREGA is still not thought about.

Reference

1. www.nregs the Indian effort at fighting rural poverty.
2. Fan Shenggen Peater Hegell and S.K. Throt (2000) impact of public expenditure on rural poverty in India, Economic and political weekly volume 35,No.40.
3. http:www.indian respondents projects
4. National sample survey (NSS) 58th Round, Report 487, centre statistical organization government of India, New Delhi.

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POPULATION, EDUCATION AND QUALITY OF LIFE: INFORMATION

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Sagar – M.P

Introduction

Population Education is multi-disciplinary in nature and structure. It draws its contents from major fields of study such as Demography, Natural and Applied Sciences, Social Sciences and so on. It is therefore an embodiment of various concepts and messages. According to Nigeria Population Education and the Nigerian Education Research and Development Council, population education is "*An educational process which provides for an articulated and practical study of the population situation in the family, the community, the nation, and the word, with the aim of developing in the individuals a more rational attitude and responsible behaviour towards improving the quality of their life now and in the future"* (Adekunle Adam ADEDEJI, 2012).

Population education in a wider perspective has three basic parameters: (i) population, (ii) education and (iii) quality of life based on human dignity. The three parameters need not, and should not, be taken into account in a linear continuum. In fact the phenomenon of population growth and the need for its stabilization can best be understood if the three basic parameters are seen in a non-static cyclic model where there is a two-way inter-relationship between the three.

The world today has its largest generation of youth in history – 1.8 billion young people, mostly in developing countries – with enormous potential to help tackle the major challenges facing humanity. But too many are denied their rightful opportunities to get a quality education, find decent work, and participate in the political life of their societies. World Population Day is an opportunity to renew our commitment to help young people unleash progress across society. Action is urgently needed. Too many young people lack resources they need to lift themselves out of poverty (Ban Ki-moon).

Population Education: Need

It has been understood that there is interrelationship between population and development and the problems associated with are highly complicated and multidimensional and the solution needed to be yielded out. It is directly proportionate to the nation, its people and development.

Demographic trends influence, and are influenced by, the level of development and the quality of life of the people. The population situation of any nation largely depends on the demographic behaviour of its people. Changes in the demographic profile of a nation depend largely on attitudes and behaviours of individuals in respect of population and development issues. The demographic behaviour is to a great extent informed by *population* socialization, a process by which people acquire norms, values, attitudes and belief systems in respect of population related issues and which is embedded within the larger complexes of social practices reflecting the society's internal logical system. This process is greatly influenced by education which enables the individual to know the phenomenon of population change and its consequences. It is commonly observed in many countries that the knowledge of the simple facts of population change, let alone the complex interrelationships with other parameters, is very low even among educated people. Population education has evolved to solve the contemporary population problems the nations facing with. (Pandey, J.L., 1999).

Article 16 of Universal Declaration of Human Rights as adopted and proclaimed by General Assembly Resolution 217 A (III) of 10 December, 1948 reads:

1. "Men and women of full age, without any limitation due to race, nationality or religion have the right to marry and to found a family. They are entitled to equal rights as to marrying, during marriage and at its dissolution".
2. "Marriage shall be entered into only with the free and full consent of the intending spouses".
3. "The family is the natural and fundamental group unit of society and is entitled to protection by society and the State".

Indian Constitution and Education

The Right of Children to Free and Compulsory Education Act or Right to Education Act (RTE), which was passed by the Indian Parliament on 4 August 2009, describes the modalities of the provision of free and compulsory education for children between 6 and 14 in India under Article 21A of the Indian Constitution. India became one of 135 countries to make education a fundamental right of every child when the act came into force on 1 April 2010.

Quality of Education

The quality of education provided by the government system remains in question. While it remains the largest provider of elementary education in the country forming 80% of all recognized schools, it suffers from shortages of teachers, infrastructural gaps and several habitations continue to lack schools altogether. There are also frequent allegations of government schools being riddled with absenteeism and mismanagement and appointments are based on political convenience. Despite the allure of free lunch-food in the government schools, many parents send their children to private schools.

Indian Education Commission (1964-66)

The government of India is convinced that a radical reconstruction of education on the broad lines recommended by the Education Commission is essential for economic and cultural development of the country, for national integration and realizing the ideal of a socialist pattern of society. This will involve a transformation of the system to relate it more closely to the life of the people; a continuous effort to the expand educational opportunity; a sustained and intensive effort to raise the quality of education at all stages; an emphasis on the development of science and technology and the cultivation of moral and social values. The educational system must produce Youngman and women of character and ability committed to national service and development. Only then will education be able to play its vital role in promotion national progress, creating sense of common citizenship and culture, and strengthening national integration.

National Policy on Education (1968)

The NPE (1968) minced a significant step in the history of education in post – independent India. It aimed to promote national progress a sense of common citizenship and culture and to strengthen national integration. It laid stress on the need for a radical reconstruction of the educational system, to improve into quality at all stages, and gave much attention to science and technology, the cultivation of moral values and a close relation between education and the life of the people. But with the advancement in almost all the fields the system of education remained almost on the same level.

New National Policy on Education (1986)

In January, 1985 the Government of India announced that or new Educational Policy would be formulated for the country. A comprehensive appraisal of the existing educational scheme was made, followed by a country wide debate.

There are around 150 universities and about 5,000 colleges in India at that line. In view of the need to effect an all round improvement in these institutions it is proposed that, in the near future, the main emphasis will be on the consolidation of, and expansion of facilities, in the existing conditions.

Development of Higher Education in India -A Policy Framework (1978)

The framework reviewed the achievements and failures of the Indian higher education system and identified three main weaknesses:

a) The educational institutions function in isolation from the community as well as from one another. It has proved itself to be inadequate to meet our national needs and aspirations.
b) The system maintains a set of double standards. The dualism in rich and poor institutions leads to undesirable social segregation and to a perpetuation and strengthening of inequalitation trends in our society.
c) In qualitative terms, it is mainly the upper and middle classes are the beneficiaries of this system 80 per cent of the scats in higher education are taken by the top 30 per cent of income groups.

What the system needs, therefore, is drastic overhaul; a transformation of its character, through the introduction of a modern scientific outlook and other essential measures, to snit out national needs and aspirations; a substantial improvement of standards; an extension of its coverage so that the education of the people becomes, not a peripheral pursuit, bat a central objective.

National Population Policy (1976)

National Population Policy discusses the basic issues as follows:

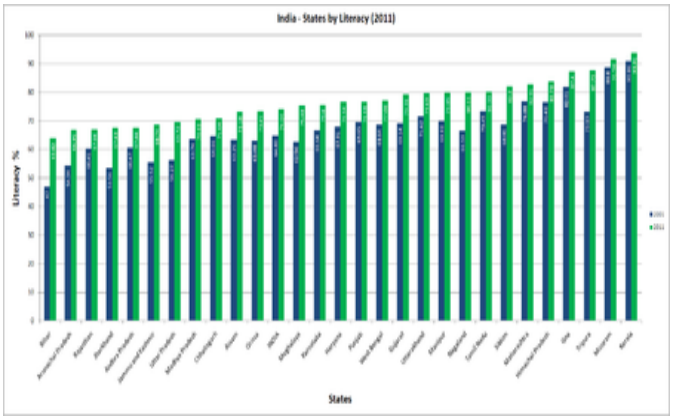
Our real enemy is poverty, and it is as a frontal assault on the citadel of poverty that the Minimum Needs Programme has been initiated. Integrated package of health, family planning and nutrition, is one of the five items of this programme.

None the less, it is clear that simply to wait for education and economic development to bring about a drop in fertility is not a practical solution. The very increase in population makes economic development slow and more difficult of achievement. The time factor is so pressing and the population growth so formidable, that we have to get out of the vicious circle through a direct assault upon this problem as a national commitment.

Current Scenario

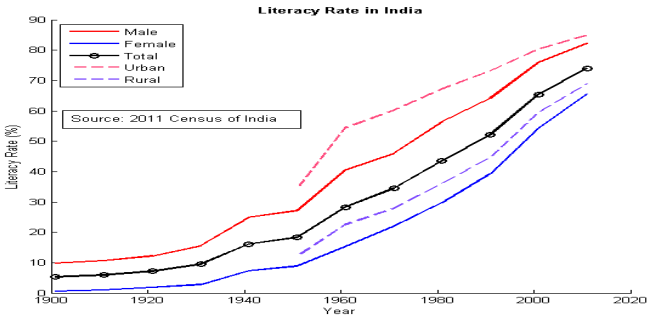
India is a home to 19% of the world's children. Above one-Third of its population (Around 48 Crore, According to the 2001 census) is below the age of 18, and around 74 per cent of this population lives in rural areas. The population of people in the age group 0-25 years is 56 crore, which in turn is 54% of the country's total population. Indeed, India has the world's largest number of youngsters. India has one-third of the world's illiterate population – a worrisome trend. It's not as though literacy levels have not increased. If we look at the 2011 figures, 74.04% of people above the age of seven are literate the male literacy level has reached 82.12%, while female literacy has touched 64.46% (The difference between male and female literacy level is 16%).

It's worth mentioning, however, that in the period between 2001 and 2011, the increase in male literacy was just 6.88%. Similarly, the rate at which male and female literacy levels increased between 1991 and 2001—male by 12% and female by 14.4% --has slowed down. Therefore, total literacy growth of 12.6% (From 1991-2001) has declined to 9.21%.



The literacy rates of different Indian states in 2001 and 2011

Source: Census, 2011. http://en.wikipedia.org/wiki/Literacy_in_India



Source: 2011 Census of India.
(http://en.wikipedia.org/wiki/Literacy_in_India)

Policy on Family Welfare

- Family Planning will be pursued vigorously as a wholly voluntary programme and as an integral part of a comprehensive policy covering education, health, maternity and child care, family welfare, women's rights and nutrition.
- It is our intension to take the programme forward in the real sense as an investment in man. Our approach is educational and wholly voluntary. There will, however, be no slackening of our efforts in this direction.
- The Government attaches the highest importance to the dignity of the citizen and to his right to determine the size of his family. We have no doubt that by and large the people of India are conscious of the importance of responsible parenthood, given the necessary information and adequate services; they will accept the small family norm.
- The direct correlation between illiteracy and fertility and between infant and maternal mortality and the age at marriage is well established by demographic studies. While on one hand the government will pursue its policy of according high priority to the improvement of women's status, it will also bring legislation for rising the minimum age of marriage for girls to 18 and for boys to 21.
- Population education has so far not received the attention it deserves. The NCERT has developed some models for the introduction of population education in the school education system. These models have already been adopted by the Central School Organization. We must take steps without further delay to see that the youth receive population education as part of their normal courses of study.

Population and School

The NCERT paper on "Population Education: An Innovation – Status and Prospects" prepared during world population year 1974 outlines the relationship between population and school in the following words:

- Population explosion is a complex phenomenon, with a variety of ramifications – biological and physiological, moral and ethical, social and cultural and economic and political, all of which need to be understood properly.
- Population education may help students to understand the inter-relationships between population and development and possible repercussions between the two particularly when there is a continued imbalance between the two.
- Population education may help students as they grow in regard to their reproductive behaviour to explore alternatives open to them along with their implications for themselves, their families and the country at large. Thus they should be made aware that in their married life they should be called upon to take wise decisions on their family size – the decisions that are purely personal but at the same time with perhaps greatest public import.

The above mentioned reasons for educating people on population policies and problems are meaningful in democratic society, believing in persuasion rather than coercion, and in ultimate wisdom of its people in making correct choices from alternatives open to them.

Education: Benefits

Education imparts in:

1. Understanding the population phenomenon;
2. Appreciating population structure and the need for its manipulation;
3. Bringing about induced changes in population structure;
4. Realizing the determinants and consequences of population changes which take place automatically or as a result of deliberate attempts;
5. Focusing sharp attention on relation between man and environment, his role as a mere consumer of food, his place in the interdependent ecosystem and enlightened part he would have to play in maintaining ecological balance;
6. Studying inter-relationships between growing numbers and dwindling per capita resources particularly those that are not replenishable or unlimited.

7. Inculcating an urge in every human being to aspire and work for better quality of life;
8. Preparing man to think in terms of economics based on recycling of resources, dissuading him from increasing his wants endlessly and getting into a vicious circle of consumerism.
9. Helping citizens of tomorrow in formulating population policies and programmes;

Epilogue

The study brings out clear understanding about the grass root deficiencies of lack of education, quality of life with reference to population. Education can go a long way in clarifying the concepts of better quality of life and also contributing to bring about the same. While helping to understand the deficiencies at a wider level in the global context and national perspective, it can certainly help the individuals to behave responsibly intelligently and meaningfully at the micro-level.

Reference

1. Parakh, B.S. (1985). Population Education Inception to institutionalization. NCERT, New Delhi.
2. Population Education for Teachers, NCERT (1974), New Delhi.
3. Population Education in School Curricula (social science): A Working Document, NCERT (1970), New Delhi.
4. Subbarao, K.P. (2013). Dimensions of Modern Education. Akansha Publishing House, New Delhi.
5. The Right of Children to Free and Compulsory Act 2009, No 35 of 2009 26th august 2009, *Gazette of India*, New Delhi.
6. National Policy on Education 1986 Ministry of Human Resource Management, Government of India New Delhi
7. National Curriculum Framework (NCF) 2005, NCERT, New Delhi.
8. Secretary-General's Message for 2014http://ww w.un.org/en/ev ents/popula i onday/ messag es.shtml retrieved on 10/07/2014.
9. Pandey, J.L., (1999). Population Education- Content and Methodology. Edited by Riaz Shakir Khan. http://www.ncte-indi a.o rg/ pub /po ped u/ index.html
10. Adekunle Adam ADEDEJI, (2012). http://mailingprince.hubpages.com/hub/Notes-on-Population-and-Family-Life-Education (retrieved on 06-08-2014).

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REALISATION OF THE PAST TENSE MARKERS AND THE PLURAL MARKERS OF ENGLISH SPOKEN BY THE PHARMACY STUDENTS OF TELUGU STATES (TELANGANA AND ANDHRA PRADESH)

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1.0. Introduction

1.1. Aim of the study

The aim of the present study is to identify whether the students of B.Pharmacy are able to pronounce the plural markers and the past tense markers correctly or not.

1.2. The theory of plural markers

1.2.1. If a noun ends in a voiceless sound other than / s /, / ʃ /, and / tʃ /, the plural morpheme at the end of that is realised as /s/.

Eg:- Caps /k ps/ hats /h ts/

1.2.2. If a noun ends in a voiced sound other than / z /, / / and / d /, the plural morpheme at the end of that noun is realised as / z /.

Eg:- Cows / ka z/ dogs / d z/

1.2.3. If a noun ends in /s/, /z/, /ʃ/, / /, /tʃ/ or /d /, the plural morpheme at the end of that noun is realised as / z/.

Eg:-Brushes /brʌʃ z/ Languages /l w dʒ z/

The four types of exceptions to these pluralisation rules are as follows:

1. There are nouns in which the consonant at the end of the base is changed before the rule regarding the plural morpheme is applied.

a. / / ⟶ / / + /z/

Bath / b : / ⟶ baths /b : z/

Mouth /ma / ⟶ mouths /ma z/

b. /f/ ⟶ / v / + / z /

Half / h :f / ⟶ halves / h :vz /

c. / s / ⟶ / z / + / z /

House / ha s / ⟶ houses / ha z z /

2. There are nouns in which the plural morpheme is realised in terms of a change of vowels

Foot – feet Mouse – mice

3. There are nouns in which the plural morpheme is realised in terms of a zero-morph

Deer – deer sheep - sheep

4. There are nouns in which the plural morpheme is realised as / n / or / n / with or without a change in the base.

Ox – oxen child – children

1.3. The theory of the past tense markers

1.3.1. If a verb ends in a voiceless sound other than / t /, the past tense morpheme or past – participle morpheme in that verb is realised as / t /.

Stopped /st pt/ pushed /p ʃt/

1.3.2. If a verb ends in a voiced sound other than / d /, the past tense morpheme or the past – participle morpheme in that verb is realised as / d /cried /kra d/ sinned /s nd/

1.3.3. If a verb ends in / t /, or / d /, the past – tense morpheme or the past –

participle morpheme is realised as / d /.

Wanted / w nt d / decided / d sa d d/

The following four types of irregular verbs are exceptions to these rules.

a. Verbs in which all the three forms are the same

Burst – burst - burst

Cut – cut - cut

b. Verbs in which the three forms are different from each other:

Begin began begun

Choose – chose – chosen

c. Verbs in which the past –tense form is the same as the past-participle form

Bring – brought - brought

Find – fond - found

d. Verbs in which the base form is the same as the past-participle form

Come – came - come

1.5. Test material

Run – ran - ran

1.4. Choice of the informants

Under the study, 21 informants (7 from each region) who are studying the III year B.Pharmacy in Telangana and Andhra Pradesh (Coastal-Andhra and Rayalaseema) were selected. Their medium of instructions in the classroom is English.

For testing Plural markers	Transcription	For testing Past tense markers	Transcription
Books	/b ks/	Checked	/tʃekt/
Tablets	/t bl ts/	Rubbed	/rʌbd/
Jyothy's	/d ti:z/	Wanted	/w nt d/

Injections	/ nd ekʃʌnz/	Rounded	/ra nd d/
Nurses	/nɜ:s z/		
Bandages	/b nded z/		

1.6. Data collection

All the speech samples were recorded by using a good quality of Sony Voice recorder. Recording was conducted at the university or college, where the speakers were pursuing their education. It was ensured that the rooms were quiet by switching off the lights and fans.

Words were typed neatly on a sheet of paper, and were handed to them. Before the actual recording, they were asked to read the words silently to themselves. They were asked to read all the words as naturally as possible. Before they read aloud the words, and they have also been given a personal profile sheet which they have been asked to fill in. A copy of the personal profile format is reproduced below.

Profile of the speaker

1. Name:
2. Age:
3. Sex:
4. Mother tongue:
5. Educational qualification:
6. Year of study:
7. Name of the college:
8. Medium of instruction at school:
9. Medium of instruction at previous college:
10. Medium of instruction at present college:
11. Age at (s)he started learning English:
12. Language spoken at home:

13. English learning resources:

Signature of the speaker

1.7. Analysis of the data

Recorded speech samples of all 21 informants were played back on the computer and transcribed phonemically according to the auditory impressions of the author. Then phonemic inventory of all the speakers have been worked out.

1.8. Results of the study

1.8.1. Informants of the Rayalaseema

1.8.1.1. Realisation of the Plural markers

All the informants produced /s/ in conformity with the R.P in the words *tablets* and *books.*

/z/ is produced as [s] by the informants 1, 2, 3, 4, 5, and 6, and [ʃ] by the informant 7 in the word *Jyothy's*, and [s] by the informants 1,3,4 and 6, and no production taken place in the informants 2,5, and 7 in the word *injections*.

All the informants produced / z/ as [es] in the word *nurses*; and [es] by the informants 5 and 7, and [ʌs] by the informants 1, 2, 3, and 6, and [s] by the informant 3 in the word *bandages*.

1.8.1.2. Realisation of the Past tense markers

Except the informant 1, all the informants produced /t/ as [d] in the word *checked*. All the informants produced /d/ in conformity with R.P in the word *rubbed*. All the informants produced / d/ as [ed] in the words *wanted* and *rounded*.

1.8.2. Informants of the Telangana

1.8.2.1. Realisation of the Plural markers

informants 1, 5, 6, and 7, and [is] by the

All the informants produced /s/ in conformity with R.P in the words *tables* and *books*.

All the informants produced /z/ as [s] in the words, J*yothy's* and

injections.

All the informants produced / z/ as [es] except the informant 3. There is no production taken place in the case of the informant 3 in the words, *nurses* and *bandages*.

1.8.2.2. Realisation of the Past tense markers

All the informants produced /t/ in conformity with R.P except the informant 4. There is no rendering in the case of the informant 4 in the word *checked*.

All the informants produced /d/ in conformity with R.P in the word *rubbed*. All the informants produced / d/ as [ed] in the words *wanted* and *rounded*.

1.8.3. Informants of the Coastal-Andhra

1.8.3.1. Realisation of the Plural markers

All the informants produced /s/ in conformity with R.P in the words *tablets* and *books*.

All the informants produced /z/ as [s] in the words *Jyothy's* and *injections*.

All the informants produced / z/ as [es] in the word *nurses*, and [es] by the informants 3 and 4, and conformity with R.P by the informant 2 in the word *bandages*.

1.8.3.2. Realisation of the Past tense markers

The past tense marker /t/ is in conformity with R.P in the informants 3 and 4, and is produced as [d] by the informants 1, 2, 5, 6, and 7 in the word *checked*.

All the informants produced /d/ in conformity with R.P in the word *rubbed*. / d/ is in conformity with R.P in the informants 3 and 4, and is produced as [ed] in the informants 1, 2, 5, 6, and 7 in the words *wanted* and *rounded*.

Conclusion

The Plural markers and the Past tense markers were available in majority of the languages. English has only three plural markers and three

past tense markers, but majority of the informants failed in attempting these markers. When they failed in attempting the plural markers and the past tense markers, indicating that they are not very much attentive of the English language. This will create problems when they come out and interact with the native speakers of English, as well as other language speakers. Hence, rigorous training is needed for them.

References

1. Balasubramanian, T. (1981). A textbook of English Phonetics for Indian students. Chennai: MacMillan
2. Cruttenden, Alan. (2008). Gimson's Pronunciation of English. London: Hodder Education.
3. Hancock, Mark. (2003). English Pronunciation in Use: Intermediate. New Delhi: Cambridge University Press.
4. Jones, Daniel. (2006). Cambridge English Pronouncing Dictionary. Cambridge: Cambridge University Press.
5. Ladefoged, Peter., & Johnson, Keith. (2011). A Course in Phonetics. Delhi: Cengage Learning India Private Limited
6. Marks, Jonathan. (2007). Englishronunciation in Use: Elementary. Cambridge: Cambridge University Press.
7. Prasad, Tarni. (2009). A Course in Linguistics. New Delhi: PHI Learning Private Limited
8. Roach, Peter. (2010). English Phonetics and Phonology: A practical course. New Delhi: Cambridge University Press.
9. Sasikumar, V., & Dhamija, P.V. (2007). Spoken English: A Self-Learning Guide to Conversation Practice. New Delhi: Tata McGraw-Hill Publishing Company Limited.
10. Sasikumar, V., Kiranmai Dutt, P., & Rajeevan Geetha. (2006). A Course in Listening and Speaking-I: A text book for I year Undergraduate (Non-Professional) General English Course. New Delhi: Foundation books Pvt.Ltd.
11. Swan, Michael. (2008). Practical English Usage. Oxford: Oxford University Press.Syal, Pushpinder., & Jindal, D.V. (2007).
12. An introduction to Linguistics: Language, Grammar and Semantics. New Delhi: Prentice-Hall of India Private Limited.
13. Thakur, D. (2001) Linguistics simplified: Morphology. Patna: Bharati

Bhawan (P&D).

14. Verma, S.K., & Krishnaswamy, N. (1989). Modern Linguistics: An introduction. Oxford: Oxford University Press

15. Wren, P.C., & Martin, H. (2006). High school English grammar and composition. New Delhi: S.Chand&Company.

Appendix - Details of the informants

(Each detail was separated by a semi-colon (;)).

I. Rayalaseema

1. D.Gayathri; 19; Female; Telugu;B.Pharmacy; III Year; Nirmala College of Pharmacy; English; English; English; 3 years; Telugu; News papers, Teachers, Internet, and Books

2. A.Sruthi; 20; female; Telugu; B.Pharmacy; III year; Nirmala College of Pharmacy; English; English; English; 3 years; telugu; Books, Internet, News papers, and Teachers.

3. D.Lakshman; 19; Male; Telugu; B.Pharmacy; III year; Nirmala College of Pharmacy; English; English; English; 3 years; Telugu; News papers, Teachers, Internet, and Books.

4. N.Sruthi; 19; Female; Telugu; B.Pharmacy; III year; Annamacharya College of Pharmacy; English; English; English; 3 years; Telugu; Books, Internet, News papers, and Teachers.

5. Rahul Srinivas; 21; Male; Telugu; B.Pharmacy; III year; Annamacharya College of Pharmacy; English; English; English; 3 years; Telugu; Books, News papers, Magazines, and Internet.

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ANALYSIS AND COMPENSATION OF SPRINGBACK EFFECT OF SHEET METALS IN BENDING PROCESS WITH VARYING CONDITIONS

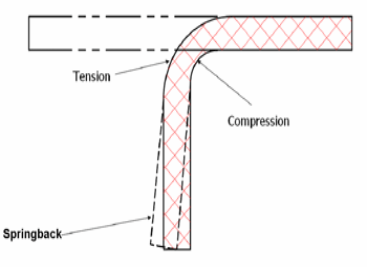
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INTRODUCTION:

The manufacturing methods that are used to create the primary shape of products is by plastically deforming the material, well known examples are forging, rolling ,extrusion ,sheet metal forming and hydro forming [1,2]. Sheet metal forming is a special class of deformation process in which blanks with the thickness being much smaller than the other dimensions, are formed into desired shape. Sheet metal forming involves bending, flanging, stretching, punching, deep drawing and some other process.

In bending process the springback is a phenomenon of elastic recovery after the plastic load released. The elastic recovery is influenced by a combination of various process parameters such as tool shape and dimension, contact friction condition, material properties, thickness and so on.

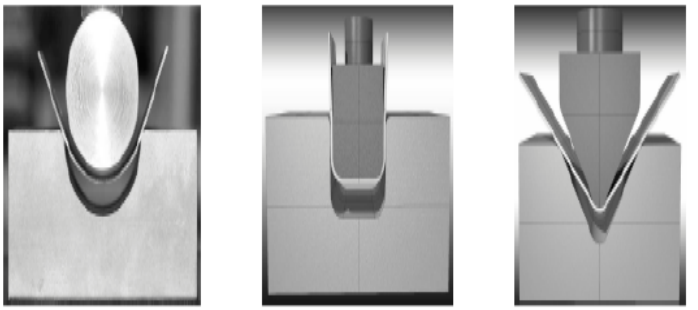


Springback effect in bending

Cylindrical and V-shape bending process are often used to manufacture sheet parts like channels, beams and frames. In this process, the sheet metal usually undergoes complex deformation history such as stretch-bending, stretch-unbending and reverse bending. When the tools are removed,

in addition to springback, sidewall curl often happens, which makes the prediction of springback become more difficult.

Many experimental methods are developed to study and understand the springback phenomenon. The most common and standard methods are air bending, wipe bending, V bending, U bending and cylindrical bending as shown in below figures. These are the rottenly used techniques to study the difficulties and causes associated with springback phenomenon. The sensitive basic parameters which are influencing springback such as tool radius die radius, sheet thickness and other geometrical parameters are studied practically by means of these methods. The major disadvantage of these experimental methods is that they cannot follow the realistic process conditions that take place during sheet metal forming. Stretch bending is one of the bending tests that are carried out to determine the importance of tension in compensating the springback.



cylindrical,u-shape and v-shape bending

Most of regular materials in engineering applications results a linear stress-strain response up to a stress level known as the proportional limit. Further this limit, the stress-strain response will become nonlinear, but will not be inelastic. And plasticbehavior of the material is said to be non-recoverable strain, which start to begin when applied load or stress exceed the material's yield point. Plasticity theory was developed to investigate or predict the characteristics of metals under loads above the elastic limit. Plasticity phenomenon is a non-conservative, path dependent phenomenon. In other words, the series in which the loads are applied and resulting plastic response of the material affects the final results. If plastic reaction is introduced in the analysis, loads applied in a sequence of small increments load step which will follow the load –reaction path as closely as possible. Along with the plasticity

other types of nonlinear behavior might also occur. Specifically like geometric nonlinearities with plastic material reaction which is taken care during the FE analysis, material stress-strain properties may also be used for large deformation analysis. [13]

Important points in modeling the metal plasticity:

1. The division of strain into elastic strain and plastic strain
2. Yielding criterion which describes the behavior of the solid model which predicts the elasticity and plasticity response of the material.
3. By controlling the shape of the stress-strain curve by using strain hardening rules.

Literature review:

Stefan, Nagit Gheorghe are published paper about the springback analyses on sheet aluminum

V-bending using an systemic analysis on bending operation,This article deals an important aspect of instability phenomena at sheet metal bending operation, namely the springback (the springback is an geometric phenomena that affects accuracy by changing the geometric shape). Springback is a main defect occurred in the sheet-metalforming processes and has been thoroughly studied by researchers. Among them, quite a few efforts have been made to obtain a deep understanding ofthespringback phenomenon. The beam theory has been applied to formulate the curvature before and after loading by some researchers [1-3]. Hill [4] also presented a general theory for the elastic-plastic pure bending under the plane strain condition. The springback occurring in the bending of high strength steels was discussed by Davies [5], and Chu [6]. Nader [7] examined the effects of process parameters on the springback in the V-bending process by developing theoretical models. In addition to various theories on prediction of springback, efforts were also made to reduce the springback. Liu [8] demonstrated an efficient method that dramatically reduced the springback using the double-bend technique. A bending-restricting process wasproposed by Nagai [9] to reduce springback. Wang [10] showed by conducting experiments that the springback could be reduced by the over-bend approach.

EXPERMENTAL PROCEDURE

Three components like die, punch tool and work piece are prepared according to dimension at Autonagar workshop Visakhapatnam. The workpiece considered here are steel and aluminum of 0.5mm thickness sheet for the experiment. Cylindrical bending and V-shape bending processes are done for springback prediction.

Specimens for spring back test: Estimating springback value by performing a series of experiments has been the basis of this study . in order to perform the experiments work. The specimens must fit the die and punch with a suitable clearance. It should be :

1. aluminum sheet of 10 mm of width and 40 mm of length and 0.5 mm thickness.
2. steel sheet of 10 mm of width and 40 mm of length and 0.5mm thickness.
3. 3-iron die of 10 mm of width and 40 mm of length and 20 mm height and 60deg V groove of height10mm .
4. 4-iron punch of 20 mm of width and 5 mm of radius at tip of punch for v groove.
5. 5-iron die of 10 mm of width and 40 mm of length and 20 mm height and 18mmrad for cylindrical bend .
6. 6-iron punch of 20 mm of width and 18 mm of radius at tip of punch for cylindrical bend.



Components used for experiment

For cylindrical bending and V-bending:



Before load applied



After load applied

Spring back effect after load released



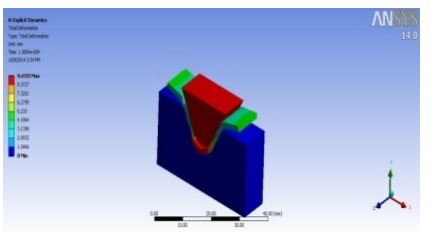
After load removed in cylindrical bending



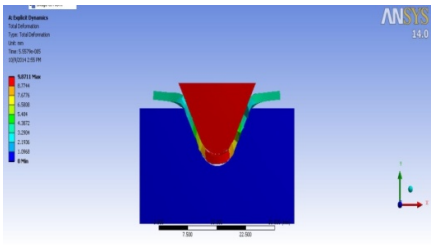
After load removed in v-shape bending

Finite Element Analysis

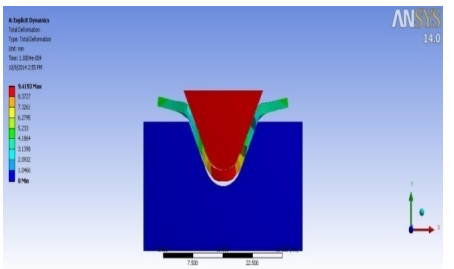
To highlight how the deformations evolutes during the bending process it is made a simulation with a finite element using the ANSYS program. Firstly, they will be formed using the CATIA program the two active parts of the bending process that is: the punch and the die. Firstly is 3D shaped the sheet which is going to be bent (40 x 10 x 0.5 mm), the bending punch, the plate bending die in the CATIA module- Part Design. The sheet is considered made of aluminum, steel and copper. There will be made a simulation of the bending with a punch of 600, radius 0.2 mm and 5.0 mm .It is found that the high-stress area is present in the contact area proper to the radius of the bending punch. The further we go from this area, the smaller the stress will be. The difference between the punch bending with a radius of 5.0 mm respectively the punch bending with a radius of 0.2 mm is that with the latter, the risk of the material cracking increases as the punch is coming in contact with the sheet .



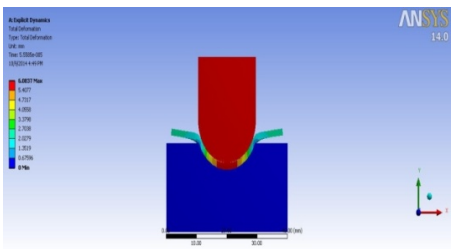
3d model of die, punch and work piece



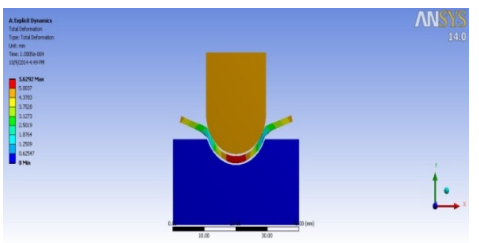
V shape bending after load applied



V shape bending after load removed

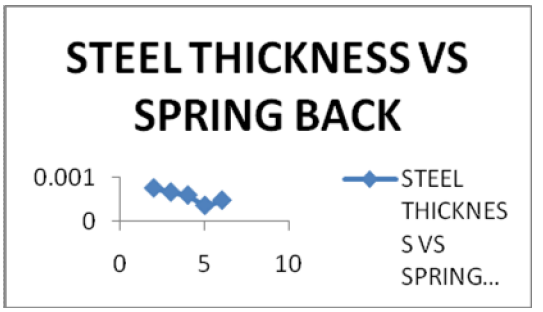


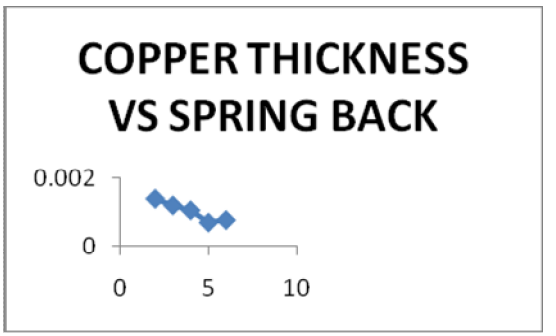
Cylindrical bending after load applied

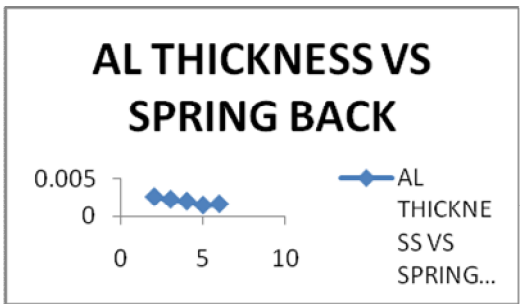


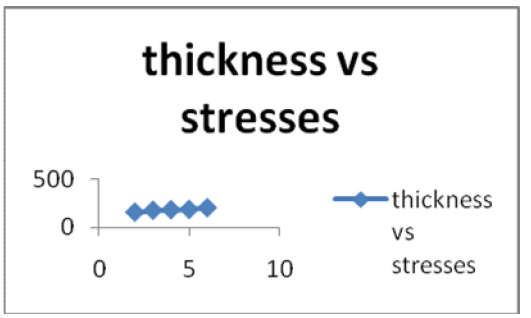
Cylindrical bending after load removed

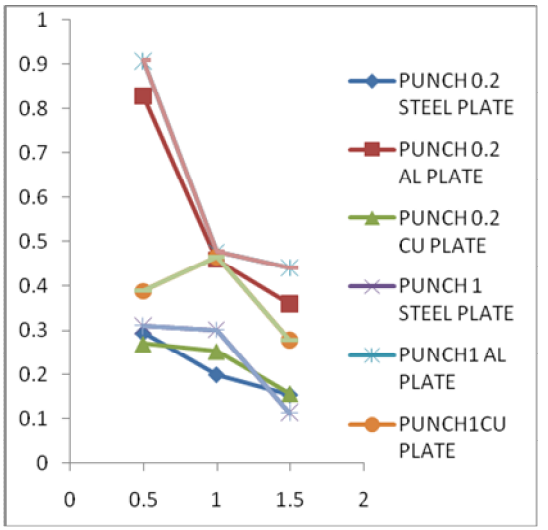
Ansys Graphs for different parameters:



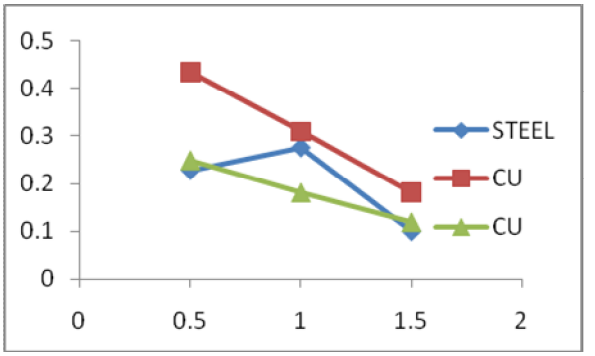




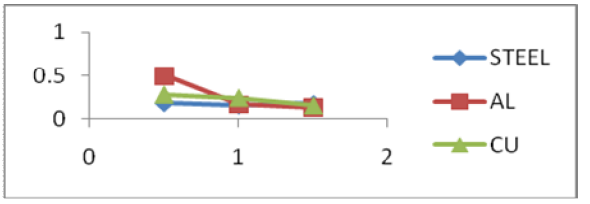




V shape bending springback value for different thickness of sheet metal



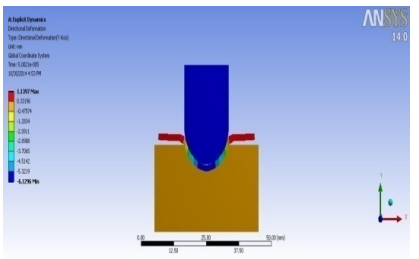
Cylindrical punch with radius 17mm springback values



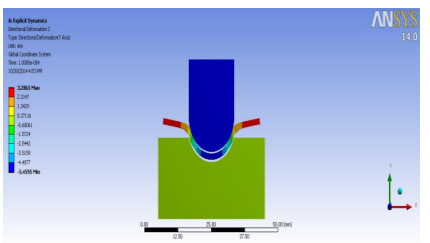
Cylindrical punch with radius 18mm springback values

Over-bend approach :

To compensate the spring back value over-bending approach is used in ANSYS. In this present work to overcome the spring back value cylindrical bending have considered for analysis in that die groove is increased from 6 mm to 7 mm and at same time width adjustments have also done in die to punch moves freely. Here requirement is to bend the sheet to 6 mm, the same process has done in ANSYS but after the load removed it get 5.45 mm bending, to overcome this process Over-bending approach have taken in to consideration. In that I applied displacement to sheet up to 6.6 mm but it went to 6 mm bending after the load removed. and analysis results are shown in below.



6 mm displacement applied to AL sheet

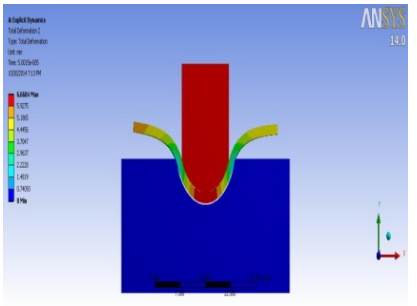


After load removed it gets to 5.45 mm

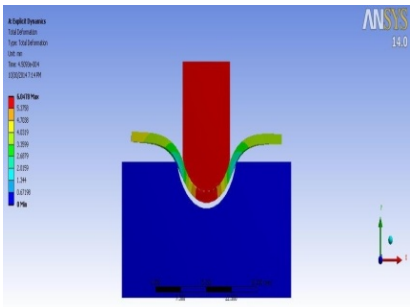
Results & Discussion:

The modeling and simulation method for bending process and springback have been discussed in detail in this project.the experimental was compared to simulation results.computer aided simulation can help reduce the number of physical test required and thus shorter the time to market. Experimental and analysis results are having nearly 5% difference.the results obtained might be little different with the real life result,but as long as the error does not exceed 5% it is acceptable since we expect the error due to meshing problem.

TABLES



6 .6mm displacement applied to AL sheet in modified die



6 .mm displacement we are getting after load removed AL sheet in modified die

FOR 0.5 mm STEEL SHEET		
MODEL	EXPERMENTAL (mm)	ANSYS(mm)
CYLINDRICAL	0.35	0.232
V-SHAPE	0.25	0.4303

FOR 0.5 mm ALUMINIUM SHEET		
MODEL	EXPERMENTAL (mm)	ANSYS(mm)
CYLINDRICAL	0.6	0.4545
V-SHAPE	0.4	0.4518

Conclusion:

- Experimental and analysis results are having nearly 5% difference.
- sheet metal thickness has a very appreciating amount of effect on springback
- If thickness is increases spring back is decreases
- If thickness is increases stresses are increases
- After comparison steel materials are having low spring back value
- Over bending approach have done in present work to get required bending value.

References:

1. M.F. Ashby. Materials selection in mechanical design. Butterworth-Heinemann, 2ndedition, 1999.
2. R. Pearce. Sheet metal forming. Adam Hilger, 1991.
3. T.X. Yu, W. Johnson, Influence of axial force on elastic-plastic bending and springback of a beam, J. Mech. Working Tech., 6 (1982) 5-21.
4. R. Hill, The mathematical theory of plasticity, Oxford University Press (1950).
5. R.G. Davies, C.C Chu., Y.C. Liu, Recent progress on the understanding of springback, Computer Modeling of Sheet Metal Forming Process, ed. By N. M. Wang and S. C. Tang, the Metallurgical Society, USA, (1985) 259-271.
6. C.C. Chu, The effect of restraining force on springback, Int. J. Solids in Structure, 27 (1991) 1035-1046.
7. N. Asnafi, Springback and fracture in V-die air bending of thick stainless steel sheets, Material and Design, 21 (2000) 217-236.
8. Y.C. Liu, Springback reduction in U-channels: double-bend Technique, J. App. Metal, 3 (1984) 148-156.
9. Y. Nagai, High precision U-bending technique for moderately thick plate,JSTP 28 (1987) 143-149.
10. [10]C. Wang, G. Kinzel, T. Altan, Mathematical modeling of plane-strain bending of sheet and plate, J. Mater. Processing Tech., 39 (1993) 279-304.

11. K.C. Chan, S.H. Wang, "Theoretical analysis of springback in bending of integrated circuit lead frames " Journal of Materials Processing Technology, 91(1-3) (1999)111-115.
12. R.A. Ayres, SHAPESET: a process to reduce sidewall curl springback high-strength steel rails, J. Appl. Metalworking 3 (2) (1984)127–172.
13. C. Wang, G. Kinzel, T. Altan, Mathematical modeling of plane strain bending of sheet and plate, J. Mater. Proc. Tech. 39 (3/4)(1993) 279–304.
14. Y.K.D.V. Prasad, S. Somasundaram, Mathematical model for bend allowance calculation in automated sheet-metal bending, J. Mater.
15. Proc. Tech. 39 (3/4) (1993) 337–356.[7] D.K. Leu, A simplified approach for evaluating bend ability and springback in plastic bending of anisotropic sheet metals, J. Mater.Proc. Tech. 66 (1997) 9–17.
16. J.C. Nagtegaal, L.M. Taylor, Comparison of implicit and
17. Explicit finite element methods for analysis of sheet forming problems FE Simulation of 3-D Sheet Metal Forming Processes in Automotive Industry, 894, VDI, Berichte, 1991, pp. 705–725.
18. A.P. Karafillis, M.C. Boyce, Tooling design in sheet metal forming using springback calculations, J. Mech. Sci. 34 (1992) 113–131.
19. H.B. Sim, M.C. Boyce, Finite element analyses of real time stability control in sheet metal forming processes, ASME J. Eng. Mater.Technol. 114 (1992) 80–188.

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EXAMINING PRESENT CONDITION OF DENOTIFIED TRIBAL WOMEN CAUGHT IN INTERGENERATIONAL SEX TRADE

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INTRODUCTION:

Intergenerational sex trade is a reality in 21st century india.Flesh trade, one of the most ancient professions in the civilized history of the country, is an inter-generational practice among several denotified ethnic groups in India, who were branded "thuggee" or criminal tribes in pre-independent India for there wayward lifestyle.

The whole issue does not revolve around morality of prostitution to be chosen as a profession which has been one of the most widely debated topics among the intellectual circles but about the reasons behind prostitution being practiced on an intergeneraional basis with mothers passing on the legacy to their daughters and fathers and brothers playing pimps for them.

Practice of integenerational sex trade among several denotified tribes in India has its roots going back to the Criminal Tribe Act of 1871 and the purpose of this paper is to explore the reasons for the origin of this act and how many of the denotified communities are still gripped under the prejudice created by the act.

CRIMINAL TRIBES ACT OF 1871:

Nomads are known for their wayward and mobile lifestyle who were free from societal restraints and were not ready to settle for a british colonial idea of a civilized living.

In india nomadic groups like those involved in activities such as being jugglers, ascetics,gypsies,nomads, iron smithy,craftsmanship, street entertainers,acrobats and trading communities began to be treated as "criminal tribes"relegating them to the social and economic fringe of the society.

The act received the accent of the Governor General on 12th october 1871 and applied mostly in north india and was extended to Bengal and

Madras presidency as well.

According to the provisions of the act local governments had full powers to report the governor general about any gang or tribe regarding it being addicted to systematic commission of non bailable offences and seek permissions to declare it as a criminal tribe .

The act made it mandatory to provide valid reasons behind why such a tribe was considered addicted to the systematic commisssion of non bailable offences and thereby upon the satisfaction of the governor general he authorised the local would be given complete authority to declare such a tribe as crimal tribe by publishing in the local gazette a notification declaring such a group to be a criminal tribe thus making the provisions of such an act applicable on that particular group. Following which the group in question had no recourse to appeal before the judiciary.

Since they were described as 'habitual criminal', restrictions on their movements were imposed and adult male members of such groups were forced to report weekly to the local police.

As a result anyone born in these communities across the country were considered to be "born criminal", irrespective of their criminal precedents which gave the police extraordinary powers to arrest and monitor their movements.

From then on, their movements were monitored through a system of compulsory registration and passes, which specified where the holders could travel and reside, and district magistrates were required to maintain records of all such people.

The compulsory surveillance by the police led to loss of traditional trades such as jugglers, ascetics,gypsies,nomads, iron smithy,craftsmanship, street entertainers,acrobats trading communities relegating them to the social and economic fringe of the society.

All of this made their lives very difficult and thus the women took up prostituion to eak out a living for them where women became the breadwinners while the fathers ,sons and husbands became pimps for there own women.

There are different interpretations among the academic circle regarding the passage of the criminal tribes act of 1871. while some historians

hold the view that there participation in the revolt of 1857 was the main reason behind it.while some other interpretations are as follows.

In a famous book called "A Popular

Account Of Thugs And Dacoits ,The Hereditary Garrotters And Gang Of Robbers

Of India" ,writer James Hutton who was appointed by the British government to present a report on these nomadic tribes talks about how these nomadic people were originally of Persian descent and used Persian language and later got divided into different families becoming followers of prophet and some Hinduism who practiced thugee and almost half of the thugs in Bengal and Bihar were Muslims .He elaborates on their way of life and how these thugs in case of a robbery never murdered a women which was prohibited in Bengal and Bihar. He concluded by saying how people for generations have resided in his territory and were found almost in all the states .Their offence is looked upon by the British as trifling and may be that is the reason why British government never directed him to stop their calling. The book clearly mentions that they were no threat to the society which clearly reflects political motives behind the passage of the act.

In a paper named Race, Caste and Tribe in Central India: the early origins of Indian anthropometry writer Crispin Bates clearly emphasizes on calling it a mistake to regard the criminalization of such tribes as aimed at normalizing the sociology of India and render it more susceptible to administrative control and whatever the nature and purpose of colonial discourse on caste and tribes it should not be forgotten that the discourse was situated in a political order in which concept of race was used instrumentally.

Lord Dufferin puts it, diversity of races in India and presence of mohammaden community are favorable to the maintenance of our rule.

Another writer Henry Schwarz in his book called "Constructing The Criminal Tribe In

Colonial India: Acting Like A Thief gives an overview of criminal tribe from early days of colonial rule to the present, argues that the crime in the colonial context is used as much to control subject populations as to define morally repugnant population. He discusses the Bhudan Theatres intervention in this great human tragedy.

In another interesting book by Meena Radhakrishnan called, Dishonored by History Criminal Tribes and British Colonial Policy, she clearly talks about how history of India is oblivious of tribal existence and were reluctant to see them as part of India.

She elaborates on how the purpose of 1871 act had been to suppress hereditary criminal sections of Indian society. A strong school of thought put forward by criminologists and scientists held that crime was a genetic trait transmitted over from generations in a family through parents or ancestors.

A sketch was drawn of a criminal who possessed not just bizarre social customs but a strange body and psyche. Criminal tribes act had its conceptual origins in local systems and structures and arose out of policies of political control rather social control for escalating crime. it happened because real politik on the ground dictated a pragmatic policy and need to see crime as arising out of some administratively manageable cause such as unemployment.

Genetic seemed out of bound for manipulation. So while racial theorists distanced from the problem of governance might continue to adhere to some notion of hereditary criminal, a sea change occurring in administrative mind .By calling the trait hereditary possibility of control would be given away, the explanation had to incorporate understanding of society which would make the process seem amenable to bureaucratic intervention. The British Indian administration in particular had to pose the problem in ways which would point towards an administrative resolution and not locate the problem in either unquestionable superiority of the British race, or inherent wickedness of the Indian.

Need of practical governance led to a search for a social scientific explanation of crime in India. Connecting Indian criminality to the introduction of railways, new forest policy, and repeated famines and so on. The new administrative rationale was that with the introduction of certain policies designed to raise revenue, some communities had lost their livelihood .How could they live except by committing crime especially if their was no property to support them.

The colonial administration had in any case been under pressure to identify the precise cause for criminality in Indian society, which made it so ungovernable from time to time and link was sought to be established between

lack of livelihood and criminality.

Revised criminal tribe act 1911 prided itself on basing its social policies on an understanding that social processes were man made opposed to god given and commission of crime related to lack of means of livelihood. Thus government led to the conclusion that work had to be found for large number of criminal tribe members in order to wean them away from life of crime or reform them.

She concluded by saying that criminal tribe was in a way used for combating secret societies, political preachers who might create unrest to combat the emerging nationalist movement.

REPEAL OF THE ACT:

Government of india in 1949 set up Aiyyanger Committee which in its report stated **"***In the first half of the 19th century, Northern India was overrun by thugs and dacoits. The population in general was much distributed and did not feel secure. The Government of India had therefore to take special measure to meet the situation and systematic operations to suppress the terrible crimes committed by the thugs were started in 1830. In 1839, the work of suppressing dacoity was also entrusted to a newly created Thug and Dacoity Department, which succeeded in suppressing the heinous crimes to a great extent. During its work of suppression of dacoity and other crimes, it had also brought to the notice of the Government of India that certain tribes in Northern India,were in the habit of systematically committing offences against property.*

In 1952, the Indian Government withdrew the Criminal Tribes Act of 1871 throughout

India and enacted Habitual Offender's Act which does not depart significantly from the Criminal Tribes Act from which it is derived.

Both the Criminal Tribes Act and the Habitual Offender's Act negate the universally proclaimed principle that "all human beings are born free and equal". The listing of these denotified and nomadic under the Habitual Offender's Act also negates the principle of the criminal justice system – innocent until proven guilty(Asian Tribune)

There are almost 313 nomadic tribes and 198 denotified tribes in india yet the legacy of the act continues to haunt the majority of 60 million

people belonging to these tribes,especially as their notification over a century ago has meant not just alienation and stereotyping by the police and the media,but also economic hardships.

A large number of them can still only subscribe to a slightly altered label,"vimukta jaatis"or the ex-criminal tribes.

Some of them are included in the list of scheduled caste,others in scheduled tribes while some others belong to none of the categories.

What is common to all these denotified tribes is the fate of being branded as born criminals which makes it difficult for them to integrate themselves in the Indian society.The reluctance on the part of the society to accept them as their own continues to force them to be in professions such as prostitution from where it gets difficult for them to move out.

They are stigmatized by mainstream society for which girls from the community are deprived of their basic rights to education, to livelihood, to a safe space, to legal protection and to a life of dignity. They are forced to remain in prostitution by their families and mainstream society.

The community today has been given a legal identity by putting them in various categories of schedule caste ,schedule tribe other backward classes but the social identity is still stigmatized.

FROM NOTIFIED TO DENOTIFIED:

Today, there are 313 Nomadic Tribes and 198 Denotified tribes in India yet the legacy of the Act continues to haunt the majority of 60 million people. A large number of them can still only subscribe to a slightly altered label, "Vimukta jaatis" or the Ex-Criminal Tribes.

Some of them are included in the list of scheduled caste, others in scheduled tribes and quite a few in other backward classes.

PRACTICE OF INTERGENERATIONAL PROSTITUTION:

India stands out among other nations due to one of its distinct cultural practice which is practicing intergenerational prostitution with mothers passing on the legacy to their daughters which goes on for generations.

What needs to be questioned is the practice which may have its origins in the criminal tribes act of 1871 but even after so many years continues without the official tag of being born"criminals".

LAWS :

The Scheduled Castes and Tribes (Prevention of Atrocities) Act, 1989 an Act of the Parliament of India enacted to prevent atrocities against scheduled castes and scheduled tribes. The Act is popularly known as POA, the SC/ST Act, the Prevention of Atrocities Act, or simply the Atrocities Act.

Article 17 of Indian Constitution seeks to abolish 'untouchability' and to forbid all such practices. It is basically a "statement of principle" that needs to be made operational with the ostensible objective to remove humiliation and multifaceted harassments meted to the Dalits and to ensure their fundamental and socio-economic, political, and cultural rights.

Despite various measures to improve the socioeconomic conditions of SCs & STs, they remain vulnerable. They are denied a number of civil rights and are subjected to various offences, indignities, humiliations and harassment. Serious atrocities are committed against them for various historical, social and economic reasons."

CONCLUSION:

Prostitution is one of the oldest profession but the issue arises when this profession begins to be practiced on an intergenerational basis with mothers passing on the legacy to their daughters and fathers and brothers playing pimps for them.

Community had very clear reasons behind taking up prostitution to eak out a living due to their status of being branded as criminal tribe but today the community has been placed under the category of schedule caste or schedule tribes or other backward classes conferring a legal identity to them, which should have brought a change in their social and legal status. But what is visible is gross violation of their human rights.

The whole identity of a particular community is at stake. The data and statistics of the Bihar government clearly reflects the insensitiveness and apathy of the government towards this community. There is rather imposed identity and the authority can always use the caste label to freeze identity when convenient. These women are victims of prejudice not only because they have there roots going back to the criminal tribe but today they are especially vulnerable, experiencing not only the discrimination of gender, but also of class and caste – 'triple discrimination' as it's called here in India – leaving

them in a vicious cycle of marginalisation and exploitation.

These are women with real capacities, emotions and aspirations. The ultimate goal is freedom and justice.Economic, political, cultural and social oppression is clearly

References

1. Dilip D Souza (2001). Branded by Law Looking at India's Denotified Tribes:Penguin books.
2. Gandhi, Malli (2008). Denotified Tribes Dimensions of Change. Kanishka Publishers.
3. Hutton,James(1857).A Popular account of thugs and decoits: the hereditary garrotters and gang of robbers of india:wm.h.allen.
4. Schwarz,Henry.(2010) constructing the criminal tribes in colonial india:acting like a thief :wiley blackwell.
5. Radhakrishnan,Meena.(2001). dishonoured by history :criminal tribes and british colonial policy:orient blackswan.
6. Debi, Mahasveta (2002). The Book of the Hunter:paperbach
7. Anand A. Yang.(1985).Crime and criminality in British India:University of Arizona Press.
8. Rafter ,Nicole.(1998).Creating Born Criminals: University of Illinois Press.
9. Tihanyi,Catherine and Woerkens Van Martine.(2002).The Strangled Traveler: Colonial Imaginings and the Thugs of India:University Of Chicago Press.
10. Anderson,Claire(2004).Legible Bodies: Race, Criminality and Colonialism in South Asia:Berg Publishers
11. Hollins,S.T.(2005).The Criminal Tribes in India:Nidhi book enclave
12. Bates, Crispin (1995). "Race, Caste and Tribe in Central India: the early origins of Indian anthropometry". In Robb, Peter. The Concept of Race in South Asia. Delhi: Oxford University Press.
13. Sahni, Rohini. Shankar,Kalyan,v.Apte,Hemant(2008).Prostitution And Beyond:An Analysis Of Sex Workers In India:Papreback
14. Mishra,Veerendra.(2013). Human Trafficking:The Stakeholders Perspctive:paperback
15. Sleightholme,Carolyn. Sinha,Indrani(1997).Guilty WithoutTrial: Women In The Sex Trade In Calcutta:Paperbach
16. Kara Siddhartha(2010).Sex Trafficking:Inside The Business Of Modern Slavery:paperback
17. Davidson,Connell o' Julia(2005).Children In The Global Sex Trade:Paperback
18. Bayly,Christopher.1983.Rulers,townsmen,and bazaars:north indian society in the age of british imperialism,1770-

1870.cambridge:cambridge university press.
19. Rozario,Rita M.2000.Broken lives:dalit women and girls in prostitution in India.Tumkur,India:Ambedkar resource center.
20. Rudolph,Susan and Lloyd,Rudolph.1967.The modernity of tradition:political development in india.chicago:university of chicago press.
21. Eisenstein,Zillah.1977."constructing a theory of patriarchy and socialist feminism."insurgent sociologist7,no.3(spring):3-17.
22. Kumar,Radha.1994a. The history of doing:an illustrated account of movements for womens rights and feminism in india,1800-1900.New Delhi:kali for women.

ARTICLES/JOURNALS

1. Continue to bear the brunt of police brutality Frontline, The Hindu volume19-issue 12 ,8-21 June 2002
2. People of India Bihar Volume XVI Part Two edited by Surendra Gopal and Hetukar Jha, pages 722-725
3. Year of birth-1871:mahasweta devi
4. Repeal the Habitual Offenders Act and affectively rehabilitate the denotified tribes, UN to India
5. "In Bandit Land". Indian Express. 27 July 2003.
6. Colonial Act still haunts denotified tribes: expert The Hindu, 27 March 2008.
7. Alavi,Hamza.1975."india and the colonial mode of production."economic and political weekly10,special no.(august):1235-62
8. Radhakrishna,Meena.2007."Urban Denotified Tribes: Competing Identities, Contested Citizenship." Economic and political weekly .Vol - XLII,special No. 51, (December)
9. Denotified and Nomadic Tribes: A Nowhere Existence,Vol - XLII No. 40, October 06, 2007 Editorials
10. bokil,milind.2002."De-notified and Nomadic Tribes."economic and political weekly Vol - XXXVII No. 02(january)
11. De-notified and Nomadic Tribes, Vol - XXXVII No. 02, January 12, 2002 Milind Bokil Special Articles
12. D'Souza ,Dilip.1999."De-Notified Tribes: Still 'Criminal'."economic and political weekly51,special no.(december)
13. De-Notified Tribes: Still 'Criminal'?Vol - XXXIV No. 51, December 18, 1999 Dilip D'Souza Commentary
14. Our Own or the Enemy? Vol - XLV No. 02, January 09, 2010 Editorials
15. Branded for Life,Vol - XLIII No. 40, October 04, 2008 Editorials
16. Notes On Criminal Tribes Residing In Or Frequenting The Bombay Presidency, Berar, And The Central Provinces (1882), by E. J. Gunthorpe. Kessinger

17. Suspects forever: "members of denotified tribes" by s.viswanathan, volume 19 issue 12, june 8-21 ,2002, frontline.
18. Prostitution ,legalisatin and decriminalisation by geetanjali gangoli,volume XXXIII No10,march 07,1998
19. prostitution in a patriarchal society -A critical review of the SIT act,by Jean D Gunha ,volume -XXII NO.45,November 07,1987
20. Prostitution Laws by Jean D Gunha,volume XXVII NO.17,april 25,1992
20. Prostitution ,Legalisation And Decriminalisation-recent debates,by Geetanjali Gangoli ,volume XXXIII NO. 10,MARCH 07,1998.
21. Sex trafficking and Sex work:Definitions,Debates,Dynamics-A Review Of Literature and U Vindhya by Annie George And Sawmya Raya volume XIV NO.17,april 24,2010
22. Banerjee,Sumanta.1993."The Beshya And Babu:Prostitute and her clientele in nineteenth century bengal." economic and political weekly28,no.45:2461-72
23. Das,Veena.1996."sexual volence,discursive formations,and the state."special issue of economic and political weekly(september):2411-23
24. Kishwar,Madhu.1985."gandhi on women." economic and political weekly 20:1691-1702,1753-58
25. Kristof,Nicholas.2004."loss of innocence." new york times,January28,a25
26. Rubin ,Gayle.1976."The traffic in women :notes on the political economy of sex."in toward an anthology of women,edited by Rayna Rapp Reiter,157-210.New York:monthly review press.

External links-

1. Racial abuse against Denotified and nomadic tribes in India-office of the united nations high commissioner for human rights.
2. National Commission for denotified, Nomadic & Semi-nomadic Tribes (Govt. of India) Ministry of Social Justice and Empowerment
3. list of denotified communities on government of bihar website
4. Acting Like a Thief, 15 min short film, by P. Kerim Friedman & Shashwati Talukdar
5. UNAIDS.2007."2.5 million people living with HIV in india."july 6.
6. UN office of drugs and crime(UNODC).2004.Protocol to prevent ,suppress ,and punish trafficking in persons.(accessed may 4 , 2004)