

ISSN 2277-7733

# Voice of Research

Volume 8 Issue 3, December 2019

ICV - 66.11



*An International Peer Reviewed & Referred  
Journal for Change and Development*

Impact  
factor  
3.522

Chief Editor  
Avdhes S Jha



# Voice of Research

*An International Peer Reviewed Journal for  
Change and Development*

ISSN 2277-7733  
Volume 8 Issue 3,  
December 2019

Dr. Varesh Sinha (IAS)  
*Ex. Chief Secretary, Gujarat.*  
Dr. Vinod Kumar Mall (IPS)  
*A. D. G. Police, Gujarat.*  
Shri U. S. Jha  
*Sr. DOM, Indian Railways*  
Dr. Arbind Sinha  
*Retd. Professor, MICA*  
Dr. C. N. Ray  
*CEPT University, Ahmedabad*  
Cao Chenrui  
*HOD, Hindi Department, YMU,  
China*  
Dr. R. S. Patel  
*Professor and Head, Gujarat  
University*

## Advisory Committee

Dr. M. N. Patel  
*Ex. Vice-Chancellor, Gujarat  
University*  
M. M. Goel  
*Vice-Chancellor, Jagan Nath  
University*  
Dr. G. P. Vadodaria  
*Principal, L. D. College of  
Engineering*  
Dr. Rupesh Vasani  
*Executive Member, World Dean  
Council*  
Minesh S. Jha  
*Management Consultant*

Kanhaiya Chaudhari  
*Director (Agricultural Ext.), ICAR,  
New Delhi*  
Dr. C. P. Bhatta  
*Professor, IIM, Calcutta*  
Dr. Rajul Gajjar  
*Director, GTU*  
Dr. G. S. Parasher  
*Ex. Pro Vice-Chancellor, RTMU,  
Nagpur*  
Dr. Maithili R. P. Singh  
*Professor, Central University  
Rajasthan*  
Ajay Patel  
*Project Scientist, BISAG*  
Dr. Rajneeshsingh Patel  
*Director, T.D. Campus, Rewa*

## Chief Editor

Dr. Avdhesh S. Jha, *Ahmedabad.*

## Issue Editors

Dr. Nilesh Jha  
Dr. Bharti Venkatesh  
Dr. Asha Thokchom

## Editorial Committee

Dr. Deepak Sharma  
*California State University, USA*  
Dr. Deepanjana Varshney  
*Senior faculty, King Abdulaziz  
University, Ministry of Higher  
Education, Saudi Arabia.*  
Prof. Kim Fam  
*Victoria University New Zealand*  
Dr. M. S. Meena  
*Principal Scientist, ICAR-ATARI*  
Dr. A. K. Kulshreshtha  
*DEI Agra.*  
Dr. Kalpana Modi  
*SNDT University, Mumbai*  
Dr. Uma Shrivastava  
*Professor and Head, Jabalpur*

Dr. Beena Sukumaran  
*Prof. & Head, Civil & Em. Engg.  
Dept. Rowan University, USA*  
Dr. Hiren Karathia  
*University of Lleida, Spain*  
Dr. S. Ahmed Khan  
*BIT, Dubai.*  
Dr. Veena Jha  
*Chauban College of Education,  
Bhopal*  
Renisha Chainani  
*Consultant & Expert, Finance*  
Dr. Madhura Kesarkar  
*SNDT University, Mumbai.*  
Ana Marcela Paredes  
*Consultant - Slutsker Center for  
International Students - Syracuse  
University*

Dr. Ramanjeet Singh  
*Director, ADMAA,  
Amity University*  
Dr. Rajshri Vaishnav  
*Education Department, RTM  
University*  
Dr. Vivekanand Jha  
*Editor and Consultant, Gwalior*  
Dr. Lalima Singh  
*S.S. Khanna Girls Degree College,  
Allahabad*  
Dr. T. V. Ramana  
*Andhra University Campus,  
Kakinada*  
Dr. Anjana Bhattacharjee  
*Tripura University, Tripura*  
Dr. Sony Kumari  
*SVYAS University, Bangalore*

**Ms. Shobha A. J.**

*Ahmedabad*

## EDITORIAL

With the new education policy, the UGC is keen and desperate for new rules and regulations. Whether it remains without any flaws still remains to be checked but one thing is sure that the potential prospects need to be atiptoe with respect to the research. I wonder if the academic research activity can add to itself with the same teachers and same teaching learning process. Anyway, as on now, it gives me immense pleasure to present the potential prospects with the Volume 8 Issue 3. This December issue comes up with the issues related to expenditures of institutional delivery for BPL households, emotional intelligence, mental health, smart class, early childhood, reality of practices in education, implications on contractslaw and street vending and handicrafts.

To add to the knowledge Kaur presents the relationship of emotional intelligence with mental health among employees, Tripathi & Verma studies the advantages and disadvantages of smart class in early childhood care and development, Pandian talks of rhetoric versus reality of practices in Indian distance education institutions, Gupta studies the burden of expenditures of institutional delivery for BPL households, Basu analyses the working of the law relating to street vending in India, Shah & Patel focusses on suggestive measures to empower the 'heirs of handicrafts'; Bhat discusses the bounded rationality, motivation & private information and its implications on contracts whereas Bijayadevi studies about fungi found in the soil of potato plantation areas.

Although, this issue presents the issues related to the society; still a lot needs to be done. All the pillars of the present flinty education as such the educand, the educator and the teaching learning process including the curriculum needs to be studied and restructured appropriately as per the need of the time and ofcourse as per the need of culture for the fact that education cannot add to itself or its prospects unless there is strong and healthy bonding between the educand and educator which requires rigorous research in the affective domain area. With hope of value addition in the society through education, overall, this issue ripostes thecurrent issues. I am sure, this issue will add to the potential prospects.

**Regards,**  
**Avdhesh Jha**  
**Chief Editor,**  
**Voice of Research**

## LIST OF CONTENTS

1.	RELATIONSHIP OF EMOTIONAL INTELLIGENCE WITH MENTAL HEALTH AMONG EMPLOYEES Ravneet Kaur.....	1
2.	ADVANTAGES AND DISADVANTAGES OF SMART CLASS IN EARLY CHILDHOOD CARE AND DEVELOPMENT Arpana Tripathi & Sapna Verma.....	10
3.	RHETORIC VERSUS REALITY OF PRACTICES IN INDIAN DISTANCE EDUCATION INSTITUTIONS T. Soundara Pandian.....	14
4.	BURDEN OF OUT OF POCKET (DIRECT AND INDIRECT) EXPENDITURES OF INSTITUTIONAL DELIVERY FOR BPL HOUSEHOLDS IN SELECTED VILLAGE OF VARANASI DISTRICT Anjali Gupta.....	19
5.	WORKING OF THE LAW RELATING TO STREET VENDING IN INDIA: AN EMPIRICAL STUDY OF KOLKATA MUNICIPAL CORPORATION Debabrata Basu.....	27
6.	SUGGESTIVE MEASURES TO EMPOWER THE 'HEIRS OF HANDICRAFTS' Amisha Shah & Rajiv Patel.....	36
7.	BOUNDED RATIONALITY, MOTIVATION & PRIVATE INFORMATION AND ITS IMPLICATIONS ON CONTRACTS Akshay Bhat.....	44
8.	STUDY OF FUNGI FOUND IN THE SOIL OF POTATO PLANTATION AREAS N. Bijaya Devi.....	53

# Call For Papers

Voice of Research calls for unpublished articles, research papers, book review, case study for publication.

## Guidelines to Authors

- No processing fee is charged for the review of the papers. Further, the plagiarism check is not done but the papers submitted for the Journal should be original contribution by the author or researcher. In other case, it shall be the responsibility of the author(s).
- A declaration uploaded on the website, duly filled and signed by the author along with covering letter that the paper is original and has not been published or submitted for publication elsewhere should be mailed to the editor.
- Research papers should be typed in double-space with 11 font size in Garamond and one inch margin on all sides on A4 size paper. Tables with appropriate number and title on the top in single space 9 font size and references (in APA style) in 10 font size.
- Research paper with the abstract containing tables, figures and reference should be restricted to 3000-4000 words.
- The cover page should contain the title of the paper, author's name, designation, official address and address for correspondence, contact, phone/fax number and e-mail address.
- Publication of the article or paper rests with the Editorial committee and it depends entirely on its standard and relevance. Authors may also be requested to revise their manuscript before they can be accepted for publication. Correspondence in this regard will be done with the first named author unless otherwise indicated.
- All the papers undergo double blind peer review. Minimum time taken for processing the paper 21 days. Maximum time taken for processing the paper is 45 working. Contributors are free to send the material to any other publication after this period if they don't receive any intimation from Editor, Voice of Research.

Research papers should be mailed to the editor at editor.vor11@gmail.com; editor@voiceofresearch.org

## Subscription Form

I Prof. /Dr. /Mr. / Mrs. /Ms. \_\_\_\_\_ wish to subscribe the journal “**VOICE OF RESEARCH**” for one year for individual/institution/library. The prescribed contribution of journal subscription is sent herewith by Demand Draft No \_\_\_\_\_ for Rs 1500 (Fifteen Hundred Only or as applicable in multiples of nos. of years) dated \_\_\_\_\_ in favour of “Editor, Voice of Research” payable at UCO Bank, Ahmedabad.

### Details of Subscriber Individual/Institute/University

Name (in Block Letters):

Flat/ Bungalow no.:

Street:

City:

Country:

Pin/Zip code:

Telephone / Mobile No.:

E-Mail Address:

State:

Signature

### Note:

1. Individual Contributors and subscribers from India may pay their subscription fee in Indian Rupee amounting to Rs. 1500.00 through **Direct Deposit into Bank Account** in or through demand draft favouring **The Editor, Voice of Research** payable at Ahmedabad. **The Draft can be sent in the name of Chief Editor at E/1, Samay Apartments, Beh. NID, Paldi, Ahmedabad- 380007**

2. **Information of Bank Regarding Direct Deposit:**

In the Name of: “Editor, Voice of Research”

Bank Name: UCO Bank

A/c No.: 03340210001387

Micr Code: 380028008

Branch Code: 334

IFSC: UCBA0000334

Bank Branch: Maninagar, Ahmedabad Gujarat (India).

### Subscription charges

Period of Subscription	Rate of Subscription	
	Individual	Institutional
1 year	Rs. 2500	Rs. 3000
2 years	Rs. 4800	Rs. 5500
3 years	Rs. 7000	Rs. 8000
Lifetime	Rs.20000	Rs. 40000

**RELATIONSHIP OF EMOTIONAL INTELLIGENCE  
WITH MENTAL HEALTH AMONG EMPLOYEES**

**Ravneet Kaur**

Assistant Professor, Dept. of Psychology,  
Akal University, Talwandi Sabo (Bathinda)

ISSN 2277-7733  
Volume 8 Issue 3,  
December 2019

**Abstract**

*Emotional intelligence as the ability to manage emotions and feelings has an important role in the life and success of an individual. Emotional and affective disturbance are an important factors in developing psychological problems related to mental health. The present study examined the association between the emotional intelligence and mental health of school teachers. The sample comprised 100 employees (M=50, F=50). Emotional intelligence was evaluated with Emotional Intelligence Scale by Hyde, Patbe & Dhar (2001) and mental health was evaluated with Employee's Mental Health Inventory by Dr. Jagdish (1985). Results showed that high emotional intelligence was positively and significantly related to mental health of employees. Further, no significant differences for gender in this regard were shown. Implications have been discussed.*

**Keywords:** *Emotional Intelligence, Mental Health and Employees.*

The strongest asset of all companies and business is their workforce. They can gain benefits from their workforce by investing in them, on the other hand they can go in lose if workforce is not efficient and with companies for its welfare. That is why it is very important to take care of employees' mental health and emotional intelligence, which are important variables to influence the work efficiency and have taken in the present study. Good mental health is a prime factor to achieve success. Sound health makes sound mind, adds to the happiness of a person and leads to a meaningful and active life. "The preamble of WHO's charter defined health as a state of complete physical, mental and social well-being, not merely the absence of disease or infirmity." (Monopolis et al., 1977). So, it is not just the absence of mental disorders and disabilities but more than this. Bhatia (1982) defined mental health as "**the ability to balance feelings, desires, ambitions, and ideals in one's daily living.**" In this positive sense, mental health is the foundation for individual's well-being and the effective functioning of a community and organization. Mental health is considered an important factor on workplace because it is associated with higher productivity, better performance, more consistent work attendance and fewer work accidents. Moreover, this is an attitude, a way of life, nurturing of competencies to deal with the exigencies and demands of organization and demands of normal life. Mental health is an important component for an individual itself and for an organization too. Mental health is affected by many factors. These factors are categorized mainly into two categories: risk factors and protective factors. The brief discussion of these factors is given below:

**Risk Factors**

Throughout our life, many forces shape our emotional well-being, both internal and external. Sometimes life throw us a curve ball and combination of stressful events which can burden our ability to cope emotionally, triggering anxiety, depression or other mental health conditions. Some risk factors that can impact mental health are given below:

## *EMOTIONAL INTELLIGENCE AND MENTAL HEALTH*

Lack of connection with primary care taker during childhood can have life long repercussions. Feelings of loneliness, isolation, confusion, lack of safety or abuse felt as a child can negatively color one's behaviour into adulthood; Serious trauma, death of a parent, war, hospitalization, tragic accidents and other devastating events; Learned helplessness can undermine our faith in ability to cope with life's problems; Chronic and disabling illness can isolate an individual from other people, denying the necessary social support of friends and family; Medication side effects can affect mental health, particularly in the elderly who generally take multiple medications, creating the potential for problematic drug interaction; Alcohol and drug abuse can both cause and exacerbate preexisting mental health problems; Poverty: The impact of poverty is measurable. The evidence reported that people in the lowest strata of income, education, and occupation are about two to three times more likely than those in the high strata to have mental health problems.

These risk factors that negatively impact the mental health can be counteracted by the protective factors which are discussed as follows:

**Protective Factors:** A number of factors have been identified which seems to reduce the probability of mental health problems. In general, health and security, and sense of connection to others seem to be important in the prevention from mental health problems. The following protective factors have been suggested: Connectedness- a sense of connection with family, school or community; Significant others- the presence of a caring adult to provide support for a young person or the presence of caring partner or family member for an adult; Responsibility for children- for adults, having the responsibility for family communication is protective factor in vulnerable situations; Personal resilience- some personal attributes enhance resilience, such as problem solving skills and positive coping styles; Spirituality and beliefs- protective factors may include a strong spiritual and religious faith, a sense of higher meaning or purpose in life, or a belief that suicide is wrong; Economic security- is an important protective factor, particularly in older people; Good health- is a protective factor for good mental health; Effective treatment- the early identification and effective treatment of mental health problems may prove a protective factor; Restricted access- lack of access to a means of suicide can help to reduce the risk of suicide, such as restricting the presence or accessibility of guns or certain medications.

Some of the biological and psychological protective factors for maintaining mental health include an easy-going temperament, Optimistic thought pattern/ a positive attitude and an affective coping skills repertoire. Thus, these are the protective factors which save an individual from mental health problems. There are some more variables which influence mental health of an individual.

**Emotional intelligence** is another variable which has been taken up for the present research. Emotional intelligence is the ability to observe one's own and others' feelings, to distinguish among them and to use this evidence to guide one's thinking and actions. Goleman (1995) describes emotional intelligence as "it is the capacity for recognizing our own feelings and those of others, for motivating ourselves, and for managing emotions well in ourselves and in the relationships." Mayer & Salovey (1997) defined it as the ability to perceive, access and generate emotions so as to assist thought, to understand emotions and its knowledge, and to regulate emotions so as to

promote emotional and intellectual growth. Emotional intelligence is an important factor for healthy, happy and successful life. The main components of emotional intelligence are Self-regulation, Self-awareness, Self-control/ self-management, Social consciousness and Social skills. So, basically Emotional intelligence, as the ability to manage emotions and feelings, has an important role in life and success of individual. Emotional intelligence has now become more popular for plentiful applications in various fields such as education, careers, personal development (Mohtashani, 2009; Omaral, 2008) and differences between individuals. Thus, in today's scenario emotional intelligence is becoming the center point for researchers because of its important role in successful career, participation in organization and success in personal life. In present study, emotional intelligence will be seen in relation with mental health of employees in schools.

**Review of Literature:** Research has started to emphasis on the role of emotions on the workplace and a development from this method has been to conceptually scrutinize the relationship between cognition and emotions. This movement has largely been credited to new research about the construct of emotional intelligence. Emotional intelligence involves behaviours related to the experience of emotion: specifically emotional intelligence involves expressing, recognizing, understanding and managing emotions. Emotional intelligence has been found to impact on mental health- specially occupational stress (Ciarrochi, Chan & Bajgar, 2001).

Ciarrochi, Chan and Caput (2000) posit that emotional intelligence may protect people from stress and other mental health problems, and lead to better adaptation. They said that an objective measure of emotion intelligence is related with a tendency to maintain an experimentally induced positive mood which has evident implication for preventing stress and other related mental health problems. Kakalvand (2009) has shown in his research that people who has ability to control their own emotions, understand their own and others' feelings, have better social support, and satisfaction from life may contribute to improve their mental health.

Bar-on (2003) has also defined that there was a moderate yet significant relationship emotional and social intelligence, and mental health. The aspects of emotional and social intelligence competencies that were found to impact on psychological health are: (a) ability to manage emotion and cope with stress, (b) drive to achieve personal goals in order to actualize one's inner abilities and have a meaningful life, (c) the skill to authenticate feelings and thinking. Thus, the present study examines the effect of emotional intelligence on mental health. Furthermore, research studies (Gilaninia et al., 2011) have been conducted on the work place and it has seen that today companies know the value of emotional intelligence and mental health. Schutte et al. (2007) concluded in their study that better mental health is associated with higher emotional intelligence. Studies (Agstolenda et al., 2006) have shown that there is distinct impact of emotional intelligence components in stress and mental health. Going to elaborate it, Johnson et al. (2009) concluded that people with high emotional intelligence features recognize better their feelings of stress and ability to better manage their emotions and have good mental health. Other studies have also shown that emotional intelligence is positively correlated with good mental health (Gujjar, 2010; Tannous & Matar, 2010; Faghripour, 2009; Hadadi, 2009). Moreover, the

components of emotional intelligence like self-regulation, self-awareness, social-consciousness and social skills are also correlated with mental health with different proportion (Faghirpour, 2009; Karimi, 2000; Maccann et al., 2010; Raena; 2010). Thus, it can be said that emotional intelligence is related or associated with mental health of employees at workplace. So to gain the fullest from employees, employers have to take care of these two variables.

### **Objectives**

To study the relationship of Emotional Intelligence and Mental Health.; To see the gender difference, if any, on a) emotional intelligence and b) mental health.

**Hypotheses:** It is expected that there would be positive correlation between Emotional Intelligence and Mental Health of employees; It is expected that there would be gender difference on emotional intelligence of employees; It is expected that there would be gender difference on Mental Health of employees.

### **Research Methodology**

100 teachers were randomly selected from Senior Secondary School, Barnala. The age range of subjects was from 21 to 55 years. Prior consent was taken from subjects. Correlational method and t-test were used in this research for analysis. Emotional Intelligence Scale by Hyde, Pathe and Dhar (2001) was administered to assess the emotional intelligence of employees. There are 34 items in this questionnaire which are assessed on 10 dimensions namely, Self-awareness, Empathy, Self-motivation, Emotional stability, Managing relations, Integrity, Self-development, Value orientation, Commitment and Altruistic behaviour. The reliability of this questionnaire was 0.88 and validity was 0.93. Employee's Mental Health Inventory by Dr. Jagdish was administered to assess the mental health of employees. There are 24 items and one integrated score on all items. The reliability of this questionnaire was 0.89 and validity was 0.74. The aim of present research was to investigate the relationship of emotional intelligence with mental health of employees. The appropriate conditions were created to conduct the study, where participants could fill the questionnaires without any distraction. Rapport was built with subjects and they were instructed as follows: "There are some statements in these questionnaires. You have to tick the best option according to you. There is no right and wrong answer, so please try to tick all the statements carefully and honestly. There is no time limit for the completion but try to complete them as soon as possible. Your responses would be kept confidential." After the completion, all participants were thanked for their participation in the study.

### **Results**

In order to analyze the association of emotional intelligence and mental health pearson product moment correlation and t-test was applied to find out the gender differences. The obtained results are given as follows:

Table 1 depicted the correlation matrix of emotional intelligence and mental health. Results showed that there is a positive correlation ( $r= 0.27, p<.01$ ) between emotional intelligence and mental health.

Table 2 shows the mean and SD of emotional intelligence and mental health for both males and females. Mean & SD score of emotional intelligence for males is 139.22 & 10.87 and for females is 134.94 & 14.47. So it shows that males have high mean score

## *EMOTIONAL INTELLIGENCE AND MENTAL HEALTH*

than females on emotional intelligence. Then t-test was calculated, score is 1.67 and it was found that the difference between males and females on emotional intelligence is significant at .05 level.

Table 3 showed the mean & SD scores on mental health for males are 20.06 & 2.9 and for females is 20.4 & 2.53, which is approximately similar. It depicted that there is not much differences between the mental health of males and females and t-test value is 0.62 which is not significant at any level.

**Table 1: Pearson's Correlation coefficient of emotional intelligence with mental health**

	<i>EI</i>	<i>MH</i>
<i>EI</i>	1	
<i>MH</i>	0.27**	1

\*\* $p < 0.01$ , \* $p < 0.05$ , *EI*= emotional intelligence, *MH*= mental health

**Table 2: Mean, SD and t-value on emotional intelligence**

	Mean	SD	t-value
Males	139.22	10.87	1.67*
Females	134.94	14.46	

$p < .05^*$ ,  $p < .01^{**}$

**Table 3: Mean, SD and t-value on mental health**

	Mean	SD	t-value
Males	20.06	2.9	0.62
Females	20.4	2.53	

$p < .05^*$ ,  $p < .01^{**}$

**Discussion:** The first hypothesis was that there would be positive correlation between emotional intelligence (*EI*) and mental health (*MH*) and results came significant (0.27,  $p < 0.01$ ). Studies (Salovey, Mayer, Goldman, Turvey, & Palfai, 1995) also go in line with the findings of the present study.

Research revealed that high scores on trait of emotional intelligence could control and regulate their behavior in a way that could promote well-being, mental health, quality work of life and retention time (Siddiqui & Hassan, 2013). A study by Salovey et al. (1995) has conducted to examine the association between emotional intelligence (*EI*), anxiety, depression, and mental, social, and physical health in university students. It has been seen that high Emotional intelligence was negatively and significantly related to high anxiety, depression, and to low levels of Role Emotional, Social Functioning, and Mental Health. Though, increased levels of emotional Clarity and Mood Repair were significantly related to low levels of anxiety and depression, Social Functioning, high Role Physical, Vitality, Mental Health and General Health in university students (Berrocal & Pacheco, 2006).

A meta-analysis study of 44 effect sizes based on the responses of 7898 participants was conducted by Schutte et al. (2007) and it was found that higher emotional intelligence was associated with better health. Emotional intelligence had a weighted average association with mental health, psychosomatic health and with physical health. However, emotional intelligence is known as a trait which was more strongly associated with mental health than emotional intelligence measured. Results indicated that the *EQ-i* had a significantly stronger association with mental health than the other measures. The findings provide a basis for research aimed at determining the causal relationship between trait emotional intelligence and mental health.

Other studies have also shown the same results that Emotional intelligence (*EI*) has been reliably linked to better mental health (Davis & Humphrey, 2012). Results

## *EMOTIONAL INTELLIGENCE AND MENTAL HEALTH*

showed that emotional intelligence made a significant and incremental contribution to the prediction of disorder in youth. However, of the two, trait emotional intelligence seems the stronger predictor.

Another study conducted by Batool (2011) has highlighted that low emotional intelligence is linked with physical illness, depression, low self esteem, suicidal ideation, poor impulse control, anxiety disorders, personality disorders, and increased alcohol and drug use in people. Furthermore, another study (Faghirpour, 2009) was conducted on school students to investigate the relationship between emotional intelligence and mental health and findings showed that there is significant relationship between components of emotional intelligence of students with mental health.

*Emotional Intelligence and Gender:* Another hypothesis was that there is gender differences on emotional intelligence, hence the hypothesis proved that there is a difference of males and females on emotional intelligence. There are some studies also which support the findings of the present study. van Dusseldorp et al. (2011) has conducted a study and the results have concluded that nurses (female) score significantly higher than men on the subscales Empathy, Interpersonal Relationship, Emotional Self-awareness, Social Responsibility, Self-Actualisation and Assertiveness, but overall scores do not show any significant difference and no correlations were found between years of experience and age on the one hand and emotional intelligence on the other hand.

Saini (2014) conducted a study and found a significant difference between the obtained scores of male and female, although the overall results of the study have revealed that female sportspersons ratings on the emotional intelligence test is higher than male sportspersons.

Previous studies have shown that females score higher than males on empathy, interpersonal relationships (Arteche et al., 2008; Craig et al., 2009), and social responsibility, whereas males scored higher on self-regard, stress tolerance, and optimism (Bar-On, 2000). A remarkable discovery in present study is contrary to the findings of Bar-On, in which, males scored higher than the females. Results can be defined in the scenario that males are also going through a change, they become more sensitive than before. Males are adjusting to the new changes where females are also working and males are helping them in personal as well as in professional life. That is why the results are contrary to the other findings.

Thus, males had higher scores on emotional intelligence than females. The results are in contrary with previous studies but due to changing life style males are now more understandable to their female partners, their emotional understanding is increasing. That is why this difference can be validated with new explanation. Many other factors like education, social media, etc. encourage them to take the lead in their life in full partnership, which brought changes in scores of emotional intelligence among males and females.

*Mental Health and Gender:*As it was hypothesized that there would be gender differences on MH which did not come significant at any level ( $t= 0.62$ ). It indicated that males and females have equal level of mental health. There are many studies which go in line with results. Research studies (Leibenluft, 1997; Blehar et al, 1998) have shown that

there is not any sex differences in the overall prevalence of mental disorders and mental health, there are significant differences in the patterns and symptoms of the disorders. These differences vary across age groups. Most studies have report a higher prevalence of conduct disorders in childhood, for instance with antisocial and aggressive behaviors among boys than girls. Girls have a much higher prevalence of depression, stress and eating disorders during adolescence, and the also engage more in suicidal ideations and suicide attempts than boys. Boys generally experience problems with anger, involve in high risk behaviours and commit suicide more frequently than girls. In general, adolescent girls are more prone to symptoms that are directed inwardly, while adolescent boys are more prone to act out. In the case of severe mental disorders such as schizophrenia and bipolar depression, there are no consistent sex differences in prevalence (Halbreich & Lumley, 2002; Blehar& Oren, 2001), but males have an earlier onset of schizophrenia, on the other hand, women are more likely to display serious forms of bipolar depression.

Moreover, several studies have now shown that men as well as women can experience depression following the birth of a child and a significant correlation exists between parents regarding depressive symptoms (Ballard, 1994; Areias, 1996; Barnett & Morgan, 1996; Leathers, Kelley & Richman, 1997; Soliday, McCluskey-Fawcett & O'Brien, 1999; Condon, 1993; Beil, 1992; Handley, 1996).

### **Conclusion**

In conclusion, it can be said that there is significant relationship between emotional intelligence and mental health. Emotional intelligence and mental health are influencing each other. That is, emotional intelligence affects and promotes mental health of employees, vice a versa, good mental health enhances emotional intelligence as an individual learns to understand, express, regulate and monitor his/her relationships. Thus, it can be said that emotional intelligence and mental health are bi-directional in nature, one influences other.

### **References**

- Areias, M.E. (1996). Correlates of postnatal depression in mothers and fathers. *British Journal of Psychiatry*, 169, 36-41.
- Arteche, A., Chamorro-Premuzic, T., Furnham, A., & Crump, J. (2008). The relationship of trait EI with personality, IQ and sex in a UK sample of employees. *International Journal of Selection and Assessment*, 16, 421-426.
- Ballard, C.G. (1994). Prevalence of postnatal psychiatric morbidity in mothers and fathers. *British Journal of Psychiatry*, 164, 782-788.
- Barnett, B., & Morgan, M. (1996). Postpartum psychiatric disorder: who should be admitted and to which hospital? *Australian and New Zealand Journal of Psychiatry*, 30, 709-714.
- Bar-On, R. (1997). *Bar-On Emotional Quotient Inventory: Technical Manual*. Toronto, Canada: Multi-Health Systems.
- Bar-On, R. (2000). Emotional and social intelligence: Insights from the Emotional Quotient Inventory (EQ-i). In R. Bar-On & J. D. A. Parker (Eds.), *Handbook of emotional Intelligence* (pp. 363-388). San Francisco, CA: Jossey-Bass.
- Batool, S.S. (2011). Emotional Intelligence Based Treatment in Mental Illness: A prospective Analysis. *Pakistan Journal of Social Sciences*, 31(2), 251-259.

- Beil, E. (1992). Miscarriage: The influence of selected variables on impact. *Women and Therapy*, 12,161-173.
- Berrocal, P.F. & Pacheco, N.E. (2006). Emotional Intelligence as Predictor of Mental, Social and Physical Health in University Students. *Spanish journal of psychology*, 9, (1), 45-51.
- Bhatia, B. D. (1982). Mental Hygiene in Education. In B. Kuppaswamy (Ed.) *Advanced Educational Psychology*. New Delhi: Sterling Publishers Pvt. Ltd.
- Blehar, M.C. (1998). Women with bipolar disorder: findings from the NIMH Genetics Initiative sample. *Psychopharmacology Bulletin* 34, 239- 243.
- Blehar, M.C., & Oren, D.A. (2001). Women's increased vulnerability to mood disorders: integrating psychobiology and epidemiology. *Depression*, 3, 3-12.
- Ciarrochi, J. Chan, A. & Bajgar, J. (2001). "Measuring Emotional Intelligence in Adolescents". *Personality and Individual Differences*, 28, 539-561.
- Ciarrochi, J. V., Chan, A.Y.C., & Caputi, P. (2000). A critical evaluation of the emotional intelligence construct. *Personality and Individual Differences*, 28, 539-561.
- Condon, J.T. (1993). The assessment of antenatal emotional attachment: development of a questionnaire instrument. *British Journal of Medical Psychology*, 66, 167-183.
- Craig, A., Tran, Y., Hermens, G., Williams, L. M., Kemp, A., Morris, C., & Gordon, E. (2009). Psychological and neural correlates of emotional intelligence in a large sample of adult males and females. *Personality and Individual Differences*, 46, 111-115.
- David, S.K. & Humphrey, N. (2012). Emotional intelligence predicts adolescent mental health beyond personality and cognitive ability. *Personality and Individual Differences*, 52 (2), 144-149.
- Dhar, U., Pethe, S., & Hyde, A. (2001). *Manual for Emotional Intelligence Scale*. Lucknow: Vedant Publications.
- Faghripour, M. (2009). *Evaluation of ways to promote emotional intelligence in primary and secondary students in Guilan Province*. Education Studies Council: Guilan Province.
- Gilaninia, S., RazazRazaghi, S.J., Amoopour, M., Shakibaeic, Z., & Mosavian, S.J. (2011). Critical Reading. *Journal of Basic and Applied Scientific Research*, 1(9), 1173-1176.
- Goleman, D. (1995). *Emotional Intelligence*. New York: Bantam Books.
- Gujjar, A. A., Naoreen, B., Aslam, S., & Khattak, Z. I. (2010). Comparison of the emotional intelligence of the university students and of the Punjab province. *Procedia social and behavioral sciences*, 2, 847-853.
- Hadadi, K., & Ali, A. (2009). Components of emotional intelligence relationship with psychological health variables and academic success in male and female students. *Knowledge and Research in Science Education - Curriculum Planning*, 22, 99-118.
- Halbreich, U., & Lumley, L.A. (2002). The multiple interactional biological processes that might lead to depression and gender differences in its appearance. *Journal of Affective Disorders*, 29, 159-173.
- Handley, A. (1996). *Acute stress disorder in parents of preterm infants*. Psychology Department, University of Melbourne, Unpublished Honours thesis.
- Hyde, A., Pethe, S., & Dhar, U. (2001). *Emotional Intelligence Scale*. Lucknow, Vedant Publication.

## ***EMOTIONAL INTELLIGENCE AND MENTAL HEALTH***

- Jagdish, A. (1985). Employees Mental Health Inventory. Agra, Rakhi Prakashn.
- Johnson , S.J., Batey , M., & Holdsworth, L. (2009). Personality and health: The mediating role of trait emotional intelligence and work locus of control. *Elsevier; Personality and Individual Differences*, 47, 24-29.
- Karami, S. (2000). *Mental Health Status*. Zanjan University of Medical Sciences: Tehran.
- Leathers, S.J., Kelley, M.A., & Richman, J.A. (1997). Postpartum depressive symptomatology in new mothers and fathers: parenting, work and support. *Journal Nervous Mental Disorders*, 185, 129-139.
- Leibenluft, E. (1997). Women with bipolar illness: clinical and research issues. *American Journal of Psychiatry*, 153, 163-173.
- Maccann ,C., Fogarty, G., &Zeidner, M. & Roberts, R.D. (2010). Coping mediates the relationship between emotional intelligence (EI) and Academic achievement. *Contemporary Educational psychology*, 2, 35-39.
- Mohtasham, S. (2009). *Investigate the relationship between Emotional intelligence, job satisfaction and mental health workers Relief Committee of Imam Khomeini in Tebran*. Thesis of master, Azad University OfTonkabon, Iran.
- Omarae, F. (2008). *Evaluation of emotional intelligence and coping strategies Gifted girl students secondary schools of gifted and ordinary in Khorramabad city*. Thesis of master, Azad university of Center Tehran: Iran, Tehran.
- Raena, A. (2010). *The relationship between emotional intelligence and mental health staff Payam Noor University of Guilan Province*. University of Payam Noor, Center Tehran, Iran.
- Saini, H. K. (2014). *Gender differences in emotional intelligence among sportspersons of university of Rajasthan*. Rajasthan; University of Rajasthan.
- Salovey, P., & Mayer, J. D. (1990). Emotional intelligence. *Imagination, Cognition and Personality*, 9, 185–211.
- Salovey, P., Mayer, J.D., Goldman, S., Turvey, C., & Palfai, T. (1995). Emotional attention, clarity, and repair: Exploring emotional intelligence using the Trait Meta-Mood Scale. In J. W. Pennebaker (Ed.), *Emotion, disclosure, and health* (pp. 125-154). Washington, DC: American Psychological Association.
- Schutte, N.S., Malouff, J.M., Thorsteinsson, E.B., Bhullar, N. & Rooke, S.E. (2007). A meta-analytic investigation of relationship between emotional intelligence and health. *Personality and Individual Differences*, 42, 921-933.
- Siddiqui, R.S., & Hassan, A. (2013). Impact of emotional intelligence on employees' turnover rate in FMCG organizations. *Pak Journal of Commerce and Social Science*, 7, 394-404.
- Soliday, E., McCluskey-Fawcett, K., & O'Brien, M. (1999). Postpartum affect and depressive symptoms in mothers and fathers. *American Journal of Orthopsychiatry*, 69, 30-38.
- Tannous, A., &Matar, J. (2010). The relationship between depression and emotional intelligence among a sample of Jordanian children. *Elsevier; procedia social and behavioral sciences* 5, 1017-1022.
- van Dusseldorp, L.R., van Meijel, B.K. &Derksen, J.J. (2011). Emotional intelligence of mental health nurses. *Journal of Clinical Nursing*, 20 (3-4), 555-562.

ADVANTAGES AND DISADVANTAGES OF SMART CLASS IN EARLY  
CHILDHOOD CARE AND DEVELOPMENT

**Arpana Tripathi**

Research Scholar, Banasthali Vidyapith

**Sapna Verma**

Assistant Professor, Banasthali Vidyapith

ISSN 2277-7733

Volume 8 Issue 3,

December 2019

**Abstract**

*In the modern era of education, the latest technology used in teaching and learning process is Smart class. Information communication technology is a new, resourceful and highly effectual in education. In this process of teaching happens through various digital instructional tools, animated videos, modules online videos and latest software has made the students in love with to improve their performance. This paper highlights on the much growing digitalized class and software used in smart class. The use of this modern technology has its advantages and disadvantages but then also it is welcomed by the pupils in a vast manner.*

**Keywords:** *Smart class, software, ECCE*

The invasion of technology in our private lives since the 1990s has been remarkable. Technology has significantly changed not only India but also in the whole world. The effect of technology on education has made the classroom became more energetic, information became more available through a different way of media and the magnitude of information learner could find is also apparently enormous. The effect of technology in education can be seen as computer has become the new class room at present scenario. The learning process is not just like to rote up for some time. It's rather the knowledge which is built-up by thoroughly involved in it and remains forever. This can be emphasized by learning the concepts with the help of animated videos, games and other gadgets. In present time, even children as young as 3-4 years have been accustomed to using tools such as iPad and smart phones. That is just how deeply technology has been embedded in the young minds. Blackboards, dusters with chalks and charts are the teaching and learning tools which were restricted to be used in the past era of education period. But now is the time of smart class which helps to make learning things enjoyable through various digital equipments like DVD or VCD, Interactive white board, computers, big wide screen attached to a projector. Books that have one time loaded us for their weight and volume can now be digitally converted into a versatile electronic gadget which can be easily handled. The e-book facility has just replaced the use of physical library. The role of conventional teacher has become the virtual instructors in present time.

**Need of the study:** The role of a teacher is very significant in Teaching Learning process all the way through smart class. With the active participation of a teacher the classroom can become livelier and plays a significant role in the field of education. In Early Childhood Education by means of ICT and smart class through animated videos, rhymes, stories and the entire relevant curriculum become attractive and students get fascinated and learn in a very positive direction. By providing additional videos and other media materials teacher can stimulate the curiosity of students.

**Significance of the study**

The blending of technology and education is considered the main key in human progress. The role of smart class will play a very vital role in the development and deliverance of future programs in education. The maximum level of modification is

happening in relation to education and smart class is gradually the teaching method is occurring via ICT and smart class, rather than using as an extra supplement in the classroom. Smart class in Early childhood education is the application of contemporary techniques and skills to the need of education and training. It includes digital media, audio-visual, computer peripherals with correlated software. This can be called as teaching aids or instructional aides. This modern technology requires teachers to be trained with latest set of skills.

Smart class helps in the skilled development of learning and teaching for teacher of early childhood education. It can be infused in the education process so as to get the knowledge and skill competently. Smart class provides access to resources so that teachers can apply new knowledge and skills they have learnt. Communication technology will be able to expand the capacity, strengthen the ability of teacher, which is the basic requirement of effectual transactional approach.

Soft ware used in Smart class

Common Software: Quite a few proprietary software, freeware, open source software, public domain software and so on are useful and available for learning. Among available e-content tools and software packages; Microsoft Office, Libre Office, Software Package etc. can be used easily by the learners.

Freeware: Freeware can be used by anyone devoid of any financial charges. However, limitations are imposed for its use, adjustment and reorganization. In this, as the foundation code is not provided, it can be passed on to any one free of charge.

Open Source Software (OSS): This is computer software and its origin code is made available to the open. It is approved with an open source license. Copy right holder provides the rights to study adapt and share out the software free of cost to anyone for any reason. Open Source Software is very frequently developed in a public mutual manner and is more useful.

Proprietary software: This software is owned by any person or a company. Its basic code is usually kept undisclosed and it will have main limitations on its use. Its developers have restricted property rights and can't be copied or extend without complying with their licensing contracts.

Public Domain software: In this software the copy right holder donates it to the local. It is free of cost available to everyone and it can be used by anyone for any function and only with very negligible restrictions.

The benefits of ICT revolution are to provide training and education of desirable quality can barely be over emphasized. The main focus has been to provide equity, universal access, and ensure stipulation of elementary education. This method of teaching and learning presents a combination of advantages and disadvantages. The pros and cons of this method are as follows: Advantages of Smart class: Anytime right to use to the open globe of Online Information: The use of Smart class with internet is just like a treasure trove of valuable information for the teachers. Storage capacity of data of any subject is easily approachable. It can extract the latest online resources for learning and teaching. It can increase the creativity and curiosity of students. Teachers can rightly use online information from a variety of educational articles that are published on the internet and can professionally project the culled information in the form of an attractive arrangement. In this method, education will not be limited to referring to on paper material. Online resources will bring in a constituent of

excitement to teaching and learning when teachers and students can store on the comprehensive knowledge that is available on the internet.

Digital Aids Help Learner to Understand the Topic Better: Smart class has revolutionized the teaching learning method now the days of traditional black-board education has gone. Present era is the age of smart class which allow the faculty to impart education using, word documents, PowerPoint presentations audio sessions, and video screenings and also through pictures. A picture is value a thousand words! In line with this famous proverb it is through smart class that learners will be able to understand all the information that is presented via these digital aids. As the instructor is not writing on the board, pupils will be able to better focus in the class, assimilating audio-visual information through digital aids like pen drives CDs, and PDF files that will be e-mail to parents. This method of learning and teaching thus avoids the difficulty of preparing study materials while the lecture is in progress. As notes will be given to them through these way, they can focus better while the class.

Top Support for Absentees: Now there are no worries for those students who were not able to attend the class for a day. Teachers can access lectures at any time while all of them are recorded on digital devices. Students can download the lecture which was discussed in their absence.

These digital notes will save students when they missed a class, without giving any extra efforts to obtain it.

Interactive atmosphere supports enhanced Learning: The method of instructions through use of digital tools enhances interactive surroundings to learning. This is in an ICT class where improved simplicity is established between the students and faculty. As the learning is linked to images, maps, photos and animated videos, a learner will be able to set up a strong bond with the faculty. Learner will be inspired to share their thoughts liberally in class, expressing them through drawings and writings.

Smart class makes “Go Green” Classes: ICT classes are the classes where lectures are delivered through digitalized manner, in the same way study materials are also provided in soft copies so it a perfect elucidation to the environmental threats that are posed by the traditional method of education. It will create a “Go Green” region when student will learn about their preferred subjects without the use of pen and paper. Student doesn’t need to depend on printouts and photocopiers which are evidence for the way to the development of a carbon footprint. This way, ICT class can certainly become practical and an intelligent way to pave means for a greener environment.

### **Disadvantages of Smart class**

Economical Concerns: School management requires having extra amount in their budget to keep their school side by side with the most recent technologies in teaching. In every other day, a new version of software evolves and it is not only hard to keep speed but also finance these assets. Schools have to appoint remunerated technologist to maintain and use these resources. This resource also needs necessary changes in the classrooms to be properly adjusted to the new teaching techniques and technologies.

To apply this modern teaching techniques and technologies in schools the extra budget is needed to invest for the training program for the faculty because all teachers cannot become accustomed to use these teaching tools by themselves. The

fruitfulness of smart calss can be done only by trained and skilled teacher and if they are not skilled about the newest technologies it will be worthless.

The Hazards of Learning by Technology: When new technology is applied to education, the outcome is very progressive and amusing but, the regular use of electronic gadgets can harm the problem-solving ability of students. Once in a while when a gadget malfunctions than the student feels that they are completely lost and helpless. All parents are not able to be acquainting with modern gadgets so they fail to give any type of educational support to their children.

Human moral values are not sustained: The electronic teaching gadgets come as teaching aids. Students used to learning by means of smart devices will drop contact with their teachers. This will diminish the significance of learning through good teacher; students will not give any importance to teachers and will not learn any values and ethics. Students will always connect to the computers which will have its side effects.

A Uniform Learning Process: When the teaching and learning process is done continuously by modern gadgets. This brings monotony in learning which declines the creativity in learner and makes the class boring without any interaction with the teacher. It seems like teaching learning is a mechanical process.

Technical Malfunction: Many teaching hours can be loss due to any malfunction in electronic gadget. As these tools are delicate and takes money and time to get repair. To overcome all these situations teachers are enforced to come back in the traditional mode of teaching by using chalk and black board. Such technical problems affect the environment of classroom. In such situation's teachers are also not prepare for the topic and they get disturbed in both the modes of teaching.

### **Conclusion**

After discussing both the aspects of smart class in teaching and learning process, it gives a direction to consider about the means and ways to make the education enjoyable and accessible to each student. Definitely there are some demerits of smart classes. But when the numerous advantages are seen, then it can be concluded that ultimately the influence of smart class will be noted by the capability of teachers to use the innovated teaching tools to make new, rich and active environment of learning in the contemporary world is aiming for.

### **References**

- Abdul Mannan Bagulia (2005). Modern Education-audio-visual aids, New Delhi: Anmol Publications Pvt Ltd
- Aggarwal, J. C (2009). Essentials of Educational Technology. New Delhi: Vikas Publishing House Pvt. Ltd.
- Chandra, R. (2005). Technology Integration in Education. Delhi: Kalpaz Publications
- Das, S.K. (2005). A Text book of Information Technology. New Delhi: Dominant Publishers and Distributors.
- Januszewski & Molenda (2008). Educational Technology: A Definition with Commentary. Routledge
- Thamarasseri, Ismail (2009) ICT in Education. New Delhi: Kanishka Publishers
- Thamarasseri, Ismail (2018) Technology & Innovations in Education. New Delhi: Wisdom Press
- Y.K. Singh, T.K. Sharma, Brijesh Upadhyay (2008) Education Technology: Teaching Learning, APH Publishing Corporation

**RHETORIC VERSUS REALITY OF PRACTICES IN INDIAN  
DISTANCE EDUCATION INSTITUTIONS**

**T. Soundara Pandian**

Senior Assistant Professor,  
Modern Institute of Teacher Education, Nagaland, India

ISSN 2277-7733  
Volume 8 Issue 3,  
December 2019

**Abstract**

*Teaching is a profession and that requires the development of knowledge, competencies and skills. But, teaching at a distance is not the same as classroom teaching and this requires specialized professional development programmes. There are researches, experiences, practices and theories related to distance education and their successful application would enhance distance learning. But, there are mushrooming growth of distance education institutions in our country but whether they are powered with professional people. This study tried to analyse and describe the structure of the self-instructional materials developed by two renowned distance education institutions in our country and one of which was a dedicated or single mode Distance Education Institution (DEI) and another a dual mode DEI. This analysis was done with delimitation to only the structure of the contents at the course and block levels to know whether the DEIs were adhering to the principles related to self-instructional materials (SIM) construction. This enabled to come an inference that though trained man-power was available in both the DEIs, there found lapses in structuring the SIMs. Professional development programmes were initiated by the then Distance Education Council(DEC), but still they were found inadequate and all the DEIs in India would require constant professional update programmes, guidance, support and monitoring over the practices for the effective pursuit of distance education programmes.*

**Keywords:** DDE, DEB, DEC, DEI, IGNOU, M.A., MKU, STRIDE

In a democratic nation, every citizen should be given adequate opportunities not only to express his rights but also to live with human dignity. True education is that gives dignity to individuals at the giving and receiving end. Thus, life and education are the two sides of the same coin as one without the other is incomplete. Education is a tool for life and life itself. Thus, educational opportunity is a must for everyone in a welfare state and that is a quite challenging task in a highly populated developing country such as India. Since time immemorial, distance education in its different incarnations has been experimented with a lot of innovations to complement the educational need of the world community. When opportunities are open to agencies to provide quality distance education, there are unscrupulous, uncommitted or negligent institutions invading this sector and taking these opportunities as a pasture for their selfish ends. Their commitments decked in the policies and prospectuses, which were the sincere efforts of distance education thinkers, practitioners and policy makers, go unnoticed or unimplemented in reality. This paper investigates and compares some of the structural aspects of distance learning materials developed by two Indian distance educational institutions (DEI) at the macro level of self-instructional materials. Here, macro level is meant that without getting into the instructional contents of the instructional materials, this study is delimited to the course and block structure of the materials without going into details of the unit structure and design.

**Research Method**

This study analysed the contents of the distance learning materials developed for the Master's Degree in English by Indira Gandhi Open University and the Directorate of

Distance Education of Madurai Kamaraj University (hereinafter, referred as IGNOU and DDE-MKU), therefore using content analysis method. Being narrow in scope, the self-instructional materials developed for only one course from the first year M.A. English of each DEIs and that comprised of 25% of the total self-instructional materials provided for the first year M.A. English programme. For the first year of the two-year M.A. degree programme, both the DEIs offered four courses and one from each with the similar nature was taken for this study.

Contents are nothing but ‘what is contained’ Krippendorff(1980) defines content analysis as ‘a research technique for making replicable and valid inferences from data to their context. According to STRIDE (2014), “Content analysis is concerned with the classification, organisation and comparison of the content of the document or communication”(p.41). The contents may be letters, diaries, newspaper items, folk songs, short stories, messages of radio/television, documents,, texts or any symbols. In this present study, one of the approaches to content analysis, i.e., the form resulting from systematised organisation of contents was taken and not the substance of the contents or to say that ‘how is the message said?’ and not ‘what is the message?’.

The structure of self-instructional materials involved their various components or parts and the order of placing those components or parts. This structuring is a systematic process as it is based on some principles that found correlation between the structure and the learning process. Thus, the structures could be broadly analysed at three levels – the course level, the block level and the unit level. But, in this study, the analysis was limited the first two levels and not to the third level, i.e., unit level.

### **Findings**

**Block Size:** Self-instructional (print) materials are expected to be structured into blocks consisting of about 60-80 pages in volume with A4 size papers and analysing in the vein of this principle the SIM of IGNOU was made into 10 blocks with an average of 140 pages per block whereas, of DDE-MKU was made of only two blocks with an average of 250 pages per block which was approximately three times bulkier than the expected volume. Individually examining the size of the blocks, some of the IGNOU blocks and both the blocks of DDE-MKU had gone to the extent of book-form rather than called to be blocks. Though, the blocks of both exceeded the volumes of an ideal block, IGNOU blocks were comparatively well justified in following the principles of block development for every block includes the prescribed texts and supplementary texts and excluding those supplementary text materials, each block of IGNOU covered an average volume of 89 pages only. But, the DDE-MKU blocks were with an average of 250 pages without any prescribed or supplementary text materials and thus was not designed as a block but rather than a book providing classroom lectures. Thus, we could conclude saying that DDE-MKU did not design the blocks keeping the above principles into consideration. Also, when the number of blocks was taken into consideration, IGNOU was justified in providing the entire course materials and supplementary texts into 10 blocks unlike DDE-MKU’s into 2 blocks. Thus, DDE-MKU SIM is in the form of two books

**Comprehensiveness and Detailed Contents:** There were 52 units for a course of IGNOU that would indicate the comprehensive and detailed instruction given in the materials covering 1392 pages which was more than double the volume of DDE-MKU SIM for the course under study Whereas, the DDE-MKU blocks contained

## RHETORIC VERSUS REALITY OF PRACTICES

only 20 units only with an average of 25 pages per unit and that of IGNOU was of an average of 17 pages per unit. A more detailed description is tabulated below:

No	Components	IGNOU	DDE-MKU
1	Course Title (under study)	British Poetry	The Elizabethan & Augustan Ages
2	Course Code	MEG-01	S-205
3	Number of Blocks	10	2
4	Total number of Units	52	20
5	Total Number of Pages	1392	500
6	Number of Pages excluding Appendix	889	No appendix
7	Paper size	A4	A4
8	Number of Prescribed Works	43	Nil
9	Number of Supplementary Reading Texts	28	Nil

Self-Contained Materials: Analysing the materials on the principle of ‘self-contained nature’, since the IGNOU materials provided prescribed texts and additional or supplementary reading materials in all the blocks, they followed the above principle in spirit and practice for the distant adult learner, especially, need not look for other materials and lose his precious time and energy. This might also give an motivating impulse in learning without any frustration while searching the relevant materials in the library or elsewhere.

Block Design: The instructional design process is a craft and science involving many features and structuring of materials based on some principles and theories. In the words of Elen and Clarebout 2001), “the field of instructional design is more like a craft while it claims to be a technology”. Every block of IGNOU in the present study was discernible with a structural pattern consisting of an introductory part, instructional part and the supplementary part. This structuring was done on the basis of some designing principles ensures unhindered and smooth learning process.

The introductory part of IGNOU blocks was with the cover pages- both outer and inner, the preliminary pages containing information on the course development team, list of units indicating page numbers, block introduction and one or more frontispieces. Though, the DDE-MKU blocks had attractive or aesthetic outer pages, their inner pages had very limited components such as course outline and list of units indicating page numbers and no block introduction nor any course guidance in any form.

The instructional parts of both the DEI blocks were designed with the number of instructional units ranging between 5 and 6 however, only IGNOU blocks contained the block title and unit title on every alternative pages. This could help the learner to know the current status and that recapitulates and making learning into a whole instead of fragments.

The DDE-MKU block contained 10 units in each block with an average of 25 pages per unit and this was quite longer in length to sustain the constancy and continuity of reading. Units with less number of pages were found to give a sense of completion, achievement and inducing for further learning.

The supplementary part of IGNOU blocks were loaded with supplementary texts, prescribed works, white pages for notes, model term-end exam question, learner feedback format, and guidelines to write session end essays/assignments. Therefore, the course design with the three distinctive parts, such as introductory, instructional and the supplementary part was not discernible. But the course outline was found in

## ***RHETORIC VERSUS REALITY OF PRACTICES***

both the blocks of DDE-MKU and that was missing in IGNOU blocks that would help the learner in identifying the current status for motivating him/her

In distance education, course end- assignment or block end assignment is found to be one of the most useful aspects in many studies. Citation could be done to Biswal (1979) and Sahoo (1985) but for the course under the present study, no assignment submission was included for DDE-MKU and no internal marking was allotted to the same. The same could be corroborated from the study findings of Dutt (1976) and Khan (1982) that rate of submission of assignments was not at all done by 55% of the students by the learners of DDE-MKU. A more detailed illustration is given tabulated:

Design of the IGNOU and DDE-MKU Blocks			
A. Introductory Part			
		IGNOU BLOCK	DDE-MKU BLOCK
1	Cover Page (outer)	Available (hereinafter 'A')	A
2	Cover Page (inner)	A	A
3	Pages on Course Development Team	A	NotAvailable(hereinafter 'NA')
4	Course Welcome Page	A	NA
5	Course Outline in Each Block	NA	A
6	Block Introduction	A	A
7	List of Units Indicating Page Numbers	A	A
B. Instructional Part			
1	Block Division into Units	A	A
2	Block Title on Alternate Pages	A	NA
3	Unit Title on Alternate Pages	A	NA
C. Supplementary Part			
1	Prescribed Texts/Works	A	NA
2	Supplementary Texts	A	NA
3	Block End White Pages for Notes	A	NA
4	Feedback Format	NA	NA
5	Model Term-End Exam Question	A	NA
6	Guideline to Write Session Essays/Assignment	A	NA*
*There is no assignment for the internal assessment of learners in DDE-MKU			

### **Discussion and Conclusion**

Though both the materials could not completely adhere to the principles of block structure and design principles that would promote distance learning and reduce hindrances in learner, IGNOU materials were found to be comparatively well structured and designed on valid distance learning principles. Being systematically started as a correspondence education by Delhi University in 1962 and an alternative to conventional education, distance education reached its glorious period when Dr. BR Ambedkhar Open University was started as the first single mode Open University in 1982 and ultimately, the DEIs catering to the needs of higher education learners rose to 25% in our country. But alongside of enrolment, the dropout rate in distance education was also substantially higher as indicated in several studies. For Balasubramaniam (1976), 57% learners became dropouts in DE at the Central Institute of English and Foreign Languages, Hyderabad and in another study conducted by Koul (1982) reveals 63% dropout of distance learners. One of the reasons for the dropout found in Koul (1982) and Sahoo (1985) was difficulties faced in responding to the study materials. Fozdar et al. (2006) 58.82 % learners found insufficient academic support from study centres and 47.06% expressed insufficient

counselling sessions. This would imply us to provide the self-contained learning materials without any external support and that was considerably done by IGNOU.

Though, this investigation was delimited to certain aspects of the structure and design, the materials developed without keeping in mind the principles of course material designing and development impinges the purpose of distance education. Study material quality and the achievement of students were found positively correlated in Gomathi (1982).

As an apex body of Open and Distance Learning system, the Distance Education Council (DEC) that was created under Indira Gandhi National Open University Act (1985) for the promotion and coordination of the open university and distance education system and determination of its standards in India and being stationed at the premises of IGNOU, the SLMs developed by IGNOU might have been of superior in quality. But, since it is the body of for affiliation, promotion, coordination, training, development, monitoring, controlling, evaluation, etc., of only IGNOU but the entire the distance education system of country, the effectiveness of its functioning with respect to other distance education institutions is doubtful as on the face of the materials there are lapses in quality.

Though, DEC (presently DEB) had conducted training programmes for designing and development of learning material that was very meagre and does not suffice the need. The DEB need to revamp their system, man them with additional manpower and adequate number of regional centres to affiliate, observe, monitor, regulate and control the distance education institutions for the better quality of distance education in our country.

### **References**

- Balasubramaniam, T.(1976), Correspondence Course for Teacher Education in Correspondence Education, Indian University Association for Continuing Education, New Delhi
- Biswal, B.N. (1979). *A study of correspondence education in Indian universities, An unpublished Ph.D. Thesis, CASE, M.S. University, Baroda.*
- Dutt R., "Correspondence Courses in India", in *Winged Words*, School of Correspondence Courses and Continuing Education, University of Delhi, 1976.
- Elen, J. & Clareabout, G. (2001). *Instructional design, towards consolidation and validation. Interactive Educational Multimedia. October: 1-11. (as cited in COL, 2005, p.15.).*
- Fozdaret al.(2006). A Survey of Study on the Reasons Responsible for Student Dropout from the Bachelor of Science Programme at IGNOU. <http://www.irrodl.org/index.php/irrodl/article/view/291/747>
- Gomathi.(1982).A Critical study of the participants evaluation of selected post graduate courses of the correspondence education programme of the Madurai Kamraj University, Unpublished, Ph.D. Thesis, Education, University of Madras.
- Khan I.(1982). Suitability of teaching English through correspondence courses as offered by some Indian Universities at the first degree level, unpublished Ph.D. Thesis, Dissertation, Utkal University.
- Koul, B.N.(1982). A Study of Dropouts: Implications for Administrative and Educational Strategies, Unpublished Report CIEFL, Hyderabad.
- Krippendorff, K. (1980). *Content Analysis: An introduction to its methodology*, London: Sage.
- Sahoo, P.K. (1985) *A study of correspondence education in an Indian university*, Ph.D. Education, M.S. University, Baroda, India.
- STRIDE, IGNOU. (2014). *Data Analysis. Block Code: MES-315, Block-4, Unit-1, p.41.*

**EXPENDITURES OF INSTITUTIONAL DELIVERY FOR BPL HOUSEHOLDS  
BURDEN OF OUT OF POCKET (DIRECT AND INDIRECT)  
EXPENDITURES OF INSTITUTIONAL DELIVERY FOR BPL  
HOUSEHOLDS IN SELECTED VILLAGE OF VARANASI DISTRICT**

**Anjali Gupta**

Research Scholar, JNU

ISSN 2277-7733

Volume 8 Issue 3,

December 2019

**Abstract**

*High rate of maternal mortality has become one of the most serious public health issues in India. Although the estimates shows decline in maternal since 1992 (437 per 10, 000 live births) to 2010-12 (178). Even Sample Registration System Reports highlight that Maternal Mortality rate (MMR) has reduced by the 6.15% as compared to previous survey 2014-2016 (<https://www.jagranjosh.com/current-affairs/sample-registration-system-report-finds-decline-in-maternal-mortality-rate-in-india-1573456912-1>), but the reduction rate is sluggish. The causality of slow decline of MMRs in India is multiple axes of inequalities- regional, caste and class. Evidence shows an association between MMR and these socio-economic inequalities. Therefore Government of India has launched programmes and schemes viz; conditional, unconditional and voucher based for population below poverty line. Though government has adopted these schemes as a tool for improving the access to health services and decline of MMR still a large number of child births are home based with very low medical facilities available. Cost barrier, both direct and indirect is one of the main obstacles leading to low institutional delivery. The objective comprised to study the effectiveness of government (central and state) schemes financing institutional child birth for BPL households. This qualitative study included both secondary (government records, published articles, journals and micro level studies) and primary data. Primary data was collected through in-depth interview. It has been found in the study, though government gives incentives to poor sections for direct expenditures but indirect (tips, transportation cost, loss of wages etc.) expenditures are also largely accountable for inaccessibility to health services.*

**Keywords:** *Maternal Mortality rate (MMR), Out of pocket expenditure (OOP), Direct cost, Indirect cost, Cash assistance programmes*

High rate of maternal mortality has become one of the most serious public health issues in India. Although the estimates shows decline in maternal since 1992 (437 per 10, 000 live births) to 2010-12 (178). Even Sample Registration System Reports highlight that Maternal Mortality rate (MMR) has reduced by the 6.15% as compared to previous survey 2014-2016 (<https://www.jagranjosh.com/current-affairs/sample-registration-system-report-finds-decline-in-maternal-mortality-rate-in-india-1573456912-1>), but the reduction rate is sluggish. The causality of slow decline of MMRs in India is multiple axes of inequalities- regional, caste and class. Evidence shows an association between MMR and these socio-economic inequalities. Therefore Government of India has launched programmes and schemes viz. conditional, unconditional and voucher based for population below poverty line. Though government has adopted these schemes as a tool for improving the access to health services and decline of MMR still a large number of child births are home based with very low medical facilities available. Cost barrier, both direct and indirect is one of the main obstacles leading to low institutional delivery.

**Types of Costs**

Direct cost: NSSO only include direct cost in out of pocket expenditure and according to this organization, Out of pocket expenditure is the direct cost which is

### ***EXPENDITURES OF INSTITUTIONAL DELIVERY FOR BPL HOUSEHOLDS***

paid by the patient for medical treatment. This includes medicines or drugs, doctors and nurses fees, diagnostic and other miscellaneous services. The patient has to incur this expenditure from their pocket since it is not provided free of cost by public services or covered by insurance (NSSO, 2001).

Indirect Cost: Indirect expenditure can also be seen as a direct cost which is paid by the patient for accessing the health services and that are not officially sanctioned by the facility. These indirect medical expenses incurred due to the transportation cost, loss of wages, tips and bribe, payment diet on sick as well as care givers and other informal payments for utilizing the health services (Simkhada et. al 2012; Misra et.al, 2013).

#### **Central and State led schemes**

Rastriya SwasthyaBima Yojana: The RashtriyaSwashtyaBimaYojana scheme has been launched by Ministry of Labour and Employment , Government of India to giving the insurance coverage for the below poverty line. Under this scheme, beneficiaries are entitled the coverage of Rs. 30,000 for the most of the diseases that need hospitalization. This coverage includes five family members –head of the households, spouse, and three other dependents. Beneficiaries have to pay only Rs. 30 for registration while central and state government pays the premium to the insurer ([www.rsby.gov.in/about-rsby.aspx](http://www.rsby.gov.in/about-rsby.aspx)). Transportation charges are also covered upto a maximum of Rs. 1,000/- with Rs. 100/- per visit ([http://www.rsby.gov.in/faq\\_scheme.html#1](http://www.rsby.gov.in/faq_scheme.html#1)).

Janani Suraksha Yojana: Janani Suraksha Yojana is a scheme which launched under RCH II (Reproductive and Child Health) programme of NRHM (National Rural Health Mission) in April 2005. This is a safe motherhood intervention which has been especially launched to reduce the maternal as well as neo-natal mortality through increasing the institutional delivery ([www.nrhm.in/UI/Reports/Documents/JSY\\_study\\_UNFPA.pdf](http://www.nrhm.in/UI/Reports/Documents/JSY_study_UNFPA.pdf)). It is a hundred (100 %) percent centrally sponsored scheme. Under this scheme there is provision of giving the cash incentives to the BPL (below poverty line) pregnant women when she delivers the baby in the government health (DHs, CHs, PHCs or SCs) institutions ([jknrhm.com/PDF/JSR.pdf](http://jknrhm.com/PDF/JSR.pdf)). In the case of private institution's births, the beneficiaries only get cash incentives when she or her family have genuine BPL card, approved by census or SC/ST certificate. In this scheme the mother get Rs. 1400 in rural whereas the mother who reside in the urban area get Rs. 1000. This cash assistance (Rs. 500) is also given to the BPL pregnant (aged 19) for home delivery and restricted to only two live births ([angul.nic.in/JSY.pdf](http://angul.nic.in/JSY.pdf)).

Mahamaya Garib Balika Ashirwad Yojana: At the time of field visit Mahamaya Garib Balika Ashirwad Yojana (MGBAY) was running in the district of the Uttar Pradesh state. This scheme was state sponsored scheme, launched by the former chief minister (Mayawati) of the U.P in 15 January 2009. Under MGBAY, there was the provision of giving the fixed deposit of Rs. 20,000 for the first girl child of the BPL or Antodaya card holder families. As per the rule of this scheme, this would get only to the daughter at the age of 18 (eighteen) years when she would not get married. This scheme was not implemented in the whole country as a part of the Integrated Child Development Services (ICDS) but this scheme was implemented by the state government for the welfare of the girl children in BPL households to prevent the female feticide and child marriages to giving the financial security to the family. In the scheme, parents'

## ***EXPENDITURES OF INSTITUTIONAL DELIVERY FOR BPL HOUSEHOLDS***

name must be in the current BPL list and date of birth (DOB) which was given from the health institutions at the time of baby birth also needed to avail this scheme and these were the main difficulties, because of the large number of the parent's name were not mentioned in the current BPL list which were the reasons for not getting the benefit of the MGBAY ([nhrc.nic.in/Documents/Reports/misc\\_SKTiwari\\_Gorakhpur.pdf](http://nhrc.nic.in/Documents/Reports/misc_SKTiwari_Gorakhpur.pdf)).

### **Setting for the study**

This study has been conducted in the state of Uttar Pradesh, with focus on selective village Tilmapur of Varanasi district. It is an attempt to understand the how effective these scheme are which are meant for BPL people for increasing the institutional delivery by accessing health institutions. This village has been chosen on the basis of the convenience of the researcher in Uttar Pradesh where the percentage of home deliveries is still high despite of the government has launched the several cash assistance programme for institutional delivery to reduce the burden of birth expenses.

Health Infrastructures: Tilmapur village has some basic health facilities. It has a private hospital, run jointly by government and health work committee. There are other four private hospitals too, in which, two of them are physician's clinics, located on the kaccha road (balua) and the rest two nursing homes, situated in the new colony of this village. Villagers usually are more likely to go to the private institutions for the major or minor illness because of the distance factor and some other reasons.

### **Objective**

To study the effectiveness of government (central and state) schemes financing institutional child birth for BPL households.

### **Design of the study**

A qualitative research design has been employed for this study. To achieve the objective of the study, primary as well as secondary data are used. The secondary source of data such as published reports, published article, published studies as well as micro level studies on OOPs have been used for making the study appropriate and also to know the various central as well as state led schemes which were functioning in the village (study area). Primary data has collected through the in-depth interview of those twenty two BPL households where child births have been occurred during last one year with the help of interview schedule. These twenty two households are selected through the purposive sampling.

Data analysis: Data analysis was performed by using content analysis. Some common words that emerged through interviews of the respondent were drawn from the primary data and then coded it according to topic related area by the researcher. After coding, the contents were critically examined and thus key finding were arrived.

Limitations: This study has been conducted with the help of twenty two cases of births; in which eighteen were institutional and rest four were at home. As, home births were very few in number, therefore it has been difficult to arrive at a generalized finding based on home births. The time period was too short to understand the experiences of the people and their way of tackling problems faced during hospitalization. In this study, the researcher also felt that there is need to include more information about hospital staff, which would further help in understanding the role of schemes and clinical staffs.

## **EXPENDITURES OF INSTITUTIONAL DELIVERY FOR BPL HOUSEHOLDS**

### **Findings**

Reimbursement of funds: As we all are aware that, government is running many reimbursement health insurance schemes for the welfare of the poor. One of the schemes called RSBY (Rashtriya Swasth Bima Yojna), in which unorganized workers can get health benefits. According to this scheme, BPL card holders should have smart cards and their names should also be registered with state as well as in central list of BPL card holders. But majority of people's names were not mentioned in the central list due to the lack of proper awareness, and as a result villagers were not able to avail benefits under this scheme and took loan to bear their delivery charges. This happens because of non-co-operation from the Gram pradhan who did not disclose schemes for the poor are of especially for lower caste groups, as he was a Brahmin by caste. Only very few villagers who were JATAV by sub-caste were enrolled in this scheme.

Direct and Indirect expenditure: During hospitalization for institutional birth, people used to pay from their own pocket for a number of expenses which included direct and indirect costs both. People paid not only for the direct costs like doctor's fees, drugs cost, user charges, pathological charges, bed charges, operation charges but also to paid for transportation cost, loss of income, premium of insurance, lodging and boarding etc. These costs further caused weaker financial situation for poor households. Expenditure on medicines as a direct cost along with indirect cost really scaled up the entire cost of the delivery. In the field, researcher came to know that the ratio of the direct and indirect expenditure of birth is 1:3 which not a small ratio. And this situation exists in spite of the fact that some conditional cash transfer scheme has been supposedly implemented for the poor.

A 45 years old lady Sheela, a Nai by subcaste, narrated her experience to the researcher that what amount she has paid for the birth of her daughter:

*“When I took my daughter to PHC of Chiraigaon block for her delivery, the doctor told me that it is not a normal birth, and he advised me to take her to the Kabeer Chaura or Deendayal Hospital (district hospital). Despite her eligibility to be admitted in the district hospital; I took her to the nearby private Umang Nursing home, as the district hospital is far away from that PHC as well as from my house. I had heard that there were lots of formalities to be done before admitting patients and my daughter was in severe labor pain. So I didn't feel like to take this risk. The total cost, I paid for her delivery, was Rs. 14,300 excluding other expenses. The other expenses which I bore were transportation cost, food, loss of money, interest of loan, etc., which overall came out to be Rs.4500 which was a huge amount for us.”* (Sheela; SC, 23 January)

Loans: It is well known fact that the costs of the birth in the institutions for poor people are not affordable. It affects adversely the BPL households. To bear these expenses, they borrow money from their relatives, friends, local money lender in the village etc. and get huge amounts of debt on their heads. Situations are worsened to an extent of selling their assets like lands and other sources of capital for instance auto rickshaw, animals, jewelries etc. For repayment of loans, poor used to forsake their essential needs such as food, clothing's and schooling of their children. Thus, this is one of the main reasons in the village, why poor people are trapped deeper into indebtedness.

### ***EXPENDITURES OF INSTITUTIONAL DELIVERY FOR BPL HOUSEHOLDS***

Ashok, who is a daily wages laborer, explains about his critical condition. In order to bear the cost of delivery of his wife in the private institution he had to sell his auto-rickshaw the only source of income to house. Because of the complication in his wife's delivery, she was hospitalized in a private hospital. To bear all the expenses, he had to ultimately sell his auto rickshaw. Now he is doing labor job, but through this work does not get enough to feed his family. Some time, he has to borrow some ration from his neighbors or relatives to feed his children.

The given case study clearly depicts how poor people were trapped into the poverty line in order to meet the expenses incurred at the time of delivery. Many a times they had to forsake their basic needs for the same.

“Chinta Devi, a 45 year old lady from Patel (OBC) by sub caste had taken loan from the Micro pore credit agency for the payment of her daughter-in-law's delivery. For repaying this loan, she used to pay loan interest amount on every Thursday at 7:30 am. One day on Wednesday, her son got injured and she immediately took him to the hospital, where she stayed the whole night with her son. Only her daughter-in-law with her baby was at home. Due to her stay at hospital, she failed to repay loan interest on next day. On that same day, the money lender went to her home and asked her daughter-in-law for the loan installment. She pleaded to him for some time till her mother-in-law returns with her husband. But the money lender refused and said according to the terms and conditions of this finance group, ones need to pay all the installments on time otherwise they sell their land on the very same day. Fortunately, all villagers contributed and pooled money on her behalf for the installment and gave it to the money lender. Thus, with the help of villagers her land got saved. (Chinta Devi; OBC, 8 February)

Syama Devi's son Ajay, whose net daily income of INR 250-300 with a rented auto-rickshaw was the only source of income for her family of four, including her daughter and daughter-in-law. Once her son got unemployed because of Jaundice, she and her daughter started to sustain their family financially by working as Moidservants. She also took a loan of INR 10,000 from Micro pore credit Agency to cover Ajay's medical expenses. She and her daughter used to work in 2 and 5 homes respectively to earn INR 1050 as a whole for a month with an average of INR 150 per month per house.

“Out of sever Labor pain, her pregnant daughter-in-law Rani was taken to the nearest Primary health Care (PHC) which is 5.2 km away from her home. Doctors of PHC referred her to the nearest district hospital which was unfortunately 18-20km away from her home for successful delivery by Caesarian section. Syama Devi could not take Rani to the district hospital taking into account Rani's poor health condition and inefficiency of District hospital doctors (Source: Neighbors). This situation has forced Syama Devi to borrow an additional INR 15000 from Micro pore Credit Agency, out of which INR 13,000 was utilized for Rani's Caesarian section at private hospital. She is now suddenly trapped into an un-expected economic crisis due to her son's illness and Rani's caesarean delivery which has led her into a great debt of loans. She promised to pay an equated weekly installment of INR200 and INR 300 for INR 10000 and INR 15000 loan respectively for 52 Weeks. To meet the entire repayment amount, she and her family members cut their diets and started feeding starch water in

### ***EXPENDITURES OF INSTITUTIONAL DELIVERY FOR BPL HOUSEHOLDS***

place of milk to her granddaughter (Syama Devi, 50 years old, Dhobi by Sub caste, 8 February)".

In the village there was no bank for providing loans for delivery cases as well as for personal needs. Most of the people (BPL households) have taken loan from this above mentioned finance group. This group only gives loan for generating income and employment. The villager also don't want to take loan from the bank, as according to them, there were lots of formalities that need to be fulfilled which takes not only takes time but it is also very cumbersome. Therefore, they take loan from these types of finance agencies.

Difficulties: In the study, villagers faced a number of difficulties during hospitalization for child births as well as for treatment. The primary health centre was located at some distance from their homes. So, firstly they faced the problem of distance. Secondly, they faced long queue at PHCs. Thirdly, there was no pathology centre which led patients to go to other private pathology centre. Fourthly, cleanliness was the major problem. There was no proper facility for accommodations and toilets. Therefore, patients' relatives used to sleep on the floor or in lobby of the hospitals and go outside for toilets. Non-availability of medicines and inadequate staff in government hospitals, were the other fatal problems they faced.

For availing the amount of schemes by the patients, the administrative used to take lot of time to decide and most of the time patients were not able to get the amount of the scheme. Doctors' unavailability was another serious issue including the non-cooperative behavior of the other staffs towards patients. Doctor's were unavailable at the timings fixed. Villagers also faced scolding of other staff members for their doubts and queries which they had in relation to their person admitted in the hospital.

### **Conclusion**

The finding of this study has demonstrated that direct, indirect costs and difficulties in accessing the health services are among the major reasons for not opting for institutional births. The quantum of indirect cost also depends upon the economic background of the people. The richer are able to pay a higher amount on the transport, tips for medical staff and food. Loss of income during hospitalization is less for the rich compared to the poor. This is because the latter are dependent upon their daily income and not on personal savings like the rich. However the data shows that the ratio of the institutional deliveries is high. It is because of the awareness of the cash schemes. It means that an affordable cost and cash payment schemes can encourage the women to go for institutional deliveries especially in the rural areas. It is estimated that around 23% of total birth had occurred at home in the village during the last year which researcher has selected. Though government schemes have provided financial incentives to the mother as well as other facilities but it does not seems very significant for the poor due to the some problems such as delay in payment, inadequate amount etc. and that's why the poor have to pay for availing medical care. Therefore the target of high institutional deliveries only can be achieved by the strengthening the public health systems as well as to provide the monetary payment mechanism to meet the delivery expenditure, both direct and indirect.

## ***EXPENDITURES OF INSTITUTIONAL DELIVERY FOR BPL HOUSEHOLDS***

### **References**

- Bhat, R. (1999), "Characteristics of Private Medical Practice in India: A Provider Perspective", *Health Policy and Planning*, Vol.14, No. 1, pp.26-37.
- Bonu, S., Bhushan I. and Peters, D.H (2007), "Incidence, Intensity And Correlates Of Catastrophic Out Of Pocket Health Expenditure In India", ERD Working Paper Series No. 102, Asian Development Bank6, ADB Avenue, Mandaluyong City,1550 Metro Manila, Philippines as available on [http://s3.amazonaws.com/zanran\\_storage/www.adb.org/ContentPages/4303189.pdf](http://s3.amazonaws.com/zanran_storage/www.adb.org/ContentPages/4303189.pdf) as accessed on 12 December 2011.
- Bonu, S., Bhushan, I., Rani, M. and Anderson, I. (2009), "Incidence and Correlates of 'Catastrophic' Maternal Health Care Expenditure in India", *Health Policy and Planning*, pp. 1-12.
- Devadasan, N. et al. (2008), "A Conditional Cash Assistance Programme for Promoting Institutional Deliveries Among the Poor in India: Process Evaluation Results", *Studies in Health Services Organization and Policy*, Vol.24, pp. 257-273.
- Duggal, R. (2005), " Public Expenditures, Investment and Financing under the shadow of a Growing Private Sector" in Gangolli, L. V., Duggal, R., and Shukla, A. (ed.), *Review of Health Care in India*, Centre for Inquiry into Health and Allied Themes (CEHAT), pp.3-332 as available on <http://www.cehat.org/publications/PDF%20files/r51.pdf> as accessed on 27 November 2011.
- Duggal, R. (2007), "Poverty and Health: Criticality of Public Financing", *Indian Journal of Medical Research*, Vol. 126, pp. 309-317.
- Garg, C. C. and Karan, A. K., (2005), "Health and Millennium Development Goal 1: Reducing out-of-pocket Expenditures to Reduce Income Poverty—Evidence from India", Working Paper No. 15, as available on [http://www.researchgate.net/publication/23777693\\_as](http://www.researchgate.net/publication/23777693_as) accessed on 16th May, 2012, pp-2-25.
- Garg, C.C. and Karan, K. A. (2009), "Reducing Out of Pocket Expenditure to Reduce Poverty: A Disaggregated Analysis at Rural-Urban and State level in India", *Health Policy and Planning*, Vol.24, pp.116-128.
- Ghosh, S. (2011), "Catastrophic Payments and Impoverishment due to Out of Pocket Health Spending", *Economic and Political Weekly*, Vol. XLVI, No. 47, pp. 63-70.
- Government of India, (2005), "Report of the National Commission on Macroeconomics and Health", Ministry of Health and Family Welfare, pp-1-187 as available on <http://www.who.int/macrohealth/action/Report%20of%20the%20National%20Commission.pdf> as accessed on 13 November 2012.
- Guruswamy, M., Mazumdar, S and Mazumdar, P. (2008), "Public Financing of Health Services in India: An Analysis of Central and State Government Expenditure", *Journal of Health Management*, Vol. 10, No.1, pp-49-80.
- [http://www.rsby.gov.in/faq\\_scheme.html#1](http://www.rsby.gov.in/faq_scheme.html#1) as accessed on 13 December 2019.
- <https://www.jagranjosh.com/current-affairs/sample-registration-system-report-finds-decline-in-maternal-mortality-rate-in-india-1573456912-1> as accessed on 23 November 2019.

***EXPENDITURES OF INSTITUTIONAL DELIVERY FOR BPL HOUSEHOLDS***

- Kethineni, V. (1991), "Political Economy of State Intervention in Health Care", *Economic and Political Weekly*, Vol. XXVI, No.42, pp. 2427-2433.
- Mandal, D.K., Kaur, P. and Murhekar, M.V., (2012), "Low Coverage of Janani Suraksha Yojana among Mothers in 24 Parganas (South) of West Bengal in 2009", *BMC Proceedings*, Vol.6, pp.1-2.
- Mavalankar, D. and Bhat, R. (2000), "Health Insurance in India Opportunities, Challenges and Concerns", Indian Institute of Management Ahmedabad as available on <http://www.iimahd.ernet.in/~dileep/PDF%20Files/Insurance.pdf> as accessed on 10 July 2012.
- Pal, R. (2010), "Analysis Catastrophic OOP Health Expenditure in India: Concepts, Determinants and Policy Implications", Working paper-2010-001, Indira Gandhi Institute of Development Research Mumbai, as available on <http://WP-2010-001.pdf> as accessed on 4 Jan 2012.
- Peters et al., (2002), "Better Health Systems for India's Poor: Findings, Analysis, and Options", World Bank, pp.1-347 as available on [http://www-wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/2004/02/25/000090341\\_20040225130310/Rendered/PDF/279270PAPER0Health0economics.pdf](http://www-wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/2004/02/25/000090341_20040225130310/Rendered/PDF/279270PAPER0Health0economics.pdf) as accessed on 27 March 2012.
- Poullier J.P., Hernandez, P., Kawabata, K. and Savedoff, W.D. (2002), "Pattern of Global Health Expenditures: Results for 191 Countries", WHO, as available on <http://www.who.int/healthinfo/paper51.pdf> as accessed on 10 July 2012.
- Rao, M.G. and Choudhary, M. (2008), "Inter – State Equalization of Health Expenditures in India Union", National Institute of Public Finance and Policy, New Delhi, pp 1-41 as available on [http://www.whoindia.org/LinkFiles/Health\\_Finance\\_Institute\\_Equalisation\\_of\\_Health\\_Expenditure\\_in\\_Indian\\_Union.pdf](http://www.whoindia.org/LinkFiles/Health_Finance_Institute_Equalisation_of_Health_Expenditure_in_Indian_Union.pdf) as accessed on 2 December 2011.
- Rao, M.G and Choudhury, M. (2012), "Healthcare Financing Reforms in India", as available on [uhc-india.org/downloadpdf.php?link=HealthcareFinancing\\_reforms.pdf](http://uhc-india.org/downloadpdf.php?link=HealthcareFinancing_reforms.pdf) as accessed on 5 May 2012.
- Ravichandran, N., (2009), "The Indian health Care System", as available on [http://www.medical.siemens.com/siemens/en\\_US/rg\\_marcom\\_FBAs/files/brochures/magazin\\_medsol\\_2009\\_09/Medical\\_Solutions\\_September2009\\_Essay\\_Series\\_India.pdf](http://www.medical.siemens.com/siemens/en_US/rg_marcom_FBAs/files/brochures/magazin_medsol_2009_09/Medical_Solutions_September2009_Essay_Series_India.pdf) as accessed on 12 February.
- Shewade, H.D. and Aggarwal, A.K. (2012), "Health Sector Reforms: Concepts, Market based Reforms and Health Inequality in India", *Educational Research*, Vol. 13, No.2, pp. 118-125.
- World Health Organization, (2006), "Health Expenditure Trends in Selected Countries", Geneva, pp. 1-17 as available on [http://www.who.int/macrohealth/documents/Electronic\\_Annex\\_C.pdf](http://www.who.int/macrohealth/documents/Electronic_Annex_C.pdf) accessed on 6 November 2011.
- Worrall, J.S. et al. (2011), "Maternal and Neo-natal Health Expenditure in Mumbai Slums (India): A Cross Sectional Study", *BMC Public Health*, Vol.11, No.150, pp. 1-12. <http://www.who.int/macrohealth/action/Report%20of%20the%20National%20Commission.pdf> accessed on 6 November

## WORKING OF THE LAW RELATING TO STREET VENDING IN INDIA: AN EMPIRICAL STUDY OF KOLKATA MUNICIPAL CORPORATION

**Debabrata Basu**

Assistant Professor of Law,  
Hooghly Mohsin College, Chinsurah, West Bengal.

ISSN 2277-7733  
Volume 8 Issue 3,  
December 2019

### Abstract

*In most Indian cities the urban poor survive by working in the informal sector. Street vending provides job opportunity and means of livelihood to the urban poor but Urban Local Bodies consider it as illegal activity so far. In 2004, first time, Government of India recognizes vendor's role in local economy after so many litigations and Supreme Court verdict in favour of vendors. National Policy on Urban Street Vendor, 2004 and 2009, Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act, 2014 are some of the initiatives taken by the Government. Still their status has not been changes as it was prior to 2004.*

**Keywords:** *Informal Sector, Street Vendors, Social Security, Legal Rights*

Informality is the last option for the urban poor to survive in the most Indian cities. Among the informal sector, street vending is the most popular means of earning a livelihood, as it requires minor financial input, low investment and low skills. These people take to street vending when they do not find other means of livelihood. Though street vending is the last option of livelihood to the urban poor but Municipal and Police authorities consider it as illegal activity. The informal sector has in fact expanded in all countries, including the developed countries and through the existence of street vendors the concept of an informal sector was developed. Street vendors are not only a significant part of the informal sector but also an integral part of urban economy. It is a fact that the presence of street vendors is quite useful for a large section of the urban poor as street vendors provide goods, including food, at low price.<sup>1</sup> At present though street vendors have legal status to conduct their business but they are constantly being harassed by the authorities.<sup>2</sup> However, in law much is to be achieved.

### Rationale of the Study

In the year 1996, Operation of Sunshine took place in Kolkata, on which thousands of street vendors were evicted at that time. In those days one question revolved around in author's mind 'do street vendors have any legal rights to do business on the street?'. This question compelled the author to go ahead with this direction. In today's context, this topic has become a subject of extreme concern and no civilized society can overlook it. A society, which functions within the framework of welfare state as envisaged in new Indian polity aiming at ensuring a minimum desirable standard of living to each and every member, is obliged to come forward to understand the needs of the street vendors and to undertake various measures that should be helpful in the fullest development of their life.

---

<sup>1</sup>Sharit Kumar Bhowmik, "Legal Protection for Street Vendors", Vol. XLV, Nos. 51, Economic and Political Weekly December 2010

<sup>2</sup> Source: opinion formed by the Author from the field survey.

### **Scope of the Study**

The scope of this study is to deal with the Street Vending in India, specifically in the context of their legal rights. As street vending is practiced, more or less, throughout the country and the law relating to street vending has also nation-wide implications, the author tries to inquire into the existence and implementation of the law relating to street vending in India as a whole with special reference to Kolkata Municipal Corporation.

### **Research Methodology**

This study will be mainly Empirical and partly Doctrinal. In Doctrinal part, two types of reference will be used i.e. primary sources and secondary sources. Primary sources consist of statute and legislations and secondary sources are books, journals, articles. In Empirical part, the primary data will be obtained by field survey at Kolkata Municipal Corporation. The sample of 80 persons were taken up and interviewed. For empirical study the researcher proposes to adopt field survey method for data collection from selected areas by means of interview through questionnaires. Basically the structured/close ended questionnaires were asked. Questionnaire method is helpful to collect data from large, diverse and widely scattered people. Accordingly 20 street vendors were interviewed through structured questionnaires; 20 NGO Workers/Member of the Street Vendors Association were interviewed through structured questionnaires; 20 common people were interviewed through structured questionnaires; 20 Government employees were interviewed through structured questionnaires from the study area. The information has been collected on stratified random sampling method. The data obtained through the field survey is processed and presented in appropriate tables for deriving conclusions. Simple statistical tools like percentages, is used for deriving inferences and conclusions.

Research Questions: The basic questions which the present study has raised for considerations are: What rights have been granted to street vendors under the domestic law? Is the existing law on street vending adequate to protect their rights? What is the present position of street vendors in India?

Hypothesis: The following Hypothesis related to the present study have been formulated: "The Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act, 2014 is deficient to protect and secure their rights as well as is insufficient to cover their special need".

Literature Review: In any research, literature review plays an important role. It is not only important but also essential when the author writes about any research report. It is a required homework that ought to have been done carefully. It is a fact-finding task and initial step of any research. It depicts the pictures about what research has been done in the past of the topic chosen by the researcher. The main aspect of literature review is that it judges, sums up, compares and contrasts, connects various books, articles, other relevant sources that are very much related to the present research. It sharpens the focus of the researcher. A comprehensive review of relevant literature is essential as it place the research study in its proper perspective by narrating the amount of work already done in the related area. To build clarity of thought literature review plays a pivotal role. By identifying gaps in the existing literature, the researcher can justify the originality of the proposed research. The analytical features of a literature review might trace the intellectual progression of the

field; identify the gaps exist till date. A good number of studies relevant for the present research have been studied.

### **Street Vending: Historical Outlook**

a. Position in Ancient Period: We do not find any direct reference of street vending in the Vedic period. But in vedic literature we find existence of trade and commerce. People of the early Vedic period was financially independent. Every family created the basis requirements of their life. The excess item was reserved for future utilization.<sup>3</sup>

b. Position in Medieval Period: In the medieval period there was control of the marketing system both in local as well as long-distance trade by the Muslim rulers.<sup>4</sup>Allauddin Khilji (1290-1320 AD) was the first Sultan who seriously controlled the market system in an organized manner. The main features of this period was growth of markets in the shape of fairs and weekly markets in various places in the country. The Muslim rulers not only controlled the market system but also fixed the prices of the goods. Banjaras was mainly mobile/movable traders at that time.

c. In British period street vending was considered as illegal activity.

d. Position in independent India: In Indian towns during the past few years the number of street vendors has increased sharply, particularly after 1991 when the policies relating to structural change and liberalization were introduced. The only solution seemed to be that the common problems of street vendors can be tackled only at the national level and not through temporary local initiatives. The need of the hour was forming a national organization that could help to harmonize and manage activities of the associations of street vendors and project these at a national level.<sup>5</sup> In November 1995, representatives of street vendors from 11 cities across five continents held the inaugural meeting of the International Alliance of Street Vendors in Bellagio, Italy. The Bellagio International of Street Vendors, signed by representatives at that meeting, called on governments to establish national street vending policies. This was a landmark development in the vendors' movement at the global level.<sup>6</sup>Thereafter Government of India in 2004 launched the National Policy on Urban Street Vendors and in the Policy of 2004, there was no provision of penalties on the police and Municipal authorities, who attempt to evict any registered vendor. So the Ministry of Housing and Urban Poverty Alleviation, Government of India issued a revised policy in 2009.

Origin of the Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act, 2014: Maharashtra Ekta Hawkers Union & Another vs Municipal Corporation, Greater Mumbai & others<sup>7</sup> case has been decided on 9<sup>th</sup> September 2013 by the Hon'ble Supreme Court by observing that Street Vending Policy of 2009 shall remain operative till an appropriate legislation is enacted by Parliament. Once the

<sup>3</sup><http://www.historydiscussion.net/history-of-india/vedic-period/trade-and-commerce-during-the-vedic-period-india-history/7060> visited on 25.07.2018 at 4 pm.

<sup>4</sup>Miss. Mubeen S. Belgau, "Application of GIS in periodic markets Analysis: A case study of Haveri District" under Karnatak University. Also available at <http://hdl.handle.net/10603/21352>.

<sup>5</sup>Sharit K. Bhowmik, "Hawkers And the Urban Informal Sector: A Study of Street Vending in Seven Cities", Prepared for NASVI. Full text available at [wiego.org>files>publications>files.pdf](http://wiego.org/files/publications/files.pdf), last visited on 08.09.2016.

<sup>6</sup>Shalini Sinha and Sally Roever, "Women in Informal Employment: Globalizing and Organizing", No. 2 WIEGO Policy Brief( Urban Policies), 2 (April 2011)

<sup>7</sup> (2014) 1 SCC 490

Street Vendors (Protection of Livelihood and Regulation of Street Vending) Bill, 2012 becomes law, the livelihood of millions would be saved and they will get protection against constant harassment and victimization which has so far been an order of the day. However, till the needful is done, it will be appropriate that the 2009 Policy should be implemented throughout the country.<sup>8</sup> Thus, the proposed 'the Street Vendors (Protection of Livelihood and Regulation of Street Vending) Bill, 2012', is aimed at protecting the livelihood rights and social security of street vendors and regulation of urban street vending in the country and ensuring uniformity in the legal framework for street vending across States and Union territories.<sup>9</sup> The Bill moved on the Lok Sabha, by the Ministry of Housing and Urban Poverty Alleviation, which passed on 06.09.2013 and passed on Rajya Sabha on 19.02.2014 in the name of Street Vendors (Protection of Livelihood and Regulation of Street Vending) Bill, 2014 and date of assent by the Hon'ble President of India was obtained on 04.03.2014 and came into force from 01.05.2014.<sup>10</sup>

International aspect: Internationally there is no specific labour standards relating to street vendors and it varies dramatically from one country to another. Many countries control this activity by providing a clear legal framework, while others have overlapping jurisdiction, which creates confusion and conflict, and in others still, street vending is simply considered illegal.<sup>11</sup>

Street Vending and Indian Constitution: The Constitution of India always tries to provide equality, liberty, dignity, social justice and human rights. The Preamble, fundamental rights and the Directive Principles of State Policy of the Constitution is an indication to the commitment of the State to its people. These provisions give strength to the State for the upliftment of the status of poor. Our founding father made no discrimination amongst people. The important Fundamental Rights in matters related to the rights of the street vendors are (a) Article 14: Equality before law; (b) Article 19 (1) (g): Protection of certain rights regarding freedom to practice any profession, or to carry on any occupation, trade or business; (c) Article 21: Protection of life and personal liberty; (d) Article 32: Remedies for enforcement of rights conferred under part III of the Constitution; (e) Article 37: Application of the principle contained in this Part; (f) Article 38: State to secure a social order for the promotion of welfare of the people; (g) Article 39: Certain principles of policy to be followed by the State; (h) Article 41; Right to work, to education and to public assistance in certain cases; (i) Article 226: power of High Courts to issue certain Writs. There is no direct provision in the Constitution dealing with the street vending. The Constitution may be amended to address the needs of street vendors. It is unfortunate that after seventy two years of independence, there is not a single provision which judicially aims at securing the human rights of street vendors.

Judicial Response to Street Vending in India: In the case of *Bombay Hawkers' Union vs. Bombay Municipal Corporation and Ors.*<sup>12</sup>, the Supreme Court, for the first time, upheld

<sup>8</sup> Paragraph 15 of Maharashtra Ekta Hawkers Union & another [(2014) 1 SCC 490]

<sup>9</sup> <https://indiankanoon.org/doc/142949467/> visited on 04/08/2018 at 8.50pm.

<sup>10</sup> <http://pib.nic.in/newsite/printrelease.aspx?relid=103949> visited on 09.09.18 at 1.40pm.

<sup>11</sup> The Regulatory Framework and the Informal Economy, International Labour Office, Geneva, p. 3. Full text available at [www.ilo.org/publication/wcms\\_201454.pdf](http://www.ilo.org/publication/wcms_201454.pdf), last visited on 08.09.2016.

<sup>12</sup> 1985(3)SCC528

the right to livelihood of the street vendors and went on to observe that unreasonable restrictions cannot be imposed on street vendors. Adjudicating on the similar lines in the case of *MCD vs. Gurnam Kaur*<sup>13</sup> and *Sodan Singh vs. NDMC*<sup>14</sup> the Supreme Court again held that street vendors have a right to carry on their business and the same can't be compromised on the altar of the peoples' superficial right to use streets and that such right of livelihood should be upheld with reasonable restrictions. Another reason, for which these cases are important, is the recognition of the factors which force people to resort to street vending and the lack of proper employment opportunities. In the Sodan Singh Case, the court also passed an observation to the effect that inaction on the part of the government authorities with regard to proper management and planning with respect to street vendors would, in effect, amount to negating the fundamental rights of the citizens. Thereafter in a number of cases like *Sodan Singh vs. UOI*<sup>15</sup>, the Hon'ble Supreme Court instructed models guidelines to be followed by civic authorities till proper legislation could be brought into force. However, the implementation of these guidelines became a subject of much litigation before various high courts and thereafter, the Supreme Court itself. Once again, in *Maharashtra Ekta Hawkers Union vs. Municipal Corporation Greater Mumbai*<sup>16</sup>, the Supreme Court was forced to revisit and revise the guidelines issued earlier. In *Gainda Ram vs. MCD*<sup>17</sup>, the court went on to observe that, 'the fundamental right of the hawkers, just because they are poor and unorganized, cannot be left in a state of limbo nor can it left to be decided by the varying standards of a scheme which changes from time to time under the orders of the Court'. Upon a perusal of the above decisions it is amply clear that, for the past few decades, the Supreme Court has played an active role in recognizing the rights of street vendors and also enforcing the same by issuing guidelines and directions.<sup>18</sup>

Analysis of the Street Vending Act: The Street Vendors Act of 2014 was enacted with an object to give some ray of hope in the life of Street vendors. But unfortunately this Act has remained in paper not in work. The present legal framework is full of lacuna. There are many contradictory provisions in this Act. The main institutional mechanism namely the Town Vending Committee has not been formed in almost all municipalities. Survey has also not been completed by the municipalities. Their human rights are constantly being violated by the authorities<sup>19</sup>. The status of the street vendors has not been changed as it was before 2004. Public awareness about the Street Vending law is very poor. Civic facilities like water, toiler has not been provided to the street vendors. Street vendors have no property rights over the immovable property and only licence has been given. This licence (certificate of vending) is not transferable.

---

<sup>13</sup> 1989(1)SCC101

<sup>14</sup> 1989(4)SCC155

<sup>15</sup> 1998(2)SCC727

<sup>16</sup> 2004(1)SCC625

<sup>17</sup> 2010(10)SCC715

<sup>18</sup> Amit Chandra and Rajul Jain, "Property Rights of Street Vendors", Centre for Civil Society, June 2015, full text available on [ccs.in/sites/default/files/research.pdf](http://ccs.in/sites/default/files/research.pdf), last visited on 10.09.2016

<sup>19</sup>Source: Author

Findings of the Empirical Study<sup>20</sup>:**Table 1 : Opinion given by the Common People at Kolkata Municipal Corporation**

Question Number	Questions put to the Respondents (Total No. of Respondents: 20)	Answers in %	
		YES	NO
1.	Do you know that there are Specific Laws to protect the interest of Street Vendors?	65	35
2.	Do you know about the Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act 2014?	30	70
3.	Do you know that Space i.e. Vending Zone are allotted for street vending?	65	35
4.	Do you know about the Town Vending Committee?	40	60
5.	Do you know that there is a Dispute Redressal Committee to look into the dispute/grievance made by the street vendors?	50	50
6.	Do you think that street vendors play an important role on the life of the people?	100	0

**Table 2 : Opinion given by the Government Employees at Kolkata Municipal Corporation**

Question Number	Questions put to the Respondents (Total No. of Respondents: 20)	Answers in %	
		YES	NO
1.	Do you know that there are Specific Laws to protect the interest of Street Vendors?	40	60
2.	Do you know about the Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act 2014?	35	65
3.	Do you know that Space i.e. Vending Zone are allotted for street vending?	55	45
4.	Do you know about the Town Vending Committee?	20	80
5.	Do you know that there is a Dispute Redressal Committee to look into the dispute/grievance made by the street vendors?	35	65
6.	Do you think that street vendors play an important role on the life of the people?	100	0

**Table 3 : Opinion given by NGO Workers & Member of the Street Vendors Association at Kolkata Municipal Corporation**

Question Number	Questions put to the Respondents (Total No. of Respondents: 20)	Answers in %	
		YES	NO
1.	(i) Do you know that there are Specific Laws to protect the interest of Street Vendors?	60	40
	(ii) Can you name any one?	15	85
2.	(i) Have you heard about the Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act 2014?	25	75
	(ii) Have you heard Street Vending Rules & Scheme as provided in this Act?	15	85
3.	(i) Do you know about the various rights incorporated in the Act of 2014?	20	80
	(ii) Do you think that the rights provided in the Act are satisfactory?	20	80
4.	Do you know whether your Association/Organisation receives sufficient funds from the Government for making available credit to the street vendors?	30	70
5.	Do you know whether your Association/Organisation has received any benefit from the Government for working for the street vendors?	20	80
6.	Has the Local Authority extended the necessary help to your Association/Organisation?	40	60
7.	(i) Do you know about the Capacity Building Programme?	55	45
	(ii) Have you seen the Capacity Building Programme organized by the State Government?	25	75
	(iii) Is Capacity Building Programmes or Training Programmes to understand the role of street vendors more desirable for street vendors?	(a) 30 (b) 25 (c) 45	
	(a) Capacity Building Programmes		
(b) Training Programmes			
8.	(c) Both	55	45
	Have you made any efforts on your part to enrol the eligible street vendors with the Local Authority?	55	45
9.	Do you think that self-employment is the best method of assuring livelihood with dignity?	70	30
10.	Is your Association/Organisation free from interference?	50	50

<sup>20</sup>Source: Author

**Table 4: Opinion given by the Street Vendors at Kolkata Municipal Corporation**

Question Number	Questions put to the Respondents (Total No. of Respondents: 20)	Answers in %	
		YES	NO
1.	(i) Do you know that there are Specific Laws to protect the interest of Street Vendors?	30	70
	(ii) Can you name any one?	20	80
2.	(i) Do you know about the Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act 2014?	25	75
	(ii) Do you know about the various rights provided by this Act?	25	75
3.	(i) Do you know that Space i.e. Vending Zone are allotted for street vending?	45	55
	(ii) Do you think allotted space should be increased?	75	25
	(iii) Do you think that Holding Capacity should be increased?	60	40
	(iv) Should space be allotted in No Vending Zone?	45	55
4.	Do you know about the Town Vending Committee?	50	50
5.	Have you ever been discriminated because of being a street vendor?	50	50
6.	(i) Have you obtained a Certificate/Licence of Vending?	15	85
	(ii) Is it an easy process to obtain the certificate?	15	85
7.	(i) Do you know that there is a Dispute Redressal Committee?	30	70
	(ii) Have you ever sought help from the Committee?	0	100
8.	Do you receive any insurance or other social security from the Government?	5	95
9.	What is the immense inequity you have faced being as a street vendor? (a) Lack of interest of the Government (b) Negative societal attitude (c) Poor employment prospect (d) Non-cooperation from the Municipal Authorities (e) Non-cooperation from the Police Authorities (f) Non-cooperation from the citizens of the locality	(a) 10 (b) 10 (c) 25 (d) 5 (e) 30 (f) 20	
10.	Is Capacity Building Programmes or Training Programmes to understand the role of street vendors more desirable for street vendors? (a) Capacity Building Programmes (b) Training Programmes (c) Both	(a) 30 (b) 25 (c) 45	

Interpretation: After the analysis, the scenario in Kolkata Municipal Corporation may be concluded in this way: (i) Though all categories seem to know about the existence of specific laws, but, it is disappointing that smaller response has come from the street vendors themselves. (ii) So far as knowing about the Street Vending Act of 2014 is concerned, the response from street vendors was very low, only 25%. (iii) Majority of the street vendors did not know that space are allotted for street vending. (iv) 50% of the street vendors did not know about the existence of Town vending committee and only 5% received benefit of social security from the government. (v) Nearly fifty percent street vendors are discriminated because of being a street vendor by the authorities. (vi) Due to harassment and procedural formalities, nearly 85% street vendors did not obtained certificate/license of vending from the Municipal authority. (vii) 70% of the street vendors do not know about the Dispute Redressal Committee and none has ever gone to seek help from this committee.

### Conclusion & Suggestions:

The Street Vendors Act of 2014 has failed to achieve the desired goal for which the Act was enacted. It can be no gainsaying that the Act has remained in paper not in work. The hypothesis which the author has framed has been justified. There are many contradictory provisions in this Act. The statutory mandate i.e. the Town Vending Committee and Survey has not been formed or completed in almost all municipalities.

The status of the street vendors has not been changed as it was before 2004. Public awareness about the Street Vending law is very poor.

In view of the findings, the following recommendations are proposed:

The human rights approach in favour of the street vendors must be adopted across the globe. Public awareness with respect to Street Vending Act, 2014 must be increased as early as possible. The Government should strictly implement the Street Vending Act.

The Municipalities should provide civic facilities to the street vendors. Implementing officials need to be sensitized about the various legal provisions relating to street vendors' fundamental right to carry on trade and business and their right to livelihood. In countries, where street vendors is increasing, the solution is unlikely to lie in simply creating new law or even ensuring the implementation of the existing law. The adoption and implementation of law needs to be supplemented by social and economic measures with adequate awareness in the masses. Thus, besides legislative measures, there is an urgent need to give importance to the supportive measures.

## References

### BOOKS

Pandey Dr. J.N, (2007) *Constitutional Law of India*, central law Agency.

Jain Prof. M.P,(2008) *Indian Constitutional law*, Nagpur.

Kumar Prof.Narendra, (2007),*Constitutional Law of India*, Allahabad Law Agency.

Basu, Durga Das,(2002) Introduction to the Constitution of India, Washwa and Company law Publishers.

Bakshi,P.M,(2002) The Constitution of India, Universal law Publishing

Misra S.N, (2006) *Labour and Industrial laws*, Central Law Publications.

Padhi, P.K, (2009), *Labour And Industrial Laws*, PHI Learning Private Limited, Third Edition, ,Delhi

Kapoor Dr.S.K, (2005), *Human Rights*, Central Law Agency.

Tripathi Dr. B.N.Mani , *Jurisprudence*, Allahbad Law Agency

Singh, Mahendra. P, Goerlich Helmut, Hauff, Michael Von, (2008), *Human Rights and Basic Needs: Theory and Practice*, universal law publishing co.

The International Covenant on Civil and Political Rights, 1966.

The International Covenant on Economic, Social and Cultural Rights,1966.

The Convention on the Elimination of All Forms of Discrimination Against Women, 1979.

The Convention on the Rights of the Child, 1989.

The Indian Constitution.

The Indian Penal Code, 1860.

The Police Act, 1861.

The Motor Vehicle Act, 1988.

The Code of Criminal Procedure, 1973.

Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act, 2014.

National Policy on Urban Street Vendors of India 2004 & 2009.

## ARTICLES

- Ahmed, I (2003). "Decent Work and Human Development", *International Labour Review*, Vol. 142, No. 2.
- Bescond, D; Chataignier, A and Mehran, F (2003). "Seven Indicators to Measure Decent Work: An International Comparison", *International Labour Review*, Vol. 142 (2003), No. 2.
- Bhowmik, S. K. (2001). "Hawkers in the Urban Informal Sector: A Study of Street vendors in Seven Cities". *National alliance of street Vendors in India (NASVI)*. [www.streetnet.org.za/English/page10.htm](http://www.streetnet.org.za/English/page10.htm)
- Bhowmik, S. K. (2007). "Street Vendors in Urban India: The Struggle for Recognition", in A Morales and J. Cross (Eds.), *Entrepreneurs: People, Place and Politics*, pp 92-107, New York, Routledge.
- Bhowmik, S.K.(2005)*Street Street Vendors in Asia: A Review*.
- Ginneken, W.V. (2008). "Extending Social Security: Policies for Developing Countries", *International Labour Review*, Vol.142, No. 3.
- Guhan S. (1994). "Social Security Options for Developing", Countries *International Labour Review*, Vol. 133, No. 1.LO
- ILO (1999) *Decent Work*, Report of the Director-General, International Labour Conference, 87th Session, ILO: Geneva.
- Uzzi, B. (1997). "Social Structure and Competition in Interfirm Networks: The Paradox of Embeddedness", *Administrative Science Quarterly*, Vol. 42, No. 1 (Mar.,1997), pp. 35-67.

## E-REFERENCE

- <http://labour.nic.in/>
- <http://www.sacw.net/article1125.html>
- <http://www.mainstreamweekly.net/article1111.html>
- <http://www.streetnet.org.za/English/page10>
- [www.ilo.org](http://www.ilo.org)
- <http://www.nceuis.nic.in>
- [www.nidan.in](http://www.nidan.in)
- [www.msme.gov.in](http://www.msme.gov.in)
- [www.vikaspedia.in](http://www.vikaspedia.in)
- [www.ccs.in](http://www.ccs.in)

**SUGGESTIVE MEASURES TO EMPOWER  
THE 'HEIRS OF HANDICRAFTS'**

**Amisha Shah**

Assistant Professor, Centre for Studies in Rural Management,  
Gujarat Vidyapith, Randheja.

**Rajiv Patel**

Professor and Head, Centre for Studies in Rural Management,  
Gujarat Vidyapith, Randheja.

ISSN 2277-7733  
Volume 8 Issue 3,  
December 2019

**Abstract**

*India is a country of traditional art and amazing crafts. Most of such handicrafts are inherent in artisans and are passed by generations to generations. The artisans are the true preservers of this wealth who are blessed with intrinsic art and god gifted skills. Despite their great contribution towards heritage and economy, the quality of their life is a burning question today. These artists are the priceless "Heirs of Handicrafts" who are to be taken care of and promoted with due considerations and inspiring environment. Therefore, this paper focuses on socio-economic condition of rural handicraft artisans and suggests appropriate measures to promote, revive and preserve various handicrafts of Surendernagar district.*

**Keywords:** *Handicrafts, Rural Artisans, Socio-Economic Condition, Hereditary Skills, Languishing Crafts, Suggestive Promotional Measures*

India is a country with great cultural heritage and values associated with its various crafts and arts from ancient days. The growth of crafts in society was the sign of the cultivation of sensitivity and the stirring and mellowing of humanism. It stood for man's endeavour to bring elegance and grace into an otherwise harsh and drab human existence. (Chattopadhyay,1980)<sup>1</sup> Thus handicraft was considered as an invaluable element which inculcates sensitivity, values and aesthetic vision towards life and humanity. Handicraft fills colors in life and reflects the beauty of culture and the peculiarities of any civilizations. Therefore, the artisans who have kept this heritage alive since centuries must be saluted with respect and dignity. They are not only the producers of demanded goods but play a variety of roles associated with their work as worship. The torchbearers of India's craft traditions, inheritors of ancient technologies and cultural systems, artisans and creators living within a binding communities ethos, producers in an agro-based economy, and philosophers who accept the link between the spiritual and the material- these are the many roles which craftspeople play. (Jaitly, 2001)<sup>2</sup> Traditional skills of handicrafts and craftsmanship should always be thought of in its totality reflecting the harmonious coordination of body, mind and emotions of the creators. Despite such great contribution towards heritage and humanity, the socio-economic condition of such artisans and the quality of their life is a burning question today. The Handicraft sector in India is covered under the control of Ministry of Textiles. The Indian textile industry is the second largest manufacturers and exporters in the world after china. The industry is of vital importance to Indian economy and holds importance from the employment point of view as well. According to Report of the Steering Committee on Handlooms and Handicrafts constituted for the Twelfth Five Year Plan, the employment in handicraft sector has risen from 65.72 Lacs in 2005-06 to 68.86 Lacs crafts persons in 2010-11. According to the report of working group on Handicrafts for the 12th Five Year Plan, number of individuals to be employed with sector by 2016-17 was estimated to be

122.91 Lacs. According the annual report for the year 2017-18 of Ministry of Textiles, Government of India, the export of handicrafts including hand made carpets up to Nov. 2017 has been Rs. 21,201 Cr. During the year 2016-17, the export was Rs. 34,394.30 Cr.; while it was Rs. 31,038.52 Cr. in 2015-16. The data inspired the researcher to conduct a research to explore the grass root reality of a segment in rural Gujarat. Hence, Surendranagar district was selected as the field of research, as many handicraft artisans are working on a small base in this region, who are less recognized and deprived from the benefits of various promotional schemes launched from time to time by government and other bodies. Their vulnerable economic condition compels them for occupational shift willingly or unwillingly. It was found during the research that majority of the artisans covered under research study now are at saturated position and do not wish their children to continue with such occupation. Many gorgeous handicrafts and skills are languishing due to various reasons and they are not in the position to sustain for a long time though they are the unique representatives of the distinctive culture of our nation. The artisans are the true preservers of this wealth who are blessed with inherent art and god gifted skills. Hence, these artists are the priceless “Heirs of Handicrafts” who are to be taken care of and promoted with due considerations and inspiring environment.

### **Objective of the Research Study**

The main objective of this research work is to study the socio-economic condition of rural handicraft artisans and to suggest appropriate measures to promote, revive and preserve various handicrafts of Surenderanagar district.

### **Research Methodology**

Surendranagar district is the area of research study which is based on the data collected from 400 rural artisans engaged in eight types of handicraft categories, i.e., Weaving and Tangaliya; Patola; Stone Carving; Mud-work and Wood-work; Tie and Dye; Embroidery and Crochet-work; Bead-work and; Other Handicrafts. Along with them 40 experts such as Government officials, NGO workers, designers, handicraft experts and representatives of village/Taluka/district level institutions were also contacted and interviewed to have authenticated information in this field. The received data were processed through Excel and SPSS software.

### **Major Findings of the Study**

Main findings of the present research study are as follows:

There are nearly 30% ‘Entrepreneurs’ and 70% ‘Workers’ involved in this research study. Among all ‘Artisans doing job-work from own place’ are 53%; ‘Artisans doing family business’ are 24%; ‘Artisans serving in handicraft unit’ are 17%; and ‘Artisans doing self-started business’ stand at nearly 6%; Average family size is 6 members and average number of handicraft artisans per family comes to 2. Literacy rate seems high, but level of education is quite low; Nearly 99% of the families use mobile phones; while 31.5% families have smart phones too. But 85% respondents have never used internet facilities till the date. Rest of the artisans use the internet for entertainment and social communication purpose through social media like Facebook and WhatsApp. Very few artisans have awareness about the commercial use of internet and E-marketing concept; The data shows that the percentage of artisans earning only Rs.1,000 or less (from handicraft activity per month per family) is 27%; 20% households earn within the range of Rs.1,001 to Rs.5,000; while 38% families earn

Rs.5,000-15,000 per month from handicrafts. Families of only 15% artisans earn more than Rs.15,000 per month from handicrafts; The average monthly income from handicraft activity is Rs.8,381. Here, the standard deviation comes to 9990.132 and Co-efficient of variation is 119.20. It means that the data are so dispersed that the standard deviation is higher than mean value. The average monthly income of 'Entrepreneurs' is Rs.16,105 and it is Rs.5,110 of 'Workers'. It is also noticeable that the per artisan handicraft income (monthly) is below Rs.5,000 in total 66.5% families; while 26.75% families earn Rs.5,000-10,000 from handicraft in a month per artisan. Only 6.75% household told that their per artisan income is more than Rs.10,000 during a month; 60% respondents do not have any other occupation besides handicrafts. In another source of employment, labour work (including agriculture labour) is at the dominant place; Majority of the artisans were inspired to enter into handicraft occupation either being their hereditary work or for utilizing leisure time/ for financial support to their family/ not having any other option. Only 3% artisans have been found inspired as a result of 'Training course or Schemes' initiated by government or non-government players; Majority of the artisans (94%) are interested in training if provided to them as handicraft promotion programme. They show their interest in the training of new designs, new products, utilization of modern tools and techniques, marketing and selling techniques so that they can learn and earn more; Majority of the artisans have learnt the particular crafts from family members, friends, relatives or neighbours. Only 11% artisans have been found benefited by some training course organized by either government or non-government efforts; Out of total 316 artisans having work experience of at least five years, 69% artisans have adopted changes in material and method of production and 98% have adopted changes in product designs & innovations. 34% artisans have responded affirmatively about accepting changes in sources of energy utilized during the production process while 35% artisans told that they had done changes in machinery, tools and equipment as compared to the practices carried out by them before 5-10 years; Majority of the artisans purchase their raw-material from wholesalers at state level according to orders received and on cash basis; 48% Entrepreneurs sell their products to traders or big units, as they don't afford to sell all the products to end users themselves. They work according to contracts or orders received from the big players of the market. In this class, Tie and Dye artisans are at the first place followed by Stone carving artisans who find their market through some agents or contractors; Only 9% artisans have experience of selling their products in exhibitions or fairs. The percentage of 'Entrepreneurs' selling their products through Government Agencies, Self Help Groups/Cooperatives and Non-Profit Organizations is merely 3.36%, 5.04% and 6.72% respectively; Majority of the entrepreneurs sell their handicraft products at local/district or state level market. Some have entered to national level market but no international player was found in this area during field work; 57% artisans face competition from the producers/sellers of machine made products; 51% artisans face competition from other artisans of their own village; 33% artisans told that the artisans practicing the same handicraft at other places are their competitors. Nearly 20% artisans told since they are operating their business from rural places at a very small or micro level, they have to face competition from big producers/ traders of handicraft items. In certain places, it was observed that many 'Entrepreneurs' have

been converted in to 'Workers' of some reputed and giant production houses of handicrafts operating at a large scale, as they were not able to sustain against such dominating players in the market; Awareness and satisfaction level of artisans towards the 'Handicraft Promotional Measures by Government' is very negligible; Only 29% artisans are associated with some of the formal organizations such as Self-Help Groups, Co-operative Societies or NGOs working in this area. Besides only 14% respondents have Artisan Identity Card either issued by Ministry of Textiles, Government of India or Office of Commissioner of Cottage and Rural Industries, Government of Gujarat; Despite the efforts from government or non-government side, 91% artisans have never participated in any kind of fairs or exhibitions organized for promoting handicrafts; Majority of the artisans don't want their children to continue with this line of employment. Similarly, their children also don't take much interest in such work.

Suggestive Measures to Empower the 'Heirs of Handicrafts': The following are the suggestions to empower the rural handicraft artisans, who are the 'Heirs of Handicrafts'. According to the views of government officials and researcher's experience and observation during the field visit, the "Free-Mentality" of people is the main hurdle for development which boosts the indolence, demotivates hard workers and makes them handicapped. Hence, there should be a strict policy and plan to monitor the implementation of policies and programmes, to evaluate the outcomes and to minimize the variances; The programmes and policies should be tailor-made and suitable to the targeted mass. It has been observed during the research work that there is an environment of distrust, misconceptions and delusions among rural artisans regarding the behavior of government/ banking institutions and execution of programmes. Hence, they seem afraid of being cheated, exploited or become victim of bribery. This mentality pulls them out to take benefits of government schemes and assistance programmes. Hence, they should be genuinely and candidly make aware of all the procedures, benefits and terms-conditions of such schemes so that their doubts can be resolved. Thus, before making artisans beneficiaries of any programme, there must be correct awareness, meaningful orientation and proper discussions about it; The policies and programmes for promoting handicrafts should be revised from time to time on the basis of 'Current Need Assessment' of this regard; As the present research study outlines that majority of the rural handicraft artisans are poor having financial crises. Therefore, the government should take immediate actions to increase accessibility of financial assistance to them; There should be proper co-ordination between programme implementing agencies and bank staff. Most of the artisans are less educated. Hence, their level of financial literacy is very low. Hence, they are uncomfortable with the procedure of documentation and other formalities. Further, they may not have adequate documents to prove their credit-worthiness. Hence, bank staff should cooperate and deal with such situation politely with patience; The artisans who are in need indeed must be shortlisted and given priority in providing financial assistance. For this procedure, economic status of people (Whether APL card holders or BPL card holders) must be revised and reconsidered so that it can portray the realistic picture; Scarcity of water, inefficient water distribution system, poor & irregular supply of electricity, worst condition of roads & deficient transportation services, non-hygienic environment due to lack of underground drainage facility are

the major infrastructural problems of rural areas of this region. It must be taken in to serious consideration in rural planning; Tourism industry can foster the growth of handicraft sector by increasing the demands. Both these initiatives together can reap advantage of modern market by going hand in hand; Artisan Identity Card provides true recognition to the artisans and makes them eligible to avail benefits of various government schemes. Thus, there is an immense need to make them aware of the benefits of having such card. Further, the status of Artisan Identity Card holders must be renewed with latest updates. There must be strict rules of assessment of handicraft activities of artisans so that it can be far better than mere paper work serving no purpose; Employment generation scheme especially for handicraft sector (like The Mahatma Gandhi National Rural Employment Guarantee Act - MGNREGA) should be launched by government to ensure the regularity and guarantee of work with proper planning as well as pre and post analysis; The designing institutions must be involved for a long time to train and educate youth with newer designs and innovations which are compatible in contemporary markets. Along with that the experienced and senior artisans should be employed in such training institutions so that the traditional touch and hereditary culture can sustain and propagate in new generations. Hence there may be equilibrium between two extremes- conventional practices and technological advancements. Thus, the originality and aesthetics of handicrafts can be preserved and sustained without compromising the demands of modern markets; Training programme should not be designed as mere one- time event. Instead it should focus on long term results and yield projected benefits to target group and achieve pre-determined goals. Mere imparting training is not enough, but the government should arrange for logistic support after training to set up manufacturing units and follow up. Training programmes should be designed in such a way that it improves the earning capacity of artisans and are beneficial to them for uplifting their living standard by providing regular employment; There must be proper motivational programmes and appreciation plans to make artisans feel the importance and value of their hereditary art and inherent skills. New generation should be encouraged to continue with their hereditary handicraft work by proving support, assistance and appreciation; The craftsmen should be encouraged to improve the quality and quantity of work so that they can be capable of standing firmly in the competitive market for a long time. Improved technology, modern tools/equipment and qualitative raw material with adequate quantity must be made available to artisans on the basis of the result of need assessment; Handloom artisans should be encouraged and promoted by government to adopt solar energy plant so that their labour work can be reduced and their productivity can be increased at a great extent; As the educational level is quite lower in the research area, steps should be taken to encourage artisans to have further education. For this initiative, Office of Development Commissioner (Handicraft & Handloom) can join hands with NIOS (National Institute of Open Schooling) after conducting due survey on current educational scenario in this region; There should be due arrangement to sell the handicraft products at direct market minimizing the intervention of middlemen. An up-to-date database or directory of artisans with their product and contact details must be maintained and revised time to time. Such directories can be made widely distributed and circulated at hotels, tourist places, airports, railway stations, bus

stations, etc. so that domestic as well as foreign buyers come to know and can contact them directly; Handicraft products should be utilized as much as possible in government/ non- government offices, hospitals, educational institutions, corporate houses, hotels, restaurants, public places, etc. Thus, use of handicraft products should not be encouraged at government level only but at private level too; Artisans should be encouraged more and more to participate in handicraft fairs and exhibitions. The present research reveals that very small percentage of artisans in this area are aware of such events due to financial incapability, lack of information, lower base of production and many more hurdles. So, there should be neutral survey and research about it and the policy makers should consider the findings of such research in further planning. Sometimes such events become market place for those traders who have nothing to do with handicrafts. So, there should be strict and transparent criteria for selection of participants; The present study reveals that mostly all the artisans do not have much knowledge about export even though their handicrafts are famous worldwide. Hence, it shows the naked fact that “The handicraft is globalized but not the artisans..!” Hence, there should be a well-designed support system which can train and guide the artisans and facilitate them to export their product themselves; It has been observe that majority of rural women artisans engaged in Embroidery, Crochet and Bead-work are part-time artisans who have adopted handicraft as a mere time-killing activities. Talents of rural women artisans go in vain being economically poor and socially unheard. Rural women must be given due recognition and their traditional art and natural talents must be nurtured and developed in such a way that must not be confined to four walls of their houses. Hence, there is an urgent need to uplift and empower the rural women who can have own identity, value and voice in society. With this objective, there should be family motivational programmes so that the art hidden in rural women get acceptance, support and motivation from their family members; Majority of Self Help Groups or Sakhi Mandals are idle or doing only saving activity. Very few are engaged in income generating activities. Such groups should be encouraged to start handicraft activities collectively and they should be provided with selling platforms; Working enthusiastically and unitedly in co-operatives can solve many hurdles in marketing and selling the handicraft products at individual level. It has been observed that many of the rural artisans are very devoted, talented and expert in producing handicrafts but lack of marketing/selling knowledge curtails their growth and discourages their morale. Hence, there should be some agency or mechanism which can work as bridge between artisans and customers eliminating the interference of middlemen living a very small pie of cakes for actual creators. Efficiently managed cooperatives can be fruitful in this regards. But government must keep an eye on their performance and ensure decentralization of power and democracy in decision making. Such cooperatives should be given scope of participating in fair/exhibitions, opening outlets and priority purchase benefits; Artisans should be encouraged to develop own brands and advertise their products. Tangaliya artisans have received Geographic Indication (GI) Number for their product; similarly other unique handicrafts of this region must proceed further for such recognition. NGOs working in this field should facilitate such initiatives; Corporate sectors, under their CSR activities, should give priority to handicraft promotion campaign. Further, they can introduce the concept such as ‘Contract

Handicrafts' (similar to 'Contract Farming' in agricultural sector). So that the artisans need not to worry about arranging working capital and searching for markets. But due care must be taken that the artisans must get sufficient reward for their craft without being exploited; The functioning of banking sector must be reviewed, as artisans have been found hesitated about stepping in to the banks. Thus, there should be coordination between the functioning of various programme implementing agencies and banking institutions. Further, artisans should be provided with the necessary information and facilitation about banking procedures, formalities to be fulfilled, preparation of documents for availing credit benefits or anything else; Though the government is supporting rural handicraft artisans, the information about various programmes are not known to majority of the respondents covered under study. It has been realized that some of the big pockets frequently take benefits of government schemes but they do not share such information with others. Hence, the unity, cooperation and sense of brotherhood are less observed among artisan class. The supporting organizations which are responsible for implementation of government programmes should take serious steps to spread awareness among target group. Instead of arranging such awareness events at district headquarters, they should be arranged at targeted rural areas so that as many as possible can participate; E-commerce is one of the most promising channels in today's marketing scenario for selling handicrafts, as today is the age of mobile and technology. Government now encourage online marketing of handicraft products through its e-marketing links such as Central Cottage Industries Emporium ([www.cottageemporium.in](http://www.cottageemporium.in)); Rural Bazar web store; [www.craftsofgujarat.gujarat.gov.in](http://www.craftsofgujarat.gujarat.gov.in); e-store of Garvi-Gurjari ([www.estoregurjari.com](http://www.estoregurjari.com)); Mahila E-Haat ([www.mahilaehaat-rmk.gov.in](http://www.mahilaehaat-rmk.gov.in)), etc. Besides, private players and NGOs also provide such online marketing platform to handicraft artisans. Awareness about such efforts should be spread widely among rural handicraft artisans along with well-planned training and practical experiences; The following cyber marketing efforts can push the growth of rural handicraft artisans.

Individual level efforts: An individual handicraft artisan can develop his/her own website or with the help of Cybermediaries, they can start e-commerce activity; Group level efforts: At village level, artisans can organize themselves in to Clusters (region-wise, craft-wise, etc.), Co-operatives or Self-Help Groups and start e-commerce activities collectively; NGO and other private institutions can help handicraft artisans to market their products online directly or through web stores like Amazon, Flipkart, Snapdeal, etc; Government level efforts: There must be an effective and efficient implementation of various programmes and schemes boosting e-commerce activities for handicraft artisans; Corporate level efforts: Under the head of Corporate Social Responsibilities (CSR), companies can focus on providing e-commerce platform to rural handicraft artisans.

The public at general should be made aware and motivate to buy and use the products which are 'Handmade in India'. This awareness and consciousness should be inculcate from the childhood by introducing the subject 'Handicraft' in education system not only at primary but all the stages of education for the holistic development of the students, as it develops sense of cooperation, creative & logical thinking, concentration, will power, self-confidence, decision making power, art of expressing self, enthusiasm, discipline, honesty and devotion towards work and life.

## References

---

- 1 Chattopadhyay, K. (1980). *India's Craft Tradition*. Publication Division, Ministry of Information and Broadcasting, Government of India.
  - 2 Jaitly, J. (2001). *Visvakarma's Children*. Concept Publishing Company, New Delhi, p.150.
- Commissioner Cottage and Rural Industries. (2016). *Cottage & Rural Industries Policy 2016*, Industries and Mines Department, Government of Gujarat.
- Government of India. (2009, March). *Geographical Indications Journal No. 29*.
- Jadav, J. (1991). *Gujarat ni Lokkala ane Sanskruti* (Gujarati). Government of Gujarat.
- Khant N. M. & Samani V. S. (2016). Hand Woven Patola: Step Ahead Marketing through E-business. 3<sup>rd</sup> International Conference on Multidisciplinary Research & Practice, 4 (1), *International Journal of Research and Scientific Innovations*, ISSN: 2321-2705, p. 312-314. Retrieved from <http://www.rsisinternational.org/3ICMRP-2016/312-314.pdf>.
- Ministry of Textiles- *Annual Reports (2001-02 to 2016-17)*. Government of India.
- Mittal, V. & Chhaya, V. *Tangaliya Weaving or Daana Weaving*. All India Artisans and Craftworkers Welfare Association (AIACA). Retrieved from <http://www.craftmark.org/sites/default/files/Tangaliya%20Weaving.pdf>
- National Institute of Fashion Technology (Ministry of Textiles, GOI). (2005). *A Baseline Survey Report on Artisans and Crafts of Surendranagar, Gujarat*. Under Special SGSY Project (Ministry of Rural Development, GOI).
- Priyadarshi, N. & Patel, S. (2019). Kaarigar Clinic: Rural Business Clinic for Kaarigars. *Cooperative and Rural Development*. Ed. Jain, L. & Patel, R., Reliable Publishing House, Ahmedabad, pp. 230-234.
- Sathe, M. & Bhatia, R. (2014). Patola Craft of Surendranagar, Gujarat: Sustenance through Green Technology. *GlobalIlluminators*, MTAR-2014, ISBN: 978-969-9948-22-0, Vol.1, 1-8. Retrieved from the website [www.globalilluminators.org](http://www.globalilluminators.org).
- Shah, A. (2017). A Study on the Sustainability of Rural Artisans in Handicraft Sector. Unpublished Ph.D. thesis submitted to Gujarat Vidyapith.
- Shah, A. & Patel, R. (2019, June). Impact of Handicraft Promotion Measures on Rural Handicraft Artisans. *Research Guru-Online Journal of Multidisciplinary Subjects*. 13 (1), ISSN: 2349-266X, Impact Factor: 4.081, UGC Approved Journal No. 63726, p.1365-1379.
- Village and Town Wise Primary Census Abstract (PCA). District Census Handbook- Surendranagar, Series-25, Part XII-B, Census of India 2011, Directorate of Census Operations, Gujarat.

## BOUNDED RATIONALITY, MOTIVATION & PRIVATE INFORMATION AND ITS IMPLICATIONS ON CONTRACTS

**Akshay Bhat**

Assistant Professor, Goa Institute of Management

ISSN 2277-7733

Volume 8 Issue 3,

December 2019

### Abstract

*This conceptual essay is to introduce management scholars to the topics of Bounded Rationality, as propounded by Simon (1957) with the initial emphasis of the topic being given to Motivation, in addition to Coordination the other central problem to any Economic Organization and Management. Often these terms are used in scholarly articles but there are subtle differences between the economic and behavioural literature parlances, definition and understanding. These definitions as described in economics with their understanding are very important to understand contracts, the nature of contracts and underlying assumptions made. Here, influential articles from prominent economics' article are gleaned; the terms' rationale and understanding and important aspects are documented to serve as a primer for scholars. The article further elucidates the importance and flaws of Contracts: which are prima facie agreements made by two or more people which are voluntary in nature and accepted by both the parties entering into a contract when they both see their advantage, which on further decomposing will be seen to be mutually beneficial as well, however, under important caveats.*

**Keywords:** *Bounded Rationality, Private Information, Motivation, Coordination, Contracts, Obligations, Adverse Selection, Trust, Commitment, Hold-up*

**Motivation and Coordination Problems:** Motivation problems (Baumeister, 2016; Heckhausen & Gollwitzer, 1987; Mitchell, 1982; Shane, Locke, & Collins, 2003) arise because individuals have their own concerns and interests (Williamson, 1979), which are rarely perfectly aligned with the interests of other individuals, to the intra and inter groups to which the individual may belong to and the society as a whole. The Coordination problem (Arrow, 1969; Gulati, Ranjay, 2013; Poppo & Zenger, 2002; Simon, 1972; Williamson, 1991), however deals with the following things under its ambit : a) What deliverables are to be met b) How they should be achieved and c) What key deliverable each individual must deliver, at the macro organizational level the problem is who makes what decisions and with what pertinent and relevant information the individual possesses to make those decisions and how readily the required information is made accessible (Parker, 2008; Simon, 1993; Simon, 1972). In contrast to Coordination, the Motivation Problem is to ensure that that everyone involved in the team willingly does his part at the individual level and accurately delivering feedback of the outcome of the task which they are doing in order to ascertain to the decision maker that he can take appropriate decisions, also it is key that the individual who is assigned the task carries it out himself in the planned manner by the decision maker. To explore the topic in detail assumptions that individuals will do what they perceive to be in their own individual interests is given importance throughout, this amalgamates into informing us that not only is the decision maker privy of how he is affected but also how others are affected by decision taken.

**Contracts to deal with Motivation Problems:** So to deal with the problem of Motivation, it is expressed that a perfect contract (Coase, 1937; Geyskens, Steenkamp, & Kumar, 2006; Hennart, 1988; Khalid, 2006; Kogut, 1988; Oxley, 1997; Poppo &

Zenger, 2002; Williamson, 1979), henceforth, also called a “*Complete Contract*” would be impervious to solve the problem, a complete contract would specify all sets of actions each party is liable to and arrange the realised costs and benefits in case of all foreboding contingencies. This is concomitant that both parties are inclined to abide by the contract terms. So, this elucidates that if the original plan were an efficient one, a complete contract would implement an efficient outcome, therefore with this idealised mind-set we find that Motivation Problems primarily arise because some contracts cannot be described in a complete and enforceable contract. Therefore, a complete contract would need the following requirements (Geyskens, Steenkamp, & Kumar, 2006b; Parker, 2008; Herbert Simon, 1972; Williamson, 1975).

Firstly, the parties must have the foresight to see all relevant contingencies which would creep up and how they will adapt to the problems which arise, they must be unambiguous, also which factors were considered and which are actually beforehand; Secondly, the parties entering into the contract must be able to determine and agree to an efficient course of action for each possible contingency; Thirdly, The parties entering into the contract must abide by the terms, this has two elements namely C1) First the parties must agree that the contract cannot be modified later which would rob the initial contract of its credibility, C2) Each party individually must be able in its own accord to judge if the contract terms are being met and if they are being violated by the other enforce the contract terms on the other.

**Bounded Rationality and Adverse Selection:** The problems of actual contracting which are limited (not all contingencies are fully accounted for) by the problems of (Dow & Han, 2015; Evans, Luo, & Nagarajan, 2014; B. R. Holmstrom & Tirole, 1989; Kistruck, Sutter, Lount, & Smith, 2013; Knowles, 2012; Lerner & Schoar, 2005; Manser, 2010; Rödl, 2013): Limited Foresight, Imprecise Language, Costs of calculating solutions and the costs of writing down a plan – collectively called as the “Bounded Rationality” (Simon, 1972) of people during actual transactions among people. Therefore in such cases when there are contracts with what probably we can assume are loose ends or rather incomplete contracts arising because of the problems of bounded rationality we can expect that when parties try to adapt in case of contingencies and incomplete contracts they may give rise to opportunistic behaviour amongst the parties including renegeing (Williamson, 1975, 1979; Williamson & Williamson, 2017), this nagging fear of opportunism may at times deter parties from relying on one another as much as they should for efficiency, such incomplete contracts may further lead to problems of imperfect commitment and hence reluctance to enter into a contract.

In certain cases, even if the contingency can be seen and planned, and contractual commitments enforced, one of the bar gainers may have relevant private information before the contract is signed, this private information interferes with the possibility of reaching a value maximizing agreement, E.g. it is lead to believe that sellers have relevant information about the product that they are selling in a second hand market because they believe that the product utility is now minimal and are interested in disposing it off to the sceptical second hand buyers, this leads to inefficiency, the Source of Inefficiency is called “Adverse Selection” (“Adverse Selection in Competitive Search Equilibrium,” 2010; Azevedo & Gottlieb, 2017; Cohen & Siegelman, 2010; Eckbo & Masulis, 1992; Gârleanu & Pedersen, 2004;

Laffont & Tirole, 1990; Sorrentinino, 2014) ; Adverse selection is one of the major problems of pre contractual opportunism it arises because one of the parties has hold of information which may not be explicitly mentioned to the other during the agreement of the contract and the contract is being entered into because of one of the vested interest of one of the party with the Precontractual information. Such private information can also block the efficient functioning of any contract. (Sellers are adverse to the interests of the buyers). In reality real contracts are seldom perfect, leaving room for self-interested behaviour that will thwart the realization of effective plans.

In reality all possible outcomes of a contract cannot be described in detail(Altmann, Falk, Grunewald, & Huffman, 2014; Crocker & Reynolds, 1993; Dow & Han, 2015; Fehr, 2003; Hart & Moore, 1988; Hendrikse, Hippmann, & Windsperger, 2015; Herold, 2010; Maskin & Tirole, 1999; Saussier, 2000; Spier, 1992), the idea of foreseeing and unambiguously describing every contingency that might possibly be relevant to the agreement is not possible in the complex environment. In reality real people are subject to unforeseen circumstances as the outcomes could not be looked into with adequate foresight during the planning phase, Costly Calculations and Contracting sometimes the management looks at the positive side of an outcome and often neglects the other possible outcomes as the opportunity cost of calculating this second outcome would hamper more productive work, it is only when the plan is put into execution and the second outcome which is actually against the managements interest comes into prominence gives rise to the identification of loopholes in the original contract. Imprecise Language can hamper the outcomes and efficiency of most contracts, furthermore simply adding more clauses and subdivisions in the contract too can make disputes more likely.

**Contractual Responses to Bounded Rationality:** Contractual Responses can be looked into with an angle that people design their contracts recognizing that they cannot possibly be perfectly adapted to all possible future outcomes; one such solution is to write rather inflexible contracts with blanket provisions that are to apply very broadly. A broad blanket provision minimises the cost of describing eventualities and leaves little room for ex post uncertainty about what behaviour is required. Such spot transactional contracts are called “SpotMarket Contracts”. They include A) Relational Contracts in which the parties do not agree to the detailed plan of action but on a larger goal and objectives, on general provisions that are broadly applicable and the plan of action as to what should be done when contingency arises. And the power distribution amongst the parties involved in the contract. B) Implicit contracts which do not have any document as the mutual expectations are shared between the parties and are commonly used with this they can be powerful means to economise on bounded rationality and contracting costs, therefore shared values, ways of thinking and belief as to how things must be done are key aspects of shared contracts. A natural drawback of implicit contract is that by their very nature they cannot be tried in a court of law as there is no formal contract(Gurcaylilar-Yenidogan, Yenidogan, & Windsperger, 2011; Hendrikse et al., 2015; Hendrikse & Windsperger, 2011; Kashyap & Murtha, 2017; Luo, 2002; Matvos, 2013; Solis-Rodriguez & Gonzalez-Diaz, 2012).

**Effects of Contractual Incompleteness:** Contracts are meant to protect people by aligning incentives, when contracts are incomplete, the alignment can be imperfect,

therefore the concern with the possibility of being disadvantaged by self-interested behaviour that an incomplete contract does not adequately control or may prevent an agreement from being reached in the first place. It may also inefficiently limit the extent of cooperation (Altmann et al., 2014; Crocker & Reynolds, 1993; Dow & Han, 2015; Evans et al., 2014; Fehr, 2003; Gurcayllar-Yenidogan et al., 2011; Hart & Moore, 1988; Hendrikse et al., 2015; Hendrikse & Windsperger, 2011; Herold, 2010; B. R. Holmstrom & Tirole, 1989; Kashyap & Murtha, 2017; Kistruck et al., 2013; Lerner & Schoar, 2005; Luo, 2002; Maskin & Tirole, 1999; Matvos, 2013; Rödl, 2013; Saussier, 2000; Solis-Rodriguez & Gonzalez-Diaz, 2012; Spier, 1992).

**Commitment and Reneging:** Achieving commitment can be very valuable because it can affect others expectations and at the same time lead to the modification of their own behaviour, this is illustrated by an example that when apple launched a special range of Macintosh Computers they installed a standalone plant producing the apple range of computers. This led to the behaviour modification of a) Employees: they knew they had to succeed b) Competitors: they felt there would be little point to drive apple out of the market when they had dedicated themselves to a cause and c) Customers: when they saw this much publicised move by apple they knew that they could count on its support and hence would have preferred an apple mac over any other PC; **Commitment Problem No 1: Reneging**, is especially problematic with incomplete contracts because what should be done is often left incomplete some self-interested actions may be adopted by one party who takes advantage of the loopholes, the other party in contract with it may complain but may not have the power to label it a cheat as the first party may say that it is carrying out this action as per the agreed terms which in totality is incomplete. Thus reneging not only impedes efficiency but also affects performance; **Commitment Problem No 2: Ex Post Renegotiation** is a rather subtle problem because in some cases it will be rather beneficial for both parties to renegotiate the ex post because what was efficient when the contract was first entered into may not be the same now after actions have been taken and further information revealed, if parties understand this at the time of crafting the original contract document they will later face these incentives, they may not be able to draft the contract in an efficient manner. *Viz* stock options to motivate employees to raise the stock price of a company (*vis a vis* current market price) is exercised by most companies as an incentive to improve and motivate employee performance. Suppose after issue of this statement the stock price falls drastically, the employees would be demotivated, and thus the contract terms if remediated would be better for the employer and the employees to increase efficiency at work.

A complication of Ex Post renegotiation includes, is that in some contexts it will turn out ex-post that breaching the original contract terms will lead to more personal gain for one of the parties, and it insists on inefficient functioning of the initial contract, *viz* a chain and a manufacturer enter into a contract of producing a few goods, but later the manufacturer finds more lucrative opportunities and breaches the initial contract with the manufacturer by paying damages when the chain may insist on delivery after it had entered into a contract.

**Investments and Specific-Assets and hold-up because of imperfect contracting:**

An Investment is an expenditure of money or other resources that create a potential flow of benefits and services, the potential flow is itself called an asset. Tangible assets

like houses, machinery are the most commonly identifiable assets also; investments in education create a valuable asset: Human Capital which also leads to cash flows and benefits. But Specific Assets are those, which are most valuable in a specific setting or relationship. A parallel can be drawn with the term Co-specialized Assets, which is used when two or more assets have maximum value when used in conjunction and lose much of their value if used in isolation. Viz A rail road which ply's between a coal mine and an electric utility, also these two assets (railroad, coalmine) lose value if isolated and gain a lot of value when used in conjunction, also there is a problem of a selfish motive develops between any one of the owners of either assets as the other will fall vulnerable to meet the demands which are post contractual in nature, a classical term for this is called the 'Hold-up problem'(Che & Sákovics, 2004; Khanna & Mathews, 2016; Lemley & Shapiro, 2007; Susarla, Subramanyam, & Karhade, 2010) (Which is an example of post contractual opportunisms) in this the general business problem is that each party worries about being forced to accept disadvantageous terms later, after it has sunk an investment, or is precarious about its investment being devalued at the actions of others. A party which is forced to accept this worsening terms after it has incurred sunk costs is called a Held-up company. This leads to conclude that it is the specificity of assets (Balakrishnan & Fox, 1993; Grigoryan & Keating, 2008; B. Holmstrom & Roberts, 2012; Iversen & Soskice, 2001; Joskow, 1988; Riordan & Williamson, 1985; Sawant, 2012; Tirole, 1985) together with imperfect contracting that leads to the hold-up problem, which is not a common occurrence it applied in the standard market context where this is perfect contracting in an ambit if a large number of buyers and sellers, but rather the opportunistic behaviour that develops in the players who have invested in large specific assets and either make or are rendered vulnerable to the other dependent member who is in contract with it.

Clearly if the contracts were made complete, with the contract preventing either of the partners from indulging in a post opportunistic behaviour: the hold-up problem would be eliminated, but with an example a concept is highlighted. Suppose that there is a contract between a mine and an electric utility to supply coal, these two facing the expected contentious problem of HOLD UP: why? Because it may later arise if either of the partners falls prey to its selfish desires and breaches the contract, to prevent this post opportunistic behaviour a long term contract is entered into by the mine and the utility, but for this the price of coal should be set, now the question arises at what price? Hence the contract the coal mine owner may face rising labour and other costs which he does not expect, for this should an escalator clause be included which adjusts the price of the coal when some mining index cost rises, or should the price of coal be tied to the spot market price of coal in that particular area ? that is why when faced with such scenarios we have a strategic solution, in an empirical study carried out by the noted MIT Economist Paul Joskov, most Coal Mines and Power utilities were owned by the same company (Vertical Integration or had entered into contracts with each other which were of a long term in nature and had escalator clauses. A mathematical example of the hold-up problem is the famous prisoner's dilemma problem also this opines that the threat of breach of contract and the hold-up problem, concern that post contractual opportunism may occur, depresses and

discourages a firm from investing, therefore it is quintessential that firms must commit not to attempt and grab more than their share of returns.

### Conclusion

This article has illustrated conceptually relational and implicit contracts as a response to contractual incompleteness, when also faced with problems of bounded rationality and asset specificity; where these contracts serve to set expectations and establish decision processes to deal with inevitable and unforeseen circumstances while avoiding the trouble to jot inundated details. And in the case of cospecialized assets it is best for the same firm to own both, or the other solution is one which is called COMMITMENT between both partners. And in a world of costly and incomplete contracting trust is utmost important in realizing transactions which are important and which may be profitable, thus in renegeing or breaching a contract the firm loses its reputation, thus losing the chance to conduct transactions later on. Thus the tenacity to maintain a reputation by a firm removes the incentive for behaviours which are opportunistic and post contractually harmful to the transactional partners of the firm. The focus of this paper concludes that to add richness to the field of economic sciences. The 'soft' part of management, namely the social-sciences serves as a complementary field, and its constructs of trust and commitment can add more richness to appreciate the phenomena of contracts, rationality and motivation with its underlying assumptions of self-interest of individual players. as we see in the 'real' world.

### References

- Adverse Selection in Competitive Search Equilibrium. (2010). *Econometrica*. <https://doi.org/10.3982/ecta8535>
- Altmann, S., Falk, A., Grunewald, A., & Huffman, D. (2014). Contractual incompleteness, unemployment, and labour market segmentation. *Review of Economic Studies*. <https://doi.org/10.1093/restud/rdt034>
- Arrow, K. (1969). The Organization of Economic Activity. In *The Analysis and Evaluation of Public Expenditure: The PPB System* (pp. 59–73).
- Azevedo, E. M., & Gottlieb, D. (2017). Perfect Competition in Markets With Adverse Selection. *Econometrica*. <https://doi.org/10.3982/ecta13434>
- Balakrishnan, S., & Fox, I. (1993). Asset specificity, firm heterogeneity and capital structure. *Strategic Management Journal*. <https://doi.org/10.1002/smj.4250140103>
- Baumeister, R. F. (2016). Toward a general theory of motivation: Problems, challenges, opportunities, and the big picture. *Motivation and Emotion*. <https://doi.org/10.1007/s11031-015-9521-y>
- Che, Y. K., & Sákovics, J. (2004). A dynamic theory of holdup. *Econometrica*. <https://doi.org/10.1111/j.1468-0262.2004.00526.x>
- Coase, R. H. (1937). The Nature of the Firm. *Economica, New Series*(4), 386–405.
- Cohen, A., & Siegelman, P. (2010). Testing for adverse selection in insurance markets. *Journal of Risk and Insurance*. <https://doi.org/10.1111/j.1539-6975.2009.01337.x>
- Crocker, K. J., & Reynolds, K. J. (1993). The Efficiency of Incomplete Contracts: An Empirical Analysis of Air Force Engine Procurement. *The RAND Journal of Economics*. <https://doi.org/10.2307/2555956>
- Dow, J., & Han, J. (2015). Contractual incompleteness, limited liability and asset price bubbles. *Journal of Financial Economics*. <https://doi.org/10.1016/j.jfineco.2015.02.002>

- Eckbo, B. E., & Masulis, R. W. (1992). Adverse selection and the rights offer paradox. *Journal of Financial Economics*. [https://doi.org/10.1016/0304-405X\(92\)90030-2](https://doi.org/10.1016/0304-405X(92)90030-2)
- Evans, J. H., Luo, S., & Nagarajan, N. J. (2014). Ceo turnover, financial distress, and contractual innovations. *Accounting Review*. <https://doi.org/10.2308/accr-50688>
- Fehr, E. (2003). Fairness, Incentives and Contractual Incompleteness. *Discussion Paper Series Centre for Economic Policy Research London*.
- Gârleanu, N., & Pedersen, L. H. (2004). Adverse selection and the required return. *Review of Financial Studies*. <https://doi.org/10.1093/rfs/hhg032>
- Geyskens, I., Steenkamp, J.-B. E. M., & Kumar, N. (2006a). Make, buy or ally: A transaction cost theory. *Academy of Management Journal*, 49(3), 519–543. <https://doi.org/10.5465/AMJ.2006.21794670>
- Geyskens, I., Steenkamp, J. B. E. M., & Kumar, N. (2006b). Make, buy, or ally: A transaction cost theory meta-analysis. *Academy of Management Journal*, 49(3), 519–543. <https://doi.org/10.5465/AMJ.2006.21794670>
- Grigoryan, G., & Keating, A. E. (2008). Structural specificity in coiled-coil interactions. *Current Opinion in Structural Biology*. <https://doi.org/10.1016/j.sbi.2008.04.008>
- Gulati, Ranjay, H. S. (2013). The Architecture of Cooperation: Managing Costs and Coordination Concerns Appropriation in Strategic Alliances. *Administrative Science Quarterly*, 43(4), 781–814.
- Gurcayllilar-Yenidogan, T., Yenidogan, A., & Windsperger, J. (2011). Antecedents of contractual completeness: The case of tour operator-hotel allotment contracts. *Procedia - Social and Behavioral Sciences*. <https://doi.org/10.1016/j.sbspro.2011.09.100>
- Hart, O., & Moore, J. (1988). Incomplete Contracts and Renegotiation. *Econometrica*. <https://doi.org/10.2307/1912698>
- Heckhausen, H., & Gollwitzer, P. M. (1987). Thought contents and cognitive functioning in motivational versus volitional states of mind. *Motivation and Emotion*. <https://doi.org/10.1007/BF00992338>
- Hendrikse, G., Hippmann, P., & Windsperger, J. (2015). Trust, transaction costs and contractual incompleteness in franchising. *Small Business Economics*. <https://doi.org/10.1007/s11187-014-9626-9>
- Hendrikse, G., & Windsperger, J. (2011). Determinants of contractual completeness in franchising. In *Contributions to Management Science*. [https://doi.org/10.1007/978-3-7908-2615-9\\_2](https://doi.org/10.1007/978-3-7908-2615-9_2)
- Hennart, J.-F. (1988). A Transaction Cost Theory of Equity Joint Ventures. *Strategic Management Journal*, 9(4), 361–374.
- Herold, F. (2010). Contractual incompleteness as a signal of trust. *Games and Economic Behavior*. <https://doi.org/10.1016/j.geb.2009.05.001>
- Holmstrom, B. R., & Tirole, J. (1989). Chapter 2 The theory of the firm. *Handbook of Industrial Organization*. [https://doi.org/10.1016/S1573-448X\(89\)01005-8](https://doi.org/10.1016/S1573-448X(89)01005-8)
- Holmstrom, B., & Roberts, J. (2012). The boundaries of the firm revisited. In *The Economic Nature of the Firm: A Reader, Third Edition*. <https://doi.org/10.1017/CBO9780511817410.014>
- Iversen, T., & Soskice, D. (2001). An Asset Theory of Social Policy Preferences. *American Political Science Review*. <https://doi.org/10.1017/s0003055400400079>

- Joskow, P. L. (1988). Asset specificity and the structure of vertical relationships: Empirical evidence. *Journal of Law, Economics, and Organization*. <https://doi.org/10.1093/oxfordjournals.jleo.a036950>
- Kashyap, V., & Murtha, B. R. (2017). The joint effects of ex ante contractual completeness and ex post governance on compliance in franchised marketing channels. *Journal of Marketing*. <https://doi.org/10.1509/jm.14.0089>
- Khalid, S. (2006). Organising Cooperative Institutional Forms in Knowledge Transfer across Borders--A Transaction Cost Approach to Comparative Firm Performance. *International Journal Of Business Governance And Ethics*, 2, 166–182. Retrieved from <http://www.inderscience.com/ijbge/>
- Khanna, N., & Mathews, R. D. (2016). Posturing and Holdup in Innovation. *Review of Financial Studies*. <https://doi.org/10.1093/rfs/hhv071>
- Kistruck, G. M., Sutter, C. J., Lount, R. B., & Smith, B. R. (2013). Mitigating principal-agent problems in base-of-the-pyramid markets: An identity spillover perspective. *Academy of Management Journal*. <https://doi.org/10.5465/amj.2011.0336>
- Knowles, R. (2012). 200 Contractual Problems and their Solutions. In *200 Contractual Problems and their Solutions*. <https://doi.org/10.1002/9781118257050>
- Kogut, B. (1988). Joint ventures: Theoretical and empirical perspectives. *Strategic Management Journal*, 9, 319–332. <https://doi.org/10.1002/smj.4250090403>
- Laffont, J.-J., & Tirole, J. (1990). Adverse Selection and Renegotiation in Procurement. *The Review of Economic Studies*. <https://doi.org/10.2307/2298088>
- Lemley, M. A., & Shapiro, C. (2007). Patent holdup and royalty stacking. *Texas Law Review*.
- Lerner, J., & Schoar, A. (2005). Does legal enforcement affect financial transactions? The contractual channel in private equity. *Quarterly Journal of Economics*. <https://doi.org/10.1162/0033553053327443>
- Luo, Y. (2002). Contract, cooperation, and performance in international joint ventures. *Strategic Management Journal*. <https://doi.org/10.1002/smj.261>
- Manser, J. E. (2010). Theory of the firm. In *Economics*. [https://doi.org/10.4324/9780203474488\\_chapter\\_8](https://doi.org/10.4324/9780203474488_chapter_8)
- Maskin, E., & Tirole, J. (1999). Unforeseen contingencies and incomplete contracts. *Review of Economic Studies*. <https://doi.org/10.1111/1467-937X.00079>
- Matvos, G. (2013). Estimating the benefits of contractual completeness. *Review of Financial Studies*. <https://doi.org/10.1093/rfs/hht060>
- Mitchell, T. R. (1982). Motivation: New Directions for Theory, Research, and Practice. *Academy of Management Review*. <https://doi.org/10.5465/amr.1982.4285467>
- Oxley, J. E. (1997). Appropriability Hazards and Governance in Strategic Alliances : A Transaction Cost Approach. *Journal of Law, Economics, and Organization*, 13(2), 387–409. <https://doi.org/10.1093/oxfordjournals.jleo.a023389>
- Parker, S. C. (2008). The economics of formal business networks. *Journal of Business Venturing*, 23(6), 627–640. <https://doi.org/10.1016/j.jbusvent.2008.01.003>
- Poppo, L., & Zenger, T. (2002). Do formal contracts and relational governance function as substitutes or complements? *Strategic Management Journal*, 23(8), 707–725. <https://doi.org/10.1002/smj.249>

- Riordan, M. H., & Williamson, O. E. (1985). Asset specificity and economic organization. *International Journal of Industrial Organization*.  
[https://doi.org/10.1016/0167-7187\(85\)90030-X](https://doi.org/10.1016/0167-7187(85)90030-X)
- Rödl, F. (2013). Contractual freedom, contractual justice, and contract law (theory). *Law and Contemporary Problems*.
- Saussier, S. (2000). Transaction costs and contractual incompleteness: The case of Électricité de France. *Journal of Economic Behavior and Organization*.  
[https://doi.org/10.1016/S0167-2681\(00\)00085-8](https://doi.org/10.1016/S0167-2681(00)00085-8)
- Sawant, R. J. (2012). Asset specificity and corporate political activity in regulated industries. *Academy of Management Review*. <https://doi.org/10.5465/amr.2010.0022>
- Shane, S., Locke, E. A., & Collins, C. J. (2003). Entrepreneurial motivation. *Human Resource Management Review*. [https://doi.org/10.1016/S1053-4822\(03\)00017-2](https://doi.org/10.1016/S1053-4822(03)00017-2)
- Simon, H. a. (1993). Decision Making: Rational, Nonrational, and Irrational. *Educational Administration Quarterly*, 29(3), 392–411.  
<https://doi.org/10.1177/0013161X93029003009>
- Simon, Herbert. (1972). Theories of Bounded Rationality. *Decision and Organization*, pp. 161–176.
- Solis-Rodriguez, V., & Gonzalez-Diaz, M. (2012). How to Design Franchise Contracts: The Role of Contractual Hazards and Experience. *Journal of Small Business Management*. <https://doi.org/10.1111/j.1540-627X.2012.00370.x>
- SORRENTINO, A. M. (2014). ADVERSE SELECTION. *BANKPEDIA REVIEW*.  
[https://doi.org/10.14612/sorrentino\\_1\\_2014](https://doi.org/10.14612/sorrentino_1_2014)
- Spier, K. E. (1992). Incomplete Contracts and Signalling. *The RAND Journal of Economics*. <https://doi.org/10.2307/2555872>
- Susarla, A., Subramanyam, R., & Karhade, P. (2010). Contractual provisions to mitigate holdup: Evidence from information technology outsourcing. *Information Systems Research*. <https://doi.org/10.1287/isre.1080.0204>
- Tirole, J. (1985). Asset Bubbles and Overlapping Generations. *Econometrica*.  
<https://doi.org/10.2307/1913232>
- Williamson, O. (1975). Markets and hierarchies. *New York*, 26–30.
- Williamson, O. (1979). Transaction-cost economics: the governance of contractual relations. *Journal of Law and Economics*. Retrieved from <http://www.jstor.org/stable/10.2307/725118>
- Williamson, O. E. (1991). Comparative Economic Organization: The Analysis of Discrete Structural Alternatives. *Administrative Science Quarterly*, 36(2), 269.  
<https://doi.org/10.2307/2393356>
- Williamson, O. E., & Williamson, B. O. E. (2017). ORGANIZATIONAL FORMS AND Markets and Hierarchies : Some Elementary Considerations. 63(2).

**STUDY OF FUNGI FOUND IN THE SOIL OF  
POTATO PLANTATION AREAS**

**N. Bijaya Devi**

Botany Department, G.P. Women's College,  
Dhanamanjritri University, Imphal

ISSN 2277-7733  
Volume 8 Issue 3,  
December 2019

**Abstract**

*The Rhizosphere soil and non-rhizosphere soil mycoflora of potato plantation field in Imphal East area were carried out by using dilution plate method for one crop season. Non-infected rhizosphere and rhizosphere soil mycoflora analysis revealed 10 fungal species. Out of which 2 belongs to Zygomycotina and 8 belongs to Deuteromycotina. The maximum number of fungal species were contributed by deuteromycotina. Fusarium solanum showed highest population in non-rhizosphere soil whereas Alternaria solana dominated the fungal population in the rhizosphere soil. The maximum concentration of fungal population was recorded in the month of February. The lowest fungal population was recorded in the month of November both in non-rhizosphere and rhizosphere soil. The maximum number of soil microbial population was recorded in the diseased rhizosphere soil whereas the least population was found in non-rhizosphere soil.*

**Keywords:** *Rhizosphere soil, Zygomycotina, Deuteromycotina.*

Soil is the storage house for certain elements and compounds used by plants as well as the home of their roots. Soil microflora are not the same and is varied from place to place and from season to season. Their requirement of nutrition, interaction among themselves, different environmental factor and biochemical activities makes the soil a dynamic population. The micro organism has most diversified characters. The microbial equilibrium of the soil is subjected to certain variation as the kind of crop, the age of the plant, soil types, soil treatment, seasonal temperature and moisture condition (Alex and Hendrix, 1978). The moisture content, soil temperature, hydrogen ion concentration, other temperature and moisture condition (Alex and Hendrix, 1978). The moisture content, soil temperature, hydrogen ion concentration, other organic matter, etc which might be influenced in the quantitative nature of microbial population in the soil. Soil is a complex system where several micro organisms survive together affecting growth of plant, rhizosphere of diseased as well as healthy plants harbour several fungi and bacteria. Ecological investigations in relation to plants have explained that it is the root of the plant which is in a state of continuous interaction with soil microbial population. The struggle for existence among the members of the microbial component in the soil is in the vicinity of the root because of the large number of organisms in this zone and excretions of certain chemical, compounds into the surrounding root systems. These microorganisms formed a living part of soil complex using organo-mineral as a substrate (Chetia, 1965). The fungi were found to be much more active in relatively dry soil (Griffin, 1966). The colonization of the roots by fungi might be by a range of soil fungi and that their mixed population rapidly gave rise to a stable and typically root surface mycoflora (Parkinson et al, 1963). Garrett (1956) emphasized the importance of root region microbial population in developing root diseases. Hiltner (1904) introduced the term Rhizosphere to denote this region of increase microbial activity. The rhizosphere can be defined as a zone of intense biological and chemical activity in the soil that

## ***FOUND AND POTATO PLANTATION AREAS***

surrounds the root. The study of soil fungi and their ecology paved the way in understanding the mechanism, soil survival of root-borne pathogens.

In view of these facts, investigations have been carried out with the following objectives: To study fungi found in the soil of potato plantation areas; To study the Co-relation between meteorological parameters and fungal population in the soil of potato plantation field

### **Materials and Methods**

During the investigation period, isolation of fungal species was carried out from rhizosphere soil (healthy and diseased) and non-rhizosphere. Non-rhizosphere soil samples were collected from the areas of free plant growth. At each sampling, at least 5 samples were collected from different areas of the field so as to represent the whole field. These samples were then brought to the laboratory in sterile polythene bags and mixed together thoroughly. Soil dilution plate technique (Waksman and Fred, 1922) was employed for the isolation of the fungi. Three samples (5-10gm) were weighed in previously weighed metal containers and dried overnight in a hot air oven at 105°C. The dried samples were then reweighed and moisture content of the soil sample calculated. 10g sample of the soil (determined on a dry soil basis) was placed in an Erlenmeyer flask containing 100ml sterile water to make the stock solution. The flask containing the suspension was shaken on a mechanical shaker for 15 minutes. 10ml of these suspensions was immediately drawn (while in motion) into a sterile 10 ml pipette and transferred into a 90ml sterile water blank. 10ml samples were then transferred to 90ml sterile water blanks until the desired final dilution is reached. Each suspension was shaken by hand for a few seconds. Plating was done using Rose Bengal agar medium. 1 (one) ml of the desired dilution was transferred aseptically into each of Petri dishes (5 replicated) and 15 ml of Martin's medium, cooled down to just above the solidifying temperature was added to each inoculated Petri dish. The dishes were rotated by hand in a broad, swirling motion so that the diluted soil was dispersed in the medium. These inoculated plates were then incubated at 27°C±1°C for 7-10 days. Fungi developing from the inoculated plates were isolated in pure culture, identified and recorded. The average number of fungal colonies per dish was multiplied by the dilution factor to obtain the number of fungal propagules per gram in the original soil sample. For rhizosphere soils of both healthy and infected potato plants, an estimation of population of fungi could be obtained by dilution plate technique. The dilution procedure for rhizosphere soil was similar to that used for non-rhizosphere soil except for obtaining soil samples and for method of determining weights or amount of soil used in the dilution series. To determine weight of rhizosphere soil, the roots were removed from the original dilution flask and washed. The washed water was collected in the original flask. The water was evaporated on a water bath and the soil residue was dried to constant weight in an hot air oven at 105°C. The flask containing dry soil was weighed and dilution factors were calculated. Further process of incubation and identification were similar as that of non- rhizosphere soil.

The total fungal population was calculated by the following formula:-

$$\text{Total number of fungal population} = \frac{\text{Number of colonies} \times \text{dilution factor}}{\text{Dry weight of soil/g}}$$

## FOUND AND POTATO PLANTATION AREAS

Where dilution factor = Dilution x Amount of inoculums taken.

Results and Discussion: A groupwise list of the identified fungi from the soil rhizosphere and non-rhizosphere is given below:-

Zygomycotina: *Mucor racemosus*; *Rhizopus stolonifera*

Deuteromycotina: *Aspergillus niger*; *Aspergillus clavatus*; *Alternaria alternata*; *Alternaria solana*; *Fusarium oxysporum*; *Fusarium solani*; *Fusarium roseum* and *Trichoderma viridae*

**Table 1 - Total number of fungal (CFUg<sup>-1</sup>soil<sup>0.3</sup>) isolated from the rhizosphere soil (healthy and infected plants) and non-rhizosphere soil of potato plantation area of Imphal East district (Nov. 2014 to Mar. 2015).**

Fungal Types	Total No. of Fungal			Percentage Contribution		
	RS	DRS	NRS	RS	DRS	NRS
1. <i>Mucor racemosus</i>	101	83	74	5.83	4.63	4.64
2. <i>Rhizopus stolonifera</i>	119	106	105	6.87	5.92	6.59
3. <i>Aspergillus niger</i>	114	133	87	6.58	7.43	5.47
4. <i>Aspergillus clavatus</i>	152	140	126	8.78	7.82	7.91
5. <i>Alternaria alternata</i>	151	124	124	8.72	6.92	7.78
6. <i>Alternaria solana</i>	355	400	248	20.52	22.34	15.57
7. <i>Fusarium oxysporum</i>	197	265	161	11.38	14.80	10.11
8. <i>Fusarium solani</i>	300	245	371	17.34	13.68	23.30
9. <i>Fusarium roseum</i>	175	214	210	10.11	11.95	13.19
10. <i>Trichoderma viridae</i>	66	80	86	3.81	4.46	5.40
Grand Total	1730	1790	1592			

Table I. Reveals that *Alternaria Solani* dominated the fungal population in the rhizosphere soil (20.52% ) and Disease Rhizosphere soil (23.34%) respectively. *Fusarium solani* (23.30%) showed highest population in Non-rhizosphere soil.

**Table 2 - Monthwise total fungal types and their contribution (%) of the potato plantation field areas and meteorological parameters compared. (Crop season Nov. 2014 – March 2015).**

Month	Meteorological Parameters						Total Number of Fungal Spore Types and Percentage					
	Temp °C (Max)	Temp °C (Min)	R.H. (%)	Rainfall (mm)	Wind speed (Km/h)		RS	%	DRS	%	NRS	%
Nov.	27.57	12.97	81.3	1.74	3.10		100	5.83	“		72	4.47
Dec.	24.76	6.50	78.35	2.23	2.90		137	7.99	-	-	122	7.57
Jan.	24.28	4.39	69.74	-	3.58		410	23.92	493	26.50	457	28.38
Feb.	28.98	8.07	58.43		3.67		697	40.66	943	50.69	635	39.44
Mar	29.74	13.05	57.77	5.33	5.54		370	21.58	424	22.79	324	20.12
Total:							1714		1860		1610	

Table II. reveals the comparison between monthwise total number of fungal population and meteorological parameters. The highest fungal population of healthy rhizosphere soil (40.66% with 697CFU), diseased rhizosphere soil (50.69% with 943CFU) and non-rhizosphere soil (39.44% with 635CFU) were recorded in February 2015. The corresponding meteorological parameters recorded were temperature (Max. 28.98°C), relative humidity (58.43%) rainfall (nil) and wind speed (3.67km/h). The lowest fungal population was recorded in the month of November, 2014 in non-rhizosphere soil (4.47% with 72CFU). The corresponding meteorological parameters recorded were temperature (Max 27.57°C, Min. 12.97°C), relative humidity (81.3%), rainfall (nil) and wind speed (3.10km/h).

A total of 10 fungal types were identified from rhizosphere soils of healthy, diseased

## FOUND AND POTATO PLANTATION AREAS

and non-rhizosphere potato plantation field in Imphal areas (crop season Nov. 2014 to March 2015). The maximum number of fungal types were contributed by Deuteromycotina was followed by Zygomycotina. *Fusarium solani* was having highest population for both rhizosphere (Healthy) and non rhizosphere soils. O'Brien and Rich (1976) stated that *Fusarium* wilt was caused by *Fusarium oxysporum* and *Fusarium solani*. *Fusarium oxysporum* was more widespread but less pathogenic than *Fusarium solani*.

Snyder and Toussoun (1965) opined that *Fusarium* was responsible for vascular wilt, while *F. solani* produces a cortical decay. The fungi which causes *Fusarium* wilt was common soil pathogens with wide host ranges. They were recorded in infected seed potatoes or in infested soil adhering to potato tubers. *Alternaria solani* was dominant fungal species for the rhizosphere (diseased) soil. *Alternaria solani* causes the early blight of Potato. It also attacks tubers. Konger and Baruah (1958) analyzed the soil microflora of Potato and detected *Fusarium solani* and *Alternariasolani*. Satpute and Dutta (1987) reported *Trichoderma viride*, *Alternaria alternata*, *Fusarium solani*, *Alternaria solanietc* from the soil of potato plantation fields. The present investigation agrees with these previous reports.

The pattern of species distribution, composition and population density could be explained by the fact that in rhizosphere region specific groups of fungal species, more adapted to root region, were stimulated by the rhizosphere effect. This rhizosphere effect had been assigned to a number of factors. The most important factors were the annulations of fungistasis and bacteriostasis (Jackson, 1958; Brown, 1973), the selective stimulation of microbial activities rather than its quantitative enrichment (Vander Drift, 1957), the O<sub>2</sub>/CO<sub>2</sub> ratio in the root region (Green wood, 1970), the presence of different energy sources in the rhizosphere and non-rhizosphere soils (Brown, 1975) and the different generation times of microorganisms in the rhizosphere and non-rhizosphere soils (Bowen and Rovira, 1976; Bowen, 1980). Themucilageneous layers which covers the root hairs was believed to serve as a substrate for the microorganisms (Darbyshire and Greens, 1971; Mosse, 1975). The fungal population increases in rhizosphere and non-rhizosphere soil in general from December to February. It might be due to soil temperature which increases from December to February and at moderate temperature, microbial activity increases than cool temperature (Pandey and Upadhyaya, 2000). In the present study, the lowest fungal population in soils (healthy rhizosphere and non-rhizosphere) were recorded in the month of November. It was also observed that the sudden fall of total fungal population in the month of November and December. Such decline in the occurrence of mycoflora, might be due to the low temperature during the winter months. During the investigation period the correlation between weather parameter and concentration of spores were positively correlated with temperature and Humidity whereas it is negatively correlated with rainfall and wind speed. During the investigation period, the maximum microorganisms were the found in the unhygienic storage rooms. So it is recommended to clean the storage rooms with proper ventilators and sanitation.

### Summary and Conclusion

The rhizosphere soil and non-rhizosphere soil mycoflora of potato plantation field in Imphal areas were carried out by using dilution plate method for one crop season

(Nov 2014-nov 2015); In both Rhizosphere and Non-rhizosphere soils, mycoflora of potato plantation field using dilution plate method (Nov. 2014 to March, 2015) revealed 10 fungal species. Out of which 2 belongs to Zygomycotina and 8 belongs to Deuteromycotina; *Alternaria solani* showed highest fungal population in rhizosphere soil whereas *Fusarium solani* was dominated in the non-rhizosphere soil; In case of rhizosphere and non-rhizosphere soils, the highest fungal population was found in the month of February; In case of non-rhizosphere and rhizosphere (healthy) soils the lowest fungal population was found in the month of November

The successful infection by a pathogen to the root and development of disease will be greatly influenced by the adaptability of the pathogen in the root region, ability to compete with the root region microflora and finally its inherent virulence. Thus, study of root region microbial population is of great importance for understanding disease development and subsequently for controlling them.

#### References

- Alex, C and Hendrix, J.W. (1978). Parasitic and non-parasitic pathogenetics of tomato plants by *Pythium myriotylum*. *Can. J. Bot.* 56(19) : 2334-2339.
- Bowen, G.D. and Rovira, A.D. (1976). Microbial Colonization of plant roots. *Ann. Rev. Phytopathol.* 14. 121-144.
- Brown, M.E. (1975). Rhizosphere microorganisms - opportunists, bandits or benefactors - A critical review. In : Soil Microbiology (ed. N. Walker), Butterworth and Co. (Publishers) Ltd., London, pp. 21-38.
- Chetia, M.N. (1965). Investigation on airspora in relation to reproduction in certain angiosperms and the human allergic disease. Ph.D. Thesis. Guahati University, Guwahati.
- Darbyshire, J.F. and Greens, M.P. (1971). The invasion of Pea roots *Pisum sativum* by soil microorganisms. *Acanthamoeba palestinensis* and *Pseudomonas* sp. soil *Biol. Biochem.* 3:151-155.
- Garrett, S.D. (1956). The biology of root infecting fungi, Cambridge University Press, Cambridge.
- Greenwood, D.J. (1970). Distribution of carbon dioxide in the aqueous phase of aerobic soils. *J. Soil Sci.* 21:314-329.
- Griffin, D.M. (1966). Soil water terminology in mycology and plant pathology, *Trans. Br. Mycol. Soc.* 49 : 367-368.
- Hiltner, L. (1904). Uber neuere Erfahrungen and problema auf dem Gebiet der Bodenbakteriologie and besonderer Berucksichtigung der Grundungung and Brache. *Arb. dtsd. Landw. Ges.* 98, 59-78.
- Jackson, R.M. (1958). Some aspects of soil fungistasis. *J. Gen. Microbiology.* 19, 390-401.
- Konger, G.O. and Baruah, I.T.K. (1958). The incidence of airborne spores in the potato plantations of upper Shillong. *J. Univ. Gauhati (Sci.)*, 9(2) : 81-89.
- O' Brien, M.J., and Rich, A.E. (1976). "Potato Diseases". *U.S.A, Dept. Agric. handbook.* 474 p.
- Pandey, K.K. and Upadhyay, J.P. (2000). Microbial population from Rhizosphere and non-rhizosphere soil of pigeonpea : Screening for resident Antagonist and Mode of Mycoparasitism. *J. Mycol. PL Patbol.* Vol. 30(1) : 7-19.

## ***FOUND AND POTATO PLANTATION AREAS***

- Parkinson, D., Taylor, G.S. and Pearson, R. (1963). Studies on fungi in the root region, I. The development of fungi on the root surfaces of crop plants. *Plant and Soil* 19, 332- 349.
- Satpute, M, Dutta, B.K. and Rao, R.R. (1987). A comparative study of the air, phyllosphere and soil mycoflora of Potato and Paddy fields of Shillong. *J. Indian Bot. Soc.* 66:381-387.
- Snyder, W.C., and Toussoun, T.A. (1965). Current status of taxonomy in Fusarium species and their perfect stages. *Phytopathology* 55: 833-837.
- Vander Drift, J. (1957). Dynamics of soil communities. In : Progress in soil biology, (eds. Otto Graff and J.E. Satchell), North-Holland Publ. Company, Amsterdam, pp. 613-629

Reg. no: GUJENG/2012/48984



**website: [www.voiceofresearch.org](http://www.voiceofresearch.org)**

Printed, published and owned by Dr. Avdhesh S.Jha, Printed at Rudrax Printers, 48, Laxmi Estate, Nr. Nagarvel Hanuman Temple, Amraiwadi Road, Ahmedabad-380026 and Published at E/1, Samay Appartments, Behind NID, Paldi, Ahmedabad-380007. Gujarat, India. Ph. No. 079-26623727 Chief Editor Dr. Avdhesh S.Jha