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## C O N T E N T S

Volume 4

Issue 1(2)

January 2015

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<b>S. No</b>		<b>Page No</b>
1.	Narrating the Marginalized: The Insider <b>Sidhique. P and Vimeesh M.S</b>	1
2.	The Impact of Training on Worker Performance i n Public Sector Organizations: A Case of Ethiopia Ministry of Health <b>Tazebachew Achenef Alem</b>	11
3.	Effectiveness of Programme Learning Material for Teaching Physics in Class X <b>Vandana Singh</b>	27
4.	Achieving Sustainable Development Through Electronic Governance: World's Success Stories <b>Veerabhadra Swamy Pulletikurthi and D. Lalitha Rani</b>	34
5.	Liberal Feminist Perspective in Education <b>Neelam Dalal</b>	52
6.	Performance and Emission Characteristics of C.I Engine by Using MSOME with Ignition Improver <b>K.Apparao and S.Ramireddy</b>	60
7.	Assessing Mental Health of University Postgraduates i n Demographic Profiles: An Empirical Study <b>Ritu Rani</b>	72
8.	Perception of Workers in Cement Industries of Odisha <b>Barada Prasad Bhol</b>	87
9.	Self Help Groups and the Changing Status of Women <b>B. Raveendra Naik</b>	99
10.	Principles of Temperature Measurement <b>Chaitanya Naringe and Suraj Taunk</b>	111

---

---

11.	Hrudhayseswary Kavya Visistata -Oka Parisilana <b>P.Chinnarao</b>	125
12.	Women and Art <b>Ravindrababu Veguri</b>	129
13.	Status of Weavers in Gulbarga District: A Sociological Study <b>Sanjeev Kumar Gundappa Kudri and Jaikishan Thakur</b>	141
14.	Human Resource Development and Social Work Profession: An Inter Disciplinary Methodology <b>M.Vijay Kumar Sharma</b>	152
15.	Gandhi and Media Ethics <b>C.Ramakrishna,N.V.V.S.S.Markandeyulu and G. Kalpana</b>	165
16.	Contribution of the British Government for THE Promotion of Education and Economic Development of THE todas Tribes <b>B.Hameed Basha</b>	171
17.	Rajah Sir Muthiah Chettiar's Contribution to the Field of Education <b>G.Palanivel</b>	176
18.	Migrant Workers Reasons of Migration, Types and Problems <b>Mohd.Hashim Rather and Hakim Khalid Mehraj</b>	188
19.	The Violation of Economic Rights of Mullu Kurumabas in Nilgiris: Problems and Prospects <b>K.Govindaraj</b>	202
20.	Genealogy of Confessional Science and its Relation to Knowledge-Power <b>M.P. Terence Samuel</b>	207
21.	Conductometric and Molecular Interaction Studies of NaCl In Binary Mixtures of Ethanol and Water <b>J.Subha , S.Jagan Raj , S. Bangaru Sudarsan Alwar and S.Rekha</b>	215

---

---

22.	The Application of Likert Scale in Measuring Perceptions of Students Towards Educational Television	232
	<b>T.Sripathy</b>	
23.	Impact of Electronic Banking on Service Quality of Public and Private Sector Banks	238
	<b>S.Anitha</b>	
24.	EPR Spectra of Rare–Earth Ions in Lithium Fluoroborate Glasses	250
	<b>B.Sreedhar, P.Indira and A.K.Bhatnagar</b>	

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**Dr. K.VICTOR BABU**

Editor-in-Chief



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## **Editorial .....**

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

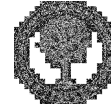
We are happy to inform you that IJMER got the high Impact Factor 2.972, Index Copernicus Value 5.16 and IJMER is listed and indexed in 34 popular indexed organizations in the world. This academic achievement of IJMER is only author's contribution in the past issues. I hope this journey of IJMER more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

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

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

My personal thanks to one and all.

**(Dr. Victor Babu Koppula)**



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## NARRATING THE MARGINALIZED: THE INSIDER

**Sidhique. P**

Lecturer in English  
Calicut University Centre  
Kadmat, Lakshadweep

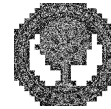
**Vimeesh M.S**

Lecturer in English  
Calicut University Centre  
Kadmat, Lakshadweep

### Introduction

Race studies have acquired almost central positions in social, political and cultural theories since the mid-1980s. The emergence of new critical race theories has been forced to analyze race in literature and culture along with the studies of minority literatures and specific traditions in literature and philosophy. Harlem renaissance was one of the primal causes of all kinds of awakenings in literature of marginalized and their cultural studies, which happened after 1930s or simultaneous to it. Gandhian struggles were exception to this because he had already railed his experiments against discrimination in North Africa.

In the Indian context, religion and caste become the key institutions behind all kinds of oppressions, because law and government, compared to the institutions of religion and caste, take much more generous kind of actions or steps, even though now both are hand in hand. Ambedkar says "The function of religion is the same as the function of law and government" (Ambedkar 37), which again reinforces the element of social control, and religion becomes the agency of social control. But actually what happened after the establishment of *chaturvarnya* through umpteen number of religious texts, is the power of social control accumulated in one caste(Brahmins) and others (*Kshatriyas, Vaishyas and Shudras*) were marginalized. Everything *Kshatriyas* and *Vyshyas* acquired some kinds of favor or privileges but not the *Shudras*.

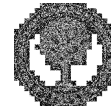


The vibrant history of Malayalam short stories had begun with in the late nineteenth century with the story of a thief. Vengayil Kunjiraman Nayar, through his debuting story *vasana vikriti* inaugurated a new genre in Malayalam literature by narrating a marginalized self, which was revolutionary at that time. So, it is obvious that the process of writing is a political activity, because primarily it deals with life.

Before the emergence of Dalit movement in India there were many texts, in almost all Indian languages which depicted issues of marginalized classes from an outside position as a part of political activity. Writers such as Premchand, Ismuth Chughtai, Tagore, Manto, V.T.Bhattatirippad, Lalithambika Antherjanam...etc. were some among them, who constituted a political dialectics in the flowering arena of stories in the early twentieth century. The Dalit movement which began from the soil of Maharashtra, reignited different kinds of marginalization related with class/caste/gender and problematized them in the light of newly emerged political as well as cultural ideologies or theories. Here comes Narayan, the first Adivasi writer in Malayalam.

### **Narrating the marginalized; the insider**

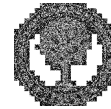
The writer in Narayan was a byproduct of newly emerged marginalized spirit which helped him to draw vivid pictures of the tribal life of central Kerala, especially *Malayaraya* tribe to which he belonged. His novels and stories such as *Ooralikudi*, *Chengarum Kotalum*, *Vannala*, *Nissahayante Nilavili*, *Pelamarutha* etc. give the views of an insider, which is crucial in the studies of literature of marginalized. Narayan himself says "I can only speak about Adivasi writing, because I am an Adivasi" (96). And he added that "writing in Malayalam is my personal problem. As you know, Malayalam is only a second language to me" (97). This again reinforces the risk that he took



while writing the life and breathes of his community. *A Cry in the Wilderness*, the translation of *Nissahayante Nilavili* is a story which elaborately addresses quintessential aspects of marginalization of tribals in Kerala.

B. R Ambedkar, the father of Indian constitution, says on the context of conversion that "Untouchability is the lowest depth to which the degradation of a human being can be carried. To be poor is bad but not so bad as to be an untouchable. The low can rise above his status. An untouchable cannot. To be suffering is bad but not so bad as to be an untouchable. They shall someday be comforted; an untouchable cannot hope for this" (26). These words undoubtedly explain the crucial position of marginalized tribes, and thereby demands studies focusing on the human right violations on them from an insider's view.

*Cry in the wilderness* is a story that tells the plight of Babu who has no 'identity'. The story is primarily narrated through the character Sitalakshmi, who is a nurse in the general hospital. Many times she becomes a mirror and reflects the emotions of Babu in terms of humanity. The story opens in a General Ward where Babu is a patient, and the kind of anonymity about his name and address creates tension between the officials in the hospital. The blankness in the case sheet suggests the 'absence' about the character of Babu. The story problematizes the concept of identity on the context of creation of self in the literature of marginalized. The old notion of oneself is outdated. And new theories, up to a great extent, corroborate the selves in social being in relation with its objects. Larry Neal proposes that "Black aesthetics emphasized racial identity as a context of reading and writing and racialised traditions (Black African) as sources for a politically significant/ relevant artistic practice that is more communitarian than individuals" (qtd in Nayar 67), in which Neal is supported or focused more than that of individual one, which can help to find out the identity of the group of Babu. But the world where Babu



reached is a world of individual self, which creates or haunts him in terms of individuality.

Thakazhi's stories, politically speaking, visualized the Kuttanadan peasants (Parayas and Pulayas) life with such intensity, but at the same time his modality of narration failed to capture the quintessential spirit of their life, which is only attainable through the experience of a peasant life. Narayan ironically says "watching a fight is more exciting than fighting. It's no skin off your nose" (96). The element of belonging is very crucial and in case of Thakazhi and many other writers, writings on marginalized people came from an outsider's position. But it was a facilitating or emancipating process in the political context of Kerala in all time. Narayan weaves it with the blood of his tribal spirit which gives him the insider's position.

*A cry in the wilderness* put forwards certain crucial questions in terms of human rights. U. N Human Right declaration says "Whereas recognition of the inherent dignity and of the equal and inalienable rights of all the members of the whole human family is the foundation of freedom, justice and peace in the world" (1), which makes number of questions related with the absence of address in the case sheet. "There was nothing in it to reveal the man's identity. The columns for name and age were blank" (64), this description shows the process of silencing a particular group from the order of common national background. So it is sure that there is human right violation occurred massively against the tribal identities and other marginalized cultures. The kind of social injustice staged against certain section of human beings has a global significance. The level of brotherhood which is essential to establish a just society for the whole race was broken down by the intrusion of narrow minded powerful classes and their political agendas. To a great extent, the main stream societies won to black out the marginalized from the map of whole human race. Here the words of Sitalakshmi clearly admitted this fact with a conscience of guilt. And



this becomes representative in nature in two levels: the section of society who acknowledges this fact and their helplessness in these matters. The amount of wealth accumulated in the hands of the classes also accelerated the process of nullifying the groups.

Yet another serious aspect of this story is the issue of organ trafficking which is widely considered as social problem in the contemporary world. Here Babu is forcefully led to taken his kidney for another man. He has no other option and the reader recognizes that it was a trap. The agency behind the trafficking came as a savior and in the end readers realizes them as evils. This issue shows the drastic level of exploitation towards the powerless class. Babu accepts this because he wants to exist. He says "one has to live, sister" (68), which is not actually a cry but a kind of protest. The UN declaration says "all the human beings are born free and equal in dignity and right. They are endowed with reason and conscience and should act towards one another in a spirit of brotherhood."(2), which is completely blackened and invalid and suggest the existence of a totally different world.

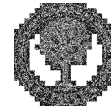
Report says that "The extent of organ sales from commercial living donors (CLDs) or vendors has now become evident. At the Second Global Consultation on Human Transplantation of the World Health Organization's (WHO) in March 2007, it was estimated that organ trafficking accounts for 5–10% of the kidney transplants performed annually throughout the world. Patients with sufficient resources in need of organs may travel from one country to another to purchase a kidney (or liver) mainly from a poor person. Transplant centers in 'destination' countries have been well known to encourage the sale of organs to 'tourist' recipients from the 'client' countries." (Budiani-Saberi 925), though the situation in authorized way of transplantation is legally valid, here the case is different. The following definition of organ trafficking is derived from the United Nations Trafficking in Persons "Organ trafficking entails the recruitment, transport, transfer,



harboring or receipt of persons, by means of the threat or use of force or other forms of coercion, of abduction, of fraud, of deception, of the abuse of power, of a position of vulnerability, of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person, for the purpose of exploitation by the removal of organs, tissues or cells for transplantation. The reason to oppose organ trafficking is the global injustice of using a vulnerable segment of a country or population as a source of organs (vulnerable defined by social status, ethnicity, gender or age" (Budiani-Saberi 926). Generally the poor sections of a nation are the primary victims of organ trafficking. Here it is his anonymity and his tribal identity is the leading factors. The basic inherent human dignity is crushed out and there comes a market prompted values which only considers the wealthy sections of society.

"The international transplant community must deliver a concerted message that organ markets that exploit the poor and vulnerable are not acceptable, but programs must be developed alternatively that assure donor safety and provide social benefits that address donor needs. These needs are the legitimate consequences of living organ donation and must be addressed in each country with Ministry of Health oversight, authorized by national legislation and guided by the World Health Assembly resolution"( Budiani-Saberi 926), but this is not at all a concern of the market involved in the illegal trafficking of organs from the marginalize sections.

Here the nature of violation has multifaceted because the protagonist Babu is exploited in multiple levels. He is poor and tribal. He has no hold in the main stream society. He is an alien body in the world of powerful class. He has no voice. When Sitalakshmi finds him in the road he mumbled and this silence shows the unmarked sufferings of the marginalized class. UN declaration clearly points out that "no one shall be held in slavery and slave trade shall be



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prohibited" (2). Here also what is happened to Babu can see as a kind of slavery which makes hole in UN declarations.

"Everyone as a member of the society has the right to social security" (5) is abolished by the act staged in this story. The element of security is a fundamental aspect of Indian democracy which is attacked by certain illegal agencies. Here in this story Babu is not at all secure both in the hospital and outside. He didn't get the basic needs from both places which lead him to roaming like a street dog.

In a different way, by taking the organ of a person without his consent is a process which leads to the disintegration of a person. The wish to live in the world leads him to allow his body to the other. Aggression toward them shows elements of colonization in a different way. The young Marx said that body is "the first premise of politics" (42), which undoubtedly establishes the relation between body and politics. Babu is forced to accept the conditions of Gouda and he finds it as only way to survive.

Many instances Silakshmi tries to hold the view that 'we all are human beings'. Narayan as writer won to portray universal idea of humanity. Babu asks certain crucial questions in relation with the intrinsic essence of human being. Why 'we' are always sidelined? Sitalakshmi tries to join Babu to the main stream society, but finally she understands the fact that it is tough job. She also realizes that it will much flesh from the victim community. The last conversation between Sitalakshmi and Babu provide evidences for that. It is true that humanity is crushed in many instances. In effect the discrimination starts from the opening scene itself. At last he explained the new situation that he arrive "two of them are luxury for a poor man" (68), which inscribed the pain he felt. The emotional ambience of this story also strengthens Narayan's position as an insider.



Sarankumar Limbale says “by Dalit literature, I mean writing about Dalits by Dalit writers with a Dalit consciousness. The form of Dalit literature is inherent in its Dalits, and its purpose is obvious; to inform Dalit society of its slavery and narrate its pain and suffering to upper caste Hindus” (12). Narayan also comes under this definition. And he adds; Dalits and Adivasies have become conscious of the art and literature they create is the greatest cultural revolution of our age.

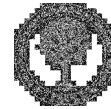
The idea of protest against the powerful class makes this story a different one. Babu fights back in a subtle way. By hearing the plight of Babu, Sitalakshmi asked that what have you decided and he replied that “one has to live, sister” (68), which is a strong note of protest. That means he realizes the way in which the world is progressing and how he is still alien and finally the fact that we can integrate to this world by exploiting others. But he never chooses this but to sacrifice.

“Torture is wound in the soul so painful that sometimes you can almost touch it, but it is also so intangible that there is no way to heal it. Torture is anguish squeezing in your chest, cold as ice and heavy as a stone, paralyzing as sleep and dark as the abyss. Torture is despair and fear and rage and hate. It is a desire to kill and destroy including yourself” (NHC 16). In India human rights violations on tribal societies are increasing day by day. We must remember what was said in D.K. Basu that “whenever human dignity is wounded, Civilization takes a step backward – flag of humanity must on each such occasion fly half-mast.”(NHC 37) illegal detention on two Adivasi boys by Kerala Police is a best example from the side of state government in India. Atrocities against Adivasi families by the forest official in Wayanad are reported by human right commission also points out the seriousness of such issues. Recently the unnatural death occurred in the Attappadi is also a kind of human right violation against tribal people.



This story, in one sense, proves that the first victims of global capital in India are Adivasis and Dalits. Yet there are Dalits intellectuals who hold that global capital is a lesser evil than savarna hegemony, even that Dalits, Adivasis and minorities should ally themselves with global capital to undermine savarna hegemony. Narayan as a writer indirectly talks on this issue. In fact the atural allies of global capital in India have always been the Savarna elite. Dalits and Adivasis are the first victims of this alliance. Colonialism also always drew its first blood from them.

In short Narayan as a writer won to portray the plight of marginalized section, especially the Malayaraya tribe intensely. Narayan as a writer considers the act of writing as political one. According to him, his writings are the indicators that show the plight of marginalized sections of society in the past and the present. This is also a process of making history. By articulating the inner and external struggles of a section of people, he is challenging the universal code of justice which is partial in its understanding. In other words, Narayan, through his stories, try to fulfill the gaps in the history of unprivileged classes. To a great extent the victims are always same and the villains change according to the age. *A cry in the wilderness* is not only story about marginalized sections instead it a strong suggestion from the side of such kind of societies. By narrating their story means to voice their situations, sufferings and protests. It is important to voice the kind of protest that these societies make, because, it is fundamentally different from the existing mode of protest. It is true that the all most all kinds of main stream protest are finally appropriated by the multinational corporations and thus it becomes a tongue for them. This is the greatest tragedy in the contemporary world. The story reveals a new genre of protest which is silent in its tone, yet contains explosive elements. Here Sitalakshmi and Babu make comments which fuel the protest of Narayan. Because of his insider's position he does it with



utter most sincerity. Actually what determines the marginalized literature is the position of the author or atleast the position of the work. Narayan shows great reverence for life. Once Nikoz Kazantsakis said "that flower is alive: you must have reverence for life" (97). Narayan's stories carried out the spirit of these words in a subtle way and look out for a good future.

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## THE IMPACT OF TRAINING ON WORKER PERFORMANCE IN PUBLIC SECTOR ORGANIZATIONS: A CASE OF ETHIOPIA MINISTRY OF HEALTH

**Tazebachew Achenef Alem**

MBA from Addis Ababa University &  
Phd Research Scholar at Punjabi University, Patiala, India  
Currently Lecturer at Jigjiga University, Ethiopia

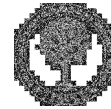
### INTRODUCTION

Human Resources have played a significant role in the economic development in most developed countries such as United States of America, Britain and Japan among others (Hill and Stewart, 2000). It can, therefore be concluded that a developing country like Ethiopia, with its rich natural resources and the necessary financial support can also experience such economic success if the appropriate attention is given to the training of her human resource. It is thus seen that in Ethiopia the government is taking adequate steps to ensure that people acquire the necessary knowledge and skills. Because, today we believe that an organizations competitive success is achieved through people (Pfeffer, 1994). It follows, then, that the skills and performance of people are critical.

Due to this fact, many organizations spend much money on training, believing that training will improve their employees performance and hence the firms productivity. In 1997, organizations with more than one hundred employees were estimated to have spent \$58.6 billion in direct costs on formal training (Clark and Voogel, 1985).

Hales (1986) stated that many organizations meet their needs for training in an ad hoc and haphazard way. Training in these organizations is more or less unplanned and unsystematic. Other organizations however set about identifying their training needs, then design and implement training activities in a rational manner, and finally assess results of training. It is worth noting that Ethiopia has a huge public sector, employing the highest number of human resources with varied skills.

Public sector efficiency and effectiveness have always been important issues for many countries. The main objective of public sector organizations is to increase service quality to customer approach and to provide social benefits based on limited budgets. For non-profit



oriented organizations like the public sector, knowledge sharing can help to increase continuous performance, service delivery, and also customer and staff satisfaction (Ismail and Zawiyah, 2009). Since knowledge is a central source of government services, effective knowledge sharing among employees is a significant management challenge for providing excellent service to the public at all levels. Without the requisite knowledge and skills public officials may not be able to perform their responsibilities and duties effectively, efficiently and with high standards of performance (Ismail and Zawiyah, 2009).

In the public sector operations, human resource occupies central place. It is the most dynamic resource due to its creative abilities as compared to the other. The most precious asset that can contribute greatly to the organizational efficiency and effectiveness is the human resource of organizations (Muhammad, 2009). One such organization in the public sector is the Federal Democratic Republic of Ethiopia Ministry of Health which is located its head office in Addis Ababa around Goma Kuteba. Under Ethiopia Ministry of Health there are hospitals and sub-offices which are administered by the head office. The head office has six hundred employees.

### **1.1 OBJECTIVE OF THE STUDY**

The general objective of the study was to investigate the actual training practice of the EMOH organization at Addis Ababa head office and its effectiveness in improving the performances of employees. The specific objective of the study is:

To find out whether training schemes have positive effect on the performances of workers.

### **1.2 SIGNIFICANCE OF THE STUDY**

The study will help to develop and maintain a quality work life, which will provide an opportunity for employees' job satisfaction and self-actualization. Besides, it will aid management of EMOH to introduced modern schemes for training, to be able to meet the challenges of change in the future. Finally, this thesis will be used as a reference material for those individuals who want to conduct a research in this area for the future.

### **1.3 DELIMITATIONS AND LIMITATIONS OF THE STUDY**

The scope of the study was delimited only to Ethiopia Ministry of Health among other public organizations particularly the head office by emphasizing on the effect of training on worker performance. Furthermore, it will be good the researcher studies the recruitment,



performance management, placement, performance appraisal and other activities of the organization. However because of some limitations the study was only focused on the training aspect of the organization. The limitations of the study that the researcher faced are unwillingness of management to divulge important information in the name of confidentiality, and some resources.

## **CHAPTER TWO**

### **REVIEW OF RELATED LITERATURE**

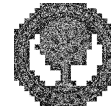
#### **2.1 OVERVIEW OF TRAINING**

One major area of the human resource management function of particular relevance to the effective use of human resources is training. Few people these days would argue against the importance of training as a major influence on the success of an organization. It is the view of Hales (1986) that the general movement towards downsizing, flexible structures of organizations and the nature of management moving towards the devolution of power to the workforce give increasing emphasis to an environment of coaching and support. He also added training is necessary to ensure sustain economic growth and effective performance and for adequate supply of staff that is technically and socially competent.

According to Mathis and Jackson (2008), training is the process whereby people acquire capabilities to perform jobs. The focus of training is the job or task for example, the need to have efficiency and safety in the operation of particular machines or equipment, or the need for an effective sales force to mention but a few. Chandan (1995) also defined training as a short term process of utilizing systematic and organized procedures by which non-managerial personnel learn technical knowledge and skill for a definite purpose.

Training has emerged as formal corporate function, integral element of corporate strategy, and is recognized as profession with distinct theories and methodologies as companies increasingly acknowledge the fundamental importance of employee growth and development, as well as the necessity of a highly skilled workforce, in order to improve the success and efficiency of their organizations (Bernatek, 2010).

Training in a work organization is essentially a learning process, in which learning opportunities are purposefully structured by the managerial, HR and training staffs, working in collaboration, or by external agents acting on their behalf the aim of the process is to develop in the organizations employees the knowledge, skills and



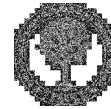
attitudes that have been defined as necessary for the effective performances of their work and hence for the achievements of the organizational aims and objectives by the most cost-effective means available (Tyson and York, 2000).

Furthermore, training is the most important tool of a business to develop commitment, effectiveness, efficiency and loyalty and to create a culture of cooperation among employees. Sometimes the top management and managerial level employees are found to be uncooperative towards HR training, whilst lower level employees lack the commitment to participate in training activities (Abdullah, 2009). As Meyer *et al.*, (1993) indicated that employee commitment has become increasingly important in many organizations. The construct employee commitment is however complex and commitment cannot be seen as a single, homogenous entity, which means the same to all employees. It is multifaceted and can impact on an organization in a number of ways. It changes over times as employee circumstances and needs change. Meyer *et al.*, 1993 defines commitment as purely psychological it is a measure of the extent to which an employee has formed a strong psychological attachment to an organization. According to Morrow (1996), the concept of commitment is four folded, it account for an employee's personal involvement in the decision, the attraction of alternative options, the degree of ambivalence-as well as employee satisfaction.

## **2.2 IMPROVEMENT IN EMPLOYEES' PERFORMANCE**

The performances of public sector organizations rely on the performance of their employees. Employees' performance is the degree to which they accomplish job requirements. All the employees of an organization are working as a team, where employees work in accordance with their skills and competencies and in coordination with one another to accomplish organizational objectives (Muhammad, 2009). Therefore, employee performance is an important building block of an organization and factors which lay the foundation for high performance must be analyzed by the organizations. Since every organization cannot progress by one or two individual's effort, it is collective effort of all the members of the organization. Performance is a major multidimensional construct aimed to achieve results and has a strong link to strategic goals of an organization (Mwita, 2000).

Better performance of a public sector organization simply means the capability of the organization to achieve desired results or output more

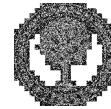


efficiently and effectively. Performance is related to measurable accomplishment or results that primarily address community needs and problems. Poor performance of employees in the public sector organizations is due to factors such as the quality of supervision and the lack of training and development of employees (Muhammad, 2009). Training and development are necessary to overcome deficiencies in the employees work performance. Lack of necessary skills competencies and qualities to perform a job would result into poor performance. In order to improve performance, employees must know how to do their jobs. They must have necessary skills and competencies required to do their jobs. These skills may include, technical, human, and conceptual to enable them to operate instruments, tools and machines, and to understand and communicate with other employees and have the ability to see the relationship between different parts of an organization and its environment. For improvement in the employees performance training and development are needed. Human resources capital has the greatest competitive advantage and can help to accomplish organizational objectives efficiently and effectively (Muhammad, 2009).

By considering employee commitment, efficiency, and effectiveness as dependent variables the researcher finds other studies that deal about the impact of training on worker performance in EMOH and the researcher couldn't get even one in this area specifically. However, there is a study on manpower training and its impact on employee performance concerning Ethiopian banks and insurance both private and government. This study investigates the effectiveness of training program of the selected financial institutions in developing the knowledge, skills and attitudes of employees and in bringing about improved employees and organizational performance. Besides, the result of the study shows that the studied institutions are not only aware of training but also performs it as one of their human resource management functions.

### **2.3 RELATIONSHIP BETWEEN TRAINING & EMPLOYEE PERFORMANCE**

Public service performance, i.e. the performance of workers and organizations in delivering public services, is a multi-faceted concept. It can be understood in an expansive or a more narrow way. The expansive understanding includes factors internal to an organization such as job satisfaction, organizational citizenship behavior voluntarily



helping others in the workplace Organ (1988), and organizational commitment (the strength of a person's attachment to and involvement in an organization, see Grusky 1966). All of these have in turn been shown to be conducive to performance understood more narrowly, namely as outputs and outcomes, in particular efficiency, and effectiveness.

Moreover, employee performance is an important building block of an organization and factors which lay the foundation for high performance must be analyzed by the organizations. Since every organization cannot progress by one or two individual's effort, it is collective effort of all the members of the organization. Performance is a major multidimensional construct aimed to achieve results and has a strong link to strategic goals of an organization (Mwita, 2000). Therefore, impact of training on employee performance is not only significant but studies prove that it also increases job satisfaction and commitment towards the organization and training transfer is more likely to increase performance, job involvement, and increases motivation to learn and transfer (Velada and Caetano, 2007). Taiwo (2001) is of the opinion that the objectives of training are to: provide the skills, knowledge and aptitudes necessary to undertake required job efficiently. Therefore, she or he has the potentials, he may progress, increase efficiency by reducing spoilt work, misuse of machines and lessening physical risks. Obisi (1996) submitted that training aim at developing competences such as technical, human, conceptual and managerial for the furtherance of individual and organization growth. Also Taiwo (2001) postulated that the process of training is a continuous one. The need to perform ones job efficiently and the need to know how to lead others are sufficient reasons for training and the desire to meet organizations objectives. It is to increase personnel efficiency, professional growth, and smooth and more effective organizations operations.

#### **2.4 THEORETICAL FRAMEWORK OF THE STUDY**

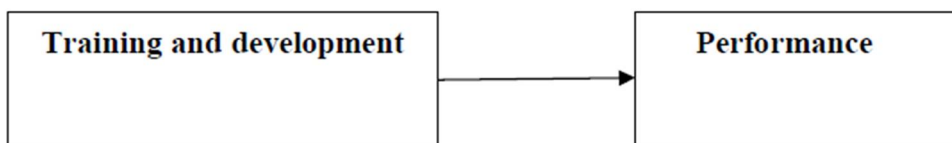
The theory that the researcher used is the social identity theory. As a sub-theory of social cognition, social identity theory developed with the purpose of understanding how individuals make sense of themselves and other people in the social environment. In addition to this, there are other theories which can show the relationship between training and performance of worker, such as the *Identical Elements Theory*. The theory of identical elements was proposed by Thorndike and Woodworth during 1901 (Wexley and Nemeroff, 1975). According to



this theory, transfer is improved by increasing the degree of correspondence among the training setting stimuli, responses, and conditions and those related factors operative in the performance setting. They explained that if the task is identical in both training and transfer, trainees are simply practicing the final task during training and there should be high positive transfer (Wexley and Nemeroff, 1975).

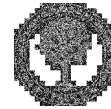
The other theory is the *principles* theory which suggests that training should focus on the general principles necessary to learn a task so that the learner can apply them to solve problems in the transfer environment (Spitzer, 1984). This theory suggests that it is possible to design training environments without too much concern about their similarity to the transfer situation, so long as it is possible to utilize underlying principles. Even if these and other theories helped to see the relationship between training and performance the researcher has considered the social identity theory which relates training and development with performance of employee by disregarding employee development. Therefore, to support the social identity theory, according to Abbas and Yaqoob (2009), the relationship between training and development and employee performance can be depicted in the following model.

**Figure 1 relationship between training and development and employee performance**



Although multiple factors influence how people work, social identity theory portends to be a unifying theory of organizational behavior because what and how people think as members of social groups influences subsequent behavior and attitudes in social systems. This influence has important implications for workplace learning (Hogg and Terry, 2000). Therefore, Ethiopia Ministry of Health as organization has its own different social groups that vary in their attitude, educational level, psychological behavior and other factors which influence and change their learning.

The social identities in organizations serve as important drivers of performance. How people think as members of groups affects the



outcomes of learning interventions. Therefore, social identity is a key input to or driver of learning and performance in organizations. Training has focused primarily on the individual and occasionally the organizational levels with little attention to the identity-based dynamics of group behavior in organizational settings. Generally, people do the work of organizations in group settings (Hogg and Terry, 2000). Thus, the way groups' opera Therefore, one may variously perceive his or her membership as part of a workgroup, organization, profession, industry, nation, society, race, or human being. Social psychologists believe that how people think about themselves and others depends on the focal group level and heavily influences their behavior and performance (Fiske and Taylor, 1991). *The importance of social identity theory for training in organizations stems from the insights about individual behavior in groups and the group dynamics that affect individual learning and performance* in organizations. The construct of social identity focuses on the behavior of individuals in groups.

Given the prevalence of social and functional groups in organizations (Hodgkinson, 2003), it seems imperative for training professionals to attend to group-based behavior directly, rather than as an aggregation of multiple individual behaviors. Strategic learning via training generally focuses on the alignment of group efforts and goals with those of the organization (Yorks, 2005). However, attempting to teach idiographic groups to align in complex organizations is terribly inefficient and ineffective without addressing the frame of reference stemming from the identities of the groups. Therefore, social identity becomes an important lens through which people perceive new information, attribute cause, make meaning, and choose to undertake new learning. Without addressing the identity factors stemming from group membership, the success of typical training efforts may fail to realize their promise of improving individual and organizational performance (Yorks, 2005).

Generally, the researcher derived the following model from figure 1 above which is developed by Abbas and Yaqoob (2009) to see the relationship between training and performance of employees. Meaning that if, training is implemented then does it affect the employee performance. Hence, theoretical framework can be seen from the following model affects organizational performance.

***Figure 2 relationships between training and performance***



## CHAPTER THREE METHODOLOGY OF THE STUDY

The research is a case study in the form of cross sectional design in which data was collected across a population through simple random sampling. Because, this technique will give equal chance to the employees being selected. Ten (10) departments were used for the study among the 17 departments. The participants were workers and managers which are employed under Ministry of Health in Addis Ababa particularly in the head office. Sixty employees were selected by using random sampling technique to which questionnaires were distributed and administered among the departments selected. The research was qualitative method with quantitative information and procedures.

Interview also was conducted to gather information on the subject from the management of the organizations to ascertain management view on how Ethiopia Ministry of Health has traditionally dealt with issues of training. Documents on training from Ethiopia Ministry of Health were reviewed. This helped the researcher to ascertain whether EMoH has training policies in place, and also to check whether the processes of training are being dully followed.

### 3.1 TARGET POPULATION

All employees of the Ethiopia Ministry of Health at head office that comprising accountant, computer operators, managers, secretaries, lawyers, engineers, messengers and others were the target population. Therefore, the focus was at the head office of EMoH that has six hundred (600) employees.

### 3.2 SAMPLING SIZE

As the researcher mentioned under the target population, the focus group consisted employee of EMoH at the head office in Addis Ababa. Therefore, out of 600 employees who work in the organization questionnaires were distributed to 10% of the total population that is 60 employees. In addition, the researcher has conducted interview for training manager.

### 3.3 SOURCES OF DATA



At the very beginning, the researcher focused on using primary sources of data. However, besides the primary sources of data the researcher was also consider secondary sources of data to tight the study although secondary data are somewhat exposed to bias. For instance the researcher has traced the history of EMoH and its role of training over the last few years from secondary sources. The primary data was collected from employees and managers of the selected organization.

### **3.4 DATA COLLECTION PROCEDURES**

The researcher used questionnaires and interview to collect data. The purposes of questionnaires were to investigate the awareness of training program and the role of Ethiopia Ministry of Health (EMoH) plays in the training of its employees. The semi-structured interview was conducted for the training manager. In addition, secondary sources of information were gathered from EMoH human resource management policies, magazine, books and journals on human resource management, and previous researches. In these procedures the researcher collected data about the effect of training on worker performance by considering both the independent variable i.e training and the dependent variables which were employee effectiveness, commitment, and efficiency which can be combined as performance.

### **3.5 DATA ANALYSIS PROCEDURES**

After collecting the data through different techniques, the researcher has organized and prepared the various data depending on the sources of information. Moreover, in order to ensure logical competence and consistency of responses, data editing was carried out each day by the researcher. Identified mistakes and data gaps were rectified as soon as possible. Once editing has done, data were analyzed qualitatively and quantitatively. The quantitative data analysis was done by the use of version 19-SPSS software. The techniques for quantitative data analysis were the frequency distribution and percentages besides regression and correlation which used to determine the proportion of respondents choosing the various responses and to see the relationship between training and performance. This was done for each group of items relating to the research question and objectives. Tables and charts were also used to ensure easily understanding of the analysis.

### **3.6 RELIABILITY TEST**

Cronbach's alpha is a coefficient of reliability. It is commonly used as a measure of the internal consistency or reliability of a psychometric test score for a sample of examinees. It was first named by Lee Cronbach in



1951, as he had intended to continue with further coefficients. The measures can be viewed as an extension of the Kuder-Richardson Formula 20 (KR-20), which is an equivalent measure for dichotomous items ([http://en.wikipedia.org/wiki/Cronbach's\\_alpha](http://en.wikipedia.org/wiki/Cronbach's_alpha)).

Hence, according to Lombard (2010), Coefficients of .90 or greater are nearly always acceptable, .80 or greater is acceptable in most situations, and .70 may be appropriate in some exploratory studies for some indices. By tracing this literature the researcher tested the reliability of the items which were developed for respondents. Therefore, as shown in table 1 the reliability of the whole items is 0.928 which means the whole items were reliable and acceptable because as Lombard stated coefficients of 0.9 or greater are nearly always acceptable.

**Table 1 reliability test**

Cronbach's Alpha	Number of items
0.928	34

## CHAPTER FOUR

### PRESENTATION AND ANALYSIS OF FINDINGS

#### 4.1 RESEARCH FINDINGS

In this chapter, the results of the empirical study are reported. Results are presented in respect of the impact of employee training on employee performance, in the form of work effectiveness, efficiency, and commitment within the Ethiopia Ministry of Health context. A total of 60 questionnaires were circulated and 47 were received, out of which 13 questionnaires were unfilled and no questionnaires were discarded due to missing data. Therefore, 47 questionnaires were considered for the study as respondents working in the selected organization.

The sector is specify and defined for the research as the study is aimed to find the impact of training on employee performance. The data received from the respondents are analyzed with help of statistical software program SPSS-19. Correlation and regression analysis are performed for measuring the independent variable i.e training impact on employee performance.

#### 4.2 AGE OF RESPONDENTS

The researcher needed to know the age distribution of respondents to help categorize employees because the Ethiopia Ministry of Health



employs a lot of workers. Table 2 below summarizes the data obtained on the ages of respondents.

**Table 2 age distribution of respondents**

respondents age					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-25	11	23.4	23.4	23.4
	26-35	16	34.0	34.0	57.4
	36-45	15	31.9	31.9	89.4
	46-55	5	10.6	10.6	100.0
	Total	47	100.0	100.0	

Analyzing the data obtained from the questionnaire, table 2 reveals that 16 respondents were between 26-35 years representing 34% formed the majority. The next largest respondents were between the age of 36-45 representing 31.9% and they were 15 in number. The third group of respondents was fall under the age category of 18-25 which can easily understand that they are young to do a lot for the organization that represent 23.4 percent or 11 employees from the total respondents. 5 respondents aged between 46-55 representing 10.6% which indicate that they are in a position to retired in the near future.

#### 4.3 GENDER OF RESPONDENTS

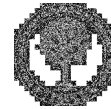
Table 3 below presents data on gender of respondents. The table shows that the male respondents formed majority of the target population with a total of 32 representing 68.1%, while 15 respondents were female representing 31.9%.

*Table 3 gender composition of respondents*

	Frequency	Percent	Valid percent	Cumulative percent
Valid Female	15	31.9	31.9	31.9
Male	32	68.1	68.1	100.0
<b>Total</b>	47	100.0	100.0	

#### 4.4 CORRELATION ANALYSIS

Correlation refers to synonym for association or the relationship between variables. It measures the degree to which two sets of data are related. Higher correlation value indicates stronger relationship between both sets of data (Coetzee, 2003).



**Table 4 correlation analysis of training and employee performance**

	Employee training	Employee performance
Employee training		
Pearson correlation	1	0.689**
Sig. (2-tailed)		.000
N	47	47
Employee performance		
Pearson correlation	0.689**	1
Sig. (2-tailed)	.000	
N	47	47

\*\* Correlation is significant at the 0.01 level (2-tailed)

Hence, employee training was correlated with the mean value of all the variables of employee performance by calculated into one variable, *i.e.* employee performance and the following relationship was observed. Table 4 above shows a correlation between the effect of employee training and combined of all variables, *i.e.* effectiveness, efficiency, and worker commitment into one variable (employee performance) resulted into strong positive relation with  $r = 0.689$ ,  $p < 0.01$ . This value of correlation indicates a stronger relationship and significant at  $p$  value less than 0.01.

#### 4.5 REGRESSION ANALYSIS

Table 5 can also clearly show the value of R and R<sup>2</sup>. In this analysis the value of R is 0.689 which is a measure of the correlation between the observed value and the predicted value of the dependent variable (employee performance). Whereas R Square (R<sup>2</sup>) is the square of this measure of correlation and indicates the proportion of the variance of employee performance with the existence of training. Hence, R Square = 0.474 implies that only 47.4% of performance is explained by training. In essence, this is a measure of how good a prediction of the dependent variable we can make by knowing independent variables.

**Table 5 analysis and model summary of R and R<sup>2</sup>**

Model	R	R Square	Durbin-Watson
1	.689	.474	1.929



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## CONCLUSION

The following are the major conclusions remarks by the researcher:

- From the correlation analysis result it can be concluded that training is positively and significantly correlated with employee performance and all relationship between the dependent variables (effectiveness, efficiency, and commitment) and independent variable (training) are positively and significantly correlated.
- Furthermore, from the regression analysis it is concluded that there is a higher impact of training on employee performance and R Square = 0.474 implies that only 47.4% of performance is explained by training.
- Finally, concluding the whole research conducted it is found that Employee training programs are highly effective program which should be planned, systematic and implemented by public organization to run a cycle of increasing skills in employees to increase performance and this further result as organization productivity growth and performance.

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## EFFECTIVENESS OF PROGRAMME LEARNING MATERIAL FOR TEACHING PHYSICS IN CLASS X

**Vandana Singh**

Assistant Professor

Chirayu K.C. Bajaj College of Education

Jaripatka, Nagpur

### Introduction

B. F. Skinner introduced programmed instruction at Harvard in 1954, and much of this system is based on his theory of the nature of learning. Programmed instruction allows students to: answer questions about a unit of study at their own rate; check their answers without their teacher's assistance; and advance only after answering correctly. Programmed learning material is concerned with the selection and arrangement of educational content based upon what is known about human learning. It is a process of constructing sequences of instructional material in a way that maximize the rate and depth of learning. Every child can learn, but some do so more or less easily, and retain the information or skills longer or less well. When knowledge is introduced in a carefully programmed sequence that begins with a global story, it tends to attract initial interest.

Today's classes are overcrowded and individual attention is not possible. There is also difficulty in covering the syllabus. Problem of maintaining discipline in the class also becomes difficult in overcrowded classes. Large quantum of knowledge to be imparted to a large population. What is needed is education explosion and it is here that the programmed instruction comes into being as an innovation step in this new direction towards individualisation of instruction.

### Features Of Programme Learning

In programme learning material the subject matter is broken into easy steps and each step is presented in several sentences each



called frame. The frames are arranged sequentially. The frames require that the learner makes some kind of response an answer to a question, an activity to demonstrate the understanding of the material i.e frequent response is required of the student. There is immediate confirmation of the right answer or correction of a wrong answer given by the pupil. Units are arranged in a careful sequence which shapes the behaviour. The content and sequence of the frames are subject to the actual try out with the pupil and are revised on the basis of data gathered by the programmer. Goals to be achieved are evaluated and stated specifically. Revision of programmed material is based on the response of the learner. In Programmed learning the suitability and appropriateness of the material presented depends upon the learner. If the learner makes many mistakes the programmed material should be rejected. Each pupil responds at his her own pace without any threat of being exposed to any humiliation in a heterogenous class the learner is free to vary his/her own rate of learning independent of other learner.

## **Principles**

There are five basic principles of programming

1. Principle of small steps

According to this principle we need to Set small steps in order to prevent a learner from stumbling as much as possible. When he makes a mistake, there is the risk of being labeled a failure.

2. Principle of Immediate feedback

Let a learner know whether his/her answer is correct or incorrect immediately. Give the learner the subsequent question after he/she knows whether his/her response is right or wrong

3. Principle of Active responding



To what extent a learner can understand is judged by making him/her answer questions. The extent of a learner's understanding is ascertained from what is demonstrated in the responses.

#### 4. Self Pacing

Let the learner decide the speed of learning so that he/she can learn at his/her own pace. Consider that an appropriate speed varies from learner to learner.

#### 5. Student testing

Whether the program is good or bad is judged not based on a specialists' opinions, but whether learning is actually established or not. To that end, get learners who have yet to learn the subject matter to try the program under development. Based on the trials, improve the material as necessary.

### **Need of Programme learning material**

In india teaching physics has been oral in character with the some demonstrations thrown, in schools there are either have been talked much about but most of these are not implemented. The curriculum is not organised psychologically and text books are written traditionally without keeping in view the process of learning. Methods of teaching physics are dull and generally ineffective. Teaching is aimed at performance by the students in examinations and not at real learning of the subject matter learning in scientific method of working, problem solving, creative thinking and development of scientific skills, interests, attitudes and application of the knowledge remains in the stage of neglect. There is lack of research in teaching physics the contents are old and the condition is still deteriorated by the different media of instructions throughout the country.



The teachers initiative is often crushed by the traditional curriculum and his teaching become dull and lifeless due to the pressure of dead weight of examinations which often demands little more than good memory. Programmed learning of physics will develop curiosity of the student to acquire the aim of democratic education.

### **Sample**

For the present study sample of 60 students was taken from X grade students from two schools at Nagpur

### **Tools**

1. Self developed test
2. Programme learning material

In self developed test, researcher asked objective questions to the students of class X. Pre-test & Post-test was employed for the study. Researcher made test of 40 marks from the topics. In the test each question had four options & child had to tick the correct answer

In programme learning material researcher has divided the topic into small frames and in the last of each frame asked question. It has been prepared according to the principle of programme learning.

### **Data Collection & Analysis**

The study is experimental nature and two group design. The comparison between distribution of scores by Experimental Group & control group was obtained which shows that the performance of Experimental group was better than the performance of Control group. Researcher compared mean & standard deviation. The calculated value of mean of experimental group of pre test is 24.93 and post test is 32.37 and standard deviation is of pretest is 3.54 and post test is 4.11. The experimental group's mean-post test score was statistically lower than the experimental group's mean-posttest scores. In addition, the



standard deviation of pre test was statistically lower than the post test of experimental group's. The t test was also administered and score is 5.96

Table 4.1

Group	Test	Number of students	Mean	Standard deviation	T value
Experimental Group	Pre test	30	24.93	3.54	5.96
	Post test	30	32.37	4.11	

The calculated value of ' t ' score is 5.96 which is significant at both the levels. Table no 4.1 indicates that the calculate value is bigger than the T table value and thus 't' value is significant at .01 & .05

The calculated value of mean of post test of experimental group is 32.27 & control group is 25.03. The calculated value of experimental group of standard deviation is 4.11 & control group is 3.48. The control group's mean-posttest score was statistically lower than the experimental group's mean-posttest scores In addition, the control group's standard deviation was statistically lower than the experimental group's

Table 4.2

Group	Test	Number of students	Mean	Standard deviation	T value
Control Group	Post test	30	25.03	3.48	7.59
Experimental Group	Post test	30	32.27.	4.11	



The calculated value of ' t ' score is 7.59 which is significant at both the levels. Table no 4.2 indicates that the calculate value is bigger than the T table value and thus't' value is significant at .01 & .05

There is a significant difference between the post test score of experimetnal group and post test score of control group. T test is applied to check the significance between mean achievement scores of post test of experimental and control group.The students of the experimental group achieved more score at post test than control group hence it proves the effectiveness of programme learning material in terms of achievement.

### **Conclusion**

The developed programme learning material for teaching physics to the students of class X has proved effective on the achievement of the students than the traditional method.It has been concluded that the content of the programme learning material was appropriate for the grade level of the students, according to syllabus, fulfills the objectives of physics subject arranged in logical sequence, subject matter is presented in interesting manner, subject matter is developed on the previous knowledge of the student, broken into small stps, subject matter was properly compiled,and students become more prompt .It develops the awareness about importance of application based skill in students.It also helps to develop scientific attitude and logical reasoning in students.It also enable the teacher to derive and use of imnovative method .

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## ACHIEVING SUSTAINABLE DEVELOPMENT THROUGH ELECTRONIC GOVERNANCE: WORLD'S SUCCESS STORIES

**Veerabhadra Swamy Pulletikurthi**  
Research Scholar  
Department of Commerce and  
Management Studies  
Andhra University, Visakhapatnam

**Prof. D. Lalitha Rani**  
Professor  
Department of Commerce and  
Management Studies  
Andhra University, Visakhapatnam

### Introduction

During the last decade, throughout the world, it has been observed that extreme poverty has decreased in every region and substantial progress has been made in access to safe-drinking water, decent housing and life-saving HIV treatment. Disparity in primary education between girls and boys has been decreased and more than 40 million children are now attending school throughout the world. But the progress is uneven: more than one billion people are still living in extreme poverty circles and facing regular challenges in eradicating hunger, improving health, promoting gender equality, enhancing access to clean water and sanitation, among others.

### **"The Future We Want – Sustainable Development"**

As per the resolution passed by the United Nations General Assembly "The Future We Want", there is a strong need to achieve sustainable development by promoting sustained, inclusive and equitable economic growth, creating greater opportunities for all, reducing inequalities, raising basic standards of living, fostering equitable social development and inclusion and promoting the integrated and sustainable management of natural resources and ecosystems. The focal point of this resolution is that all levels of government and legislative bodies throughout the world should play an important role in promoting sustainable development, i.e., ensuring the promotion of an economically, socially and environmentally sustainable future for the planet and for present and future generations.

### **Role of Governments in Achieving Sustainable Development**

Achieving sustainable development requires

- A holistic, equitable and far-sighted approach in decision-making at all levels of government and legislative bodies throughout the world.
- Integration and a balanced consideration of social, economic and environmental goals and objectives in both public and private decision-making.



- It emphasizes intragenerational and intergenerational equity.

It is clear that all governments are facing a set of complex, multi-faceted and interdependent Global challenges like poverty, inequality, climate change, peace and security etc., and are not managed effectively by a single government or single ministry on their own. Hence, effective collaboration across all levels of government, non-governmental actors is essential, to ensure good governance and good development outcomes. Under collaborative governance, the public sector must deliver, equitably and efficiently, essential services that meet citizen needs, provide opportunities for economic growth, as well as facilitate citizen engagement and participation in public policymaking and service delivery, so as to promote the empowerment and well-being of all people.

### **Holistic View of E-Governance Development**

According to the *United Nations E-Government Survey*, a holistic view of e-governance development resting on three important dimensions: These are

1. **The availability of online services:** web presence can contribute substantially to eradicate extreme poverty, protecting the environment and promoting social inclusion and economic opportunity for all.
2. **Telecommunication infrastructure:** It refers to E-government readiness, specific e-government initiatives, their infrastructure and human resource endowments.
3. **Human capacity:** Providing socio-economic, environmental services and participation, social inclusion to the population through the use of e-government.

### **Definition of E-Governance**

#### **1. According to the World Bank**

"E-government refers to the use by government agencies of information technologies such as Wide Area Networks, the Internet and mobile computing that has the ability to transform relations with citizens, businesses and other arms of government. These technologies can serve a variety of different ends: better delivery of government services to citizens, improved interactions with business and industry, citizen empowerment through access to information or more efficiency of government management. The result of these benefits can be less corruption, increased transparency, greater convenience, revenue growth and cost reductions." Thus, the stress is on the use of information technologies in improving citizen-government interactions, cost-cutting and the generation of revenue and transparency.



## 2. UNESCO defines e-governance

"E-Governance refers to the exercise of political, economic and administrative authority in the management of a country's affairs, including citizens' articulation of their interests and exercise of their legal rights and obligations. E-governance may be understood as the performance of this governance via the electronic medium in order to facilitate an efficient, speedy and transparent process of disseminating information to the public, other agencies and for performing government administration activities." This definition visualizes the use of the electronic medium in the exercise of authority in the management of a country's affairs along with an articulation of citizens' interests thereby leading to greater transparency and efficiency.

3. E-Governance is of composed information technology, people and government. E-Governance is the application of electronic means to improve the interaction between government and citizens, and to increase the administrative effectiveness and efficiency in the government operations. It is the application of information technology for efficient and effective functioning of government processes in order to establish **Simple, Moral, Accountable, Responsive and Transparent (SMART)** government.

### Types of E-Governance

E-governance still offers electronic interactions of three types

1. Government-to-Government (G2G);
2. Government-to-Business (G2B);
3. Government-to-Consumer (G2C)

### Sustainable Development

There are many definitions of sustainable development, including this landmark one which first appeared in 1987:

*"Development that meets the needs of the present without compromising the ability of future generations to meet their own needs."*-from the World Commission on Environment and Development's (the Brundtland Commission) report *Our Common Future* (Oxford: Oxford University Press, 1987).

It contains within it two key concepts:

- The concept of **needs**: Overriding priority should be given the essential needs of the world's poor.
- The concept of **limitations**: Should be imposed by the state of technology and social organization on the environment's ability to meet present and future needs.



There are different domains identified for sustainable development, which are broadly defined in three or four domains, ecology, economics, politics and culture - as used by the United Nations and a number of other international organizations. These domains are generally categorized into the following.

### **Social Sustainability**

It refers to access to Information, gender inequality, illiteracy, etc.

- Consider accessibility in society for technology choices (e.g.mobile)
- E-governance services in rural areas at the local level of government should target women (social and economic develop of families)
- E-governance services support public health efforts
- E-governance initiatives should help to narrow digital divide

### **Environmental Sustainability**

It refers to climate change, disaster management, etc

- Use of environmentally friendly (Green) ICT equipment for government operations
- Set up alert messaging service for populace in order to broadcast any forecasts of severe weather patterns that might cause natural disasters
- Smart metering service for water management
- Green IT is a term made up of 'Green' meaning the environment and information 'technology.' It refers to the transition toward a low-carbon society by reducing energy consumption in various IT devices (Green of IT) and using them in an eco-friendly way (Green by IT)
- With the use of IT, a 15% reduction (7.8 billion tons) in the world's carbon emissions is possible by 2020 (GeSI, 2008)

### **Economic Sustainability**

It refers to energy consumption, logistics, transportation, etc

- Use of energy efficient technology equipment for both government procurement and operations (e.g. Korea)
- Smart work initiatives to alleviate traffic/pollution, people work without and time or space constraints
- Technology-enabled information and service provided to business and people to encourage interaction and growth

<b>Sector</b>	<b>Reduction of Carbon Emissions (%)</b>
Expansion of Telecommuting Teleconference	4.61
Energy-Efficient Buildings	21.54
Smart Grid Build-up	30.51
Smart transportation / Logistics	29.23



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Reduction of Paper use	1.67
Efficiency increases in Manufacturing Process	12.44
Total	100

### **E-Governance – An Instrument of Sustainable Development**

E-governance can transform public administration into an instrument of sustainable development by providing significant opportunities. E-government is “the use of ICT and its application by the government for the provision of information and public services to the people” (Global E-Government Readiness Report 2004). More broadly, e-government can be referred to as the use and application of information technologies in public administration to streamline and integrate workflows and processes, to effectively manage data and information, enhance public service delivery, as well as expand communication channels for engagement and empowerment of people.

The opportunities offered by the information technology are expanding the way of e-government through online services, big data, social media, mobile apps, cloud computing etc.,

### **Benefits of E-Governance**

Properly implemented e-governance practices provide the following benefits. Some of its obvious benefits are:

- E-governance provides timely and reliable information.
- E-governance Saves time, effort and money, resulting from online and one-point accessibility.
- E-governance provides public services to citizens which would be required right from birth to death.
- E-governance simplifies service delivery, reduce duplication and improve speed of service to clients at a lower cost.
- E-governance avoids manual transcription and re-entering of the same information repeatedly.
- E-governance follows integrated information approach, which leads to offering integrated services. i.e., Different types of services offered by different government departments like collecting taxes, granting licenses, administering regulations, paying grants and benefits can be availed of at one place.
- E-governance provides quickest, fully interactive on-line services at convenient times from remote locations, i.e., through computers at home or work or through kiosks in convenient public locations.
- E-governance reduces the time taken in normal communication with the use of various delivery channels like Internet, Landline Phones and Cell Phones etc.



- E-governance reduces paper-based communication and reduces cost of stationery for the Government and public.
- With the use of ICT, E-governance maintains transparency between government and citizens. It helps to reduce corruption and maintain a corruption free society.
- E-governance enforces business process re-engineering, which lead to simplification of complicated processes.
- E-governance provides enhanced decision making abilities and increased efficiency across government, i.e., more accountability government and results in enhanced productivity and efficiency in all sectors. Accountability is the answerability of the government to the people.
- E-governance contributes to improved overall productivity of both government officials and citizens.
- E-governance facilitates in taking well informed policy decisions for citizen facilitation and assessing their impact over the intended section of the population. This in turn, helps them to formulate effective strategies and policies for citizen facilitation.
- E-governance helps in bringing government machinery to the doorsteps of the citizens.
- E-governance provides documentation, monitoring and control of various projects in social and economic sectors.
- E-governance identifies trouble spots through GIS-Geographic Information System and offer Crime Control and Management:
- E-governance uses an integrated information approach for keeping all information in one place in an electronic form, secure information against theft or leakage. Follows Proper backup mechanisms help in protecting the valuable information from threats and vulnerabilities.
- E-governance can generate important benefits in the form of new employment, better health and education.
- E-governance can help governments go green and promote effective natural resource management.
- E-governance stimulates economic growth and promotes social inclusion, particularly of disadvantaged and vulnerable groups.
- E-governance facilitates knowledge sharing, skills development, transfer of innovative e-government solutions and capacity-building for sustainable development among countries.

### **E-Governance for Development**

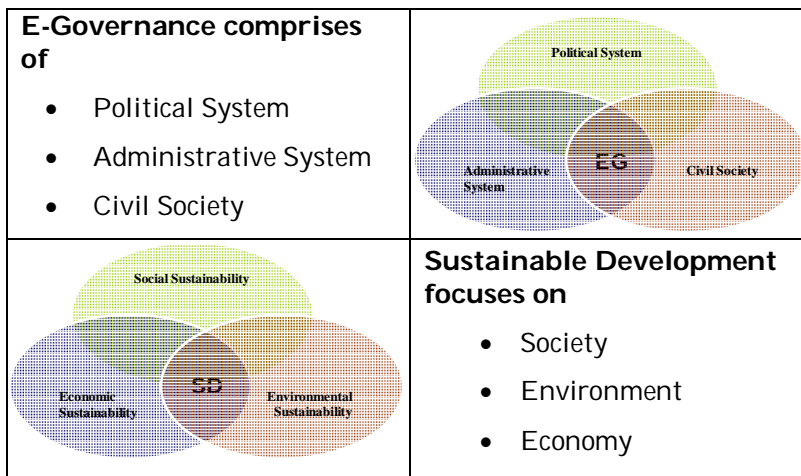
Bringing together both e-governance and sustainable development results in

- The capacity of government agencies would be enhanced for public service delivery through Information and Communication Technology (ICT) enabled practices.



- Through the use of ICT, accessible & affordable services would be delivered that are most needed by general public.
- Through the use of ICT, there would be an increased participation in government decision-making of the disadvantaged groups in society.

### Relation between E-Governance and Sustainable Development



### Integrating E-Governance with Sustainable Development

Sustainable development through e-governance (especially in developing countries) could include:

1. Protecting basic rights of citizens and creation of valued services for higher living standards of people
2. For genuine development in society, sustainability is necessary
3. Pursuit of sustainability depends on the government integrating many services and providing one-stop, critical services to citizens
4. Efficiency is necessary to make things as simple as possible yet beneficial as possible as well
5. Transparency and accountability are important characteristics of decision-making for sustainability

### Lessons Learned from Sustainable Development and E-Governance

Specific Lessons Learned:

1. Establish ongoing Political Support for Sustainable Development
  - In reality there is a large gap that exists between experts or advocates and politicians on sustainable development.



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- Those advocates, scientists and experts should create and raise awareness about the potential benefits of sustainable policies, narrow the divide and work with politicians and government entities.
2. Encourage Public Participation in identifying and developing solutions that help them the most
    - Use common-sense approach to identify and establish citizen centric services benefit those most.
    - Citizens see the benefit directly and they are more likely to keep using the services. Provide training and education as tools to encourage participation.
  3. Utilize institutional arrangements and International Cooperation for sustainable development
    - Formulate high-level government strategic objective for sustainable development and inform the same to the governance at the local level
    - Ensure meaningful participation of all civil society partners, including the private sector and local government and facilitate public awareness regarding sustainable development issues
    - By utilizing outside organizations (NGOs and private sector - PPP), implementation can be enhanced and sped or scaled up as well as efficiency increased. If partnerships are established for project implementation, local communities can realize very real empowerment and ownership

### **Utilizing E-Governance for Sustainable Development**

- In order to set an efficient and beneficial e-governance for citizens, a solid foundation of network infrastructure has to be established and made available.
- Utilize the potential of Broadband as a foundation for progress and sustainable development. Include “broadband inclusion for all” as one of the Sustainable Development Goals (SDGs). (as per the ITU and UNESCO’s Broadband Commission Call to Action in advance of the United Nation’s Conference on Sustainable Development (Rio+20)).
- Broadband is unique and has the potential to address many sustainability challenges, while simultaneously increasing socio-economic development and quality of life. Broadband facilitates transformative change in a wide range of key sectors from power, transportation, buildings, education, health and agriculture.



- Identify the role of civil society and its importance; make all members of civil society to be actively engaged in sustainable development, i.e., improve participation of civil society, strengthen their access to information as well as an enabling environment.
- Recognize the role of ICT in facilitating the flow of information between governments and the public.
- Work towards improved access to ICT, especially broadband network and services, and bridge the digital divide, recognizing the contribution of international cooperation in this regard.

## **World's Success Models of E-Governance Projects for Sustainable Development**

### **Case Study on Citizen Consultation in Morocco**

Morocco's government provided a comprehensive government portal, a state of the art e-services to its citizens and include them in the decision making process. The government also developed an e-consultation platform through the website of the Secretariat General du Government, by which citizens can access legislative texts online, read and download them and post their comments and concerns. In this way, the government presenting a transparent, inclusive and easy channel through which the people can share their concerns and make their voices heard; hence enriching democratic governance processes in the country. The government also presents its responses to citizens' comments and provides feedback; showing that they track the concerns and remarks of citizens, take them into consideration and deliver a response.

Source: <http://www.sgg.gov.ma>

### **Case Study on the Small Island Developing State of Mauritius**

The government of Mauritius has developed their online portal [www.gov.mu](http://www.gov.mu) and telecommunications infrastructure, through which the government offers citizens an exhaustive list of e-services Mauritius is one of the Small Island Developing States with a small land area and population, its economy has developed since independence and government offers citizens a platform for e-participation through chat rooms, a media library, blogs and discussion forums.

Sources: <http://www.gov.mu/English/Pages/Media.aspx>,

<https://www.gov.mu/English/E-Services/Pages/default.aspx>



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### **Sri Lanka's One for All**

Sri Lanka's e-government policies have been geared towards including all segments of the population and offering services to everyone, regardless of their IT literacy levels or access to the internet. With mobile usage rates in the country exceeding 100 percent and even the poorest people today have cell phones, albeit basic, Sri Lanka offers many m-government services. The new policy of inclusiveness and outreach towards the general population helped Sri Lanka improve in e-government service delivery.

Source: <http://www.gic.gov.lk/>

### **Digital Agenda for Europe and the European E-Government Action Plan**

One of the priority areas of the DAE is ICT-enabled benefits for society including e-government. The DAE also provides a Digital Agenda Scoreboard for progress assessment at EU and national levels in achieving the 78 Digital Agenda actions set for the European Commission and 23 actions for the countries.. It is estimated that the full implementation of the DAE would increase GDP in Europe by 5 per cent, or by 1500€ per person over the next eight years by increasing investment in ICT, improving e-Skills levels of the labor force, enabling public sector innovation and by reforming the framework conditions for the internet economy. In terms of jobs, up to one million digital jobs risk going unfilled by 2015 without pan-European action while 1.2 million jobs could be created through infrastructure construction.

Source: European Commission, Digital Agenda for Europe; <http://ec.europa.eu/digitalagenda/>

### **Italy: Compass of Transparency**

Under new laws introduced since 2009, the website of every public administration is now the main vehicle of transparency. The 'Compass of Transparency' (La Bussola della Trasparenza), launched in 2012, is an online portal that gives the citizens the possibility to automatically analyze and monitor, in real time, the implementation of all the data and information requirements imposed by Italian law on the websites of public administrations. Source: Government of Italy, Ministry of Public Administration and Simplification,

<http://www.magellanopa.it/bussola/page/overview.html>

### **Haiti: Response and Recovery with Sahana Free and Open Disaster Management System**

The Sahana Disaster Management System, which provides modular, web based disaster management applications, was developed by the open source



community in the aftermath of the 2004 tsunami in Sri Lanka. Since then, Sahana has been deployed in several natural disasters around the world, including the Haiti earthquake in 2010. Earthquake Disaster Response Portal to provide and share information needed for the relief operation. An SMS service through which citizens could request assistance and information developed in partnership with the US State Department; a hospital management system; a food request portal developed in response to a request from the World Food Programme; a disaster victim identification registry; a shelter registry; a translation service; and situation mapping as well as missing persons and victim identification registries developed in partnership with Google and Yahoo. Source: [http://wiki.sahanafoundation.org/\\_media/iscream\\_2010\\_sahana\\_haiti.pdf](http://wiki.sahanafoundation.org/_media/iscream_2010_sahana_haiti.pdf)

### **Nepal: On the Road to the Knowledge Based Society**

The government of Nepal has been working towards a holistic e-government transformation to provide better services to citizens, improve transparency and to work towards the knowledge based society. Eight projects were selected as priority for the e-government transformation: government portal, national ID, e-Education, infrastructure, enterprise architecture, Public Key Infrastructure, Integrated Data and Training Center and groupware. The policy is divided into regulatory framework, infrastructure, e-government content and applications, private sector participation, human resource development and organization.

Source: United Nations University, International Institute for Software Technology, Center for Electronic Governance, 2011, e-Government Strategy Draft for Afghanistan; [www.egov.iist.unu.edu](http://www.egov.iist.unu.edu)

### **New Zealand—Online Transactional Services at the Forefront of Government Transformation**

New Zealand's public service has committed to offering easy access to government services in an online environment. The Government aims to have all new services offered online by 2017. At the same time, it continues to recognize the importance of face-to-face interaction for those without Internet access. The Government ICT Strategy and Action Plan to 2017 recognized as paramount in building public trust in public services. Collaboration among departments, supported by strong leadership in the form of a Government Chief Information Officer, is seen as crucial to moving transactional services online and has been a central plank in the national plan to transform public sector ICT.

Source:<http://ict.govt.nz/assets/Uploads/Government-ICT-Strategy-and-Action-Plan-to-2017.pdf>



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### **Rwanda—“Our Environment Our Future”**

Rwanda government maintains ICT applications and services are essential for ensuring sustainable economic development and that good governance includes efficiency in deploying scarce resources and empowering communities through improved access to information and services. To this end, the country has developed a land administration information system as part of its National ICT Policy and Action Plan 2011–2015. The aim of the project is to substantially reduce cases of competing property ownership claims, the cost of land registration and time taken to produce title deeds. A mining portal has also been implemented and the country is embarking on a number of “Green ICT” initiatives to reduce electronic waste and enable efficient energy generation, consumption and distribution. Public awareness of the importance of environmental protection and sustainable development are promoted through the website of the government’s environmental management authority and other media.

Source: [http://www.rdb.rw/uploads/tx\\_sbdownloader/NICI\\_III.pdf](http://www.rdb.rw/uploads/tx_sbdownloader/NICI_III.pdf)

### **Slovenia “I Suggest to the Government”**

The online tool [predlagam.vladi.si](http://predlagam.vladi.si) is managed by the Government Communication Office of Slovenia. Public officials from various government ministries are ready to respond to citizens’ initiatives and evaluate their proposals. If they have any problems, questions or constructive suggestions for improving the functionality of online tools, citizens can e-mail and call the Government Communication Office. Online tools available for citizens include:

Source: <http://predlagam.vladi.si/>

### **DBAS: Korea’s Integrated Financial Management Information System (Ministry Of Strategy And Finance) (2013 United Nations Public Service Award Winner)**

The Digital Budget and Accounting System (DBAS) is a good example to consider as it integrates all the existing financial systems and provides transparency in public finance. It is an innovative tool that manages the entire fiscal process, ranging from budget formulation to accounting and integrates fiscal information by linking fiscal information of all public entities. The system further reinforces risk managing capacity by enabling real-time information sharing in public finance, such as revenues, expenditures, national assets and public debts.

Source: <https://eng.digitalbrain.go.kr/en/view/main/index.jsp>



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## Emirates ID Authority Smart ID Cards

The deployment of the Emirates ID Authority's Biometric Enrolment by the Emirates ID Authority as part of the National ID Registration Program is recognized as one of the world's best biometric programs. Emirates ID Authority collects finger prints of all the citizens and legal residents above the age of 15 in the country. It is mandatory for everyone residing in the country to be registered in the National Population Register. The current database boasts of over a 105 million prints of rolled fingerprints, plan and hand side prints, in addition to over 15 million facial images. The security on the ID Card is ensured by the encrypted containers which is enabled only through the National Validation Gateway. All the biometrics, data transmission and protocols are as per ANSI and/or ISO Standards.

Source: <http://www.id.gov.ae/en/id-card/id-card-benefits.aspx>

## National Environment Agency Singapore (NEA) (2013 United Nations Public Service Award Winner)

The National Environment Agency has partnered with the people, public and private communities to engage and promote greater environment ownership in Singapore. One effort is the use of smart technologies to share environmental data (e.g. air quality, public health and weather) with government agencies and the public. [www.data.gov.sg](http://www.data.gov.sg), for public use, uses smart phone technologies, NEA has co-created several mobile applications with private sector partners through crowd sourcing ideas from the public to promote greater environment ownership and provide real time information on environmental conditions.

Source: <http://app2.nea.gov.sg/>

## Life-Saving SMS Service in Sweden

The Swedish Government has implemented a country-wide programme called SMSlivräddare, or SMSLifesaver, where citizen volunteers can enroll to receive an SMS text when there is a heart attack victim nearby, allowing trained citizens to reach the victim and provide cardiopulmonary resuscitation (CPR) and it has proven to save more lives as compared to sole reliance of the ambulance service. The average response time of ambulance is eight minutes whereas SMS-livräddare-volunteers have proven to respond quicker and reach victims before ambulances in 54 per cent of cases. Stockholm County has seen a rise in survival rates after cardiac arrest from 3 per cent to nearly 11 per cent, over the last decade.

Source: SMSlivräddare<http://www.smslivraddare.se/>; QUARTZ ([www.qz.com](http://www.qz.com))



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## **Mobile Government for Gender Equality and Social Inclusion**

There is growing evidence that women's use of Internet and mobile phones has a powerful impact on sustainable development, from connecting to healthcare, to tele-working and securing income for family with e-banking. The United Kingdom's FixMyStreet and SeeClickFix of the United States of America, both are successful examples of a map-based citizen reporting platform that enables the public to report and track non-emergency related issues, via both web and mobile. Ushahidi, which means "testimony" in Swahili language, was first developed to map reports of violence in Kenya after the post-election fallout in 2008. The site, which now functions as a citizen reporting platform, has grown to become an important resource for citizen journalists in time of crisis like the Haiti earthquake and the Queensland (Australia) floods. The Ushahidi platform provides tools for communities to crowdsource real-time information like using web, email, social media and SMS text service.

Source: <http://www.fixmystreet.com/>; <https://en.seeclickfix.com/>;

<http://www.usshahidi.com/products/ushahidi-platform>

## **Mobile Government for Environmental Protection and Disaster Management**

Mobile government is also increasingly deployed in environmental protection and disaster management system, where government plays the critical coordination role. The United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), in the report of the Committee on Information and Communications Technology, reiterated the importance on the use of ICTs and mobile technology for disaster risk reduction. The Japanese Government is leveraging on mobile technology to deliver emergency information such as evacuation instructions from local governments and reports from the current disaster system.

Source: UN ESCAP Committee on Information and Communications Technology, 2010 (E/ESCAP/CICT(2)/L.2), Information and Communication Technology-Enabled Disaster Risk Reduction in Asia and the Pacific

## **United States: Promoting Self-Developed Applications through Open Government and Application Interfaces (API)**

One way that the United States is embracing mobile is through the release of hundreds of application interfaces (APIs) that can be used by private-sector developers to create new applications and services. These APIs encompass government datasets such as home and business energy trends, real-time earthquake notifications around the world and the current weather on Mars transmitted from the Curiosity Rover. The federal government also created the Mobile Application Development Program to help agencies launch mobile apps.



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## **The SMS-Based Literacy Programme for Women in Pakistan**

This programme (launched in 2007), which is entering a fourth phase in 2013, aims to educate 1,500 illiterate women in Punjab and Sindh using tutorials sent via text messages in Urdu. SMS message here is “tutor, textbook and school all rolled into one”. At least 4,000 women have previously benefited from the same programme. In the latest phase, UNESCO has collaborated with government education departments and agencies to increase the project’s outreach, leading to more students’ participation in the programme.

Source: <http://www.pa-kistangendernews.org/sms-based-literacy-programme-education-maybejust-a-text-message-away/>

## **Present Status of E-Governance in India**

In India there is a manifold increase in Internet users from 5 million in 2000 to 137 million in 2012. Literacy is comparatively low at 74 per cent. This means barriers to Internet access remain for over 300 million people. Those who can access the internet, the majority of the citizens cannot speak English. In India this will be barred from the vast reservoir of information available in the electronic world. Even thou, E-governance is considered a high priority agenda in India as it is the only means of getting the “Common Public” accustomed to use of ICT. Development in e-governance provides the opportunities to make the business of governance inexpensive, qualitatively responsive and truly encompassing. For governments, IT-enabled processes certainly increase efficiency in administration and service delivery with a potential for returns. The following are some of the recent e-governance projects implemented by various state governments. The state governments have already taken some initiative to form an IT task force to outline IT policy documents for the states and the citizen charters have started appearing on government websites. At the central government level the important e-governance projects being executed include the passport system, company registration system and community information centre projects in the northeastern states, in addition to the normal computerization of the various activities of ministries and departments. The following Table No. shows the recent e-governance projects implemented by various state governments.

## **Some Significant Global and Regional ICT Trends**

- Almost 40 percent of the world’s population is online by the end of 2013; but in Africa, only 16 per cent of people are using the Internet.
- Mobile phone subscriptions exceeded 6 billion in October 2012 and the number is approaching global population (7 billion), with more than half in the Asia-Pacific region (3.5 billion out of 6.8 billion total global subscriptions).



- In fact, more people have mobile phones than have access to flush toilets and electricity. Asia is the fastest growing market for Smart phones with 74.1 per cent growth.
- Rising global demand is expected to drive lower cost of smart phone chips. There are more than 2 billion mobile broadband subscriptions by the end of 2013 with a growth rate of 40 per cent per annum.
- In Europe, there is 68 per cent penetration but there is only 11 per cent penetration in Africa; the contrary fact is that mobile broadband is more costly in developing countries. Nearly one in four people worldwide will use social networks in 2013.
- By 2017, the global social network audience will total more than 2.5 billion.

Source: <http://www.itu.int>

### **Conclusion**

In spite of the economic, social and environmental challenges, e-government has continued to play an important role in enabling the delivery of quality public services to meet citizen needs and goals through transformation of public sector works. Regardless of the complexity and diversity of countries in the world, including effective planning and deployment of e-services, governments may also consider enhancing their ICT infrastructure and raise the level of human capital, including improvement of the ICT literacy of citizens, to make use of the new technologies so as to realize the full benefits of online and mobile services. To further increase the scope and extend the use of online services, governments should engage citizens in consultative processes. All around the world, in all regions there are outstanding stories which show countries overcoming obstacles and resource constraints to achieve improvements in leveraging e-government to achieve Sustainable development objectives.

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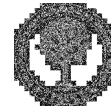
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## LIBERAL FEMINIST PERSPECTIVE IN EDUCATION

**Neelam Dalal**

Assistant Professor  
Mata Sundari College for Women  
University of Delhi, Delhi

### Introduction

Feminist theoretical framework addresses the question of women's subordination to men: how this arose, how and why it is perpetuated, how it might be changed and (sometimes) what life would be without it. Middle range theories may be less dramatic and consider particular aspect of gender relation and specific sectors of life such as education, the family or politics. Feminist theories serve a dual purpose, as guides to understanding gender inequality and as a guide to action. Aim of this paper is to discuss liberal feminist thought in education and its appraisal from a neutral point of view.

### 1. What is Liberal Feminism and how it is related and different from Liberal Theory

Liberal Feminism was the first feminism to develop, growing out of liberalism which originated in 18<sup>th</sup> century. Liberalism is founded in the importance and independence of the individual, and the individuals have certain innate rights which must be protected both by and from State. According to them freedom (especially freedom to define and seek one's own form of happiness) is the greatest good. Although the first philosophers were men, writing for and about men and often assuming that women were irrational creatures and that their irrationality was less than human. Thus they were biased towards women considering them less than a human being and irrational. It was inevitable that educated women be inspired by Liberal philosophy and recognize its relevance to their own lives, Marry Wollstone was the

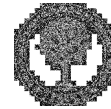


first philosopher of liberal feminism, arguing that quality of rights and opportunities should be extended to women in all areas of life (encyclopedia of Feminism, 1986).

According to liberal feminists women are discriminated against because they are always judged first as women and only second as human being, whereas men are first judged individually, on their own merits, rather according to their sex stereotypes. Liberal Feminists are concerned with ending this discrimination through legal change, through education and through media; eliminating sex role stereotypes and presenting more varied and positive image of women. Weiner (1997) opined that liberal feminism asserts that individual women should be as free as men to determine their social political and educational roles, and that any law, tradition and activities that inhibits equal rights and opportunities.

Liberal feminists were so obsessed with the 'equality' that they oppose the protective legislation for women (based on this position they have been severely criticized, it will be discussed later in the paper). Jagger (cited in Acker, 1987) discussed liberal feminism's opposition to protective legislation, based on its desire to overcome sex based laws and establish formal equality. Liberal feminists seek the repeal of all laws that ascribe different rights, responsibilities and opportunities to women and men. They oppose protective legislation for women, believing that the same standards of health and safety should apply to everyone.

Feminists such as Marry Wollstonecraft, Johnstuart Mill, Jagger and Struhl, Eisentein and Scheman rejects the major component of tradional liberalism, and asserted that the value of women as human being is not instrumental to the welfare of men and children and that it



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is equal to the value of men, and demanded various forms of public and private recognition of it, including respect for women and privacy.

## **2. Liberal Feminist perspective on Education**

Gender prejudice is based around individual ignorance. Education is seen as a valuable tool in the battle against discrimination based around ignorance. It is possible to pass laws against sexual discrimination as a way of changing individual attitudes and behaviours. Liberal Feminists have the traditional beliefs in the power of education as a means of social reform and its importance in human fulfillment. They recognized that education has been one of the most decisive of one's life chances, the key to equal opportunities and the ladder to advancement (Weiner, 1986).

'Without education and especially without equal educational experiences or skills or qualifications, men and women alike of certain classes and social groups have over the years been condemned to inferior lives in their personal development, in their choices of work as citizen, and in their power to influence government and the national decision which effects their local lives' (Weiner, 1986). Thus liberal feminists were aware of the fact that education and communication in the hands of few leads to the control of many, which again leads to subjugation and hierarchical relation (particularly with respect to women). 'The intent of liberal feminism in education is to remove barriers that prevent girls reaching their full potential, whether such barriers are located in the school, the individual psyche or discriminatory labor practices (Aker, 1994). Liberal feminists work under broadly three themes with respect to education and these are: 'equal opportunities', 'socialization and sex stereotype', and sex discrimination (Aker, 1994).



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Liberal Feminism approaches equal opportunities in terms of 'equal means the same' (Byrne cited in Acker, 1994) and argued that 'separate educational provisions for girls has usually meant inferior facilities and restricted features. Thus they demanded for the co-educational schools, where both sexes get equal opportunities to develop their 'self'.

A second major concern of liberal feminist in education focus on socialization, sex role and sex stereotyping. Girls (and boys) are thought to be socialized (by the family, the school and the media) into traditional attitudes and orientations that limit their futures unnecessarily to sex stereotyped occupational and family roles (Acker, 1994). They again argue that the whole socialization process put women at disadvantaged state due to their expected behavior of dependency and deference.

There is a third theme within liberal feminism, centering on notion of discrimination, rights, justice and fairness (Acker, 1994). Discrimination based on gender is institutionalized and affect the women's life critically. Arnot, Byrne and Rendel (cited in Acker, 1994) shows that how because of the particular discriminative attitude towards them, women are at disadvantaged stage.

Schools in the conventional sense institutionalized space which encourage discrimination and hamper the mobility of women. With respect to education and school Liberal Feminists, 'attempt to advocate for change in socialization practices, change attitudes and use legal processes (Acker, 1994). Weiner cited in (Acker, 1994) provided a list of liberal feminist strategies aimed at changing attitude of teachers and children. These include reviewing aspects of school organization such as time table, analyzing curriculum material for stereotyping, persuading girls not to drop science and technology subjects and establishing teacher's working parties on the issues. There has also been increasing



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interest in assertiveness training for women teachers wishing promotions. Another strategy is providing teachers training and those in- service courses with ideas for combating sexism.

### **3. Criticism of liberal Feminism**

'Liberal feminists assume that equality for women can be achieved by democratic reforms, without the need for revolutionary changes in economic, political or cultural life' (Weiner, 1997) and this was attacked by both radical and Marxist feminists. Objection to Liberal feminism from these two feminisms is that it is basically reformist in nature and that it ignores the realities of class and social oppression as well as deeply entrenched nature of patriarchy and it accepts male values rather than challenging them from women centered perspectives (Turtle, 2004). Liberal rights treat all individual alike; this treatment is inadequate in so far as women and men are not alike. Equal rights in law are seen as doing nothing to address social and economic inequalities. They mystify existing inequalities by creating the appearance of meritocracy in which each individual succeeds or fails according to their own merits, while in fact women are disadvantaged relative to men (Code, 2000) in all sphere of life.

Further they do not question the nature and functioning of the legal and formal rights which are insufficient to liberate women because this perspective does not seem able to locate problems of discrimination beyond mere opportunities. Thus they are criticized for converting the concept of equality of outcome to equality of opportunity (O'Brien cited in Acker, 1987), because equal opportunities do not guarantee for equal outcomes. Outcomes are dependent on nature and functioning of various institutions, that's why even equal opportunities in school admission do not convert in equal enrollment, retention and achievement in schools for both genders. They are also criticized for



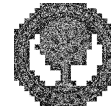
their uncritical position on the functioning of the education process, market and capitalist processes, also their fully assurance as if solution might be wholly educational (Arnot, in Acker, 2004). However education itself gets shaped by political, social, economic forces at a given time.

One can also criticize them for ignoring the fact that gender does not matter, when it is not articulated. 'In existential terms, gender whether male or female, is part of and define one's identity' is taken for granted in liberal theory. Liberal feminist stand on education has also been criticized for its limited conceptual framework (Acker, 2004). The liberal emphasis on individual attitude in equality of opportunities, socialization and sex role model has been as a kind of psychological reductionism, blaming the victim for her lack of perception or confidence (Acker, 2004).

Liberal feminism also ignores the impact of patriarchy, power and systematic subordination of women by men. Liberal strategies may enable a few token women to have careers and join the ranks of powerful, the structure of oppression survive untouched. One can analyze this with the very problematic concept of 'woman' in liberal theory, they are accused of being elitist, for them women means, 'those few women from white upper middle class', thus black feminist rejects the liberal feminism even as feminism (Weiner, 1997).

#### **4. A neutral appraisal of contribution of Liberal Feminism**

Now the question arises that given the criticism whether one can appreciate the contribution of liberal feminist perspective in general and in education particular? The argument posed here (in the paper) is that despite these above said attacks on the liberal feminist perspective, one should appreciate its contribution in feminist theorization as well



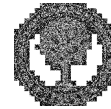
as its contribution in the life of a woman. One should analyze liberal feminist perspective by detaching from the contemporary theorization and consider the time when liberal feminism grew and developed. According to Jagger (cited in Kensinger, 1997) women as a group has traditionally been associated with the private realm, they have been unjustly denied access to the public sphere, with its opportunities to explore fully their abilities as reasoning creatures. It was liberal feminists who questioned this dichotomy of public and private and demand for access of women in public sphere. Adding to this many liberal feminist campaigns are credited with legal, economic, social and political reforms, which have altered women's lives. According to Bayson (in Kensinger, 1997) liberal feminist provided a better starting point for future struggle for educational, legal and occupational success. They should be credited for/with institutional reforms. Further they were in firm believe that education has power both as a means of control and means for liberation, this believe have contributed a lot in improvement of women's lives. The general position of women in our society has significantly improved in the past 100 years. Women have legal equality with men, although they have not status equality with men (that is male still tend to have generally higher social status than women). Liberal feminism as a starting point of feminist thought contributed a lot, but given the contemporary society and its functioning one has to go far beyond liberal perspective.

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## PERFORMANCE AND EMISSION CHARACTERISTICS OF C.I ENGINE BY USING MSOME WITH IGNITION IMPROVER

**Dr.K.Apparao**

Faculty

Department of Mechanical  
Engineering, LBRCE  
Andhrapradesh, India

**S.Ramireddy**

Faculty

Department of Mechanical  
Engineering, LBRCE  
Andhrapradesh, India

### 1. Introduction

Donepudi jagadeesh et al [1]. The authors conducted experiment on a naturally aspirated single cylinder diesel engine with D.C shunt dynamometer. Biodiesel has been used as a renewable and potential fuel in diesel engines. Harilal S.Sorathia et al [2]. It was observed that 15% EGR rate is found to be effective to reduce NO<sub>x</sub> emission substantially without deteriorating engine performance in terms of thermal efficiency, bsfc and emissions. K.Rajan et al[3]. The aim of the present investigation is to reduce NO<sub>x</sub> emissions.. A.Paykani et al[4] exhaust gas recirculation (EGR) is a very effective technique to reduce NO<sub>x</sub> emissions from a diesel engine .Murari Mohan Roy et al[5] There is a significant NO<sub>x</sub> reduction by EGR, but PM is hugely increased, especially at high EGR rate-high load conditions.H.E.Saleh et al[6].The aim of this study mainly was to quantify the efficiency of exhaust gas recirculation (EGR) when using JME fuel in a fully instrumented, two-cylinder, naturally aspirated, four-stroke direct injection diesel engine. N.K.Miller Jothi et al[7].he present investigation was to study the effect of Exhaust Gas Recirculation (EGR) on homogeneous charge ignition engine. Deepak Agarwal et al[8]. A detailed analysis of previous and current results of EGR effects on the emissions and performance of Diesel engines, spark ignition engines and duel fuel engines is introduced. Jaffar Hussain et al[9]. the use of EGR leads to a trade-off



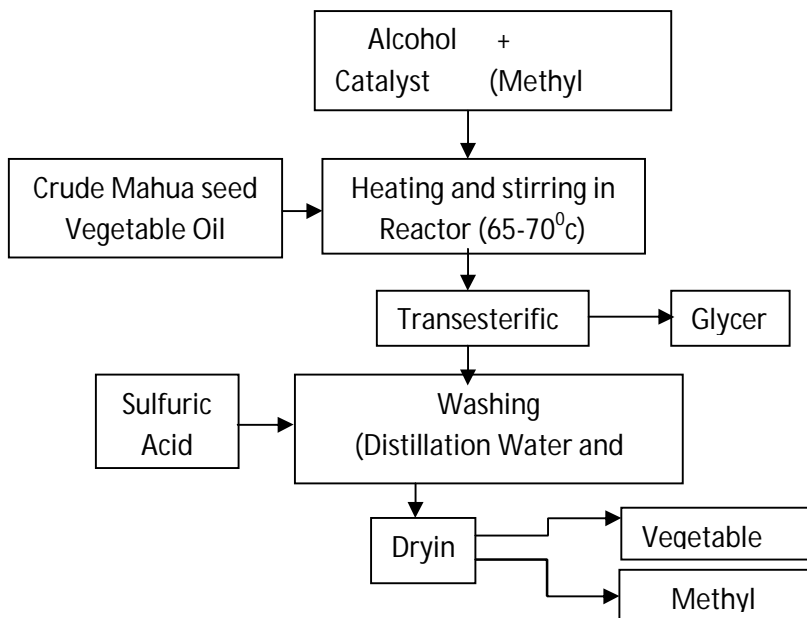
in terms of soot emissions moreover it exhausted more unburned hydrocarbons (20–30%) compared to conventional engines.. M.Ghazikhani et al[10]. In this paper also the effectiveness of total in-cylinder irreversibility on Brake Specific Fuel Consumption (BSFC) in a diesel engine is investigated.. Ismet Çelikten et al[11]. In this study, usability of methyl ester of rapeseed oil and hazelnut produced abundant in Turkey was examined. Ismet Çelikten et al[12] In this study a comparison of diesel fuel, the rapeseed oil methyl ester and the soybean oil methyl ester was made from the engine performance and emissions point of view.. Seokhwan Le et al [13]. In this study, a compression ignition (CI) engine operated with n-Butane blended dimethyl ether (DME) fuel was experimentally investigated. Karasmanoglu et al[14]. In this study, diesel fuel properties of sunflower oil were determined and long term engine tests of sunflower oil were performed. T Korakianitis et al[15]. Natural gas is a fossil fuel that has been used and investigated extensively for use in spark-ignition (SI) and compression-ignition (CI) engines.. O.M.I. Nwafor et al[16]. This paper investigates the possibility of substituting a plant fuel pilot injection for diesel fuel for combustion of natural gas in a diesel engine. Yimin Liu et al[17]. This paper has examined the results of the corporate average fuel economy (CAFE) incentive program under the Alternative Motor Fuels Act, with a focus on the effects of Alternative Motor Fuels Act (AMFA) on automakers. In some situations, the incentive program may lead to reduced production of AFVs, and it may increase GHG emissions, as environmentalists feared. A.S. Ramadhas et al[18]. This paper reviews the production and characterization of vegetable oil as well as the experimental work carried out in various countries in this field. In addition, the scope and challenges being faced in this area of research are clearly described Ismet Çelikten et al[19]. A comparison of diesel fuel, the rapeseed oil methyl ester and the hazelnut oil methyl ester blends was made from



the engine performance and emissions point of view Alireza Shirneshan et al[20]. In this paper, experiments were conducted on a 4-cylinder direct-injection diesel engine using biodiesel as an alternative fuel and their blends to investigate the emission characteristics of the engine under four engine loads at an engine speed of 1800 rev/min K. Pramanik et al[21]. The main aim of the present investigation was to reduce the viscosity of jatropha curcas oil close to that of conventional fuel to make it suitable for use in a C.I. engine and to evaluate the performance of the engine with the modified oils. Avinash Kumar Agarwal et al[22]. In this review, the properties and specifications of ethanol blended with diesel and gasoline fuel are also discussed.

## **2. Experimental procedure**

There are so many investigations on bio-diesel production of non-conventional feedstocks of oils have done in last few years. Overview of transesterification process to produce biodiesel was given for introductory purpose. It is reported that enzymes, alkalis, or acids can catalyse process. Alkalis result in fast process. It is mentioned that catalysed process is easy but supercritical method gives better result. Adaptation of the vegetable oil as a CI engine fuel can be done by four methods Pyrolysis, Micro emulsification, Dilution, and Transesterification. Out of these in this study transesterification process is used.



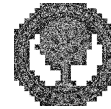
**Fig: 3.1 Flowchart of Transesterification Process of MSOME.**

## 2.1 Preparation of blends with diesel

The obtained Bio- Diesel is blended for conducting the performance test, the Lin seed Bio- Diesel is mixed in proper proportions.

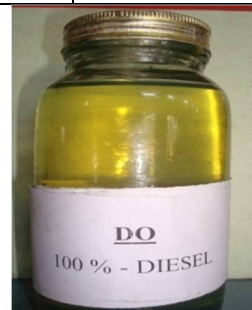
## 2.2 Procedure

1. The Bio- Diesel is first filtered form impurities.
2. Required amount of fuel and Bio- Diesel is taken into the measuring jar and mixed thoroughly the amount of proportions shown in table 3.1.
3. Obtained MSOME fuel properties are find out and these values are tabulated in tables 3.2 to 3.6.



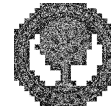
**Table: 2.1 Blending Percentage of Fuel**

Notation	Fuel Quantity	Bio-Diesel Quantity	Diesel Quantity
M10	1 LITRE FUEL	100 ml	900ml
M20	1 LITRE FUEL	200 ml	800ml
M30	1 LITRE FUEL	300 ml	700 ml
M100	1 LITRE FUEL	0 ml	1000 ml
D100	1 LITRE FUEL	0ml	1000ml

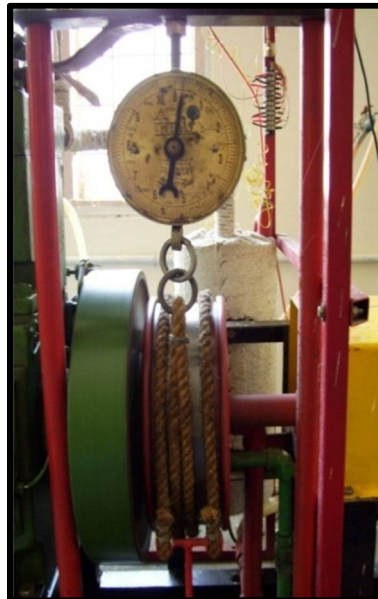


**Plate: 2.2(a) M10 (b) M20 (c) M30 (d) M100 (e) D100.**

Experimental set up consists of a water cooled single cylinder vertical diesel engine coupled to a rope pulley brake arrangement it shown in plate 4.6, to absorb the power produced necessary weights and spring balances are induced to apply load on the brake drum suitable cooling water arrangement for the brake drum is provided. A fuel measuring system consists of a fuel tank mounted on a stand, burette and a three way cock. Air consumption is measured by using a mild steel tank which is fitted with an orifice and a U-tube water manometer that measures the pressures inside the tank. For measuring the emissions the gas analyser is connected to the exhaust flow.



(f)



(g)

**Plate: 2.2 (f) 4- Stroke diesel engine (g) Dynamometer .**

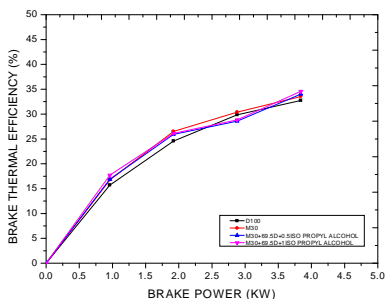
### 3. Results and discussion

The performance and emission characteristics of conventional diesel, diesel and biodiesel blends (Iso- propyl alcohol) were investigated on a single cylinder diesel engine. The conclusions of this investigation are as follows:

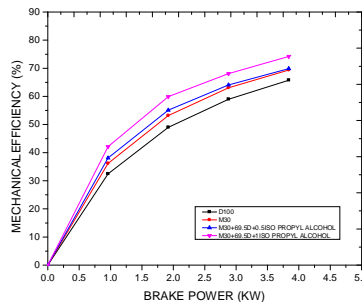
- The brake thermal efficiency increases with increase biodiesel percentage. Out of all these, M30 shows best performance. The maximum brake thermal efficiency obtained is 33.49% in M30 blend.
- As a CI engine fuel, M30 blend results in an average reduction of 19.72% smoke density, reduced in CO emissions 14.28%, with a marginal decrease in NOx emission when compared with diesel.



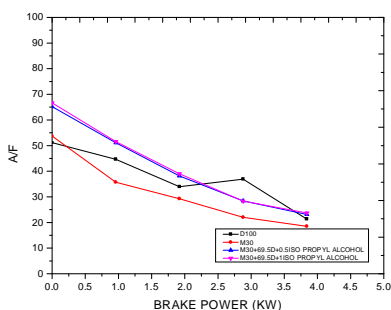
- Since M30 blend reduces the environmental pollution without much loss in thermal efficiency when compared with diesel it will be a promising renewable energy source for sustaining the energy.



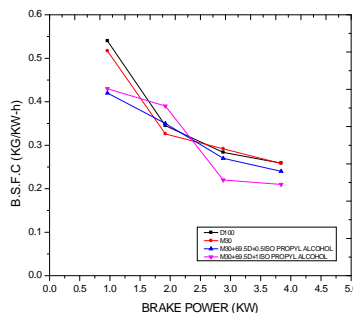
3.1(a)



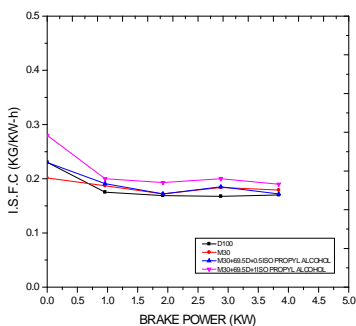
3.1(b)



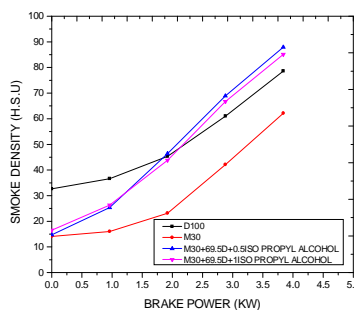
3.1(c)



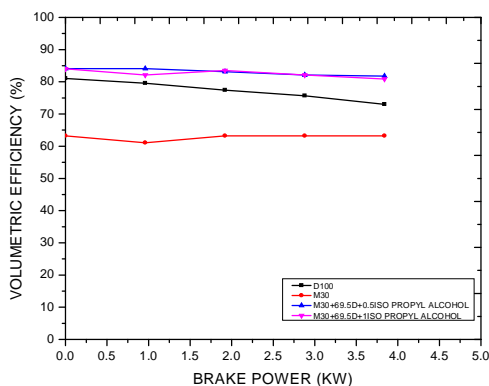
3.1(d)



3.1(e)



3.1(f)



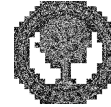
3.1(g)

**Fig 3.1 Variation of Performance parameters with Brake Power Using Ignition Improver.**

#### 4. CONCLUSION

The performance and emission characteristics of conventional diesel, diesel and biodiesel blends by adding ignition improver (Iso-propyl alcohol) were investigated on a single cylinder diesel engine using mahua seed oil was carried out on the diesel engine. The conclusions of this investigation are as follows:

- The brake thermal efficiency increases with increase ignition improver by volume percentage in blends. From all the above results blend with added ignition improver (M30D69.5I0.5 and M30D69I1) in this best blend it can be concluded that the ignition improver of Isopropyl alcohol of 10ml shown the best performance in the sense of brake thermal efficiency, BSFC. The maximum brake thermal efficiency obtained is 34.59%.
- The variation of mechanical efficiency with brake Power is At full load diesel contains 65.75%, 69.9% for M30D69.5I0.5 and 74.22% for M30D69I1.



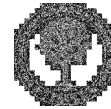
- It can be observed that the BSFC of 0.2587kg/kW-hr were obtained for diesel, 0.2581kg/kW-hr for M30, 0.24kg/kW-hr for L30D69.5H0.5 and 0.21kg/kW-hr for L30D69I1. Out of these M30D69I1 shows less BSFC. BSFC is constant for all the blends and these are decreased 18.82% compared to diesel fuel.
- At full load diesel contains ISFC 0.1701kg/kW-hr, 0.1791kg/kW-hr for M30, 0.172kg/kW-hr for L30D69.5I0.5 and 0.190kg/kW-hr for M30D69I1. The ISFC of M30D69I1 is increased up to 11.69% as compared with diesel.
- At full load condition diesel contains Smoke density 79.6 HSU, M30 contains 63.90 HSU, M30D69.5I0.5 contains 87.94 HSU and M30D69I1 contains 85.11 HSU. The HSU is higher in case of M30D69.5I0.5, M30D69I1 at full load conditions compared with diesel fuel and M30.
- The increased amount of ignition improver to M30 blends increased, brake thermal efficiency. So that while using ignition improver to optimum blend its performance increased and emissions was decreased.

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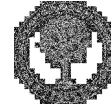
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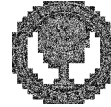
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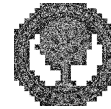
## ASSESSING MENTAL HEALTH OF UNIVERSITY POSTGRADUATES IN DEMOGRAPHIC PROFILES: AN EMPIRICAL STUDY

**Dr. Ritu Rani**  
Assistant Professor  
Department of Education  
Chaudhary Ranbir Singh University, Jind  
Haryana-India

### 1. Construct of Mental Health

The term 'Health' is a broad concept. In the past, health was considered to be merely the absence of disease. A person was considered to be healthy and looking good if he had no physical signs of disease or disability. Health is basically comprised of different dimensions viz. physical health, social health, mental health, emotional health and spiritual health. Each dimension of health interacts with and affects the other dimensions. World Health Organization (WHO) defines health as 'a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity'. Mental health has been reported as an important factor influencing individual's behaviour, activities, happiness, performance and life at large.

For decades, mental health has been defined as merely the absence of mental illness. It has been hypothesized that both mental health and mental illness, were opposite poles of a single dimension indicating that the presence or absence of mental illness entails the presence or absence of mental health and vice-versa. Most of the studies related to mental health till date has mainly focused on the negative aspects of human life by trying to find out what is going wrong with the people and whether and how mental illness can be prevented and treated (Stahl, 2012). Thus, mental health has been described as the absence of psychopathology (Lamers and Westerhof et al., 2011) and it was not studied through a combined assessment of mental health and mental illness, was just absence of mental disease (Satrofer, 2010). *It has been lamented by many researchers including Maslow and Jahoda about how and why psychology had gone wrong by studying only negative behaviours and avoiding the positive aspects of human behaviour and*



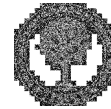
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*little attention has been directed towards questions such as what is going right with the people and what makes them feel mentally healthy.*

In recent years, the concept of mental health has changed. Researches brought to light that both the presence of positive mind and the absence of mental illness together constitute mental health. In order to be “completely” healthy one must have a positive mind and be free from mental illness (Satrofer, 2010). Many researchers believe that mental health should be defined not only in terms of the absence of illness but as a complete state. Mental health cannot be defined as merely the absence of something negative but also the presence of something positive.

Mental health is considered as a syndrome of symptoms of both positive feelings and positive functioning in life (Keyes, 2002; Stahl, 2012). During the last decennia, researchers have conceptualized, measured and studied measurement structure of mental health through the investigation of subjective well-being (Headey, Kelley and Wearing, 1993). Subjective well-being is individuals’ perceptions and evaluation of their own lives in terms of their affective states and their psychological and social functioning (Keyes and Lopez, 2002). Various forms of well-being i.e. emotional, psychological and social well-being together make up mental health. These three dimensions of well-being nicely fit the three core elements of the WHO (2004) definition of mental health as “a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community” (Keyes, 2007; Westerhof and Keyes, 2010). In other words, these three components i.e. well-being, effective functioning in individual life, and effective functioning in community life constitute mental health (Lamers and Westerhof et al, 2011). Thus, mental health may be operationalized as a syndrome of symptoms of an individual’s subjective well-being (Keyes, Shmotkin and Ryff, 2002).

The presence of mental health—a condition described as Flourishing in life—is defined as a state in which an individual feels positive emotion towards life and is functioning well psychologically and socially. Flourishing individuals have an enthusiasm for life and are actively and productively engaged with others and in society. On contrary, the absence of mental health—a condition described as Languishing in life—is defined as a state in which an individual is devoid of positive



emotion toward life and is not functioning well psychologically and socially (Keyes, 2003). Thus, someone who scores low on positive emotion, positive psychological functioning and positive social functioning is labeled as languishing. Such individuals experience "emptiness, quite despair and stagnation" describe themselves and life as 'hollow', 'empty', 'a shell' and 'void' (Keyes, 2003; Keyes et al., 2008). Finally, individuals who score between the two extremes i.e. neither flourishing nor languishing in life are describes as moderately mentally healthy. Thus, mental health exists on a continuum and it goes from flourishing (complete mental health) to languishing (incomplete mental health).

## 2. Literature review

Younes (2011) conducted a study on positive mental health, subjective vitality and satisfaction with life for French Physical Education Students. Lamers, Westerhof, Bohlmeijer, Klooster and Keyes (2011) examined the factor structure, reliability, convergent validity, and discriminant validity of the Mental Health Continuum- Short Form (MHC-SF). Browning (2012) examined the relationship between gratitude and well-being in graduate level counselors-in-training. Khumalo, Temane and Wissing(2012) investigated general psychological well-Being and the Mental Health Continuum in an African Context in relation to some socio-demographic variables. Stahl (2012) conducted an exploratory study on the relation between time perspective, positive mental health and psychological distress across the adult lifespan. Wilbert (2012) studied the relationship between stress and mental health among students at University of Twente. Sharma & Rani (2014) examined the relationship between personal growth initiative (PGI) and mental health and predicted PGI by mental health. From the review, it has been realized by the researchers that hardly any study has been conducted in India regarding the positive aspect of mental health by using mental health continuum. Thus, research gap existed in this area which prompted the researchers to carry out the present study.

## 3. Operational definitions of terms used

✚ **Mental Health**-Mental Health has been operationalized as a syndrome of symptoms of an individual's subjective well-being. It is defined as a state of emotional, social and psychological well-being.



✚ **University Postgraduates-** University postgraduates are the students who are pursuing their postgraduate degree in any of university department in the age range of 20-24 years or above.

✚ **Demographic Profiles-** are the personal statistics which include age, gender, ethnicity, educational level, socio-economic status etc. In the current study, age groups, gender, locality and faculty were taken as demographic profiles.

#### 4. Aim of the study

The study was an attempt to seek out differences in different aspects of mental health among university postgraduates in various demographic profiles like age group, gender, locality and faculty in which they were studying.

#### 5. Hypothesis of the study

$H_{a1}$ : There exists a significant difference among university postgraduates belonging to two age-groups in different aspects of mental health.

$H_{a2}$ : There exists a significant difference among university postgraduates in different aspects of mental health by gender.

$H_{a3}$ : There exists a significant difference among university postgraduates in different aspects of mental health with respect to locality.

$H_{a4}$ : There exists a significant difference among university postgraduates belonging to four faculties in various aspects of mental health.

#### 6. Research Methodology and Design

**6.1 Method-** Descriptive Survey Method with Ex-Post Facto Design was used.

**6.2 Sample-** In the present study, a sample of 960 postgraduates was selected through purposive-cum-stratified random sampling from three state universities of Haryana (India) i.e. Kurukshetra University, Kurukshetra, Maharshi Dayanand University, Rohtak and Chaudhary Devi Lal University, Sirsa.

**6.3 Research Instrument-** The Mental Health Continuum-Short Form (MHC-SF) by Keyes et al. (2009) is derived from the long form



(MHC-LF) developed by Keyes et.al (2002) and consists of 14 items that were chosen as the most prototypical items representing the construct definition for each facet of well-being. Respondents rate the frequency of every feeling in the past month on a 6-point Likert scale (*Never, once or twice a month, about once a week, two or three times a week, almost every day, everyday*). The scale comprised of three subscales: Emotional well-being, Social Well-Being and Psychological Well-Being. To be diagnosed with *flourishing* mental health, individuals must experience 'every day' or 'almost every day' at least one of the three signs of hedonic well-being and at least six of the eleven signs of positive functioning during the past month. Individuals who exhibit low levels (i.e., 'never' or 'once or twice' during the past month) on at least one measure of hedonic well-being and low levels on at least six measures of positive functioning are diagnosed with *languishing* mental health. Sometimes individuals scoring high on MHC-SF were taken as flourishing and individuals scoring low were considered as languishing. The Cronbach Alpha of the scale in the current study was 0.771.

**6.4 Procedure for Data Collection-** The research instrument was administered on the subjects through face-to-face interaction with them by the researcher. The respondents were informed that the information given by them would be kept confidential and would be used for research purpose only. They were asked to follow the instructions given on each questionnaire. They took about 30 minutes to fill the questionnaires. The sheets were collected back on the spot. The response rate of filled in questionnaires was 85%.

**6.5 Statistical Techniques-** Frequency, Percentages, Pearson correlation coefficient and Stepwise regression analysis was used and data was analyzed by using SPSS 18.0 version.

## **7. Analysis and Interpretation of data**

**7.1 Demographic information of the sample-** Demographic profile of the participants is given in the table 1:



**Table-1**  
**Demographic Characteristics**

Characteristics of the sample		Frequency	Percentages
<b>Gender</b>	Male	295	36%
	Female	523	64%
	Total	818	100%
<b>Age Group</b>	20-24 Years	732	89%
	Above 24 Years	86	11%
	Total	818	100%
<b>Locality</b>	Urban	417	51%
	Rural	401	49%
	Total	818	100%
<b>University</b>	KUK	266	32.52%
	MDU	292	35.70%
	CDLU	260	31.78%
	Total	818	100%
<b>Faculty</b>	Science	238	29.1%
	Education	185	22.6%
	Social Science	173	21.1%
	Commerce & Management	222	27.1%
	Total	818	100%
<b>Department</b>	Mathematics	114	13.9%
	Computer Science	125	15.3%
	Education	94	11.5%
	Physical Education	90	11.0%
	Economics	101	12.3%
	Public Administration	72	8.8%
	Commerce	108	13.2%
	Business Administration	114	13.9%
	Total	818	100.0%

**7.2 Comparison in different facets of mental health among university postgraduates-** For comparing different aspects of mental health among University postgraduates in demographic profiles, Kruskal-Wallis One Way ANOVA was run.



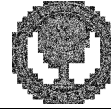
**Table-2**  
**Kruskal-Wallis One Way ANOVA: Mental Health to Demographic Profiles**

S.No.	Mental Health Items	Age		Gender		Locality		Faculty	
		$\chi^2$	Sig.(p)	$\chi^2$	Sig.(p)	$\chi^2$	Sig.(p)	$\chi^2$	Sig.(p)
1	Happy	0.073	0.787	1.132	0.287	<b>4.711</b>	<b>0.030*</b>	5.392	0.145
2	Interested in life	0.192	0.662	0.319	0.572	0.179	0.672	1.532	0.675
3	Satisfied	0.004	0.949	0.491	0.483	0.346	0.556	3.200	0.362
4	That you had something important to contribute to society.	3.522	0.061	<b>18.963</b>	<b>0.000*</b>	<b>4.006</b>	<b>0.045*</b>	<b>13.176</b>	<b>0.004*</b>
5	That you belonged to a community (like a social group or your neighborhood)	<b>6.577</b>	<b>0.010*</b>	<b>4.469</b>	<b>0.035*</b>	<b>11.688</b>	<b>0.001*</b>	<b>29.999</b>	<b>0.000*</b>
6	That our society is becoming a better place for people like you.	0.498	0.480	0.385	0.535	<b>4.256</b>	<b>0.039*</b>	<b>15.264</b>	<b>0.002*</b>
7	That people are basically good	<b>5.108</b>	<b>0.024*</b>	0.112	0.738	0.360	0.548	4.943	0.176
8	That the way our society works makes sense to you.	2.359	0.125	0.081	0.776	3.451	0.063	1.456	0.692
9	That you liked most parts of your personality.	0.707	0.400	<b>4.758</b>	<b>0.029*</b>	0.198	0.657	3.324	0.344



10	Good at managing the responsibilities of your daily life.	0.011	0.917	<b>4.098</b>	<b>0.043*</b>	0.345	0.557	3.241	0.356
11	That you had warm and trusting relationships with others.	0.003	0.957	1.792	0.181	<b>7.728</b>	<b>0.005*</b>	6.288	0.098
12	That you had experiences that challenged you to grow and become a better person.	0.007	0.935	0.005	0.942	<b>8.961</b>	<b>0.003*</b>	7.432	0.059
13	Confident to think or express your own ideas and opinions.	0.855	0.355	2.717	0.099	<b>5.076</b>	<b>0.024*</b>	6.237	0.101
14	That your life has a sense of direction or meaning to it.	0.694	0.405	<b>14.920</b>	<b>0.000*</b>	<b>4.982</b>	<b>0.026*</b>	5.211	0.157

**Bold\*** values are significant



**7.2.1 Comparison by age group:** From the table 2, it was observed that when age factor was taken into consideration, university postgraduates found to differ significantly only in two aspects of mental health as given below:

- That you belonged to a community (like a social group or your neighborhood) ( $\chi^2 = 6.577, p=0.010$ )
- That people are basically good ( $\chi^2 = 5.108, p=0.024$ )

And no significant difference was found in other aspects of mental health among university postgraduates of two age groups.

**7.2.2. Comparison by gender:** Table 2 also revealed a significant difference in university postgraduates on gender basis in following aspects of mental health:

- That you had something important to contribute to society ( $\chi^2 = 18.963, p=0.000$ )
- That you belonged to a community (like a social group or your neighborhood) ( $\chi^2 = 4.469, p=0.035$ )
- That you liked most parts of your personality ( $\chi^2 = 4.758, p=0.029$ )
- Good at managing the responsibilities of your daily life ( $\chi^2 = 4.098, p=0.043$ )
- That your life has a sense of direction or meaning to it ( $\chi^2 = 14.920, p=0.000$ )

In other aspects of mental health, no significant difference was observed among university postgraduates by gender.

**7.2.3. Comparison by locality:** From the table 2, it was also found that a significant difference existed among university postgraduates on locality basis in following items of mental health:

- Happy ( $\chi^2 = 4.711, p=0.030$ )
- That you had something important to contribute to society ( $\chi^2 = 4.006, p=0.045$ )
- That you belonged to a community (like a social group or your neighborhood) ( $\chi^2 = 11.688, p=0.001$ )



- That our society is becoming a better place for people like you ( $\chi^2 = 4.256, p=0.039$ )
- That you had warm and trusting relationships with others ( $\chi^2 = 7.728, p=0.005$ )
- That you had experiences that challenged you to grow and become a better person ( $\chi^2 = 8.961, p=0.003$ )
- Confident to think or express your own ideas and opinions ( $\chi^2 = 5.076, p=0.024$ )
- That your life has a sense of direction or meaning to it ( $\chi^2 = 4.982, p=0.026$ )

In other aspects of mental health, no significant difference was found among university postgraduates on locality basis.

**7.2.4. Comparison by Faculties:** Table 2 also revealed a significant difference among university postgraduates of different faculties in following aspects of mental health:

- That you had something important to contribute to society ( $\chi^2 = 13.176, p=0.004$ )
- That you belonged to a community (like a social group or your neighborhood) ( $\chi^2 = 29.999, p=0.000$ )
- That our society is becoming a better place for people like you ( $\chi^2 = 15.264, p=0.002$ )

In other aspects of mental health, no significant difference was observed among university postgraduates.

### 7.3 Discussion of results

- $H_{a1}$  viz. "There exists a significant difference among university postgraduates belonging to two age groups in different aspects of Mental Health" was retained as significant difference was found in two out of fourteen aspects of mental health. The fewer differences in two age groups (20-24 years, mean-62.21 and Above 24 years, mean- 64.10) may be due to the reasons that they had different perceptions regarding two aspects of mental health i.e. they belong to a social group or community and people are basically good. The result is somewhat similar to the findings of Westerhof and Keyes

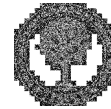


(2010) who examined fewer age differences for mental health. Also, the finding is in dissonance with findings of Khumalo, Temane and Wissing (2012) in which age was not found to be associated to well-being.

- $H_{a2}$  viz. *“There exists a significant difference among university postgraduates in different aspects of Mental Health by gender”* was supported as significant difference was found in five aspects of mental health. The possible reasons for this small difference between male (mean-62.27) and female (mean-62.48) may be due to the fact of important contribution to the society, considering themselves as a part of social group, liking most part of their personality, good at managing the responsibilities of daily life, sense of direction and meaning in life. The result is inconsistent with findings of Khumalo, Temane and Wissing (2012) who reported that gender was not related to well-being.
- $H_{a3}$  viz. *“There exists a significant difference among university postgraduates in different aspects of Mental Health with respect to locality”* was retained as significant difference was found in eight out of fourteen aspects of mental health. The plausible reason for the difference between urban (mean-62.35) and rural (mean- 62.47) may be due to the difference in their feelings regarding various aspects of mental health like happy, important contribution to society, they belonged to a community, society is becoming a better place for us, warm and trusting relationships with others, learning from experiences to become a better person, self-confidence.
- $H_{a4}$  *“There exists a significant difference among university postgraduates belonging to four faculties in various aspects of Mental Health”* was retained as significant difference was found in three aspects of mental health. The minor differences among postgraduates of four faculties (mean, Social Science-63.32, Education-62.32, Commerce & Management- 62.14, and Science-62.07) may be due to difference in aspects of social well-being in their feelings regarding important contribution to society, they are the part of social group, and society is becoming a better place for us.

## 8. Findings of the study

- 1) The findings of the study revealed that university postgraduates of two age groups (20-24 years & above 24 years) were found to differ

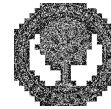


significantly in two aspects of mental health. The postgraduates belonging to age group above 24 years were better in terms of their mental health. The fewer differences in two age groups may be due to the reasons that they had different perceptions regarding two aspects of mental health i.e. they belong to a social group or community and people are basically good. The finding is in consonance with findings of Stahl (2012) in which significant relation was found for age and complete mental health.

- 2) Results of the study indicated that male and female university postgraduates were found to differ significantly in five aspects of mental health. Further, it was revealed that female postgraduates were found to have better mental health as compared to their counterparts because of differences in psychological and social well-being. The finding to some extent was is similar to the findings of Lamers, Glas, Westerhof and Bohlmeijer (2012) to some extent in which male and female differ significantly only in one item (social well-being domain of mental health).
- 3) It was also confirmed that university postgraduates belonging to urban and rural areas were found to differ significantly in eight different aspects of mental health. The postgraduates belonging to rural area were better in terms of mental health than their counterparts. This may be due to the differences in aspects of social and psychological well-being.
- 4) Results also made it clear that university postgraduates of four faculties were found to differ significantly in three aspects of mental health. The postgraduates of Faculty of Social Science were better in terms of mental health than postgraduates from Faculty of Education followed by postgraduates from Faculty of Commerce and Management and Faculty of Science. The variation may be due to differences in different aspects of social well-being.

## **9. Implications of the study**

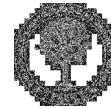
- 1) It is suggested to the university postgraduates belonging to the age group 20-24 years that they should improve upon social well being dimension of mental health. They should have better feeling of association with community, neighbourhood and society.



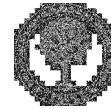
- 2) Male postgraduates should try to improve upon social and psychological well being dimensions of mental health. They should make significant contribution to society, have healthier and better attitude of association with community and acknowledge themselves more, managing responsibilities of daily life in a proper way, leading a meaningful life by giving direction to it.
- 3) University postgraduates from urban area should improve upon some aspects of emotional, social and psychological well-being. So, it is recommended that they should acknowledge themselves more, leading purposeful life, having warm and trusting relationships with others, making considerable involvement in societal activities and by having better feeling of association with community, superior sense of self-sufficiency, mastery over their environment, confident to express their feelings and opinions. This would make them feel happy and would improve their mental health.
- 4) University postgraduates of different faculties should improve upon some of the aspects of social well being as significant differences were found in these aspects. They should try to make important involvement in society, feeling of union with community and social group, by making changes in their thought processes so that society could become a better place for them to live in.
- 5) Psychologists and counselors should design intervention programmes to foster psychological well-being and should be invited to educational institutions in order to help the students to get rid of stress for improving the well being which would improve their mental health and they would be able to lead a happy and satisfied life.

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## PERCEPTION OF WORKERS IN CEMENT INDUSTRIES OF ODISHA

**Dr. Barada Prasad Bhol**

Registrar

Purushottam Institute of Engineering and Technology  
Rourkela, Odisha

### 1.1 Introduction

Perception is the base of an individual behavior. Perception is the psychological whereby the worker select, organize and interpret sensory stimulations into meaningful interpretation about their work environment, work place and workstation. (Steiner, Berrision,1964)

Manager needs to recognize the perception of employees about the management. The perceptual accuracy of manager helps to solve organizational problems by appropriate HR strategy. The perceptual process required to be understood by the manager. The mechanism of perception is influenced by the needs personality of employees. Perception of employees must be studied in respect of industry for a meaningful outcome. (Bhol, 2013)

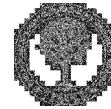
### 1.2 Objective

- 1) To study the perception of workers towards management.
- 2) To investigate the characteristics of the best and worst management with respect to wages, service conditions, physical and psychological work environment and welfare amenities.

### 1.3 Hypothesis

**H01:** There is no relationship between workers perception on management of cement manufacturing organisations.

**H1A<sub>1</sub>:** There is relationship between workers perception on management of cement manufacturing organisations.



## **1.4 Universe**

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

## **1.5 Sample**

The employees working in ACC cement, Bargarh, OCL India Ltd. Rajgangpur & Ultra Tech Cement, Jharsuguda are the sample industries chosen for the study. The sample size is 250 workers taken from the referred industries.

## **1.6 Methods of Study**

Application of appropriate method and adoption of a scientific frame of mind is a sine qua non of a systematic enquiry. It has an important bearing on the collection of reliable, accurate information and on the findings of the study.

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

## **1.7 – Perception of workers on the status of management in cement industries of Odisha**

Management is a process to accomplice organisational objectives by the efficient and economic use of physical and human resources. The perception of the workers as a potential living resource on management has an important bearing on the effective utilisation of human resource.

The perception of workers working in cement industries of Odisha on their management are analysed taking different aspects of management into consideration.



**Table No.- 1**

**Workers Perception on Management in Different Cement Manufacturing Industries**

Organisatio n	Workers perception on management						
	Sympathetic		Unsympathet ic		Indifferent		Total
	N	%	N	%	N	%	
OCL India Ltd.	55	51	29	27	24	22	108
ACC, Bargarh Cement Works	45	48	31	33	18	19	94
Ultratech Cement	20	42	14	29	14	29	48
<b>Total</b>	<b>120</b>		<b>74</b>		<b>56</b>		<b>250</b>

$$\chi^2 = 2.665 \quad df = 4$$

An analysis of the data presented in the table no.-1 discloses the fact that on the whole a majority of 48 percent of respondents feel that management is sympathetic towards the grievances of the workers.

Table No- 1 shows that the calculated chi-square value came out to be 2.665. The required values to be significant at .05 and .01 level of confidence with df4 are 9.448 and 13.277 respectively as given in chi-square table. The chi-square value was not found significant even at .05 level of confidence. Hence the null hypothesis (H01) namely, 'there is no relationship between workers perception on management and cement manufacturing organisations' is accepted. It means that there is no evidence of relationship between workers perception on management and organisation. In other words, the perception of workers on management is independent of different management of cement industries.



It can be further inferred that similar types of workers perception on management are existing in the sample organisation.

The workers perception on management of different cement manufacturing organisation was also presented through bar diagrams. It helped to catch the eyes and hold attention facilitating appropriate comparison. The number of workers perceived their management as sympathetic, unsympathetic and indifferent. Categories were converted into percentages for comparison. Such conversion of frequencies into percentages became necessary because of unequal sample size of different organisation which in turn make the direct comparison impossible. The number and percentages were calculated for depicting workers perception on different management in table no.-1.

**Table No.- 2**

**Characteristics of a Best Management Pertaining to Salary and Service Conditions in Cement Industries of Odisha**

Rank	Characteristics	Total score
I	Attractive wages	1,092
II	Good service conditions ( Promotions, Permanency, Provident Fund, Gratuity)	892
III	Profit sharing and bonus	742
IV	Consistent and objective personnel policy	718
V	Good fringe benefits	512

Notes:

1. Overall ranking is done on the basis of maximum possible scores obtained.
2. Maximum possible scores =  $N \times 5$
3. Scale of scoring 1<sup>st</sup> Rank = 5, 2<sup>nd</sup> = 4, 3<sup>rd</sup> = 3, 4<sup>th</sup> = 2, 5<sup>th</sup> = 1



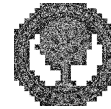
Workers consider attractive wage as the characteristics of best management relating to the service conditions by assigning rank I followed by good service conditions, profit sharing and bonus, consistent and objective personnel policy and good fringe benefits as rank II, rank III, rank IV and rank V respectively.

The characteristics of a best management pertaining to workers salary and better service conditions, and welfare facilities are presented in the table no.-2. The analysis of the sample responses pertaining to the salary and service conditions reveals that monetary compensation acquire the highest response in order of priority of expectation. Workers attach next priority to good service conditions. These findings are in conformity with those of some earlier studies in Indian context conducted by Monga (1978), Zecharia (1954) Sharma (1973). It is logical because most of the other socio- economic and psychological expectation center around the earning of employees from the job. It indicates the amount of prestige and status that an employee commands in the society. The other good characteristics in order of importance include adequate profit sharing, bonus, consistent and objective HR policy, attractive fringe benefits etc.

**Table No.- 3**  
**Characteristics of a Best Management Pertaining to Physical and Psychological Work Environment in Cement Industries of Odisha**

<b>Rank</b>	<b>Characteristics</b>	<b>Total score</b>
<b>I</b>	Harmonious relations with working class	1,022
<b>II</b>	Ideal and hygienic conditions of work	792
<b>III</b>	Participative work culture	754
<b>IV</b>	Supplying proper tools and equipments	556
<b>V</b>	Good understanding with supervisors	347

*Notes:*



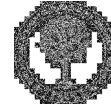
1. Overall ranking is done on the basis of maximum possible scores obtained.

2. Maximum possible scores =  $N \times 5$

3. Scale of scoring 1<sup>st</sup> Rank = 5, 2<sup>nd</sup> = 4, 3<sup>rd</sup> = 3, 4<sup>th</sup> = 2, 5<sup>th</sup> = 1

Table no.- 3 indicates that harmonious relations with working class is considered as the characteristics of best management pertaining to physical and psychological work environment by considering as rank I. Ideal, hygienic conditions of work, participative work culture, supplying proper tools, equipments and good understanding with supervisors are assigned as rank II, rank III, rank IV and rank V respectively.

Workers expect congenial physical and psychological work environment at their work place. The results of this study in this regard shown in the table no.-3 make it clear that maintaining cordial relations with the workers is assigned as the first rank. Assuming their responsibility towards the organisation, the workers appreciate to get involved and participate actively in the tasks assigned to them. Their desire for proper tools and equipments, training and participation in the decision making process is a pointer towards the fact. Scholars almost unanimously agree that people act more responsibly when they are involved in setting their own goals and accountable for their own behavior and share the responsibility for accomplishing organisational goals.



**Table No.- 4**

**Characteristics of a Best Management Pertaining to Welfare Amenities in Cement Industries of Odisha**

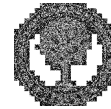
<b>Rank</b>	<b>Characteristics</b>	<b>Total score</b>
I	Proper implementation of statutory provisions regarding welfare amenities	942
II	Proper accommodation facilities	764
III	Good recreational and educational facilities	668
IV	Proper and adequate medical facilities	570
V	Clean and subsidised canteen facilities	502

*Notes:*

- 1. Overall ranking is done on the basis of maximum possible scores obtained.*
- 2. Maximum possible scores =  $N \times 5$*
- 3. Scale of scoring 1<sup>st</sup> Rank = 5, 2<sup>nd</sup> = 4, 3<sup>rd</sup> = 3, 4<sup>th</sup> = 2, 5<sup>th</sup> = 1*

Table no.- 4 shows that workers consider proper implementation of statutory provisions regarding welfare amenities as rank I as the characteristics of best management followed by proper accommodation facilities, good recreational and educational facilities, adequate medical facilities and clean and subsidised canteen facilities are considered as rank II, rank III, rank IV and rank V respectively by the workers.

There appears a gap between expectations and reality in the sphere of welfare facilities which have been considered to be the company commitment to the workers as a matter of principle and practice. The table no.- 4 depicts that proper housing facility near workplace, adequate and attractive recreational, educational; medical



and canteen facilities are considered as the desirable aspects of management. The findings exposes that workers are conscious of their rights to these necessities and their presence and absence would certainly have a marked influence on workers attitude towards management. The gap needs to be bridged by the management by its practice. Even in the case of off the job life issues of the worker though exclusively the concern of the state, society and union, the management has the responsibility of bringing about a match between workers need and facilities of whatever sort provided by the state and society.

**Table No.- 5**

**Characteristics of a Worst Management Pertaining to Salary and Service Conditions in Cement Industries of Odisha**

Rank	Characteristics	Total score
I	Inadequate wages, high wage differentials	1,055
II	Absence of various social security measures and fringe benefits	926
III	Late and partiality in promotions	690
IV	Apathetic attitude towards unions	595
V	Does not recognise and reward outstanding performance	357

*Notes:*

- 1. Overall ranking is done on the basis of maximum possible scores obtained.*
- 2. Maximum possible scores =  $N \times 5$*
- 3. Scale of scoring 1<sup>st</sup> Rank = 5, 2<sup>nd</sup> = 4, 3<sup>rd</sup> = 3, 4<sup>th</sup> = 2, 5<sup>th</sup> = 1*

The responses concerning the characteristics of worst management as perceived by the workers is presented in table no.- 5.



The table indicates that the employees working in cement industries of Odisha termed the characteristics of bad management pertaining to salary and service conditions by assigning ranks in order of their preferences to the characteristics such as inadequate wages, high wage differentials, absence of social security measures and fringe benefits, partiality in promotions, apathetic attitude towards unions and not recognising performance as rank I, rank II, rank III, rank IV and rank V respectively by the workers.

**Table No.- 6**

**Characteristics of Worst Management Pertaining to Physical and Psychological Work Environment in Cement Industries of Odisha**

Rank	Characteristics	Total score
I	Poor working ( physical) conditions	1,015
II	No consideration for workers' victimisation	776
III	Lack of training facilities, no chance to improve of job performance	655
IV	Partial and harassing supervisors	538
V	Lack of proper tools and equipments	451

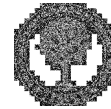
*Notes:*

1. Overall ranking is done on the basis of maximum possible scores obtained.

2. Maximum possible scores =  $N \times 5$

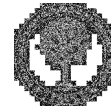
3. Scale of scoring 1<sup>st</sup> Rank = 5, 2<sup>nd</sup> = 4, 3<sup>rd</sup> = 3, 4<sup>th</sup> = 2, 5<sup>th</sup> = 1

Table no.- 6 shows that poor working conditions are assigned as rank I by the workers. Workers victimisation, lack of training facilities, harassing supervisors and lack of tools and equipments are considered as rank II, rank III, rank IV and rank V respectively by the workers.



Adequate welfare measures are not a substitute to wage increase but have a greater socio-economic impact on employees. It keeps employees contented with their jobs. The responses of the employees depict that workers do not like the management if it does not take adequate measures for safety of the workers and does not provide adequate medical, recreational, educational and accommodation facilities. All these facilities are having a significant impact on the workers mental make up. The welfare amenities as per the statutory provisions are required to be implemented by the employer as a matter of principle and practice. The practice of not implementing the statutory provisions regarding the welfare facilities has also been ascertained as the quality of worst management. The workers may vary among themselves in degree of expectations from management but employees are mostly concerned about monetary compensation, relief and reward. The findings of the study reveals that security of employment, opportunity for advancement, comfortable working conditions, suitable type of job responsive supervisors, better educational facilities are the factors reported by the workers as the most desired factors of management. The employees value their dignity, rights and privileges and expect a congenial work environment and recognition of their job from the higher as well as immediate officers. They want to become the masters of their immediate environment and feel that their work and their personality are to be recognised.

Workers feel dissatisfied with the management because of cold response of the employer to handle their industrial relations problems. The kind of dissatisfaction is reflected in the perception of workers as the management has apathetic attitude towards workers and trade unions. In addition, it does not recognise worker's effort and reward their merit. The responsibility of the management is to develop harmonious industrial relation to ensure peace, productivity and profit.



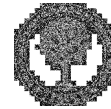
Bi-partite bodies such as productivity council, workers committee and safety committee play an important role in maintaining harmonious relationship between the employees and employer. Government through labour legislation balances the interest of the employees and employer to maintain industrial peace. Third party intervention is considered as ultimate tool and technique to regulate industrial relation machinery. It is resorted only as a measure of last resort. The management should take realistic assumption to deal with labour not as a economic man only but as the whole man. The HR policy should take human emotion and sentiments in addition to economic and psychological need of the employee. As a result, the labour-management relation will quantitatively increase leading to high employees moral and commitment.

### **1.8 Finding of the study**

Workers perception on management indicates that management maintains a soft and sympathetic attitude towards grievance of its employees. It is a healthy indicator but it requires a strong and scientific human resource policy to keep up the workers perception for a longer period of time. It is appropriate to mention here that in the organisations namely OCL India Ltd, Rajgangpur, ACC Cement, Bargarh and Ultratech Cement, Jharsuguda exhibit more or less similar types of workers perception on management are existing.

The study reveals that in each cement manufacturing organisation more respondents have a good opinion regarding the management. About 48 percent of workers state that the management is sympathetic. Thus, the perception of workers on management is independent on management of different cement manufacturing organisations.

Wages, service conditions, welfare amenities, physical and psychological work environment emerged as the characteristics of best management



and worst management as perceived by the worker working in the cement industries of Odisha.

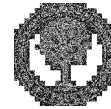
### **1.9 Implications of the study**

A responsible manager is required to understand the perception process. It is indeed required to develop perceptual accuracy by studying how perception are formed and distorted. The empirical findings have significant implications for HR strategy planners.

National settlement in case of ACC Cement Bargarh and Ultratech Cement Jharsuguda and Memorandum of settlement in unit level in case of OCL India Limited engaged in the determination of wages, service conditions and welfare amenities should consider the perception of workers working in cement industries of Odisha for harmonious industrial relations as a matter of priority. Similar studies may be undertaken in other industry.

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## SELF HELP GROUPS AND THE CHANGING STATUS OF WOMEN

**Dr. B. Raveendra Naik**

Post-Doctoral Fellow –UGC

Dept. of Population Studies and Social Work

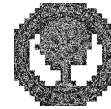
Sri Venkateswara University

Tirupati, Andhra Pradesh, India

### INTRODUCTION

Empowerment of women in the economic and social fields constitutes one of the fundamental objectives of development efforts of government. Following the adaption of the Jakarta declaration for the advancement of women in Asia and the Pacific (1994) and the Beijing Declaration and Platform for Action (1995) significant achievements have been made in empowering women in Asia and more particularly in India. Their economic participation has shown uneven but steady progress with gender differentials in wages falling in many instances. Significant progress has also been made in terms of increases in female literacy and life expectancy rates, and reduction in mortality rates. A growing number of women are also succeeding in the use of new and innovative technologies especially information technologies and empowering themselves through effective participation in national machineries and non-government organizations (NGOs). However, formidable challenges exist many of which have been compounded by the present economic crisis and the adjustment process. Women are facing increased lay-offs and redundancies and are falling back on the informal sector and the rural sector for economic survival.

An increasing number of women are being trafficked for sexual exploitation and forced labor, with growing incidents of violence against women. Many migrant women face the bleak prospects of employment when they return home. Although significant progress has been made in



alleviating poverty in India, the women in poverty continue to suffer from economic hardship and social exclusion. With the changing demographic structure of our country and increase in the proportion of older persons, especially older women, the need for appropriate policies and systems to provide economic and social support will be a decision-making will continue to be a formidable challenge. The task of social and economic empowerment of women remains a priority area of concern for our country.

## **OBJECTIVES**

1. To study the implementation of DWACRA scheme
2. To analyze the socio-economic profile of the members of DWACRA
3. To study the benefits from DWACRA scheme

## **METHODOLOGY**

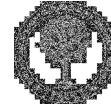
The data and information gathered was analyzed and presented using simple statistical techniques like calculation of percentage. The primary data was collected from the field area and the secondary data such as the information on geographical conditions of the area side of the population etc.. Were collected referring to the census report.

## **Sampling**

There were 50 self help groups in Muthyala Reddy Palli, panchayat, Tirupati. All the groups were covered by talking the leader of the group as the respondents. In some groups. Another number was selected for study the total sample consisted of respondents.

## **Collection of the Data**

The interview had to wait for the respondents till they returned from fields. Some of the respondents were reluctant to answer our question. Since they were much tired in the fields. However, when



they were appraised the purpose of interview they ready agreed to give the information.

### **Mode of data collection**

The interviewer approached government agencies and voluntary organization to know information regarding number of DWACRA groups, group leaders, their location etc. Primary data was collected by an using interview scheduled to know the social conditions. Living patterns, earnings, activities the assistance of prominent people in the village to collect all the information.

### **ECONOMIC AND SOCIAL EMPOWERMENT OF WOMEN**

Since the beginning of this decade, much has been achieved in empowering women in the economic and social fields. An increasing volume of development financial resource has been devoted to achieving that objective. Consequently, India has been able to report increased female literacy and enrolment rates, improved gender equality in education, reduced infant and child mortality rates, declining maternal mortality rates and expanding access to reproductive health service. The participation of women in formal economic activities has also registered a noticeable Improvement.

#### **Growing economic participation**

Economic empowerment constitutes one of the fundamental building blocks in efforts towards the overall empowerment of women. Participation in formal economic activities on terms and conditions which reflective the productive capacity of women, and their control over their own incomes are some of the important dimensions of economic empowerment. In that context the increase in economic participation has been the most significant change for women. Although the increasing working participati8on of women has been viewed as part of general employment boom created by the export-led



economic expansion, female labor-force participation rates have tended to increase more than those for men suggesting that women's economic participation has been growing participation of women in paid employment of women. Access to earned income improves women position within the household substantially, gives them greater control over the distribution of such earnings and household resources and generally improves their status and strength in society as well as their own self esteem. The ability to earn income from outside and to engage in activities other than household-oriented ones lead to significant social change in the long run. Where women are generally denied the ownership of property and control over assets the ability to earn outside income can become an important instrument for the transformation of gender relations and challenge many traditional modes of social and economic relations.

Women's groups, NGOs and other sections of the civil society are also playing a vital role in empowering women. Women's organizations have greatly helped in raising consciousness about the rights of women and drawn attention to the social and economic hardship experienced by them. These organizations, along with the relevant NGO's have been campaigning for legal reforms and legislative change for the betterment of women. Social development in general and human rights in particular form the board frameworks within which the women's organization are working in advancing the cause of women.

### **Empowering women in poverty**

Significant progress has been achieved in alleviating the worst forms of poverty through sustained economic growth supported by active and well-targeted public policy. However, our country remains home to the largest of the world population who live in abject poverty. Progress in poverty alleviation n also seems to be uneven. Of the poor,



women constitute the majority, with the number of rural women in poverty rising over the last 20 years. Recent studies also indicate that the proportion of female headed households is among the very poor. In the context of this, the importance of poverty reduction as a tool to empower women in poverty has been widely recognized.

One of the recent innovations in empowering women in poverty has been the increasing emphasis on micro credit programmes and schemes. These have become highly significant in empowering women in poverty through the mobilization of asset-less women to engage in self-employment and income generation activities. Microcredit scheme have in many instances demonstrated that the poor women are bankable and a valuable source for savings mobilization. Apart from the economic impacts access micro credit has had far-reaching social consequences for women in poverty. It has given rise to a new division of responsibilities within the borrowing families with a greater recognition of women as significant contributors to family welfare. It has also improved the social status of women borrowers and attenuated the grip of patriarchy in traditional societies. However, these benefits and potential of microcredit programmes and schemes have not been uniformly realized in all the developing countries of the region. Important issue have remained unanswered, with the growing realization that not all microcredit programmes and schemes are succeeding in incorporating gender issues effectively promote the social and economic empowerment of women in poverty.

### **DWACRA**

DWACRA is a scheme formed to identify the skill of women who are at grass root level of rural areas and to provide employment with their own resources to earn out of it for their living and also to inculcate the saving habit. In rural areas 10 to 13 women in to a group under the said scheme. Sometimes the group may contain less number



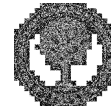
of persons. Under the scheme each group is given a sum of Rs.50,000/- as a loan for income generating activities. The group leaders identify the skill and resource of a member and finance her accordingly. She has to take up the activity and repay a fixed amount towards her loan and also has to save some amount compulsorily. DWACRA provides marketing channels for the products made through state handloom corporation, hand craft, emporium, co-operative society etc. On full repayment of the amount it will be refinanced the group members, on need basis. This is a revolving process. The process is under control of the social organization and non-governmental organization. The group leader will convene a meeting and she elaborates the feature of the scheme. She grades the members and seeks their suggestions she solves their problems and gives the members and seeks their suggestions she solves their problems and gives the members on opportunities to exchange their views. It is a get together activity. Everybody participate with interest in DWACRA scheme and the rural women need not have difficulty to get fiancé for their needs. In DWACRA, information education and communication and CCA (Child Care Activities) are incorporated.

### **Child Care activities**

CCA was in corporate in DWACRA during 1995-96 with objectives of providing creative service for children of DWACRA women with specific emphasis on girl child, drop-outs and illiterates doing service in critical groups in the area of immunization f or the children of DWACRA members. Each district is provided with Rs.1.50 lakh per year (1 lakh central share and 50,000 as state share).

### **Information Education and Communication**

IEC was incorporated in DWACRA in 1995-96 with the objective generating awareness among rural women about DWACRA and other



programme for their benefit and to encourage credit among them and to encouraged to along them.

### **Self-Help**

The theory that individuals should provide for their own support and improvement in society.

- ❖ SHG' have potentials for "Natural" spontaneous support.
- ❖ All examples or self help groups have one thing in common promotion of latent inner strength.
- ❖ Self help emphasizes self reliance, self production and self empowerment.
- ❖ The assumption of co-operation among the disadvantaged is necessary to social progress.
- ❖ People join together for a common course and fight with other for their felt need.
- ❖ In self help people with problems are helped it makes them more independent than independent.
- ❖ The receiver of help knows that tomorrow she will provide help to someone else.
- ❖ The help giving power of the SHG is emphasized.
- ❖ Resource for help increase not only but quantitatively as well.
- ❖ The new helping behaviour in t he systems derived from the people with the problem.
- ❖ The entire process of giving and receiving help is democratized and shared.
- ❖ Self-help produces a tremendous power system.

### **DEVELOPMENT OF WOMEN AND CHILDREN IN RURAL AREAS (DWACRA)**

#### **Group Approach**

DWACRA programme focuses on organization of women into groups foster a collective approach to their problems and improve their lot by enhancing their bargaining power and also to resist exploitation. These organized women can pull many of the resources of governmental programmes in to the village for their benefit. Hence



they will be in a position to harvest the opportunities from schemes, services and laws meant to help them.

### **Training and Awareness**

Unskilled and illiterate women have lesser employment opportunities and low wages. This confines women to marginal categories of work to even unpaid work. Training in leadership attitudinal changes, skill for income generation is an integral part of DWACRA schema. Training provides opportunities to learn provide their sisters who are better off than these women.

### **Age wise distribution among the respondents**

<b>Age group</b>	<b>Frequency</b>	<b>Percentage (%)</b>
18-20	1	02.22
20-25	7	15.56
25-30	9	20.00
35-40	9	20.00
45-50	8	17.78
55-60	11	24.44
<b>Total</b>	<b>45</b>	<b>100.00</b>

From the above table it can be observed, classification of respondents according to age 20 percentage group of 25-30 years and same percentage followed by 20 percentage between 30-35 years of age. 24.44 percentage highest percentage in this table 40 years above age. 17.78 percent between 35-40 years. 15.56 percentage between 20-25 years. 2.22 percentage between 18-20 years age groups.



### Marital status of the Respondents

Marital status	No. of respondents	Percentage (%)
Married	29	64.44
Un Married	08	17.78
Divorce	02	04.44
Widows	06	13.33
<b>Total</b>	<b>45</b>	<b>100.00</b>

The above table shows the marital status of the respondents 64.44 percentage of the respondents are married 17.78 percentage of the respondents are unmarried 13.33 percentage of the respondents are window 4.44 percentage of the respondents are divorce.

### Religion of the Respondents

Religion	No. of respondents	Percentage (%)
Hindu	29	64.45
Christians	06	22.22
Muslims	10	13.33
<b>Total</b>	<b>45</b>	<b>100</b>

The above table shows the composition of respondents majority of the people belong to Hindu religion i.e. 64.45 percentage 22.22 percentage of the respondents belong to Christians and 13.33 percentage respondents belong to Muslims.

### Education status of the Respondents

Education	No. of respondents	Percentage (%)
Illiteracy	24	53.33
Primary	15	33.33
Secondary	04	08.89
Intermediate	02	04.44
<b>Total</b>	<b>45</b>	<b>100.00</b>



The above table through on the educational status of the respondents out of the total 45 respondents 24 respondents i.e. 53.33 percentage were illiterates 33.33 parentage primary level 8.89 studies up to secondary level and 4.44 studies up to intermediate.

### Occupation status of the Respondents

Occupation	No. of respondents	Percentage (%)
Small merchant	04	08.89
Vegetables fruit venders	08	17.78
Daily wage worker	13	28.89
Others	25	44.44
<b>Total</b>	<b>45</b>	<b>100.00</b>

The above table shows the Occupational position of the respondents. Majority of the respondents i.e. 44.44 percent of the respondents are others 28.89 percent of the respondents are daily labors 17.78 percent of the respondents are vegetables fruit vender 8.89 percent of the respondents are small merchant.

### Annual income of the Respondents

Annual Income	No. of respondents	Percentage (%)
10,000-20,000	08	17.78
20,000-30,000	25	55.56
30,000-40,000	11	24.44
40,000 and above	01	02.22
<b>Total</b>	<b>45</b>	<b>100.00</b>

The above table shows the annual income of the respondents majority of the respondents have 55.56 percent between 20,000-30,000, 24.44 of the respondents 30,000-40,000, 17.78 percent of the respondents have 10,000-20,000, 2.22 percent of the respondents 40,000 and above. Composition of the respondent's monthly income.



### Type of Bank account S.H.G respondents

Type of Bank	No. of respondents	Percentage (%)
S.G Bank	15	33.33
Andhra Bank	12	26.67
State Bank	18	40.00
<b>Total</b>	<b>45</b>	<b>100.00</b>

The above table shows the S.H.G respondents type of bank account 33.33 percent of respondents account in S.G bank 40 percent of the respondents state bank of India 26.67 percent of the respondents account in Andhra bank.

### SUMMARY

Self Help Group is known to the field of social welfare right from days to charity organization and social settlement movement. Since then social welfare has moved from these concerns to that of rights. Development, participation in self help groups has been recognized as essential components since 1990s. The self help groups are voluntary association of people formed to attain a collective goal. People who are homogeneous with respect to social background. Heritage caste or traditional occupational come together for a common cause to raise and manage resource for the benefits of group members. Usually focus is one poor and that too on women.

Development of women and children in rural areas groups were set up set to achieve the goal of development of women. The schemes is well implemented in Muthyalareddy Palli, Tirupati, with the cooperation of some voluntary organization the group leader are dutifully caring the message to the urban women and made them aware of their position. These members have inducted them into the scheme. It is observed that as a result of the scheme irrespective of the caste scheme was well received by the received by the people below the poverty line.



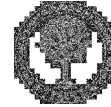
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## IMPLICATION

A majority of respondents were Hindus. A large numbers of respondents belong to OC. The median age of the respondents was 35 years. A majority of the respondents i.e. 53.33 percent were illiterates. A majority of the respondents where in agricultural and related occupation. The majority of the respondents were got information about SHGs through Mandal officials. Some of the received information from school teachers. A majority of the respondents received co-operation from the family members. A majority of the respondents belong to SHG which had 10-15 members. Minimum savings of the respondents was Rs.450/- and arrange saving was Rs. 4000/-. A majority of the respondents have freedom to spend their savings. Most of the respondents were satisfied with the interest r ate. A majority of the respondents did not have any problem in joining SHGs. Only a few respondents face problems from husband or other members in the family.

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## PRINCIPLES OF TEMPERATURE MEASUREMENT

**Chaitanya Naringe**

Dept. of Mechanical Engineering  
J D College of Engineering and  
Management, Katol Road, Nagpur

**Suraj Taunk**

Dept. of Mechanical Engineering  
J D College of Engineering and  
Management, Katol Road, Nagpur

### 1. Introduction

Galileo is credited with inventing the thermometer. In an open container filled with colored alcohol, he suspended a long narrow-throated glass tube, at the upper end of which was a hollow sphere. When heated, the air in the sphere expanded and bubbled through the liquid. Cooling the sphere caused the liquid to move up the tube. Fluctuations in the temperature of the sphere could then be observed by noting the position of the liquid inside the tube. This "upside-down" thermometer was a poor indicator since the level changed with barometric pressure, and the tube had no scale. Vast improvements were made in temperature measurement accuracy with the development of the Florentine thermometer, which incorporated sealed construction and a graduated scale. In the ensuing decades, many thermometric scales were conceived, all based on two or more fixed points. One scale, however, wasn't universally recognized until the early 1700's when Gabriel Fahrenheit, a Dutch instrument maker, produced accurate and repeatable mercury thermometers. For the fixed point on the low end of his temperature scale, Fahrenheit used a mixture of ice water and salt (or ammonium chloride). This was the lowest temperature he could reproduce, and he labeled it "zero"



degrees.” For the high end of his scale, he chose human blood temperature and called it 96 degrees. Why 96 and not 100 degrees? Earlier scales had been divided into twelve parts. Fahrenheit, in an apparent quest for more resolution divided his scale into 24, then 48 and eventually 96 parts. The Fahrenheit scale gained popularity primarily because of the repeatability and quality of the thermometers that Fahrenheit built.

Around 1742, Anders Celsius proposed that the melting point of ice and the boiling point of water be used for the two benchmarks. Celsius selected zero degrees as the boiling point and 100 degrees as the melting point. Later, the end points were reversed and the centigrade scale was born. In 1948 the name was officially changed to the Celsius scale. In the early 1800’s William Thomson (Lord Kelvin), developed a universal thermodynamic scale based upon the coefficient of expansion of an ideal gas. Kelvin established the concept of absolute zero, and his scale remains the standard for modern thermometry. The conversion equations for the four modern temperature scales are:

$$^{\circ}\text{C} = 5/9 (^{\circ}\text{F} - 32)$$

$$^{\circ}\text{F} = 9/5^{\circ}\text{C} + 32$$

$$\text{k} = ^{\circ}\text{C} + 273.15$$

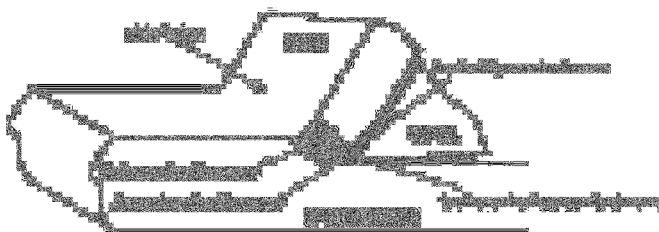
$$^{\circ}\text{R} = ^{\circ}\text{F} + 459.67$$

The Rankine scale ( $^{\circ}\text{R}$ ) is simply the Fahrenheit equivalent of the Kelvin scale, and was named after an early pioneer in the field of thermodynamics, W. J. M. Rankine. Notice the official Kelvin scale does not carry a degree sign. The units are expressed in “kelvins,” not degrees Kelvin.



## 2. Measurement of temperature

Manufacturing of any product can be done by any of the manufacturing processes suitable to that product. Machining is one of the operations using which any raw material can be converted into the required finished product. In the process of machining, heat generation is a common and undesirable phenomenon. It is required that the cutting temperature be in the desired limits. There are three main sources of heat generation namely the shear zone, chip-tool interface zone and work-tool interface. In the shear zone, takes place the plastic deformation due to shear energy. The temperature of chip is raised due to this heat. A small portion is carried away by the chip when it moves upward along the tool. In the second zone which is the chip tool interface zone, takes place secondary plastic deformation due to friction between heated chip and the cutting tool. This further increases the temperature of the chip. With the increasing speed, the frictional heat increase thus increasing the temperature. The third zone which is the work tool interface is at the flank of the tool where friction rubbing occurs. As the cutting speed increases, more heat is carried away by the chip and less is transferred to the chip and tool.



This paper deals with various temperature measurement techniques.



We cannot build a temperature divider as we can a voltage divider, nor can we add temperatures as we would add lengths to measure distance. We must rely upon temperatures established by physical phenomena which are easily observed and consistent in nature. The International Temperature Scale

(ITS) is based on such phenomena. Revised in 1990, it establishes seventeen fixed points and corresponding temperatures. A sampling is given in Table 1. Since we have only these fixed temperatures to use as a reference, we must use instruments to interpolate between them.

The various instruments which are used for temperature measurement are as follows:

- Thermometers
  - 1) Liquid in glass thermometers
  - 2) Bimetallic thermometers
  - 3) Gas filled thermometers
  - 4) Liquid filled thermometers
- Thermocouples
- Thermistors
- Resistance Temperature Detectors (RTD)
- Pyrometers
  - 1) Radiation pyrometers
  - 2) Optical pyrometers

**Table 1**

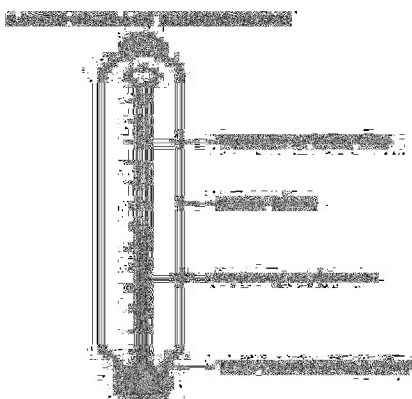
Element	Type	Assigned value of temperature	
		Kelvin	°C
Hydrogen	Triple point	13.81	-259.19
Neon	Triple point	24.56	-248.44
Oxygen	Triple point	54.36	-218.64
Argon	Triple point	83.81	-189.19
Mercury	Triple point	234.32	-38.68
Water	Triple point	273.16	0.16
Gallium	Melting point	302.92	29.92
Indium	Freezing point	429.75	156.75



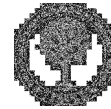
Tin	Freezing point	505.08	232.8
Antimony	Freezing point	630.74	357.74
Aluminum Silver	Freezing point	692.68	419.68
Gold	Freezing point	933.47	660.47
Zinc	Freezing point	1234.93	961.93
	Freezing point	1337.33	1064.33

## 2.1 Thermometers:

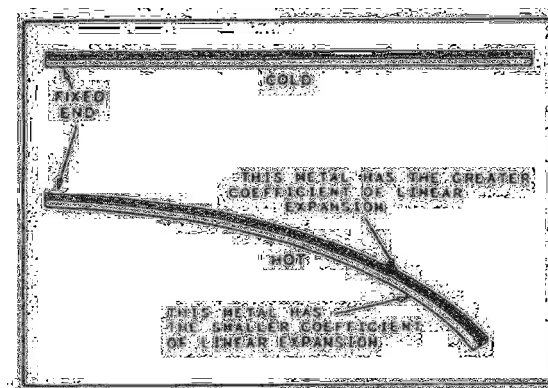
a) Liquid in glass thermometer – This is a very familiar type of thermometer. Mercury or other fluid fills the glass bulb and extends into the bore of the glass stem. Mercury is the most suited liquid and is used from  $-38.9^{\circ}\text{C}$  to about  $600^{\circ}\text{C}$ . These thermometers have the graduated scale marked upon them. A usual liquid in glass thermometer is as shown in the figure. An expansion bulb is provided at the top of the stem to allow expansion of mercury in case the thermometer is subjected to temperature above its range. As the upper limit of thermometer is far above the boiling temperature of mercury, an inert gas generally nitrogen is introduced above mercury to prevent boiling.



b) Bimetallic thermometers – In a bimetallic thermometer differential expansion of bimetallic strips are used to indicate the temperature.

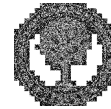


This thermometer less fragile and also is easier to read. Two flat strips of different metals are placed side by side and welded together. Generally one of the two is a low expanding metal and the other is a high expanding metal. The bimetal strip is in form of a spiral helix. Due to rise in temperature, the curvature of the strip changes. The differential expansion of the strip causes the pointer to move on the dial of the thermometer.

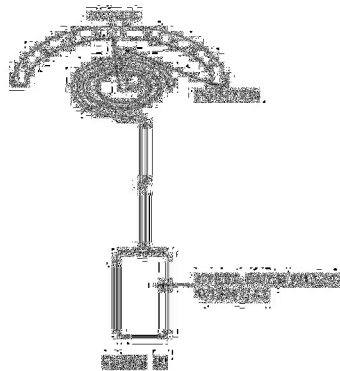


Bimetallic strip

- c) Gas filled thermometers – The useful operating range of a gas filled thermometer is same as that of a liquid in gas thermometer. Helium and nitrogen are the gases used in this thermometer. The advantageous properties of these gases include that they are chemically inert; they have low specific heat and good values for their coefficient of expansion. The only difference in a gas filled thermometer and a liquid filled thermometer is that in a gas filled thermometer, a bigger bulb is provided than the one used in liquid filled thermometer. It is expected that the volume of the bulb should be 8 times more than rest of the system for good



performance. Generally, such types of thermometers are used in applications where the pressure does not exceed 35 bars.



Gas filled thermometer

- d) Liquid filled thermometers – A liquid filled thermometer uses the phenomenon of expansion of liquid to cause the pointer to move in the dial. Therefore liquids having high coefficient of expansion are used. Some of the liquids used are mercury, alcohol, toluene and glycerin. Operating pressure is between 3 bars to 100 bars. These thermometers can be used up to a temperature of 650°C.

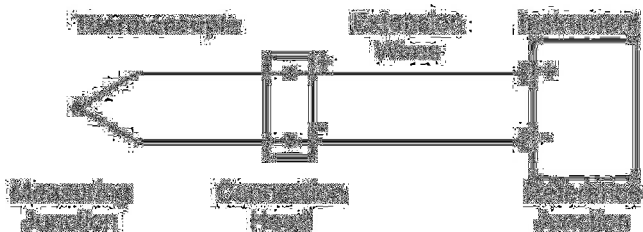
## 2.2 Thermocouples:

The most commonly used device for temperature measurements, with the possible exception of thermometer, is the thermocouple. Thermocouples operate on the principle that a voltage is generated by two dissimilar metals in contact with each other when a temperature variation exists through the metals. Thermocouples are active measurement devices since there is no power input to thermocouples. The thermocouple effect (the Seebeck effect) was discovered in 1821, when showing that a new voltage is generated when the junctions of



different metals are heated to different temperatures. A decade later, Peltier showed that this effect was reversible: thermal effects were observed when small, externally imposed currents were directed through the junctions of different thermocouple wires. Thermocouples can be used over a wide range of temperatures, from liquid helium (-270°C) to high temperature furnaces (2200°C). Different alloys are necessary for the extremes in temperatures. Many of the thermocouple combinations give a nearly linear output in a wide range of temperatures. In its simplest form, a thermocouple consists of two dissimilar metals or alloys which develop e.m.f. when the reference and the measuring temperatures are at different temperatures. The reference or cold junction is usually maintained at some constant temperature such as 0°C. The figure below shows the circuit of thermocouple.

Table 2



In many industrial installations, the instruments are equipped with automatic compensating devices for temperature changes of the reference junction, thus eliminating the necessity of maintaining this junction at constant temperature.



The table gives the useful temperature range and temperature v/s e.m.f. relationship for some commercial thermocouples.

### **2.3 Thermistors**

A thermistor is an electrical resistor used to measure temperature. A thermistor designed such that its resistance varies with temperature. Thermistors tend to be more accurate than RTD's and thermocouples, but they have a much more limited temperature range because of their marked non-linearity. A thermistor capitalizes on the fact that the electrical resistance of a material changes as its temperature changes. Thermistors rely on the resistance change in a ceramic semiconductor, with the resistance dropping non-linearly with a temperature rise. The advantages of thermistor include the non requirement of any reference junction. Comparatively this method is simpler.

### **2.4 Resistance Temperature Detectors:**

The same year that Seebeck made discovery about thermoelectricity, Humphrey Davy discovered that metal resistivity had consistent temperature dependence. Years later proffered Davy Siemens Fifty later, William Siemens use of platinum as element in a resistance thermometer. Platinum is well suited for resistance thermometry because it can Withstand high temperatures while maintaining excellent material stability. As a noble metal, Platinum shows limited susceptibility to contamination.

RTD's are stable and have a fairly wide temperature range, but are not inexpensive as thermocouples since they require the use of electric current to make measurements, RTD's are subject to inaccuracies from self-heating. An RTD capitalizes on the fact that the electrical



resistance of a material changes as its temperature changes. RTD's rely on the resistance change in a metal. The resistance will rise more or less linearly with temperature.

Traditionally, RTD's use a length of conductor (platinum, nickel iron or copper) wound around an insulator.

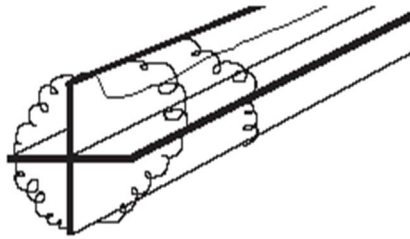
RTD's are used to measure temperatures from  $-196^{\circ}$  to  $482^{\circ}$  C.

Resistance of a small wire is used to detect temperature. Factors other than temperature that effect resistance must be minimized. Primary effect is strain. The classical RTD construction using platinum was proposed by C.H. Meyers in 1932 • Helical coil of platinum wound on a crossed mica web and mounted inside a glass tube. Minimized strain on the wire while maximizing resistance.





Sr. No.	Thermocouple	Composition	Temperature		Thermoelectric power		Remarks
			Useful Range	Max. limit	°C	Millivolt	
2	Chromel v/s alumel	90% Ni + 10% Cr v/s 95% Ni + 5% (Al + Sn) Mn	-200 to 1200	1450	-200 0 300 600 900 1200	-5.75 0 12.21 24.90 37.36 48.85	High Resistance to oxidation
3	Iron v/s constantan	Pure iron v/s 45-60% Cu + 40-55% Ni	-200 to 750	1000	-200 0 300 600 900	-8.27 0 16.59 33.27 52.29	-



MEYERS RTD CONSTRUCTION

Another type of construction is film construction. Film RTD offers substantial reduction in assembly time and has advantage of high element resistance for a given physical size.

Small device size means fast response to changes in temperature. Film RTD's are less stable than wire-wound, but are more popular because of decided advantages in size, production cost and ruggedness.

Temperature measuring device	Advantages	Disadvantages
Thermocouple	<ul style="list-style-type: none"> <li>• Self powered</li> <li>• Wide range of temperature</li> </ul>	<ul style="list-style-type: none"> <li>• Reference required</li> <li>• Least stable</li> </ul>
RTD	<ul style="list-style-type: none"> <li>• Most stable</li> <li>• Most accurate</li> </ul>	<ul style="list-style-type: none"> <li>• Expensive as current required</li> <li>• slow</li> </ul>
Thermistor	<ul style="list-style-type: none"> <li>• High output</li> <li>• Fast</li> </ul>	<ul style="list-style-type: none"> <li>• Limited temperature range</li> <li>• Self heating</li> </ul>

### 2.5 Pyrometers:

A pyrometer is a type of thermometer used to measure high temperatures. Various forms of pyrometers have historically existed. In the modern usage, it is a non-contacting device that intercepts and measures thermal radiation, a process known as pyrometry. The thermal radiation can be used to determine the temperature of an object's surface.



A modern pyrometer has an optical system and a detector. The optical system focuses the thermal radiation onto the detector. The output signal of the detector (temperature  $T$ ) is related to the thermal radiation  $j^*$  of the target object through the Stefan–Boltzmann law, the constant of proportionality  $\sigma$ , called the Stefan-Boltzmann constant and the emissivity  $\varepsilon$  of the object.

$$j^* = \varepsilon \sigma T^4$$



This output is used to infer the object's temperature. Thus, there is no need for direct contact between the pyrometer and the object, as there is with thermocouples and resistance temperature detectors (RTDs).

### 3. Summary:

Reliable temperature measurements require a great deal of care in selecting and using the transducer, as well as choosing the right measurement system. With proper precautions observed for self-heating, thermal shunting, transducer decalibration, specifications and



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noise reduction, even the most complex temperature monitoring project will produce repeatable, reliable data.

This objective of this paper was to study the various temperature measurement techniques and to understand each and every technique. For the measurement of temperature at the cutting interface, high temperatures are bound to generate. Thus such a device should be selected which is able to sustain high temperatures generated during cutting operation. From the above survey, it is clear that thermocouple has the widest range of operating conditions and will be a good approach of using thermocouples for temperature measurement during turning operation.



## “హృదయేశ్వరి కావ్య విశిష్టత - ఒక పరిశీలన”

**పల్లి బిన్నారావు**

**యూ.జి.సి. జూనియర్ రిసెర్చ్ ఫెలో,**

**తెలుగుశాఖ - ఆంధ్ర విశ్వకళాపరిషత్తు.**

ఈ శతాబ్ది తొలి సాదమందు క్షీణయుగమందలి అస్థిల ప్రబంధ సాహిత్యంపై ఒకంత తిరుగుబాటు ధోరణితో ఆవిర్భవించినదే భావకవిత్వం. ఆ రోజుల్లో భావకవిత్వమనే పదం నవ్యకవిత్వానికి పర్యాయపదంగా ప్రయోగించబడేది. భావకవిత్వమనే పదం తొలిసారిగా ప్రయోగించినవారు రాయప్రోలువారు. అనాడు కలంపట్టిన ప్రతికవి భావకవితా ప్రభావానికి లొంగినవాడే. కృష్ణశాస్త్రి, తల్లావజ్జల, విశ్వనాథ, నాయని, నండూరి, వేదూరి, దువ్వూరి, బాపిరాజు, పింగళి, కాటూరి మున్నగువారెల్లరూ భావకవులే. శ్రీశ్రీ సైతం తొలి రోజులలో భావకవితా ప్రభావంతో “ప్రభవ”ను సృష్టించారు. ఆంగ్ల సాహిత్య మందలి కల్పానిక ప్రభావమే భావకవితా తీవ్రతకు దోహదం చేసింది. కల్పానిక కవితా లక్షణాలన్నింటినీ భావకవులు దిగుమతి చేసికొన్నారు. కల్పానిక కవిత్వమందలి కల్పన భావ కవిత్వ మందు ప్రధాన లక్షణమైనది.

భావ కవులెల్లరూ జానువుల వరకు వ్రేలాడు లాల్పితో, మెరుగు కళ్ళజోడుతో, గిరజాల జుట్టుతో వుండేవారు. కవితతోపాటు వారి వేషధారణకు కూడ ఒక ప్రత్యేకత ఏర్పడింది. దాదాపు మూడు దశాబ్దాలపాటు ఆంధ్ర సాహిత్య కేంద్రమందు భావకవిత్వం బంగారుపంట పండించింది. అనాడు భావకవితోద్యమ ప్రచార ప్రభావాలకు నవ్యసాహిత్య పరిషత్తు వేదికగా నిలిచింది. నవ్య సాహిత్య పరిషత్తు సంస్థాపకులు, అధ్యక్షులు తల్లావజ్జల శివశంకరశాస్త్రి గారు.

తల్లావజ్జల వారు 1892లో గుంటూరు జిల్లా కాజ గ్రామంలో పండిత వంశంలో జన్మించారు. ఆయన బహుభాషా పండితులు. పాళీ, ప్రాకృతము, వంగము, మహారాష్ట్రము, హిందీ మున్నగు వాఙ్మయాలలోచక్కని పరిజ్ఞానాన్ని సంతరించుకున్నారు. గ్రీకు, లాటిన్ సారస్వతాలను సవిమర్శంగ అధ్యయన మొనరించారు. వేదాంత, వైయాయిక ఛందో వ్యాకరణాదులను శ్రద్ధతో పఠించారు. శాస్త్రిగారు మతసామరస్యం కలవారు. ఆయన శైవోపాసకులైనా అద్వైత మతానుయాయులైనా రాధాకృష్ణులయెడ వారికి భక్తిమెండు. బౌద్ధమతాభిమానం పట్ల వారికి ఆసక్తిమెండు నవ్యసాహిత్య పరిషత్తును చాకచక్యంగా నిర్వహించగలిగిన సభాపతులు తల్లావజ్జలవారు. స్నేహశీలిగా, విశాల భావుకులుగా అందరి మన్ననలందుకున్న అగ్రేసరులు వారు.

తల్లావజ్జల వారు తొలిరోజుల్లో బెంగాలీ భాషలోని శరశ్చంద్రుని రచనలను ఆంధ్రీకరించడానికి పూనుకొన్నారు. వారికి రూపక రచనపై మక్కువ ఎక్కువ. ఆంగ్ల నాటకానుసరణంగా అనేకమైన పద్య, గేయ నాటికలను వెలువరించారు. వారి రచనల్లో హృదయేశ్వరి, దీక్షితదుహిత, పద్మావతీచరణ చారణ చక్రవర్తి, వకుళమాలిక, కావ్యావళి, వర పరీక్ష, ఆవేదన, రత్నాకరము, కవిరాజు, కాంచనమాల మున్నగునవి ప్రసిద్ధమైనవి. ఆయన రచనల్లో మహాకావ్యాలు లేకున్నా ప్రతి కావ్యం మహాత్మ్యమైనదే. ఆ కావ్యాలన్నింటిలో మహాత్మ్యమైనది, ఉత్పృష్టమైనది హృదయేశ్వరి. హృదయేశ్వరి కావ్య విశిష్టతను గూర్చి చెప్పడమే ప్రస్తుత వ్యాసముఖ్యోద్దేశ్యం. హృదయేశ్వరి కావ్య రచన నాటి కవి హృదయ నేపథ్యాన్ని చూద్దాం.

తల్లావజ్జల వారికి 1923లో భార్యావియోగం ప్రాప్తించింది. అప్పటినుండి ఆయనలో ఒక పెద్ద మార్పు కలిగింది. శీతల గంభీరమైన ఆయన హృదయ సముద్రంలో ఒక బడబాగ్ని ప్రవేశించింది. ఆ బడబానల స్ఫుర్తలెల్ల తల్లావజ్జలవారి కవిత్వంలో పెద్ద మార్పువచ్చింది. అది ఆగ్రంగా జ్వలించే జ్యోతిగా మారింది. ఈ మార్పు వచ్చిన పిదప విడుదల ఉద్విగ్న హృదయవేదనా భరం నుండి ఆర్థతతో వెలికివచ్చిన ప్రథమ కావ్యం హృదయేశ్వరి.

భావ కవితా శాఖలలో ప్రణయకవితా శాఖకు చెందిన కావ్యం హృదయేశ్వరి. ప్రణయకవితలో ఆత్మాశ్రయరీతికి చెందినది. హృదయేశ్వరిలో “ప్రేయసీ పూజ్యత” పతాకస్థాయి నందుకున్నది. హృదయేశ్వరి కావ్యం లక్ష్మీ పదాంకితమైంది.



హృదయేశ్వరిలో నాయిక పేరు లక్ష్మి. నాయకుడు తల్లావజ్జల వారే.

ఆత్మాశ్రయ కవితా రీతిలోనున్న కావ్యాలన్నింటిలో నాయకులు కవులే. వారెల్లరు స్వోత్కర్ష ఆత్మనిండ గలవారే. కావున వారెవ్వరు ధీరోదాత్తులు కారు. హృదయేశ్వరి కావ్య నాయకులగు తల్లావజ్జల వారు కూడ అంతే. నాయిక లక్ష్మి ప్రేరణతో ఆయన కవిత్వం ఆవిర్భవించింది. ఆ విషయాన్ని చెబుతూ -

“అనిశము వెలయునే మనోహరమూర్తి  
 స్వచ్ఛమామక భావనా సౌధమందు  
 వెలసెను కవిత్వ మేదేవి వీక్షణంబు  
 ఆట్టి హృదయేశ్వరికి నిది యంకితంబు”

హృదయేశ్వరి లక్ష్మి ప్రేరణతో సాధించిన కవితానిధి. ఆమెకే కానుకగా దీనిని సమర్పించడం సముచితంగా వుంది.

కవి తానొక సుందరీమణిని గాంచి, వలపుతలపుతో ఆమెను వివాహమాడాలని నిశ్చయించుకొంటాడు. ఆమె తొలుత అంగీకరిస్తుంది. పిదప పరిస్థితుల ప్రభావంవల్ల నిరాకరిస్తుంది.

విరహాతురుడైన కవి ఉద్విగ్నతతో పొందిన మానసికసంచలనాన్ని విభిన్న దశా విశేషాలను, విరహావస్థలను హృదయేశ్వరిలో కవి చక్కగా వివరించారు. ఇందులో విభ్రమము, విరహావీచి, ఆశాజ్యోతి, వైతాళికము, శుభస్వప్నము, లోకయాత్ర, దేవాలయము, సందేశము, సమాగమము, అను తొమ్మిది ఉచ్ఛ్వాసాలున్నాయి. వీనిలో స్మరణ, దర్శన, భాషణ, స్మర్య నాదులను తొమ్మిది విరహావస్థలు సూచింపబడ్డాయి.

హంస దౌత్యంతో నలునకు దమయంతిపై ప్రేమభావం కలిగినట్లు ప్రాణమిత్రుని రమ్యవాక్కులతో నాయకునకు నాయికపై ప్రేమాతిశయం కలిగి, ఆమె స్మరణతో పరితపించడమే విభ్రమము. ఆమెను దర్శించి విరహావేదనా దగ్ధహృదయంపై నైరాశ్యంతో కృష్ణానదిలో దూకి ప్రాణత్యాగం చేసుకోవాలనుకోవడం “విరహావీచి”. ఇంతలో కవితవర్ణ మనోజ్ఞాంశుకము”తో నాయిక సాక్షాత్కరించి అతడి మనోతిమిరాన్ని పారద్రోలి అశాశ్వతిని వెలిగించడమే “అశాశ్వతి”.

నాయకుడు స్వేచ్ఛాప్రీతితో నాయకకు ధైర్య ప్రబోధం చేయడమే “వైతాళికము”. నాయికా నాయకులు గాఢోపగుహనాన్ని పొందినట్లు, మణికర్ణికా, జయదేవులను సంతతిని బడసి వారితో సల్లాపము లాడినట్లు, నాయకుడు కనీస మధుర స్వప్నమే “శుభస్వప్నం”. నాయకుడు జ్యోతిష్య శాస్త్ర పండితునితో సంభాషించి తన వివాహ వైఫల్యాన్ని తెలిసికొని వైరాగ్యంతో కుమిలిపోవడమే “లోకయాత్ర”. ఆ స్థితిలో నృసింహాలయ మందు నాయికను గాంచి రవంత ఊరడింపు పొందడమే “దేవాలయ” సన్నివేశం. నాయకుడు సోదరీ సమానయగు స్త్రీ చేత నాయికకు ప్రణయం దౌత్య సందేశ మంపుటే “సందేశము”. నాయికా నాయకుల సమాగమం, నాయిక నిష్ఠుమణం, వివాహవైఫల్యం మున్నగు విషయ దౌత్యకమే “సమాగమము”.

నాయిక మహాకులీన. ముగ్ధ. ఆమెను హృదయాధిదేవతగా నాయకుడు ఆరాధిస్తాడు.

“ఎంచు చున్నాను నిన్ హృదయేశ్వరి గను  
 వలచు చున్నాను జీవితేశ్వరిగను  
 భావనము సేయుచుంటి నిన్ దేవిరీతి  
 నీవునా ప్రాణాధికపు నాకు నిశ్చయముగ,  
 వాంఛనీయ సుఖాధి దైవతమ వీవు  
 వాస్తవముగ భాగ్యదేవతవు నాకు”

హృదయేశ్వరిని తన జీవితేశ్వరియని, దేవియని, ప్రాణాధిక భాగ్య దేవతయని ఆరాధించడం ప్రశంసనీయం. ఈ విధానం ఆంగ్ల కవి షేక్స్పియర్ లో వుంది. షేక్స్పియర్ తన ప్రేయసిని దేవిగా సంభాషించి "I grant I never saw Goddess my mistress when she walks and treads on the ground" అని చెప్పెను. తల్లావజ్జల వారి హృదయేశ్వరి ఆరాధనలో షేక్స్పియర్ అనుసరణ కనిపిస్తుంది. ఆంగ్ల కవితానుసరణం భావకవులకు సహజ లక్షణమే.



నాయిక సంస్కృతాంగ్ల, హిందీ భాషలలో కోవిదురాలు. ఆమె శ్రీరామచరితమాసన గ్రంథాన్ని చదవడం, నాయకునకు కలిసార్థకావ్య సమన్వయం చేయడం యీ విషయాన్ని రూఢ మొనర్చుచున్నది. నాయకుడు నాయికతో -

“గాఢపాక జటిల కావ్యపాఠన వేళ  
 ప్రతిభతోడ కఠిన భాగములను  
 అన్వయింప నీవు హర్షవిహ్వలత ని  
 న్నెన్ని సార్లు కౌగిలించినానొ”

నారికేళ పాకమందలి కార్యాలను ప్రతిభతో అన్వయించగలిగే వైదుష్యం నాయిక కున్నదని విదితమగు చున్నది.

ముగ్ధమోహన రూపంలో అరమోదాప్పు కన్నులతో నాయిక నాయకుని చిత్తవీక్షణాలను హరించిన సన్నివేశంలో “గ్రీవము మనోజ్ఞముగ వంచి క్రింది చూడ్కి మోహనమయూరి పోల్కినా హరించి” అని చెప్పడం మనోజ్ఞంగా వుంది. కాళిదాసు శాకుంతలంలోని “గ్రీవాభంగాభిరామం” అనే శ్లోకాన్ని స్ఫురింపచేసేటట్లుంది.

తన హృదయేశ్వరి తన జీవితానికి ఆశాకిరణమని చెబుతూ -

“ముకుళిత మ్లానమైన నాముఖసరోజు  
 వికసనము సేయు తరుణార్క బింబమీవు”

అంటాడు. మ్లానమైన నాయకుని ముఖసరోజాన్ని వికసింపజేసే సూర్యబింబ మామె అనడం గొప్ప భావన. ఈ భావన రవీంద్ర కవీంద్రులవారి “నను హేమంత మేఘాన్ని. నువ్వు నన్ను ముద్దులతో కరిగించే భాస్కరమూర్తివి” అనే ప్రయోగానికి ఆనుసరణలా వుంది. వంగభాషా ప్రవీణులగు తల్లావజ్జుల వారిపై రవీంద్రుల ప్రభావముండడం ఆశ్చర్యంకాదు.

నాయిక గానకళాకోవిధ. నాయకుడు ఆమెలో లక్ష్మీ సరస్వతుల సమాహార స్వరూపాన్ని ఆరాధిస్తాడు. ఒకసారి ఆమె “నీలాంకుకము దాల్చి నీలమేఘశ్యాముని కౌగిలిలో కరిగిపోయే లక్ష్మీ దేవిలా భాసించింది. మరోసారి రమణీయ శీతల సంధ్యాసమయంలో విద్యాలయం నుండి తిరిగి వచ్చేపుడు వాణ్ణివిలా” ఆమె సాక్షాత్కరిస్తుంది. ఆమె ముగ్ధ భావాలతో అతడు పరిపూర్ణ మౌఢ్యాన్ని పొందాడు.

తల్లావజ్జులవారికి బౌద్ధమతాభిమానం మెండు. ప్రణయమూర్తియైన హృదయేశ్వరిని ప్రశంసిస్తూ -

“బౌద్ధులకు నాకు బుద్ధిలో ప్రణయమూర్తి  
 అరయనెంతటి తారతమ్యంబు కలదు  
 ఉభయులకు గూడ సాదృశ్య మున్నదొకట  
 నాకు వారలకును త్రిరత్నములు కలవు”.

హృదయేశ్వరిలోని గుణగణాలను ప్రథమ రత్నంగా, ఆమె విద్యాభినిరతిని ద్వితీయ రత్నంగా, ఆమె నవయవ్వన శోభను తృతీయ రత్నంగా కవి చమత్కరించారు.

బౌద్ధులకు త్రిశరణాలు ప్రణవాలు. హృదయేశ్వరీపరంగా త్రిశరణాలను సమన్వయిస్తూ కవి హృదయేశ్వరిపై గాఢానారాగ ముదయింపజేసిన ప్రాణమిత్రుని అమృత నిష్యంధ వాక్కులు ప్రథమ శరణమని, భక్తవత్సలుడగు రాధికానాథ దేవుని చరణ కమలాల ద్వితీయ శరణమని, తన మనోరాజ్యలక్ష్మి తపోనిధియగు హృదయేశ్వరి కటాక్ష వీక్షణాలు తృతీయ శరణమని చెప్పడం సమంజసంగా వుంది.

బౌద్ధ త్రిరత్నాలను, త్రిశరణాలను కవి తన ప్రేయసీపరంగా చమత్కరించడం తల్లావజ్జులవారి బౌద్ధమతాభిమానాన్ని, బౌద్ధ వాఙ్మయాభిజ్ఞతను సూచిస్తుంది. కాని వీతరాగులు, సేవాపరాయణులగు బౌద్ధుల ప్రణవాలను ప్రేయసీపరంగా అన్వయించడం ఔచిత్యంగా లేదేమోననిపిస్తుంది. విరహవేదనా భరిత హృదయంకాదు నాయకుడు నాయికతో

“వక్షములు రెండు సర్వప్రపంచమునకు  
 కృష్ణపక్షమొకటి నాకు కేవలము”

అన్నారు. కృష్ణపక్షం చీకటికి సంకేతం. చీకటి బాధలకు, వ్యధలకు ప్రతీక. హృదయేశ్వరీ విరహనలదగ్గ మనస్కుడగు



నాయకునకు వైరాగ్యంతో వ్యధలు, బాధలే కనిపిస్తున్నాయి. సుఖసంతోషాలు కనిపిస్తాయన్న ఆశలేదు. నిరాశావాదం భావకవుల సహజ లక్షణాలలో ఒకటి.

నాయికా యింటిముందున్న పొగడచెట్టును వర్ణిస్తూ -

“అవుర నాకంటే నెంతటి యధికమైన  
 పుణ్య మొనరించె మీయింటి పొగడచెట్టు  
 వివిధ విధములనిన్ను సేవించుచుండు  
 యుక్తమైన ఫలముల పొందుచుండు”.

అంటాడు. ఇచ్చట పొగడచెట్టు నాయకునకు ప్రతీకగా వర్ణించబడింది. హృదయేశ్వరి కది ప్రేమపాత్రమైనది. ప్రాణప్రదమైనది. ఈ వర్ణన “బైరన్” కవి తన ప్రేయసి ఇంటిముందున్న చెట్టును “డ్రీమ్” అనే గేయంలో వర్ణించిన దానికి అనుసరణలా వుంది.

తల్లావజ్జల వారికి జాతక జ్యోతిష్య శాస్త్రాభిమానం మెండు. హృదయేశ్వరి కావ్యంలో రెండుమార్లు ఈ ప్రస్తావన చేశారు. ఒక జాతక పండితుడు మహాకులీన, విద్యాభినిరతయగు స్త్రీ నాయకునకు భార్య అవుతుందని చెప్పేటప్పటికి ఆ పండితునకు నాయకుడు శతాధిక నమస్సులర్పించాడు. మరోసారి ప్రసిద్ధ జ్యోతిష్యశాస్త్ర పండితుడగు జోషిమహాశయులు నాయకుని జాతకంచూచి -

“అరసిమాడ నీకు నా కన్యకు వివాహ  
 ఘటన ముందురీతి కానరాదు  
 ప్రబల విఘ్న కారణము లితండు  
 అన్యయువతిఁ బెండ్లి యాడడప్పుడు”

అని చెప్పాడు. జోషిగారి మాటల్లో విఘ్నాలవల్ల నాయికా నాయకులకు వివాహవైఫల్యం సంభవిస్తుందనే భవిష్యత్కథార్థనూచన జరిగింది.

అలతి అలతి పదాలతో మహార్థమును సాధించగలిగిన రసనా నైపుణ్యం గలవారు తల్లావజ్జలవారు. యతిప్రాసలపై, శబ్దాలంకారాల పై వారికి మక్కువలేదు. హృదయేశ్వరిలో తేటగీతులు, ఆటవెలదులు, ముత్యాలనరాలు మున్నగు ఛందాలను ప్రయోగించారు. ఆ ఛందాలకు సరిక్రొత్త అందాలను చేకూర్చారు. తల్లావజ్జల వారికి రూపక రచనాభిలాష మెండు. అందువలన హృదయేశ్వరి కావ్యంలో చక్కని నాటకీయ మగు సంభాషణలను ప్రవేశపెట్టారు.

బహుభాషా పాండిత్యం, అలితకళాభిజ్ఞత, బౌద్ధమతాభిమానం జాతక జ్యోతిష్య విషయానక్తి మున్నగు విషయాలన్నీ తల్లావజ్జలవారి ఆత్మీయతను అవగతం చేస్తున్నాయి. హృదయేశ్వరిలో తల్లావజ్జల వారి ఆత్మీయత జాలువారింది. ప్రతిభ వెల్లివిరిసింది. అధునికాంధ్ర సాహిత్యంలో హృదయేశ్వరి కావ్యానికి విశిష్టమైన స్థానముంది. ఆ రోజులలో హృదయేశ్వరి కెట్టి స్థానమున్నదో శ్రీశ్రీ గారి మాటలలో “1928-30 ప్రాంతాలలో అప్పటి మా రచన సెకండ్రేట్ పోయట్రీ. ఇంగ్లీషులో పెల్లీ, తెలుగులో రాయప్రోలు, అబ్బూరి, శివశంకరశాస్త్రి, విశ్వనాథ, కృష్ణశాస్త్రి, వేదుల, నండూరి, నాయని మా అభిమాన కవులు. హృదయేశ్వరి మా ఉద్గ్రంథం” అన్నారు. అనాడు హృదయేశ్వరికెంతటి ఉత్కృష్టమైన స్థానముందో శ్రీశ్రీగారి మాటల వలన అవగతమౌతుంది. నోరీ నరసింహశాస్త్రిగారు హృదయేశ్వరి ప్రాభవాన్ని విచరిస్తూ “సూక్ష్మదృష్టితో పరిశీలించేవారికి సూర్యునిలోంచి వచ్చే సహస్ర కిరణాలవలె, ఒక సూర్యకిరణం నుంచి వచ్చే ఇంద్రధనస్సు రంగులవలె శాస్త్రిగారి ఇతర కృతులన్నీ హృదయేశ్వరి నుండి ఆవిర్భవించిన రూపాలే అని ద్యోతకమవుతుంది అన్నారు. అయితే ఈ అభిప్రాయం తల్లావజ్జలవారు 1934 తరువాత చేసిన రచనలకే వర్తిస్తుందని” చెప్పడం అక్షరసత్యమైన విషయం.

తల్లావజ్జల వారి యితర కృతులన్నీ ఒకయెత్తు, హృదయేశ్వరి ఒక యెత్తు. నవ్యసాహితీ పరిష దధ్యక్షులుగా కాకున్నా, సాహితీ, సభి పత్రికల సంపాదకులుగా కాకున్నా, బహుభాషా కోవిదులుగా కాకున్నా, పద్యరూపక కర్తగా కాకున్నా, హృదయేశ్వరి కావ్య కర్తగా తల్లావజ్జల వారు ఆధునికాంధ్ర సాహిత్య చరిత్రలో చిరస్మరణీయులుగా వుంటారు.



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## WOMEN AND ART

**Ravindrababu Veguri**

Research Scholar

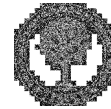
Department of Fine Arts

Andhra University, Visakhapatnam

### INTRODUCTION:

As a society we revere goddesses on one hand and disregard women's right on other hand. Can the study of ancient ,medieval,modern indian art from gender perspective shed some light on this paradox? Lets see...a paradox that any study of traditional Indian art has to grapple with, is the one between the profusion of representation of female figures such as goddesses and submissive status of women in the contemporary society.This uproots , how it emerges philosophically and in visual arts,gives a vintage point through aspects such as clothing, jewellery , posture and gaze to examine these concerns.

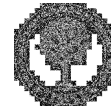
This paper is an exploration of ' changing perspectives' of gender from ancient to modern Indian art and attempts to locate gender and feminine representations at the centre of both history and art.. The ancient Indian art reflects a period of great turmoil in politico-economic,social,cultural and religious spheres that gave rise to contesting ideologies and gender complexities in ancient India. It delves into the development of engendered representations in art with the emergence of stereotypes and archetypes that are constructed, on the basis of gender roles rather than on sex and how these were reflected by various attributes of the representations – nudity or its absence , ornamentation, gestures, direction of gaze and context For example, nudity especially with regard to female figures is not universal in post Mauryan period ..It gives interesting insights into the intention , agency and patronage pattern in early Indian art.



This paper illuminates the vast diversity of global women's writing past and present especially artistic books and explores the potential for comparative study and analysis through an integrated trans- historical connections . Thus, examining the changing perspectives in pictorial representation of women from ancient to modern times, as such it is a socio-cultural study of histories of power of patriarchal dominance inscribed on monuments and sculptures through spatial relationships and modes of reproduction.

The early Indian period elucidated is the development of engendered representation in art with the creation of both aesthetic and sexual archetypes and stereotypes of various categories of women. The feminine is essentialised as beautiful and graceful but also physically uncontrollable while masculine is seen as mentally restrained , competent and physically brave. This perception is mirrored in artistic production while there is an effort at creating aesthetically pleasing male and female forms. Ideologically women as sexual reproducing beings are defined by their body. In the economy ,they played important role in expanding agriculture , working in fields and having great control over nature's ritual and reproductivity .This views engendering process not as linear monolithic development. Certain cultic and artistic representations in this period offers insights into the creation of gender roles both in art and society .The degree of patriarchal influence is neither uniform over time nor evenly spread over all religious ideologies. This paper attempts to recover the crystallization of gender and the setting forth of gender archetypes in this period thus gives insight into patronage patterns in early Indian art.

The gendering of early art also makes available material that is helpful in viewing of art of subsequent periods providing models that either continues or are transformed or get discontinued in post Gupta



periods thus, providing vital information about socio- religious processes that shape both earlier and later periods.

In comparison to that of early art historians , the recent historians of gender argue that in order to understand the roots of patriarchy and gender feminine representation this understanding create gender equality in society .It is not enough to investigate position of women in society rather inquiry into the processes of creation and institutionalization of gender differences ,oppression ie.. the warp and woof of a power ,ideology of patriarchy. Such efforts open up possibility of situating women’s history within the broad perspective of socio cultural context .

#### **LITERARY REVIEW :**

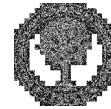
The literature of ancient indian art in particular has been gender neutral ,if not gender- blind in the past. **Richard Goldsmith** has noted that there is in adequate undertaking of profound note that social construction of gender has played in the formation of Indian social and religious life.This paucity of adequate understanding has been accompanied by inadequate analysis of gender and power relations in social history of India and lack of it is still more noticeable in the field of art and architecture.Before being reread or scrutinized in early 21 st century they were viewed to certain selective notions of ancient culture through process of editing,photographing and into histories that are modern contributions of ancient past. **Cunningham** saw in the plentitude or amorphousness of Indian art as a certain feminine descendance or ‘lack’ of robust nationality as against a rational masculine western discourse. **V.A.Smith** too epitomizes the western approach towards ancient Indian art. “They exhibit lasciviousness combined with grossness ”,according to him.While **Chander** and **Culakoka** and their sisters have the appearance of heavenly nymphs ,their unworthy descendants as mere courtesans exhibiting their



opulent charms and gaudy jewellery. In direct contradistinction, Indian historians such as **V.S.Agrawala** and **A.K.Coomaraswamy** chose to publish and comment specific art styles such as Gandhara and Mathura art in order to prove nationalistic agendas related to indigenous origins and inspirations for Indian artistic genius and in order to valorize depending on these ideological positions. **Coomaraswamy** articulated the argument that "these physicality of earliest female images from Mathura was directly related and emanated from pre-existing notions of female energy. These historians were inflected by imperialism, nationalism and ideology including ideology of art history as a discourse of rationality.

**Imperialist** historians stressed the ignoble position of women and increasing privileging of the sex. **Colonial writings** on Indian art tended to focus on nakedness and what was seen as 'immorality' in secular portrayals and viewed all depiction including its female representation as feminine and effeminate. Another approach was to visualize the powerless and lowly 'position of women' in text and art and to use this to designate a civilization as barbarous and backward-looking. **The position of women became an index of civilization.** The **nationalist** historians like **Atlekar** responded to an imperialist designation of Indians through art history by trying to establish relative freedom and empowered status of women in pure ancient period. He views women's agency as problematic and regards non-aryan women as being partly responsible for decline in caste women status.

Alternatively, authors such as **R.C. Dutt** and **R.G.Bhandarkar** exalt the empowerment of women within the household where they rule the domestic domain. However, they subscribe to the idea that the depiction of female image in Hindu art was obscene, immoral, and therefore embarrassing. Thus, they marginalized Indian art in general. Early 20th century nationalist art historians such as **Coomaraswamy** recovered figures and feminine highlights the the



visibility of goddesses within both textual and artistic traditions. By linking art production to maya and sakthi, feminine and feminized abstractions he gendered art production and located it within discourse of plenitude and prosperity. However his abstracts reproduced from socio-milieu of the producers and consumers of the art.

**Isabel Holmes** is an exception – as her's was the first sustained effort to locate women outside stereotypical notions of women in early Indian societies. She viewed them not only in social but also economical roles in society. She perceived a monastic order for women as providing an alternative women based community which provided them specific forms of expression and articulation of religious experiences. This analysis of women valorizes them and takes them beyond the realms of dress, ornaments, aesthetics that trivalise women.

Another notable systematic attempt at gender analysis of Indian art is **Vidya Dahejia** 's edited work 'Representing the Body'. Not only it raises the issues of spectatorship and agency ,but also deals with male sexual body as a gendered entity. According to Dahejia and other feminist critiques see these gender issues as embedded or extrincally entrenched in form of notions relating to femininity, masculinity and gender stereotyping. The imperialist used irrationality and purpotes unnatural immoral elements found in it to condemn the civilization and thus, glorifying western tradition. Late spiritual nationalist art historians propounded Effective theory which located feminine within the discourse of mysterious fertile creative forces thus valorising the feminine without privileging femininity ,masculinity or gender differences of these images. Recent intellectual exercises attempted to engender Indian art by seeing women as socio-sexual being on one hand and by locating female figures within philosophical and spiritual domain on other. These readings seek a balance between the metaphysical and material aspects of artefacts.



Emergence of female oriented art by our Indian poets and writers resulted in re-appreciation of the representation as a subject creator and receptor of pictorial art. A recipient of the Nobel Prize for Literature, **Tagore's** "Veiled Woman" and his Tableau reflections of 'Shrouded Women' poems display his extraordinary control over the erotic and the sensual. Some of his paintings hauntingly bring out a strange sense of melancholia and death reflecting the loss of Kadambari who obsessed Tagore, throughout his life. The sad faces, the shades of grey and black in most of his paintings and Tagore's references to Kadambari Devi as a subject of his paintings, give a an insight into the poet's creative subconscious and importance of women in his life.

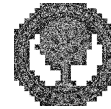
Women from Tagore's novels seem to inevitably find their way into his paintings like the mother and child "Portrait of a Woman" that evokes memories of the sad story of Bimala, a housewife tragically drawn to a fiery Indian nationalist, in his great novel 'Ghaire Baire '(The Home and the World).It reflects the attitudes of women of his times although he himself was a part of reform action, movements that propogated social reform, education for women and widow's remarriage. Tagore reflects the attitudes towards women of his times although he himself was a part of reform movements that propogated social reform, education for women and widow's remarriage. In another Untitled piece the light from the tiny window that enters the home of the woman summed up the limitations of the freedom of women of that era.

**Amrita Shergill's** artworks on women folklore, their culture and her depiction of the plight of women, has made her art, a beacon for women at large both in India and abroad. Amrita's art was strongly influenced by the paintings of the two Tagore's, Rabindranath and Abanindranath. Her portraits of women resemble works by Rabindranath while the use of chiaroscuro and bright colours reflect the influence of Abanindranath.It was during her stay at Saraya that she painted the Village Scene, In the Ladies' Enclosure and Siesta all of



which portray the leisurely rhythms of life in rural India. **Chitra Ganesh**, the contemporary artist has managed to create a niche for herself with her unique, comic-book style. Influenced by mythologies, imperialism and queer politics, Chitra experiments with a wide range of media like drawings, digital collages, murals and installations and her work shows elements of surrealism. Female sexuality and racial power relations are the most prominent themes. The most famous contemporary Indian women painter, **Arpita Singh's** paintings depict common Indian women going about their daily lives. Arpita is regarded as the most important woman painter in India after Amrita Sher-Gil, who was known as India's Frieda Kahlo. Arpita imbibes elements from Bengali folk art.

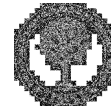
**MF Hussain** or 'Picasso of India' is the most renowned and influential of Indian modernist painters. He is famous for use of the cubist technique, and the themes range from historical figures like Gandhi to mythologies and ancient epics. His most famous paintings are of nude figures of Hindu goddesses, and his trademark features are women and horses. He was a controversial figure, and was forced to live in exile until his death in 2011. The struggle against centuries of purdah, the social system that essentially confines a woman to her home, encapsulates the painter **Rani Jha's** concerns both in her life and in her art. Born into a conservative Brahmin family, she fought against tradition, went to school, received an education and a few years ago earned her PhD at Darbhanga University with her thesis Women and Art in Mithila History. As a painter, her work and passionate commitment come from what she saw and experienced while with the NGO at a government Short Stay Home. These homes offer shelter to women abandoned by families or escaping abuse from intolerable family situations. Rani Jha's job was to record their stories, and the many horrific tales of lost lives and dreams that came to nothing compelled her to also record these situations in paint. She not only



wants to tell their stories but also hopes that her paintings may have some small effect in changing the social conditions for all Indian women. Gazing at the Moon still represents the reality for most women in India says Rani Jha.

Though Indian society has begun the slow shift towards women's rights and inclusion, most women still face a very restricted lifestyle. The woman in Gazing at the Moon has all the riches any person could want: fine clothes, a beautiful home and jewellery. However, this wealth mean little to her in the absence of freedom. Not only do centuries of social constraint stand in the way of women acquiring freedom but so do economic conditions. In artwork "husband leaving "Rani Jha witnessed the fallout of work migration on the wives and families left behind. In this piece, the wife bids goodbye to her departing husband with the requisite pot of water in her hand. She prays that flowers will be at his feet, that no troubles will befall him while he is away. But there is no guarantee of his return. She may grow old waiting, and she will never be allowed to remarry. In Changing Women Rani Jha uses women's dress to illustrate the change in societal norms over the last half century resulting in greater freedom for women.

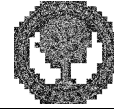
Marking the generational changes from 1940-2010, the piece Changing Women shows the easing of restrictions traditionally placed on Indian women. Moving from right to left, the traditional Indian woman is shown with her face veiled, surrounded by eight children, and wearing lots of jewellery. The next generation of women did not shroud their faces, though her hair is still mostly covered; she is also still heavily adorned, but only bore four children. In the next panel, the woman wears her sari over her shoulder and her hair in a bun; again, this generation produced fewer children. In the last panel, the contemporary Indian woman is not wearing sleeves, and her hair and face are uncovered. She carries a mobile, and can be seen out in the



world. Also, she wears a wristwatch in the place of many bangles. This woman has only one child and, significantly, it is a girl. Gender selectivity is often a prominent social issue in Rani Jha's work, and this piece is no exception.

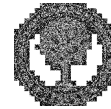
## PORTRAYAL OF WOMEN IN INDIAN ART

The women in India have often played a regressive role in society. Bowing to the dictates of a predominantly patriarchal society, the woman was assigned the role of a homemaker, nurturer, a wife, a mother and at times a lover. Indian art and artists has mirrored the social status of women, which is why though most of Indian art does have women as the central theme their portrayal often one dimensional. India is dotted with many glorious temples, but erotica on the walls of some arouses curiosity and even puzzles tourists. There are various theories about the reason for such vivid depiction of erotica--mass sex education, warding off natural calamities and the Devdasi system. The Ajanta paintings are the most famous in the history of Indian art. Here too the 'heroines' of the works are portrayed as voluptuous temptresses, stressing on the fertility aspect in their ample curves. This trend is further elaborated in the Mauryan, Buddhist art styles...the ideal of female beauty was always the broad-hipped child-bearing woman. If women were ever depicted as having power, it was always in the sexual sense - the sculptures of the women in Khajuraho frescos are assured and supremely confident in their sexuality. Yet, even in these depictions, we can glimpse the importance of women in Indian history and mythology. Essentially Indian Gods were nothing without their consorts who were considered the goddesses of wisdom, learning and wealth. . **Raja Ravi Varma**, one of the well known artists of Indian art, portrayed the divine aspect of women, their joy of being alive, as well as the home maker aspect. For him the perfect Indian woman was the dutiful daughter, the loving mother, the ideal homemaker.



This image of women changed with the Mughal period in art where women were closeted behind walled gardens and heavily veiled. The woman was relegated to a decorative item, no thought, no emotion, just she and the birds and her hand maidens in blossoming alcoves, in pretty Mughal miniatures - Typical of the times and the thoughts of the rulers! History has no record of any Mughal queen who dominated Indian politics or society. The legendary **Mumtaz Mahal** is only immortalised as the favourite queen of Shah Jahan in the Taj Mahal.

The **British 'Raj'** in India brought with it a heightened sense of morality; scantily dressed women were now out. A baroque and posed, almost stiff portrayal of figures and women in art was ushered in. But this was also the time when women began to be exposed to an education. **Amrita Shergill**, by far one of the most known women Indian artists dealt with the subject of women with a heightened sensitivity. This was not the temptress or the subservient weak woman but one who was struggling to live within the parameters of a male dominated society, hesitant, uncertain yet proud. Women artists seem to have harboured this theme in their works, probably stemming from their own understanding of the travails of women striving to break out of the yoke of domesticity and explore their options in the new world. **Anjolie Ela Menon, Lalitha Lajmi** are some of the women artists who portrayed life as they saw it with women as the main protagonists. **B. Prabha** highlighted the hidden strengths of village and tribal women. The male artists tended to still maintain a tunnel vision of women, while **M F Husain** saw them as a reserve of power and strength, **Akbar Padamsee's** nudes tend to be voyeuristic. Today's contemporary artists too play out the power struggles between men and women. **Aniket Khupse** prefers to show how the sexes relate on an equal platform as they act out relationships in his canvases. Artists like **Chintan Upadhyay** choose to highlight women's issues like female



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infanticide through their art. **A study of Indian art is in fact a study of the changing image of Indian femininity!**

This feature is dedicated to the most accomplished and admirable women artists of India. Nowadays, women artist of India are treated on an equal platform with male artists, the respect given to the women artist are same. This is however not always the case, back in the 40s, women were not put on the same pedestal as male artists, except for Amrita-Sher-gel who had her foreign descent and brazen attitude (& of course talent) to bolster her image among the artist community. It was in the 70s that the stature of women artists were elevated artist among the art community and patrons. However, this feature portrays the women who made a difference in the art scene and were recognized for the art rather than gender. Great art has come out of the hands of women artists like **Anjolie Ela Menon, Aprita Singh, Devayani Krishan , Asma Menon, Gogi Sarojpal** and most famous of all **Amrita Sher-gil**. Most of these artists had women subjects as their centre of inspiration – their portrayal of women were primarily to show the daily activities and travails they faced in society and there was no emphasis on sensuality of the subject. Many of them fought tradition to follow their passion of the arts.

## CONCLUSION

The shaping of the disciplinary practice of gender representation in Indian context has been a fascinating process and brings a range of issues in changing perspectives of gender perception from ancient to contemporary times on visual arts. I do hope that this paper is lucid and informative as indispensable resource for all those engaged with literature and culture in universities across the globe and of interest to general readers . Indian art and culture centuries old can be read as gender discourse. Since gendering is one major reason for marginalization of Indian art within the wider field of visual art, by



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scrutinizing Indian art historical writings on women from my perspective I seek to chart how gender has been manipulated to diminish Indian art.

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## STATUS OF WEAVERS IN GULBARGA DISTRICT: A SOCIOLOGICAL STUDY

**Sanjeev Kumar Gundappa Kudri**

Department of Studies and  
Research in Sociology  
Gulbarga University  
Karnataka

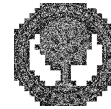
**Dr. Jaikishan Thakur**

Associate Professor and  
Research Guide  
Govt First Grade College  
Mahgoan Cross, Kalburagi Dist  
Karnataka

### Introduction

In most of the developing countries, about 20 % to 30 % of rural labour force engaged in non-firm activities as a primary source of earnings. They are in abject poverty, having no land and capital, so they cannot achieve their basic needs of life. Remaining 70 % to 80 % rural populations have access to land and can farm. The family's basic needs are never met with their income. Handloom industry in India is an ancient cottage industry. References to the use of handloom are abundant in the recorded details of epics like the Ramayana and the Mahabharata. This industry seems to have flourished between 5000 and 3000 BC. The civilizations of Harappa and Mohanjodaro reveal the use of woolen and decorative embroidery in handloom. The industry as we understand it today is constantly associated with Indian rural economic scenario ever since.

The Handloom industry being a part of the Indian culture and tradition, it is one of the oldest cottage industries in India diffused widely through the country. The artisans of India are famous for hand spinning, hand printing and hand typing. They are accustomed to the art of weaving as a hereditary occupation. The industry transcends sectarian linguistic and communal barriers. The industry is providing direct employment to 12.5 million people in Indian decentralized sector. Further the industry generates indirect employment to others like loom



manufactures, dyers, twistors, processors, etc., thus one in every 60 in the country is engaged in this industry in one way or the other. The Handloom weavers produce textiles from a third of nation's cotton product and over 60 per cent of the exported is next only to agriculture. In spite of overall economic growth of a country as a whole, the living condition of rural population does not change significantly. Even the disparities between urban and rural population have increased tremendously. According to census 2001, 72.22 percent of total population still lives in village, although there has been steady increase in the process of urbanization. It is true even today like earlier that India lives in villages and village constitutes the heart of India. Agriculture is the mainstay of the country, as about 80 percent of the total population directly or indirectly dependent on agriculture for their livelihood. Still rural people suffer from poor living condition. Here 26 percent of total population falls Below the Poverty Line (BPL). To overcome the above mentioned drawbacks, Rural Development assumes great importance

The handloom industry generates production at low capital cost, mostly using indigenous raw material and utilizing local skills, widens entrepreneurial base, facilitates balanced regional growth and prevents the migration labour to the metropolitan areas.

### **Statement of the problem**

The handloom sector plays an important role in the economic development of the rural poor in the state. It contributes significantly by generating more employment opportunities and providing bread to the rural poor. It absorbs more than 4 million people in its fold. Realizing its importance, a plethora of measures is undertaken by the government in order to promote the handloom sector.



## **Methodology**

An attempt is made in this section to explain the methods, tools and techniques that were chosen and employed for the study of status of weavers community in Gulbarga District. After proper scrutiny, the methods which suit best to the present study are employed. As such the present study has employed interview schedule to collect the data.

The interview schedule was prepared keeping in view the objectives, the research questions and the hypotheses of the study, care was taken to see that, none of the objectives, were left out and irrelevant superfluous data were gathered from the respondents.

## **Results and discussion**

Many people of our country depend on handloom industry. This sector provides employment for more than 15 million people and is second largest rural employment provider next to agriculture. Handloom weavers are known for their knowledge, innovation and brilliance in designs. In general handloom workers are belonging to the weaker sections in the rural areas. To improve the deplorable conditions of handloom workers, overall social and economic upliftment of the weaker section is needed. In this context, it will be worthwhile to have a fresh look on the socio-economic development of weaker sections with reference to handloom worker's households.

### **Profile of the respondents of the study area**

This section provides an overview of the personal attributes of the respondents like, Age, Religion, Profession, Educational Qualification, production, Monthly Income and health status.

### **Demographic Feature**

Primary data have been collected from 450 weavers of the study area.



**Table No 1. Age of respondents (No 450)**

Age	Frequency	Percent
20 to 30	83	18.4
31 to 35	159	35.3
36 to 40	199	44.2
41 and above	9	2.0
Total	450	100.0

Table 1 records the demographic information of the weavers. During data collection it was found that most of the weavers belonged to middle age group of 26-50 years, because the productivity is relatively more at this age due to their physical capabilities. Younger generation in the weavers' community preferred to take employment in the cities other than handloom weaving after their higher education. Therefore their involvement is very minimal in weaving. On the other hand involvement of older people was less conspicuous because of their physical health, strength and visual problems.

In the present study 44.2 percentage of weavers were between 36-40 age group, followed by 35.3 percentage of weavers were between 31-35 age group and 83 respondents were fall under age group of 20-30 respectively.

**Table No 2. Religion of respondents (No 450)**

Particulars	Frequency	Percent
Hindu	400	88.2
Muslim	50	11.8
Total	450	100.0

**Table No 3. Caste wise distribution of respondents (No 450)**

Particulars	Frequency	Percent
Nekar (Lingayat)	400	88.2
Muslims	50	11.8
Total	450	100.0



Generally in this area weaving is a traditional occupation of people who belong to Hindu religion. The distribution of weaver's caste is shown in Table – 2 and 3 Other Back-ward Class (OBC) is dominant as they accounted for 88.2 percent of total respondents. Again only 40 respondents which constitute 11.18 percent weavers are falling in the Muslims. No SC&ST families are engaged in this sector. At the time of detailed discussion with the households during field investigation, it is revealed that the handloom work may be turned to be an attractive and traditional occupation.

**Table No 4. Sex ratio of respondents (No 450)**

Particulars	Frequency	Percent
<b>Male</b>	274	60.9
<b>Female</b>	176	39.1
<b>Total</b>	450	100.0

It is significant to note that, out of 450 respondents studied the respondents are not distributed equally. The researcher here randomly selected respondents on the basis of sex. So as to know the role the sex of the respondents plays key role in weaving activity. In the present investigation 274 respondents (60.9 percentage) were men and 39.1 percentage (176 ) were composed of female respondents

**Table No 5. Educational status of respondents (No 450)**

Education	Frequency	Percent
<b>Technical</b>	8	1.8
<b>Non -technical</b>	4	0.9
<b>Traditional</b>	438	97.3
<b>Total</b>	450	100.0

Education is an engine of social change and equalitarianism. For a long time in India, education was considered as an exclusive privilege



of the upper class of society. But after independence, it has been considered that education is a democratic right to all Indians. Several programmes have been taken in several economic planning to correct the malady.

From the table 5, it is observed that, out of 450 proprietors 438 (97.3 percent) have no formal education but they are just have the knowledge on weaving activity. Only 1.8 percent have the technical educational qualification, 0.9 percent possessed non- technical education and no proprietor is available who are professionally qualified in the sample size.

**Table No 6. Marital status of respondents (No 450)**

Particulars	Frequency	Percent
Married	421	93.6
Unmarried	29	06.4
Total	450	100.0

From the table (6) above it is noticed that, out of 450 respondents 93.6 percentages were married and only 29 respondents (06.4 percentages) were unmarried.

**Table No 7. Have you migrated to this place (No 450)**

Particulars	Frequency	Percent
Yes	27	6.0
No	423	94.0
Total	450	100.0

In the present investigation, we are tried to find out the status of migration of respondents with relation to the weaving activity. Interestingly only 27 respondents were migrated from other places they



constitute only 6.0 percentages respectively. The remain 423 (94.0 percentage) respondents were consider to be local residents.

**Table No 8. Number of family members who know the weaving or involved in weaving (No 450)**

Particulars	Frequency	Percent
Myself only	250	55.55
My wife also	50	11.11
My children and wife	100	22.22
All of my family members	50	11.11
<b>Total</b>	<b>450</b>	<b>100.0</b>

The weaving activity is considered as a traditional practice in the weaving community. from the above table one can easily predict that, near to half of the respondents were stated that , they only one who knows that weaving art and 11.11 percentage of wife were also involved in this activity. Interestingly 11.11 percentage of respondents are stated that all the members of their family known about the weaving activity.

**Table No 09. Is weaving a primary source of income for your family (No 450)**

Particulars	Frequency	Percent
Yes	392	87.1
No	49	10.9
Not applicable	09	2.0
<b>Total</b>	<b>450</b>	<b>100.0</b>



The data shows that 87.1 percent respondents stated that weaving is the only source of income where as 10.9 percent of the respondents were not purely depend on this activity. From the level of education, occupation and annual income it can be concluded that the respondents belong to the lower middle socio economic status.

**Table No 10. Whether weaving is manual or automatic (No 450)**

Particulars	Frequency	Percent
Manual	383	85.1
Automatic	27	6.0
Semi -automatic	40	8.9
Total	450	100.0

In the present study, efforts made to find out the utilization on of recent technology in weaving activity among the respondents of study area. Most of the weavers of the present study purely depend on the manual practice, which are about 383 (85.1 percentage), some of the respondents of the present study were using automatic technology, where as 8.9 percentage of respondents were consider to be semi automatic technology for weaving activity

**Table No 11. Are you the member of any Weaver Co-operative society (No 450)**

Particulars	Frequency	Percent
Yes	97	21.6
No	353	78.4
Total	450	100.0



From the table 11 , observed that, 78.4 percentage of respondents of Gulbarga district were not the member of any weavers co-operative society, only 21.8 (97 respondents) were the members of the society. This not good for progress of the weaving industry in the study area. The people of this area are not aware about the societies and their importance in the rural industries like weaving activity.

**Table No 12. Which of the following goods you produce exclusively (No 450)**

Particulars	Frequency	Percent
Sarees	54	12.0
Dhotis	47	10.4
Lungies and Towels	305	67.8
Bed spreads	26	5.8
Any others	18	4.0
Total	450	100.0

One noteworthy aspect that also came to the forefront from the field study is that many of weavers were engaging in production of Lungies and towels (67.8 percentage), followed by sarees (12.0 percentage), Dhotis consist of 10.4 percentage and 5.8 percentage of weavers of the study are were produce Bed spreads respectively.

**Table No 13. If yes, specify the health problem (No 450)**

Particulars	Frequency	Percent
Respiratory problem	122	27.1
Asthama	200	44.4
Skin problems	16	3.6
Eye problem	104	23.1
Any other	8	1.8
Total	450	100.0

Weaving activity has required long and patient hours of work in various harmful positions on traditional looms. In addition, most of the looms on which weavers work are situated next to windows of the room in a very small space. Most of the time the work is to be done in the natural



light and unhygienic rooms or places, considering the strain which eyes, joints or the whole body. Most of the weavers engaged in weaving start facing health ailments due to the bad working conditions. The major health ailments which people face are muscular-skeletal in nature and they suffer mainly from headache, knee pain, joint pain, eyesight. Table 13 shows the major ailments which people are affected by weaving. The major ailments were respiratory and asthma, From the present study it is concluded that the weavers of Gulbarga district, mainly those who have inherited this occupation, are in a pitiable condition owing to the poor socio- economic conditions.

### **Conclusion**

It is interesting to note that the educational status among the weavers community was not good, a number of modifications and adaptations in the weaving activity were made in the age old traditional silken products to meet the demand of the consumers drawn from various socio-economic positions. The special training to be provided to improve existing weaving technology, knowledge about scientific and low cost techniques of weaving, dyeing and finishing, financial assistance and other necessary inputs is the need of the day as expressed by the weavers. Hence, to open a new panorama for these delicate and wonderful made-ups, the prevailing weaving sector need to be centralized to enhance consistency, regularity and uniformity in the production so that an appropriate channel for marketing of different products.

The Gulbarga district weavers are ready market both at national and international levels; however this industry needs immediate attention by the State Government to improve the socio-economic status of local weavers. Weavers' Co-operative Weavers' Co-operative or society can be formed for the benefit of the weavers. The weavers in these villages are unorganized as they work from home and



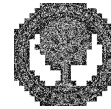
no association covers them. By registering themselves as society or a co-operative, weavers can protect their rights and they can easily avail government schemes and subsidized loan from various organizations.

### **Awareness**

Weavers are aware of health ailments which they and other weavers face. But the adverse impact which these ailments can have on their health and life in the long run needs to be shared with them in an articulate manner. Campaigns in association with government doctors at block level can be conducted to bring awareness, free health check-up of the weavers and steps to be taken by the weavers to prevent health ailments. Weavers should be made aware of new technology (modern loom) citing the benefits in comparison to existing looms

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## HUMAN RESOURCE DEVELOPMENT AND SOCIAL WORK PROFESSION: AN INTER DISCIPLINARY METHODOLOGY

**Dr.M.Vijay Kumar Sharma**

Head, Dept of Social Work  
Telangana University  
South Campus , Bhiknur  
Nizamabad.Telangana State

### **Introduction:**

People are the real assets of any society. Individuals contribute to the economic, cultural, social and spiritual areas of society. And yet development has overlooked this truth in the pursuit of material and financial wealth. Humans can only fulfill their potential, enjoy healthy and creative lives if there is an enabling environment, one which facilitates opportunities, fosters relationships and builds social capacity. Human Resource Development is loosely linked to the term 'development', a term that in itself has different meanings. As a generic term, it refers to change within a social context that is evolutionary. This framework considers the direction of change as being as food and shelter raise the standards of living including greater attention to cultural values as well as higher incomes and more jobs; expand the range of economic and social choices and opportunities in society; increase capacity to participate in social and cultural life; and create opportunities to develop human potential and skill. The notion of progress and better quality of life raises questions of how to determine who decides what is a better lifestyle and a better society as well as what measures are used as indicators of change. Expert economists, social scientists and politicians currently provide some of the answers to these questions. Community development perspectives contrast the idea of human development in terms of economic growth to growth in human potential, relationships and opportunities. This view holds that it is the members of communities who decide what constitutes a qualitatively better society that maximizes human resource development. Contemporary thinking is that human resource development must be holistic in its approach, people centered, quatably distributed and environmentally and socially sustainable .Human resources development lies at the heart of economic, social and environmental development. It is also a vital component for achieving internationally agreed sustainable development goals, including the Millennium Development Goals, and for expanding opportunities to all people, particularly the most vulnerable groups and individuals in society.

Human Resource Development (HRD) is the framework for helping employees develop their personal and organizational skills, knowledge, and abilities.



Human Resource Development includes such opportunities as employee training, employee career development, performance management and development, coaching, mentoring, succession planning, key employee identification, tuition assistance, and organization development. The focus of all aspects of Human Resource Development is on developing the most superior workforce so that the organization and individual employees can accomplish their work goals in service to customers. Human Resource Development can be formal such as in classroom training, a college course, or an organizational planned change effort. Or, Human Resource Development can be informal as in employee coaching by a manager. Healthy organizations believe in Human Resource Development and cover all of these bases

Human resources development has been explained as empowering people by fostering the contributory capacities that they can bring to the improvement of their own quality of life and that of their families, communities, enterprises and societies. Over the years, the concept of human resources development has evolved from solely focusing on individual capacity to also building institutional capacity at the national level, through socio-economic policies and development plan and strategies. Human resources development is, therefore, regarded as facilitating the development of national human capacities to achieve sustainable, inclusive, equitable development and, at the same time, enhance well-being of individuals. As such, human resources development strategies are increasingly part of national development planning, and are crucial to enlighten policy.

As global labor markets both shape and adapt to the emerging occupational structures of growing economies, human resources development strategies must balance the demands of new employment sectors with the supply of required skill. Information and communication technology (ICT), "Green/Blue Economy", and agricultural development, are among the most vital sectors for the socio-economic development in almost all countries. The need to enhance skills for emerging sectors (i.e., green growth, knowledge economy, intellectual property policy evaluation and management, etc.) has become particularly important in developing countries.

**Human Resources Development** (HRD) as a theory is a framework for the expansion of human capital within an organization through the development of both the organization and the individual to achieve performance improvement. Human Resource is the most Important and vital Factor of Economic Development or it can be said that humans are the agents of development. A focus on strategic human resource development (HRD) has been emphasized as a key contributor to ensuring organizational effectiveness and the maximum return from their most important asset; the people in the organization. It has been argued that effective management and innovative approaches to the development of employees will enable organizations to



capture and embed knowledge and skills. Organizations that are seeking not only to survive, but to maximize operational effectiveness in an ever-changing environment, need to ensure that at all levels, the human resource development strategy is aligned with broader strategic imperatives, and that sufficient emphasis is placed on the human resource development function. It is a role of management to ensure that the organization and its people acquire the competencies and knowledge it needs through education, training and development activities. In manufacturing firms seeking to achieve improved performance through systematic change processes such as continuous improvement, it is important that the human resource development function plays a role in the continuous improvement process.

### **Definitions of HRD**

Human Resources Development (HRD) has been defined by various scholars in various ways. Some of the important definitions of HRD (Human Resources Development) are as follows:

- Human resource development is a series of organized activities, conducted within a specialised time and designed to produce behavioural changes."
- HRD is a process by which the employees of an organisation are helped in a continuous and planned way to (i) acquire or sharpen capabilities required to perform various functions associated with their present or expected future roles; (ii) develop their general capabilities as individual and discover and exploit their own inner potential for their own and /or organisational development purposes; (iii) develop an organisational culture in which superior-subordinate relationship, team work and collaboration among sub-units are strong and contribute to the professional well being, motivation and pride of employees." .
- Human resource development is the across of increasing knowledge, capabilities and positive work attitudes of all people working at all levels in a business undertaking."

### **Concept of HRD**

Human resource development in the organisation context is a process by which the employees of an organisation are helped, in a continuous and planned way to:

1. Acquire or sharpen capabilities required to perform various functions associated with their present or expected future roles;
2. Develop their general capabilities as individuals and discover and exploit their own inner potentials for their own and/or organisational development purposes; and



3. Develop an organisational culture in which supervisor-subordinate relationships, teamwork and collaboration among sub-units are strong and contribute to the professional well being, motivation and pride of employees.

### **Importance of Human Resource Development (HRD)**

Human resource is needed to be developed as per the change in external environment of the organization, hence, HRD helps to adapt such changes through the development of existing human resource in terms of skill and knowledge. The importance or significance of HRD can be explained as follows:

#### **1. HRD Develops Competent HR**

HRD develops the skills and knowledge of individual, hence, it helps to provide competent and efficient HR as per the job requirement. To develop employment's skill and competencies, different training and development programs are launched.

#### **2. HRD Creates Opportunity For Career Development**

HRD helps to grasp the career development opportunities through development of human skills and knowledge. Career development consists of personal development efforts through a proper match between training and development opportunities with employee's need.

#### **3. Employ Commitment**

Trained and efficient employees are committed towards their jobs which is possible through HRD. If employees are provided with proper training and development opportunities, they will feel committed to the work and the organization.

#### **4. Job Satisfaction**

When people in the organization are well oriented and developed, they show higher degree of commitment in actual work place. This inspires them for better performance, which ultimately leads to job satisfaction.

#### **5. Change Management**

HRD facilitates planning, and management of change in an organization. It also manages conflicts through improved labor management relation. It develops organizational health, culture and environment which lead to change management.

#### **6. Opportunities For Training And Development**

Trainings and development programs are tools of HRD. They provide opportunity for employee's development by matching training needs with



organizational requirement. Moreover, HRD facilitates integrated growth of employees through training and development activities.

## **7. Performance Improvement**

HRD develops necessary skills and abilities required to perform organizational activities. As a result of which, employees can contribute for better performance in an organization. This leads to greater organizational effectiveness.

## **Roles and Significances of HRD**

**Country Develops if The Human Resource is Developed:** To enhance economic development the state constructs roads, buildings bridges, dams, power houses, hospitals, etc. to run these units doctors, engineers, scientist, teachers, are required. So if the state invests in a human resource it pays dividend in response.

### **Increase in Productivity:**

The better education, improved skills, and provision of healthy atmosphere will result in proper and most efficient use of resources (non-natural & natural) which will result in increase in economic production.

### **Eradication of Social And Economic Backwardness:**

Human Resource development has an ample effect on the backwardness economy and society. The provision of education will increase literacy which will produce skilled Human Resource. Similarly provision of health facilities will result in healthy Human Resource which will contribute to the national economic development.

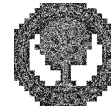
### **Entrepreneurship Increase:**

Education, clean environment, good health, investment on the human resource, will all have its positive effects. Job opportunities would be created in the country. And even business environment will flourish in the state which creates many job opportunities.

### **Social Revolution:**

Because of Human Resource development the socio economic life of the peoples of a country changes drastically. Over all look changes thinking phenomena changes, progressive thoughts are endorsed in to the minds of peoples.

**Growth of organization:** Growth of organization is associated with the development of its workforce. In changing situation HRD must be viewed as the total system interrelated and interacting with other systems at work: production, finance, and marketing.



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**Development of work culture:** The need of HRD is felt as it improves the efficiency of employees, checks monotony at work, better communication, development of mutual cooperation and creativity of all the members comes into limelight.

**Developing potentialities:** The focus of HRD manager essentially is on enabling people to self-actualize through a systematic approach by which their existing talents are further developed.

**Growth of employees:** HRD is associated with growth of employees. It helps employees to know their strengths and weaknesses and enable them to improve their performance. The management should provide adequate opportunity for the development of human resource management for the development of their talents so that their development will benefit the organizational growth.

**Training and development encompasses three main activities:** training, education, and development.

**Training:** This activity is both focused upon, and evaluated against, the job that an individual currently holds.

**Education:** This activity focuses upon the jobs that an individual may potentially hold in the future, and is evaluated against those jobs.

**Development:** This activity focuses upon the activities that the organization employing the individual, or that the individual is part of, may partake in the future, and is almost impossible to evaluate.

The "stakeholders" in training and development are categorized into several classes. The sponsors of training and development are senior managers. The clients of training and development are business planners. Line managers are responsible for coaching, resources, and performance. The participants are those who actually undergo the processes. The facilitators are Human Resource Management staff and the providers are specialists in the field. Each of these groups has its own agenda and motivations, which sometimes conflict with the agendas and motivations of the others. The conflicts that are the best part of career consequences are those that take place between employees and their bosses. The number one reason people leave their jobs is conflict with their bosses. And yet, as author, workplace relationship authority, and executive coach, Training an employee to get along well with authority and with people who entertain diverse points of view is one of the best guarantees of long-term success. Talent, knowledge, and skill alone won't compensate for a sour relationship with a superior, peer, or customer. Typical roles in the field include executive and supervisory/management development, new-employee orientation, professional-skills training, technical/job training, customer-



service training, sales-and-marketing training, and health-and-safety training. Job titles may include vice-president of organizational effectiveness, training manager or director, management development specialist, blended-learning designer, training-needs analyst, chief learning officer, and individual career-development advisor.

The term Talent development is the process of changing an organization, its employees, its stakeholders, and groups of people within it, using planned and unplanned learning, in order to achieve and maintain a competitive advantage for the organization. While talent development is reserved for the top management it is becoming increasingly clear that career development is necessary for the retention of any employee, no matter what their level in the company. Research has shown that some type of career path is necessary for job satisfaction and hence job retention. Perhaps organizations need to include this area in their overview of employee satisfaction. The talent development is becoming increasingly popular in several organizations, as companies are now moving from the traditional term training and development. Talent development encompasses a variety of components such as training, career development, career management, and organizational development, and training and development. It is expected that during the 21st century more companies will begin to use more integrated terms such as talent development which will be focus on Coaching, Industrial and organizational psychology, Mentoring, Training, Education, Organizational Development, and g-Learning or game learning.

### **Difference between HRD and HRM**

Both are very important concepts of management specifically related with human resources of organization. Human resource management and human resource development can be differentiated on the following grounds:

- The human resource management is mainly maintenance oriented whereas human resource development is development oriented.
- organization structure in case of human resources management is independent whereas human resource development creates a structure, which is inter-dependent and inter-related.
- Human resource management mainly aims to improve the efficiency of the employees whereas aims at the development of the employees as well as organization as a whole.
- Responsibility of human resource development is given to the personnel/human resource management department and specifically to personnel manager whereas responsibility of HRD is given to all managers at various levels of the organization.



- HRM motivates the employees by giving them monetary incentives or rewards whereas human resource development stresses on motivating people by satisfying higher-order needs.

## HRD FUNCTIONS

The core of the concept of HRS is that of development of human beings, or HRD. The concept of development should cover not only the individual but also other units in the organization. In addition to developing the individual, attention needs to be given to the development of stronger dyads, i.e., two-person groups of the employee and his boss. Such dyads are the basic units of working in the organisation. Besides several groups like committees, task groups, etc. also require attention. Development of such groups should be from the point of view of increasing collaboration amongst people working in the organisation, thus making for an effective decision-making. Finally, the entire department and the entire organisation also should be covered by development. Their development would involve developing a climate conducive for their effectiveness, developing self-renewing mechanisms in the organisations so that they are able to adjust and pro-act, and developing relevant processes which contribute to their effectiveness.

The goals of the HRD systems are to develop:

1. The capabilities of each employee as an individual.
2. The capabilities of each individual in relation to his or her present role.
3. The capabilities of each employee in relation to his or her expected future role(s).
4. The dyadic relationship between each employee and his or her supervisor.
5. The team spirit and functioning in every organisational unit (department, group, etc.).
6. Collaboration among different units of the organisation.
7. The organisation's overall health and self-renewing capabilities which, in turn, increase the enabling capabilities of individuals, dyads, teams, and the entire organisation.

HRD is a process, not merely a set of mechanisms and techniques. The mechanisms and techniques such as performance appraisal, counselling, training, and organization development interventions are used to initiate, facilitate, and promote this process in a continuous way. Because the process has no limit, the mechanisms may need to be examined periodically to see whether they are promoting or hindering the process. Organisations can facilitate this process of development by planning for it, by allocating organisational resources for the purpose, and by exemplifying an HRD philosophy that values human beings and promotes their development.



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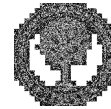
## Human Resources Development in Social Work Education

Social work is the profession of communicating with other people. This might invoke the perception that as strong communicators social workers do not make communication mistakes. Everyone, even social workers, is prone to making communication mistakes. It is through mistakes and experimentation that we as humans have the potential to learn and positively progress. It is how we respond after realizing our mistake that influences how others and we will respond positively or negatively.

Low levels of job satisfaction and high rates of burnout are highly associated with mental health professionals working with challenging client populations. Mental health professionals working in rural areas might face higher risks of low satisfaction and higher burnout rates according to some research. Mental health professionals may be experiencing higher levels of burnout and attribution as a result of high levels of work stress and low availability of resources. Higher burnout rates are also associated with restriction on worker freedom, a de-emphasis on planning and efficiency, vague job descriptions, extensive rules and regulations, and minimal support of new ideas and procedures. On the other hand, lower levels of burnout were associated with working environments where employees feel dedicated to their work, positive coworker relationships are encouraged, and supervisory relationships are supportive.

It is crucial for organizations to realize the importance between the work environment and worker' outcomes. Human Resources departments are often left to address the concerns that arise in the work environment. Human Resources (HR) is a field that has developed to promote strong teamwork between individuals, and maximize these strengths to add value and efficacy to an organization. HR is a vast field. It includes staffing, basic workplace policies, compensation and benefits, retention, training and developing employees, and regulatory issues.

Human resource development (HRD) aims at improving the human potential in public and private institutions/organizations through various activities related to training and development. Human resources are the greatest asset for these institutions/organizations, and effective utilization of these resources is the key to their success in their area of operation. Developing human resources in today's complex institutional/ organizational environments requires professionals with special skills and knowledge in the area of training and development .The human resource development field has experienced phenomenal growth in recent years. Many adults are going through training to update their knowledge and skills related to their jobs in corporate, industrial and governmental training environments. At the same time the field has undergone essential changes. Traditional training activities for



employees/professionals mainly included skill-based seminars offered by content area experts in the respective fields, and the role of human resources personnel was to arrange those seminars. Today high performance organizations hire human resource education specialists who fulfill a role beyond the traditional one. These specialists assume roles in maximizing human capital and effectiveness in their institutions/organizations through short and long term planning of strategic human resource education activities. They identify training needs, develop training programs, implement training activities, assess training and performance, and carry out follow-up. The training activities are considered to be an essential part of institutional/organizational development. In this sense, the individuals who are prepared to take roles in human resource education functions of institutions/organizations face a great challenge in improving themselves in line with up-to-date knowledge, perspective and skills in the area of HRD. Non-thesis Human Resource Development in Education Program aims to respond to this challenge. It is designed to meet the competency needs of training and development specialists who are seeking to gain knowledge, understanding and expertise in this area. This program is suitable both for new graduates wishing to make a career development and for those who are currently working in this area but wish to strengthen their capabilities. Those who graduate from the proposed program are expected to enhance their ability in thinking creatively and producing solutions to training problems of their institutions/organizations.

### **Program goals**

The major goal of the program is to enhance and develop the key competencies required of current and future practitioners in the training and development field. Goals include the preparation of practitioners who can contribute to enhancing the effectiveness of training and development programs, and to positively affecting performance of their human resource units through an integrated program. It is integrated in the sense that it meshes theory and experiential training for its students in various areas of education such as administration, curriculum development and instruction, assessment and counseling. The emphasis is on a right "dose" of theory and research combined with clinical inquiry as a means of enhancing human resources in institutions/organizations. With this major emphasis in mind, the program focuses on the needs of the institutions and individuals. The new university graduates who are planning to seek careers in human resource departments of institutions/organizations. Individuals who are currently employed as training and development specialists in human resource departments of public and private organizations. Individuals who are responsible for human resource training in public and private schools/institutions.

### **Social Work Services And Human Resources Development**



## Department

The mission of the Social work Services and Human Resources Development Division is to promote national efforts to develop the national human resources towards enhanced social and economic development with a view to improve the quality of life through strengthening of skills, increased accessibility to better quality education, health, clean and safe water, proper shelter and good Governance.

Main duties of the Social work Services and Human Resources Development Department includes:

- Setting social development goals, targets and strategies
- Analysis and monitoring of social development trends
- To set policies and Strategies that will stimulate private and community participation in social and human resources development initiatives
- To supervise and evaluate implementation of the social sector strategy
- To initiate or promote national efforts towards child survival protection and development
- To develop policies and strategies for enhancing efficiency in government administration
- Initiating action on emerging issue/problems in the social, human resource development, government administration and population sectors.
- Develop and coordinate Human Resource Development policy
- Preparation Work Plans for the Division
- Preparation of the annual performance report of the Division
- Promotion of inter sect oral coordination
- Preparation of the annual and semiannual social Development report
- Production of the Annual Human Resource Development Report.



**The Social Work Services and Human Resources Development Department comprises of three sections and their duties as follows:**

<b>SOCIAL SERVICES SECTION</b>	<b>POPULATION PLANNING SECTION</b>	<b>HUMAN RESOURCE DEVELOPMENT SECTION</b>
Management of social sector development strategy Setting and monitoring social development goals and targets Analysis and monitoring social development trends Promoting private and community participation Initiate studies on social services issues Child survival and development Development and management of the Government administrative services	Overseeing the implementation and review of the National Population Policy Analysis and dissemination of population and development data Co-ordination of population and development research Co-ordination of population and development information, education and communication (IEC) activities (advocacy) Co-ordination of training in population and development Co-coordinating the integration of population in development planning Dealing with gender issue in relation to population and development(including reproductive health issues) Analyses and advise on human migration settlement and environment	Formulation of human resources development strategies To analyses and review human resources utilization Formulation of employment generation strategies and programmers Identification of specific skills requirements Analyzing and advising on the effectiveness of foreign technical personnel programmers Production of Annual Human Resources Development reports

**Conclusion:**

Human development approaches have challenged the adoption of Socio economic criteria as the only relevant factor in human development. Other factors such as health issues, gender issues, public service provisions and social organization have been identified as being relevant to the well being of people. The United Nations has developed the Human Development Index that relies on a range of factors that make up quality of human life including income and wealth. This is a more balanced index as it recognizes that Socio economic



growth is only one instrument among many in promoting life opportunities, and its effectiveness is contingent upon other factors such as social service provision and distributional justice. An increase in private wealth or income can add to human resource development. However, what is more significant at a societal level is how economic growth is utilized to improve social services such as public health, education, drinking water and community infrastructure. This can make a big impact on expanding human capability and offer opportunities for human development.

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## GANDHI AND MEDIA ETHICS

**Dr.C.Ramakrishna**

Asst. Professor (Senior)  
Department of Journalism and  
Mass Communication  
Andhra University  
Visakhapatnam

**N.V.V.S.S.Markandeyulu**

Research Scholar  
Department of Journalism and  
Mass Communication  
Andhra University  
Visakhapatnam

**G. Kalpana**

Research Scholar  
Department of Sociology  
Andhra University, Visakhapatnam

### **Introduction:**

The word 'ethics' is closely linked to questions of appropriate conduct within society. Etymological meaning of 'ethics' goes back to the Greek 'ethos' meaning reliable character, virtuous people, proper conduct etc. Ethics is a branch of philosophy concerned with actions that are morally permissible and actions that are not. Ethics in media constitutes a normative science of conduct applied voluntarily. World over efforts have been made to set ethical guidelines, rules, norms, codes and principles to help journalists to make right choices when they are in a dilemma. This research paper is an effort to carve out Gandhian concept of ethical journalism.

Media profession is changing and it can be said that at present scenario most of the media organizations are becoming "social entertainers". It is no accident that no television channel in India today has any place for mass oriented content. Newspapers lack in-depth study or research on subjects relating to the nation. Events are more important than issues. It is true that media has become a product that trapped in the hands of free market capital forces and neglecting



developmental issues related to mass. Hence, it would be relevant to go through Mahatma Gandhi's canon of journalism that is considered as one of the greatest journalism of all time and started the various aspects of development journalism. (Gandhi, 2005)

Mahatma Gandhi consistently wrote for a common man. Gandhi himself applied his basic perspective to several fields, not only to politics, including governance, and economics, which were his focus of interest, but also to others such as treatment of nature, including animal life, education, social relations, religion, science, technology, and culture. In education, he stressed character building as its main aim; in social relations, love, empathy, and respect for the other; in religion, tolerance, openness, and freedom from dogma; in science and technology, humaneness; and, in culture openness combined with refusal to be blown off the feet. Gandhi believed that Great men are always above their time. If time passes, the relevance of their thought becomes more important. Gandhi continuously emphasized the necessity for identification with the villagers, who represented the masses of India and their needs be met. For Gandhi, the sole purpose of journalism was the service to the entire sections of the society. As Gandhi wrote in *Young India* "I have taken up journalism not for its sake but merely as aid to what I have conceived to be my mission in life. ... I may not write merely to excite passion. The reader can have no idea of the restraint I have to exercise from week to week in the choice of topics and my vocabulary. It is training for me. It enables me to peep into myself and to make discoveries of my weaknesses." (Sharma, 1994)

### **Gandhi & Media Ethics:**

Media ethics are applied ethics which deal with the ethical standards of media which includes print, broadcast, film, theatre, art forms, internet and traditional media. Media ethics set guidelines, rules, norms, codes and principles for media. With changing forms and



expanding reach of mass media, the issues pertaining with the media ethics have come to the fore once again. Ethics of entertainment and infotainment media, ethics of business media, media and democracy and changing ethical standards in global media network are being debated fiercely. Commercialization of media and communication content, privacy, right to reply, communal writing, sensational, freebies and sting operations have raised new ethical concerns. Freedom of mass media is premise of the liberal democracy where media plays a role of facilitator and express people's voice. New trends, especially the media convergence and technological changes have brought new dimensions to the ethical debate. Efforts are being made worldwide to create norms and standards for media coverage. Though media has freedom to publish and broadcast information in form of news or entertainment it has to oblige to certain norms, rules and regulations. The governments of nation states world over have made some provisions to protect rights of citizens but also independent bodies comprising of media professionals have eventually drafted norms and regulations. These are voluntary norms expected to be followed by journalists and media. In the age of media credibility crisis, these ethical norms are devised to help to restore the faith and confidence in media. (Chadda, 2010)

Mahatma Gandhi was the most effective mass medium of the 20th century. His journalism belonged to an era when there was neither radio nor television. Such was the power of his 'soul communication' that whatever he said and wrote reached the farthest corners of this country within days and to the entire world thereon. Mahatma Gandhi, in a journalistic career spanning nearly four decades, edited six journals. None, including *Harijan* and *Navajivan*, could boast a circulation of more than a few thousand copies. But such was Gandhi's grasp of the basics of mass communication that he ensured that his daily "outpourings of heart and soul" reached all. If one



were to ask the question as to who came first-Gandhi-the-freedom-fighter or Gandhi-the-media-crusader-the truth would be that Gandhi-the-journalist pre-dated Gandhi the freedom fighter by at least 20 years. In less than a few months' stay in South Africa, Gandhi realized the need to become a journalist to fight for the rights of the Indian community. And he brought the highest qualities the profession could boast of-courage in the face of adversity, unswerving adherence to truth, pursuit of public causes, and objectivity in presentation. His letters to the editors of South African dailies are a lesson to all journalists on how to fight injustice in a country where the laws are loaded against one section of the people, without giving offence to the rulers themselves. After 10 years of relentless crusade, Gandhi realised that the twin tasks of mobilizing public opinion and influencing official decisions required a regular newspaper. Thus was born *Indian Opinion* in June 1903. He was clear about the nature and content of his newspaper. It would not carry any advertisements nor try to make money. (CWMG, 1965)

In *My Experiments with Truth*, he wrote: "Week after week I poured out my soul in its columns and expounded the principles and practice of satyagraha as I understood it. I cannot recall a word in these articles set down without thought or deliberation or a word of conscious exaggeration, or anything merely to please. Indeed, the journal became for me training in self-restraint and for friends a medium through which to keep in touch with my thoughts."

Though he has not categorized the concept of journalist, Gandhi has dropped clear hints of what he expected from journalism and journalists. His rules for Satyagrahis are applicable to journalists. The Gandhian Satyagrahi journalist will not harbour anger against anyone and in pursuance of truth he will suffer anger of opponents and put up with assaults but never retaliate with anger or lose his/ her balance and insult opponents. Here opponents are those who want to quell the



truth. Journalist must not submit out of fear, of punishment. He/she should merely follow the truth and take it to the logical conclusion. Satyagrahi journalists never intend to embarrass the wrongdoers and his objective must be to convert and not coerce. Journalist should have inward conviction and must believe in truth and non violence as his/her creed and have faith in the goodness of human nature which he/she expects to evoke by truth and love. 'The press is called the Forth Estate. It is definitely a power but to misuse that power is criminal. I am a journalist myself and would appeal to fellow journalists to realize their responsibility and to carry on their work with no idea other than that of upholding the truth' he said in Harijan.

The spirit of Gandhian viewpoint is shaped by his firm faith in and commitment to truth and non-violence. For him, the substance of truth is morality, and non-violence is its essential part. Ahimsa or non-violence is a positive principle, which includes compassion and care. Truth finds expression through ahimsa; both are meant to be practiced. He said, 'it is not enough for thought to be based on truth, the life must express it'. And that is what he did. After Jesus Christ, there are scarcely those like him who lived what they preached, and lived to such rightness, in spite of being engrossed so much in politics. This is what lends reliability and respect for Gandhi and his beliefs. Though he saw in non-violence a powerful weapon for the empowerment of the weak and destitute, he refused to call it as a weapon of the weak. On the contrary, non-violence was the weapon of the ethically strong and brave, according to him. He strove to get justice to the underprivileged and make them stand on their own feet with solemnity. He believed that journalism can be the effective tool to bring about the change that is needed for the upliftment of the society but on the other hand it can act negatively when we don't understand its importance and value.

The media, collectively, gets a bad name when journalists lose the trust of those whom they set out to serve. Gandhi, the father of nation,



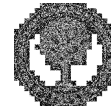
warned: '.....just as an unchained torrent of water submerges the whole countryside and devastates crops; even so an uncontrolled pen serves but to destroy.....'. He did not believe in a centralized state and power. Power both political and economic had to be decentralized and distributed, to be meaningful to the people. His principle of selfrestraint on wants is a key to environmental; sustainability, and also integrated with his fight against inequality. The legacy of Gandhi is still alive. He has been a motivation for numerous mass movements for social justice and environment protection. (The Encyclopaedia of Gandhian Thoughts, 1985)

### **Conclusion:**

Gandhi's newspapers suggest that his purpose of journalism was to serve the society in all respect and inspire the mass for a greater cause. He talked to the people in their own language to communicate the message. His overreaching concern for addressing the communication needs of the general public became evident when he expressed that English alone could not be a medium of the newspaper. Hence, it is clear that Gandhi's practice of journalism set high ethical and moral standard by practicing mass oriented and value based journalism.

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## CONTRIBUTION OF THE BRITISH GOVERNMENT FOR THE PROMOTION OF EDUCATION AND ECONOMIC DEVELOPMENT OF THE TODAS TRIBES

**B.Hameed Basha**

Assistant Professor  
History Wing, DDE  
Annamalai University  
Annamalai Nagar, Tamil Nadu

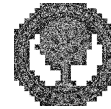
The study of the *Todas* has always been a difficult problem. No one knows the language of the Toda and there are very few educated people among the *Todas*<sup>1</sup>. Earlier historians have depended on *Todas* themselves for whatever information they have collected unfortunately. This paper focus on the various contributions of the British Government for the development of Education and economic growth of the *Todas*.

Besides, the persons who have studied the culture and manners of *Todas* so far are foreigners<sup>2</sup>. They had a bias in favour of theories which gave a non-Indian origin to *Todas*. Further, they have no knowledge of conditions prevailing in South India or of other languages spoken here, with the result, they have made contradictory Statements. A perusal of the various literature on *Todas* show the attention gives by the Britishers to develop their economic status through education. In 1839 the court of Directors of the East India company asked the Government of Madras to make provision for the education of the *Todas*. Neither the Collector of Coimbatore nor the Collector of Malabar took any concrete measure in that direction<sup>3</sup>. The Government felt that there was no possibility of introducing school among the *Todas* because of their migratory nature. The sixteen Toda boys and four Toda girls, varied from six to sixteen years of age were assembled together in the first standard of the Toda School. The school



functioned at **Tarnadu mound** near **Paikara**. An inspector of schools found them to have a neat hand in Tamil, and capable of counting up to 100 in order. In 1853, when the Nilgiris was part and parcel of the Coimbatore District, the Collector of the district furnished statistics according to which there were 841 indigenous schools in the entire district of Coimbatore including the Nilgiris. It could not be called out that how such schools were there in the Nilgiris area. There was only one indigenous school in the Nilgiris District.

During 1881 the total number of such schools reported in Coimbatore district was 184. This may lead one to think that what might have happened to other indigenous schools as there were 841 such schools during 1854. They might have faded away. In course of time due to the decline in the school going population of the Government might have thought that they were not worth-mentioning. In these indigenous schools Tamil and Canaries were supported by the people and most of the school masters were paid in kind with a small annual fee in each on the occasion of *Dussehra* annual festival. The schools were held in residences of some of the influential inhabitants of the villages, in a temple, common places. The boys were taught only to read and write with a little arithmetic, but generally left the school before they attained even this slight knowledge<sup>5</sup>. The British government of the Madras presidency for the first time endeavored to collection educational-statistics with a view of initiate reforms in education. This educational statistics with a view to initiate reforms in education. This educational enquiry started by Sir-Thomas Munroe, the then Governor of Madras presidency fully revealed the state of indigenous education then existing in the various districts of presidency<sup>6</sup>. The English school was started in Nilgiris for the Society of Europeans. In 1842, the Collector of Malabar wrote to the court of Director that he has been unable to propose any suitable plan. The Directors in their early reply expressed their regret that the



efforts of the madras Government of introduce education and civilization among the *Todas* has been unsuccessful but they did not doubt that this Government would neglect any available means.

In fact, nothing was accomplished in this field for another seventy years. It was only in the second decade of the present century that the Government authorities actually got around to setting up a school for Toda children. This was on the downs near *Pykara*, to the west of *Ootacamund*, and it seems to have been reasonably well attended for a number of years.

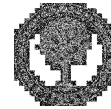
The tribe will show that it has stuck to customs through ages without any change<sup>7</sup>. The *Todas* in is attitude towards old customs is the **Namboodare** of Kerala, but under the impact of modern education, this community has given up its old habits in the last three decade. But Toda has not done so. Even in the year 1961, with all the influence of the foreigners and non-tribals and all educational propagation done among them a Toda instinctively believes that the happiness on the departed depends on the number of buffaloes sacrificed on his death and indulges in a somewhat crude form of celebrating their funeral. Every belief of his is based on the past. He has never adopted any new tenets of religion. One important reason for this attitude may be that though the Britishers came into contact with the *Todas* early in the 19th century, the British education did not touch the Toda, neither has it done today. The Toda has not taken to any form of education and any attempt to educate the *Todas* will not succeed so long as his life is centered in the community to which he belongs. Whenever he is taken out of this background, perhaps he will take to education and become an ordinary citizen, but with that he will cease to be a Toda.

Education is certainly the best way to help any community reform themselves and get rid of detrimental customs and economic



development, if any. Bearing this in mind, as early as 1839 the Court of Directors has desired that the Government provide educational facilities for the *Todas* in order to enhance their economic status and in 1864 the first batch of schools were established by the Basel Mission and in 1857 Government schools for the hill tribes of Nilgiris were opened<sup>8</sup>. Nearly a century only the *Badugas* have taken greater advantage of the schools, the *Todas* in mass are still illiterate. A primary school started by the Mission at **Susikandi** had to be closed for want of students attending the classes. Another school started by the Servants of India Society exclusively for the *Todas* had to be used for all the tribes, as the response from the *Todas* was very poor.

Financial assistance in the form of scholarship for boarding, clothing, school accessories etc., exists from 1927. Education concession as given to other scheduled tribes has also been extended to the *Todas* but none of them takes advantage of it. One of the Missionaries (whose name is not specified) took three Toda families into his house in 1858 and maintained them in idleness in order to bring their children under some instruction. But it did not succeed. There was long lull of three decades, for the initial rebuff must have been very discouraging. Probably, the long and steady work had paid dividends, the *Todas* willingness to be educated in some elementary fashion demonstrated itself in 1885, sixteen Toda boys and four *Toda* girls, in the most heterogeneous grouping. They varied from six to the sixteen years of age were assembled together in the first standard of the first ever Toda school. It functioned at **Tarnadu Mund** near **Paikara**. For such an assembly, the acquiring of learning was remarkable. An Inspector of schools found them to have a near hand in Tamil, and capable of counting up to 100 in the ascending and descending order. Encouraged, in 1886 the Basel Mission started another school at Kollimalai with 14 Toda boys. Both schools were unaided<sup>9</sup>.



These two schools could continue only till 1892. The year 1890 saw the arrival of one more Mission-the Church of England Zenana Missionary Society into the midst of the *Todas*. The soul of Zenana Missionary Miss C.F.Ling had a better understanding of the life and needs of the *Todas*. She set up two schools to suit their migratory nature. The new mission made primary education wholly free, gave clothes to the pupils and all accessories necessary for primary learning in those days. All those factors led to the thinning of attendance in the Basel run schools for *Todas* and their eventual closure. Thus the Christian missionaries played a vital role for the promotion of the tribal community *Todas*. The schools conducted in the residence of sum of the influential inhabitants of the village are highly useful for the hill tribes. The collector of Malabar proposed a suitable plan for the development of education of the *Todas*. The paper reveals the fact that the *Todas* was very poor. Financial assistance in the form of scholarship for boarding, clothing, school accessories etc., exists from 1927. Education concession as given to other scheduled tribes has also been extended to the *Todas* but none of them takes advantage of it. The Christian mission made promotion for the economic development of the *Todas*.

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## RAJAH SIR MUTHIAH CHETTIAR'S CONTRIBUTION TO THE FIELD OF EDUCATION

**Dr.G.Palanivel**

Assistant Professor

History Wing,DDE, Annamalai University  
Annamalai Nagar, Tamil Nadu

The Nattukottai Nagarathars were very much noted for their patronage to education especially during the 19th and 20th centuries in Tamil Nadu. Many of the educational institutions in Tamil Nadu had received help from this community. Rajah Sir Annamalai Chettair was one of those selfless partons who patronized education in the early part of the 20th century. Worthy son of a worthy father, Rajah Sir Muthiah Chettiar strove ceaselessly for the growth of education in Tamil Nadu after his father. His contribution to the field of education is highly commendable and many educational institutions owe their origin to his tireless efforts.

In the history of Tamil Nadu, the justicites played a very important role in the field of education. It was they who encouraged the western system of education. To foster that system of education, they opened a number of schools and colleges all over Tamil Nadu. After the introduction of the Montagu Chelmsford Reforms in 1921, education became a transferred subject in each province and the provinces were enabled to concentrate much in the field of education. The formed Justice party its Ministry in 1920 and introduced compulsory primary education in the Madras Presidency. Rajah of Panagal tried his level best to execute this policy. Rajah Sir Muthiah chettiar followed his foot steps. Though Rajah Sir Annamalai Chettiar and his son Rajah Sir Muthiah Chettiar were great patrons of Tamil Culture and language, they did not fail to realize the importance of English Language. They aptly understood the value of the language and started patronizing it also along with Tamil. In addition to vedic padasalas, they started many Schools and Colleges to impart western knowledge through English.

When Rajah Sir Muthiah Chettiar was elected as the first Mayor of Madras Corporation in the year 1933, he took keen interest in the development of primary education in Madras. He sanctioned Rs. 8,56,760/- against the paltry sum of Rs. 12436 the previous year for primary education.<sup>1</sup> During his second Mayoralty, he allotted Rs.9,34,096/- for the improvement of elementary education.<sup>2</sup> The number of students in Corporation Schools rose from 32,063 to 32,284 and again the number rose to 34,163.<sup>3</sup> These development took place during the time of his first and second Mayoralty viz. 1932-33, 1934-1935.



He was also very particular that the corporation elementary schools should maintain good standard in education. He also emphasized that the strength in the corporation schools should increase.<sup>4</sup>

In the second quarter of the 20th century, the condition of the masses in Tamil Nadu was far from satisfactory. Most of the parents could not send their children to schools due to poverty. Rajah Sir Muthiah Chettiar was aware of this and decided to help them in the field of education, by providing mid-day meal to the poor children. This was a boon to the poor and many utilized the educational facilities offered by the corporation. During Muthiah's period of mayoralty, free meal was given to 4,500 children through 82 corporation schools<sup>5</sup> against 4,200 children through 80 corporation schools<sup>6</sup> in the previous year. He was very much concerned about the deplorable condition of the Adi-Dravida Community. He insisted that the state should spend much for uplifting the Adi-Dravida Community and for educating them.<sup>7</sup>

Further Muslim girls in Tamil Nadu were not able to attend school due to the prevalence of purdha system. He also made arrangements for taking Muslim girls in the fully covered bullock carts to schools and reserved separate places for them in the class rooms. As a result, many Muslim girls joined Schools and their strength in Schools increased surprisingly.<sup>8</sup>

During the Ministership for Education, the Government was running 7,160 Elementary schools from First Standard to Vth Standard, 8,300 elementary schools from first to third standard and 18,600 single teacher schools of which 12,000 schools had a strength of 30 students each.<sup>9</sup> Illiteracy was rampant and Muthiah decided to do away with it. He realized aptly the welfare of the teacher was an important aspect in the development of education. Contented and happy teachers would serve well. So to improve the lot for the teachers, he decided to rise the salary from Rs. 12/- per month to Rs. 14/- per month for a higher elementary trained teacher and Rs. 161- to 18/- per month for a secondary grade trained teacher. For that purpose, he sanctioned Rs. 54,96,000/-.<sup>10</sup> To encourage teachers, he gave incentives to those teachers who produced high percentage of passes in the public examinations. As a result, there emerged many schools which carried on their work efficiently.<sup>11</sup> Further, he insisted on the importance of trained teachers and tried to appoint trained teachers as far as possible.

Rajah Sir Muthiah Chettiar continued the same spirit in the field of education even after he was away from power. After his father, he took charge of all the educational institutions which were under the control of his family.

Ramasamy Chetty Elementary School in Chidambaram was managed well by Rajah Sir Muthiah Chettiar. He sanctioned Rs.200/- to Rs. 500/- to meet the initial expenditure of this school and also managed Sri Meenakshi Elementary School at Annamalai Nagar.



Garten School in Annamalai Nagar was started in 1973 by Rajah Sir Muthiah Chettiar through the funds from the Rajah Annamalai Trust. He gave the building accommodation and Rs. 10,000/- to run this School at Annamalai Nagar. It has been conducting systematic English Medium classes for the benefit of the children of the University staff and local residents.<sup>15</sup> Rani Meyyammai Nursery School at Karur was started in 1974 by Rajah Sir Muthiah Chettiar through Rani Memorial Trust. This was mainly opened for the benefit of the children of the workers of the Chettinad Cement Factory. To teach the fundamental knowledge of Vedanta and Tamil Isai to the School going children, he opened a separate Veda Padasalai at Chidambaram and another Veda Padasalai at Karur through his Trust.<sup>16</sup>

### HIGHER EDUCATION

Ever since Rajah Sir Muthiah Chettiar became the Mayor of Madras Corporation, he dedicated himself to improve the standard of education. He reopened some of the schools which remained closed for a long time such as Ramakrishna Secondary branch school at Mambalam and appointed more trained teachers, Tamil Pandits and Telegu Pandits. According to the Administration Report for the year 1932-33 of the Madras Corporation, it was a period of fair progress and expansion for the corporation High School.<sup>17</sup> He introduced manual training and also opened new sections in many corporation schools. Rajah Sir Muthiah Chettiar took greater interest in improving the general caliber of the school students. He gave equal importance for extra curricular activities and maintained playgrounds for the use of school students. A separate Employment Bureau was opened to provide more job opportunities for the students.<sup>18</sup>

To accommodate the increased strength of students, additional buildings were constructed in the secondary School at Kallakurichi,<sup>19</sup> Municipal Modern Girls School at Coimbatore<sup>20</sup> and in Mayavaram Municipal Secondary School during his tenure of office as Minister for Education.

Education of girls was another important concern which attracted the attention of Muthiah. All along he had been advocating women's education. After becoming education Minister he saw to it, that a number of Schools for girls were opened and in his speeches at various functions organized to honour him he advised and induced girls to compete with boys in learning.<sup>21</sup> Thanks to him, the tailoring classes were started in the Ambasamudram Girls school.<sup>22</sup> He had a strong desire to educate the poor students and help them to come up in life. To reduce the burden of the poor students, he reduced the school fees and also arranged for government scholarship.<sup>23</sup> As regard the introduction of education in backward rural areas, Rajah Sir Muthiah Chettiar took efforts to get government approval for opening three high schools in Thirupathur constituency, Ramnad District and a separate High School for girls in



Tirupathur town.<sup>2 4</sup> He was always very keen in introducing many reforms in the field of education. To maintain standard, he wanted to restrict the attempts in the S.S.L.C. Examination. Only three attempts were allowed, so as to keep up the required standard.<sup>2 5</sup>

In his individual capacity, he started two Higher Secondary Schools and three High Schools and a Matriculation School. He also managed two Higher Secondary Schools. Ramasamy Chettiar 'Town Higher Secondary School in Chidambaram was managed by him. He constructed a new Science Block and a new hostel for the benefit of the students of this School.<sup>26</sup>

Rani Seethai Higher Secondary School at Annamalai Nagar was also managed by Rajah Sir Muthiah Chettiar. After becoming the patron of this school, he constructed a new building and enabled the schools to functions with proper accommodation. He was running two Higher Secondary school and two High Schools through Gandhi Nagar Education Society for which he was the chief patron.<sup>27</sup>

Rajah Muthiah Higher Secondary School at Rajah Annamalaipuram was opened on 9th June 1957. This school was upgraded as Higher Secondary School on 3rd July 1978, with a well equipped laboratory.<sup>2 8</sup> It has one English medium and three Tamil medium sections in both arts and sciences. Vocational courses are taught in this school. During the year 1983, there were about 1500 students and 52 Teachers in this School.<sup>29</sup>

Rani Meyyammai Girls Higher Secondary School was started on 15th June 1961 at Rajah Annamalaipuram in Madras, by transferring all girl students from all classes of Rajah Muthiah High school. On the advice of Rajah Sir Muthiah Chettiar, all the departments of this school jointed and conducted an exhibition.

The internal assessment system was first introduced in this school even before that scheme was implemented by the Universities of Tamil Nadu. When Higher Secondary system was introduced during 1978-79, the School started an English medium section and three Tamil medium sections. Extra curricular activities like oratorical, singing, dancing, drawing and acting talents of the students of this school were also encouraged. Apart from regular curriculum, vocational courses are also taught in this school.<sup>30</sup>

Kumara Rajah Muthiah High School was started in 1950 as an Elementary school at Gandhi Nagar, Madras with the help of Gandhi Nagar co-operative society. When Rajah Sir Muthiah Chettiar became its patron he introduced VI standard and named it as Rani Meyyammai High School in 1956. It became a full-fledged High School in June 1958 with an English Medium section in each standard. This school was recognized by the Government of Madras in June 1962. Since Rajah Sir Muthiah Chettiar did



not advocate co-education, Rani Meyyammai High School was bifurcated into two separate schools one each for Boys and Girls in 1971. The new Boys schools was named after his elder son late Kumara Rajah Muthiah Chettiar who passed away in 1970.<sup>31</sup> In 1971 Rani Mayyammai High School was opened at Gandhi Nagar in Madras. All girl students from the erstwhile Rani Mayyammai High School which was a co-educational institution were transferred to Rani Meyyammai High School. This school was started with a strength of 250 studnets.<sup>32</sup>

Rajah Sir Muthiah Chettiar started Rani Meyyammai High School and Rani Meyyammai Matriculation School on 8th June 1981 in Karur. He granted Rs. 10,000/- from Rani Meyyammai Trust as special endowments to these schools. Both the schools were started for the children of the employees of Chettinad Cement Factory. For the development of Gandhi Nagar Educational Society, Rajah Sir Muthiah Chettiar contributed to the Gandhi Nagar Educational Society nearly about 50 lakhs until he breathed last.<sup>33</sup>

## COLLEGIATE EDUCATION

In the field of Collegiate education Rajah Sir Muthiah Chettiar rendered valuable services. As a Minister for education he supported the creation of number of posts in different colleges of Madras Presidency. The Presidency college was the most beneficiary of all colleges.<sup>34</sup> He allotted Rs.20, 844/- to Loyola College to buy better equipments.<sup>35</sup> He encouraged the scholars to write more books especially on Indian history and awarded the fellowship valued Rs.2000/- each.<sup>36</sup> He felt bad about the prevailing European domination in the Indian Medical field. With great difficulty he appointed or. A. Lakshmanasami Mudaliar as the first Indian Principal of the Madras Medical College during 1936-37.<sup>37</sup> He gave more attention to the development of Collegiate education in Tamil Nadu. Many times he requested the government to open two more Veterinary Colleges in Madras city. He wanted all students particularly students of the Tamil language to study more subjects and for that he wanted the government to introduce suitable syllabus for the M.A. Degree course in Tamil. Further, he often emphasized the need for the continuation for English medium Colleges and Universities.<sup>38</sup>

Rajah Sir Muthiah Chettiar's contribution to the Pachaiyappa's college was significant in the history of Pachaiyappa's college. He became a member of the Board of Management of the Pachaiyappa's Charities in 1928 and continued to be on that Board for 33 years. He was very much interested in the affairs of this college and in its development. When he was the Mayor of Madras Corporation he argued strongly for saving seven grounds of this college land which were about to be acquired by the Corporation for laying a road in 1933.<sup>39</sup> When he become the Minister for Education in 1936, he paid special attention for the development of Pachaiyappa's college. He took active



steps to shift the College from the noisy neighbour hood in George Town to the peaceful site at Chetput.<sup>40</sup> He along with Sir C.P. Ramasamy Iyer purchased a place for building the College in Chetput and made necessary arrangements to sanction the necessary amount to construct a new building to this college.<sup>41</sup> During his Ministership for Education, he influenced the Government approval for the plan of a residential type of College building.<sup>42</sup> When the Centenary of the College was celebrated in 1942, he was the President of the Board of Management.<sup>43</sup> Since he wanted to extend the Pachaiyappa's College outside also, Rajah Sir Muthiah Chettair opened the Panchaiyappa's College at Kancheepuram with the help of Dr. Sadagopan on 6th June 1953.<sup>44</sup> After rendering yeoman service, he retired from the Trust Board in 1964.

Rajah Sir Muthiah Chettiar concentrated on Women's education also. He started Rani Meyyammai Hostel in July 1976 through Tamil Nadu Educational Trust at Commander- in- chief Road in Madras. This Hostel was mainly started to provide residential facilities for the inter-college women students who hailed from various parts of India and even abroad. His daughter-ii) law Mrs. Sigappi Ramasamy is administering this hostel with the help of a Managing Committee.<sup>45</sup> To encourage sportsmen, he presented three Trophies for the Inter-Collegiate Sportl Winners respectively one of Athelitics, one for Tennies the third lor Cricket.<sup>46</sup>

## UNIVERSITY EDUCATION

"In the sphere of higher education the Sadler Commission bore fruit in the establishment of a number of unitary teaching universities. The Annamalai University exemplified the fact that modern higher education was now sufficiently firmly rooted in the public mind to become the object of munificent private benefaction." Rajah Sir Muthiah Chettiar has been rendering valuable service to the growth of University Education through Annamali University. It was started in July 1929 by Rajah Sir Annamalai Chettiar and governed by the Annamalai University in 1948. Like his father, he endeared himself to everyone in the University Act, 1928.<sup>47</sup> Rajah Sir Muthiah Chettiar became its Pro-Chancellor in 1948. Like his father, he endeared himself to everyone in the University and had won high eastern of its alumni for the keen, sustained and abiding interest he had evidenced to improve the educational facilities and amenities on the campus. Eversince the idea of a University was born in the mind of his father, he was a 'Runner Boy' between his father and the government and others concerned for the establishment of the University.<sup>48</sup> Rajah Sir Muthiah Chettiar, who had 19 years of University administrative training under his father, served as a member of the Board of Selection of this University. During his Pro-Chancellorship, the University has expanded in many directions. As soon as he became the Pro-chancellor he established three Memorial prizes to encourage the students in their academic activities.<sup>49</sup> His main ambition was the



development of the University as an ideal University and as a special centre for Postgraduate and Research studies.<sup>50</sup> He succeeded in his ambitions as the University has only Post-graduate and Research Studies. In 1982, the graduate course were shed down.

Further, since he wanted to enable the students to get maximum benefit from eminent scholars, he had extended the retirement age limit upto 60 years.<sup>51</sup> As his father, he was also very much interested and liberal in giving donations and constructing many buildings for the improvement of this university. On his 60<sup>th</sup> birthday, he contributed Rs. 2 ½ lakhs to this University.<sup>52</sup> He had many times made huge donations for various activities. He also built Rani Seethai Hostel and R.K. Shanmugam Chettiar Building etc.<sup>53</sup> Muthiah Chettair had been concentrating more on the improvement of the Tamil Department. Annamalai University is the first to introduce Pulavar Course, Teacher Training Course,<sup>54</sup> Post-graduate course in Tamil and Doctorate studies in the Tamil Department.<sup>55</sup> Rajah Sir Muthiah Chettiar took special care in appointing new teachers and encouraged them to write many books in Tamil. Due to his encouragement many scholars exhibited their talents.

During his Pro-Chancellorship many Diploma, Postgraduate and Research Courses were introduced in French, Sanskrit, Hindi, German and English languages.<sup>56</sup> A separate linguistics department is also functioning.

With the kind co-operation and hard work of the Vice-Chancellors and other University authorities, he contributed to the development of Agriculture College. The Engineering Faculty was started during the period of his father. Many major improvements were made only during the Pro-Chancellorship of Rajah Sir Muthiah Chettiar. This faculty offers Mechanical, Chemical, Civil, Electrical and Electronics & Instrumentation, Computer and Information Technology, Structural Engineering.<sup>57</sup> Doctoral programme in Engineering faculty, Post Graduate course in Structural Engineering and systems Engineering were first started only in this University.<sup>58</sup> The Department of Mechanical Engineering was bifurcated into Departments of mechanical Engineering and Production Engineering in the year 1983.<sup>59</sup> To provide more facilities for the students a separate Engineering block and Laboratory were constructed.<sup>60</sup> A diploma course in Agricultural Engineering and a basic curricular course in Electro Magnetic Professional Course were also started in this University.<sup>61</sup> The part time B.E. courses in Civil, Mechanical and Electrical Engineering were also started in 1979.<sup>62</sup>

The University authorities equally concentrate on the improvement of the Agriculture Faculty. The Faculty of Agriculture was introduced in 1958.<sup>63</sup> The Agriculture Department has an experimental farm of 150 acres of wet land and garden land, 12 acres of Orchard, 16 acres of sewage farm and a



small dairy.<sup>64</sup> During his father's life time, this University had 544 acres of tax free land. He acquired more lands, and now this University is functioning in nearly 1000 acres of land.<sup>65</sup> The University started the Faculty of Education in 1953, the Faculty of Fine Arts in 1954 and the Faculty of Law started in 1978 but the latter was shed down recently.

With the encouragement of the pro-chancellor, the Vice Chancellors and other authorities of the University started the Department of Rural Civic and Social Science,<sup>66</sup> the Department of Geology, the Department of Dravidian Philosophy,<sup>67</sup> the Department of Business Administration<sup>68</sup> and the department of Population Studies<sup>69</sup>. It also introduced many new subjects like social institutions and a Post graduate course in Micro-Biology.<sup>70</sup>

The University Started an advanced study centre in Linguistics under the faculty of Indian Language.<sup>71</sup> Rajah Muthiah Dental College was started in the year 1980. The Government of Tamil Nadu was pleased to link the government hospital, Chidambaram and 4 nearby private centers with the Dental College Hospital. The Dental College is Functioning between 8 am and 12 noon for out patients everyday. The 38th Indian Dental Conference was held at Annamalai University in December 1983.<sup>72</sup> In 1983, Nursing Course was introduced in the Faculty of Medicine and also the University created the Department of Pharmacy the same year. Rajah Sir Muthiah Chettiar last ambition was to start a full-fledged Medical College and now his dream became a reality when the Medical College was started in 1985.

Rajah Sir Muthiah Chettiar wanted to provide educational opportunity to every citizen of India and hence started the Correspondence course in July 1979 with financial assistance from the University Grants Commission.<sup>73</sup> It offers coaching in more than 50 subjects for more than 2,00,000 students. The Directorate of correspondence and continuing education has opened its study centers during the year 1983-84 in Madras, Trichy, Salem, Nagarcoil, New Delhi and Vellore for the benefit of the students of the correspondence course.<sup>74</sup>

The study centers at Calcutta, Hyderabad and Bangalore were also opened for the benefit of other States Students. Now the University started study centre in all the Districts of Tamil Nadu, most probably all the Capitals of the States. Rajah Sir Muthiah Chettiar's great service to the development of this University as a Member of the Board of Selection, Senate and Syndicate and as the Pro-Chancellor for many years has been appreciated by many scholars and political leaders like Sri Rajaji and SriKamaraj.<sup>75</sup>

The University Establish in 1929 with three faculties and nine departments with a student strength of about 490 in an area of 450 acres of land. Now the university as grown enormously. In 2004 the University has nine



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faculties 51 departments 1990 Teaching Staff, 5060 Non Teaching Staff, with a student strength of 16298 in a sprawling area of more than 1000 acres of land.

It marks the astounding growth and the university with its Staff and Student will be joyfully celebrating the Platinum Jubilee of this University on 27th August 2004. Our President of India Dr. A.P.J. Abdul Kalam the first citizen of India and a Nobel.

I Scientist will be inaugurating the historic event. He was not only interested in the development of Annamalai University but also worked for the development of all

Universities in Tamil Nadu. On 8th July 1952, he made an important speech in which he requested the Government to improve the standard of University education which was deteriorating. He also requested the government to keep English as the medium of instruction in Universities and College for many years, so as to save Tamil from its opponent Hindi.<sup>76</sup>

Rajah Sir Muthiah Chettiar extended his genial service to Madras University and worked as a Syndicate Member from 1940 to 1946.<sup>77</sup> When he was the Minister for Education, he served as the Pro-Chancellor of Madras University. It is a very great achievement that father and son were simultaneously Pro-Chancellors of Annamalai University and Madras university respectively and rendered a significant service for the development of University education.<sup>78</sup>

Rajah Sir Muthiah Chettiar extended his service to the Technical Education. When he was an Education Minister he changed the existing pattern of the typewriting examination, which was conducted only once in a year. For the benefit of new learners he passed an order to conduct the technical examination twice a year.<sup>79</sup> To promote great interest among all Indian citizens and to promote the Technical Education, he worked as a Member of the Education Committee, New Delhi in 1960, and the Governor of Indian Institute of Engineering Technology in 1963.<sup>80</sup> He had extended his service to the Central Leather Research Institute, Madras and to the Madras Institute of Technology respectively as a governing body member of these Institutions. He also started two polytechnics at different places in Tamil Nadu.

Annamalai Polytechnic was started in Chettinad on 11th July 1956. He donated 85 acres of land at Chettinad and Rs. 5 Lakhs for building construction from Rajah Annamalai Chetty Memorial Trust.<sup>81</sup> He became the Member of College Governing Council and introduced Diploma courses in Civil, Mechanical and Electrical Engineering in the succeeding years.<sup>82</sup> With all his encouragement, separate sections for fitting, wiring, smithy, foundry and carpentry have been opened with adequate tools and plants. Rajah Muthiah



Library was also installed with very good books for the use of students.<sup>83</sup> He had been contributing Rs.50,000/- every year to meet the annual expenditure of this college till 1970.<sup>84</sup> After that the government of Tamil Nadu took over this Institution with its full commitment.

The Muthiah Polytechnic was established in September 1958, by the Annamalai University and has been named after the Pro-Chancellor Rajah Sir Muthiah Chettiar, in view of his keen and sustained interest in Polytechnic education. He spent Rs.7 lakhs as the management's share to meet the expenditure of this polytechnic. This polytechnic was shifted to the new building which was constructed on 0.8 acres of land in 1967. This Polytechnic began to offering Diploma courses in Civil, Mechanical and Electrical and Agricultural Engineering. The Polytechnic has started a Student Centre and an Auto Service centre and also gives training to small farmers in various agro service activities.<sup>85</sup>

This polytechnic conducted an open house exhibition in February 1979. This Polytechnic helps many high schools in and around Chidambaram to attain vocational training for Higher Secondary Students. Part-time Diploma courses in Civil, Mechanical and Electrical Engineering were also started in the academic year 1978-79.<sup>86</sup>

After Rajah Sir Muthiah Chettiar, all the trusts, Educational institutions and business organizations came under the control of his son Dr., M.A.M. Ramasamy.

Rajah Sir Muthiah Chettiar's contribution to the field of Education was highly commendable. He succeeded in everything he laid his hands on. Hence, it is no exaggeration to say that he was one of the architects who gave a proper shape to the present system of education.

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## MIGRANT WORKERS REASONS OF MIGRATION, TYPES AND PROBLEMS

**Mohd.Hashim Rather**  
Assistant Professor(C)  
Department of Sociology  
Govt.College Baramulla

**Hakim Khalid Mehraj**  
Assistant Professor(C)  
Department of Sociology  
Govt. College Baramulla

### Introduction:

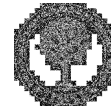
The term 'labour' is used for 'worker'. Labour is an ability to work. Labour is a broad concept because it includes both physical and mental labour. Labour is a primary or human factor of production. It indicates human resource. Labour in the border sense of the term, it may refer to any hand or brain work. It can be performed for money income and personal satisfaction. In economics any work whether manual or mental, which is undertaken for a monetary consideration is called labour. Labourer is a person who owns labour. So labourer means worker. It is a person engaged in some work. A worker sell their service and doesn't sell themselves.

Labour cannot be stored. Once the labour is lost, it cannot be made up. Unemployed workers cannot store their labour for future employment. It is easy to calculate production cost of commodity produced in an industry, but cost of producing a labour is a vague concept because it includes expenses incurred by parents on education of their children and other expenses incurred on them right from their birth date. It is impossible to estimate all such costs accurately.

Other factors like land, capital are passive, but labour is an active factor of production. Being a human being, this factor has its own feelings, likes and dislikes, thinking power, etc. we can achieve better quality and level of production, if land and capital are employed properly in close association with labour. So without labour, we cannot imagine the smooth conduct of production. No two persons posses the same quality of labour. Skills and efficiency differs from person to person. So, some workers are more efficient than others in same job.

Labour doesn't move easily from one occupation to another because of several factors like family and cultural background, limited educational and technical skills, life style, housing and transport problems, language barrier, adaptability to new environments, etc.

According to ILO among the 900 million working poor, there were an estimated 456 million workers around the world living in extreme poverty



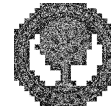
below the US\$1.25 a day poverty line in 2011, a reduction of 233 million since 2000 and a decline of 38 million since 2007.

However, this global aggregate is heavily influenced by the dramatic decline in extreme working poverty in the East Asia region, where, owing to rapid economic growth and poverty reduction in China, the number of poor workers has declined by 158 million since 2000 and by 24 million since 2007. Moreover, there has been a marked slowdown in the rate of progress in reducing working poverty since 2008.

A projection of pre-crisis (2002 to 2007) trends shows 50 million more working poor in 2011 than expected on the basis of pre-crisis trends. Similarly, there are an estimated 55 million more workers in 2011 living with their families below the US\$2 a day poverty line than expected.

The world enters the year 2012 facing a stark reality: one in three workers in the labour force is currently either unemployed or poor. That is, out of a global labour force of 3.3 billion, 200 million are unemployed and a further 900 million are living with their families below the US\$2 a day poverty line. In fact, as these poverty estimates do not include the poor in developed economies, this estimate actually understates the extent of the decent work deficit. If current economic and labour market trends persist, there is a risk that the deficit will rise further. The ILO projects 400 million new entrants into labour markets over the next ten years. As a result, on top of the challenge of improving labour productivity in developing countries to lift the world's 900 million working poor out of poverty, 400 million new jobs will be needed simply to avoid a further increase in global unemployment. The situation is especially desperate for the world's youth: 75 million young people around the world are unemployed, with the highest youth unemployment rates observed in precisely those regions of the world facing the fastest growth in the labour force. A continuation of current trends risks further undermining the already dim prospects and aspirations of the world's youth, sowing the seeds for continued social unrest and further weakening global economic prospects.

The labour in India consists of about 487 million workers, the second largest after China. Of these over 94 per cent work in unincorporated, unorganized enterprises ranging from pushcart vendors to home-based diamond and gem polishing operations. The organized sectors include those employed by the government, state-owned enterprises and private sector enterprises. In 2008, the organized sector employed 27.5 million workers, of which 17.3 million worked for government or government owned entities. Today, India is home to roughly one-third of the entire poor population in the world. A higher proportion of its population living on less than \$2 per day, which is less than sub-Saharan Africa, the poorest region of the world. More



than 260 million people in India are deprived of 2400 calories, out of which 75% are from rural India. World Bank's latest estimation says that there are 456 million people (out of 3.3 billion) or about 42% of the population living below the new international poverty line of \$1.25 per day. The 2011 witnessed anti-poor economic reforms, contractualisation and casualization of labor in India and changing production practices, which are attempt to undermine labour and labor laws. Globalization witnessed India's integration and resultant consequences; growing unemployment and under employment; privatization of natural resources; denial of employment and increasing inequalities causing poverty, hunger and absolute hunger.

### **MIGRANT WORKERS**

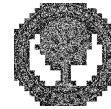
Migration is defined as a process of movement of an individual from the place of birth/origin or normal residence to a new place of residence. Labour migration is an important factor affecting the course of socio-economic development in India. Accelerated movement of people mainly from the rural and backward areas in search of employment has been one of the most important features of the labour market scenario in India during the post-independence period. It has raised a number of concerns such as economic, social and political marginalization of migrant workers, especially of those unskilled people moving from relatively deprived and depressed areas in search of gainful employment and living. Migration is widely perceived as both induced by the extent vulnerability of social groups and also results in increased vulnerability at the point of destination.

### **PATTERNS, FORMS AND CHARACTERISTICS OF MIGRATION**

Four broad patterns of internal migration are : (i) Rural-to-rural migration; (ii) Rural-to-urban migration, (iii) Urban-to-urban migration and (iv) Urban-to-rural migration. Within these different streams rural-to-rural and rural- to- urban migration have been the predominant patterns of migration.

Rural labour migration, from agriculture to non-agricultural sectors and from rural to urban areas, is unavoidable in the process of India's economic and social development. Currently, as a result of a large increase in rural migrant workers and the total workforce, a challenge exists in rural labour migration and employment: An increasing number of migrant workers coinciding with soaring numbers of university graduates and unemployed urban workers, all of which exacerbates employment pressure in urban areas. Facing this challenge, a crucial question should be answered: Where should these migrant workers go? The key to this question lies in the labour absorption efficiency of urban areas.

Theoretically, the labour absorption efficiency in a particular city



depends on its industrial structure and urbanization pattern, which interact with each other to optimize labour force allocation and distribution. Economic development promotes industrial clusters in urban areas, along with high remuneration improved infrastructure and more employment opportunities, which attracts workers from rural areas. Adjustments to industrial structure also lead to reasonable allocation and utilization of migrant workers. Therefore, interaction between industrial structures and urbanization determines rural labour absorption efficiency in a particular area. A reasonable strategy for rural labour migration should consider these two factors, take advantage of labour absorption and economic strength and influence in urban areas to achieve an optimum allocation of labour resources and promote industrial adjustment and economic development.

According to the National Monitoring Report for Migrant Workers (2009), the total number of rural workers is 229 million, among which, 148.89 million are migrate workers; 2010, the total number of rural workers reached 242million.

## **MAGNITUDE**

Migration has been a regular phenomenon in recent times involving people within a given geographical area or beyond the boundaries of a state or nation. As per data available there were 23.4 million inter-state out- migrants. Of this, migration for employment accounted for 6.2 million. About 5 lakh migrants were reported seasonal migrants migrating for less than one year. Two states, Uttar Pradesh and Bihar alone account for 41.4% of total out migration. This includes intra-district, inter-district and inter-state migrants.

## **MAJOR REASONS FOR MIGRATION**

- Better employment opportunities and higher wages in economically developed regions attract labour, non-availability of employment opportunities and consequent hardship in the under developed regions act as push factors in the migration process.
- The economic necessity, inter-regional disparity in economic growth due to uneven development and disparity between different socio-economic classes has been identified by the National Commission on Rural Labour as the most important reason for causing migration.
- Freedom of movement in any part of the territory of India and freedom to pursue any avocation of one's choice is a fundamental right guaranteed by Article 19 of the Constitution.

## **WAGES AND EARNINGS OF MIGRANT LABOUR**

- Wages for migrant labourers vary from sector to sector and region to



region. Except in a few sectors and regions at a particular period in a year, migrant labourers by and large do not get minimum wages. In order to avoid payment of minimum wages and to get extra work in short time, payment by piece-rates and contractualisation of work is gaining ground.

- The condition of women migrant labourers in some parts may be unsatisfactory as the contractors decide the wage paid to them.

### **MAJOR PROBLEMS FACED BY MIGRANT LABOURERS**

- The majority of inter-district and interstate migrants are illiterate and belong to the poorest sections of the society.
- The intermediaries often exploit their helplessness by giving certain advance payments and forced them into a kind of bondage.
- Most of the migrant labourers do not have a fixed place of work and keep shifting from one place to another.
- They lack bargaining power, forced to accept in-conducive working conditions and work for lesser wages.
- In the event of disputes, they have little strength to withstand and to wait for the dispute to be resolved by the formal resolution machinery.

### **INTER-STATE MIGRANT WORKMEN ACT, 1979**

- Although number of labour legislations as mentioned earlier are applicable to all workers irrespective of their status as migrant or local workers subject to coverage of establishment in which they are employed. These laws have not been adequate to protect the interests of these workers. Therefore, Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979 (Act No.XXX of 1979) was enacted. The rules under this Act came into force from 2nd October, 1980.

### **UNORGANISED LABOUR**

The term 'unorganized labour' has been defined as those workers who have not been able to organize themselves in pursuit of their common interests due to certain constraints like casual nature of employment, ignorance and illiteracy, small and scattered size of establishments, etc.

Over 94 per cent of India's working population is part of the unorganized sector. In local terms, *organized sector* or *formal sector* in India refers to licensed organizations, that is, those who are registered and pay sales tax, income tax, etc. These include the publicly traded companies, incorporated or formally registered entities, corporations, factories, shopping malls, hotels, and large businesses. *Unorganised sector*, also known as *informal sector* or *own account enterprises*, refers to all unlicensed, self-employed or unregistered



economic activity such as owner manned general stores, handicrafts and handloom workers, rural traders, farmers, etc.

As per the survey carried out by the National Sample Survey Organization in the year 1999-2000, the total employment in both organized and unorganized sector in the country was of the order of 39.7 crore. Out of this, about 2.8 crore were in the organized sector and the balance 36.9 crore in the unorganized sector. Out of 36.9 crore workers in the unorganized sector 23.7 crore workers were employed in agriculture sector, 1.7 crore in construction, 4.1 in manufacturing activities and 3.7 crore each in trade and transport, communication & services.

The unorganized sector has low productivity and offers lower wages. Even though it accounted for over 94 percent of workers, India's unorganized sector created just 57 percent of India's national domestic product in 2006, or about 9 fold less per worker than the organized sector. According to Bhalla, the productivity gap sharply worsens when rural unorganized sector is compared to urban unorganized sector, with gross value added productivity gap spiking an additional 2 to 4 fold depending on occupation. Some of lowest income jobs are in the rural unorganized sectors. Poverty rates are reported to be significantly higher in families where all working age members have only worked the unorganized sector throughout their lives.

- a) India's Ministry of Labor, in its 2008 report, classified the unorganized labor in India into four groups. This classification categorized India's unorganized labour force by occupation, nature of employment, specially distressed categories and , oil mills etc.

**Nature of Employment:** Attached and service categories. The unorganized occupational groups include marginal farmers, landless agricultural labourers, share croppers, fishermen, those engaged in animal husbandry, beedi rolling, labeling and packing, building and construction workers, leather workers, weavers, artisans, salt workers, workers in brick kilns and stone quarries, workers in saw mills, and workers in oil mills. A separate category based on nature of employment includes attached agricultural labourers, bonded labourers, migrant workers, contract and casual laborers. Another separate category dedicated to distressed unorganized sector includes toddy tappers, scavengers, carriers of head loads, drivers of animal driven vehicles, loaders and unloaders. The last unorganized labor category includes service workers such as midwives, domestic workers, barbers, vegetable and fruit vendors, newspaper vendors, pavement vendors, hand cart operators, and the unorganized.

## CATEGORIES OF WORKERS

The unorganised Labour can be categorised broadly under the



following categories:-

- b) Occupation:** Small and marginal farmers, landless agricultural labourers, share croppers, fishermen, those engaged in animal husbandry, in beedi rolling, labelling and packing, building and construction, collection of raw hides and skins, handlooms weaving in rural areas, brick kilns and stone quarries, saw mills agricultural labourers, bonded labourers migrant workers, contract and casual labourers etc.
- c) Specially distressed categories:** Toddy tappers, scavengers, carriers of head loads, drivers of animal driven vehicles, loaders, unloaders etc
- d) Service categories:** Midwives, domestic workers, barbers, vegetable and fruit vendors, newspaper vendors etc.

### **SPECIAL CHARACTERISTICS**

The unorganized sector with its overwhelming number, range and complexity of problems has not been amenable to any statistical accuracy and precision in the same sense as the organised sector.

Existing surveys conducted in few sectors of employment do not throw light on all aspects and not much helpful in building adequate database.

- Suffers from cycles of excessive seasonality of employment and lack of stable and durable avenues of employment.
- Low legislative protection due to scattered and dispersed nature of employment.
- No formal employer-employee relationship.
- Primitive production technologies and feudal production relations not conducive to encourage the workmen to imbibe and assimilate higher technologies and better production relations.
- Large-scale ignorance and illiteracy and limited exposure to the outside world.

### **VARIOUS ACTS APPLICABLE TO WORKERS IN THE UNORGANISED SECTOR**

The following Acts are applicable to the workers in the unorganised sector also: —

- (i) The Payment of Wages Act, 1936;
- (ii) The Employees State Insurance Act, 1948;



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## **AGRICULTURAL WORKERS**

Agricultural workers constitute by far the largest segment of workers in the unorganised sector and their number according to 1991 Census was 7.46 crore. In addition, a significant number of 11.07 crore cultivators (large, medium and small), about 50% belong to the category of small and marginal farmers also working on the land of others because of small and uneconomical holdings and low yield also qualify for agricultural labourers.

About 60 lakh workers are engaged in fishery, forestry, orchardry and allied activities,

## **PROBLEMS FACED BY AGRICULTURAL WORKERS**

Broadly, the problems of agricultural workers can be classified into two groups viz.,

- (i) Social
- (ii) Economic.

Social problems emanate from the low status of agricultural workers in the rural hierarchy and the economic problems are due to inadequacy of employment opportunities, poor security of tenure, low income and inadequate diversification of economic activity in rural areas.

- They are dispersed, unorganised and generally have poor bargaining power.
- Due to seasonal work they often have to migrate for alternative avenues of employment in other areas like construction etc. during off-season.
- Circumstances force many of them to borrow, from time to time, from private sources either for consumption purposes (even to maintain a subsistence level) or to meet social obligations (marriages, etc.) and some of them end up as bonded labourers.

## **HOME BASED WORKERS**

A major category of unorganised workers is Home Based Workers. Home Based Workers are those who are engaged in the production of goods or services for an employer or contractor in an arrangement whereby the work is carried out at the place of the workers' own choice, often the worker's own home.

The issues and problems of home based workers are very complex because of the absence of any direct master-servant or employer-employee relationship between the home worker and the person or organisation for whom he works. The relationship being ambiguous and indefinite, the home



worker is subjected to exploitation in various forms.

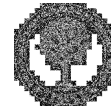
## **BUILDING & OTHER CONSTRUCTION WORKERS**

“Building worker” means a person who is employed to do any skilled, semi-skilled or unskilled, manual, supervisory, technical or clerical work for hire or reward, whether the terms of employment be expressed or implied, in connection with any building or other construction work.

Construction workers constitute one of the largest categories of workers in the unorganised sector.

According to the Sample survey conducted by NSSO in 1999-2000, about 1.76 crore workers are employed in the construction activities. “Building or other construction work” means the construction, alteration, repairs, maintenance or demolition, of or, in relation to, buildings, streets, roads, railways, tramways, airfields, irrigation, drainage, embankment and navigation works, flood control works (including storm water drainage works), generation, transmission and distribution of power, water works (including channels for distribution of water), oil and gas installations, electric lines, wireless, radio, television, telephone, telegraph and overseas communications, dams, canals, reservoirs, watercourses, tunnels, bridges, viaducts, aqueducts, pipelines, towers, cooling towers, transmission towers and such other work as may be specified in this behalf by the appropriate Government, by notification but does not include any building or other construction work to which the provisions of the Factories Act, 1948 or the Mines Act, 1952 applies. Labour is the source of all population. It is the richest resource of a nation. In fact, the operation of an economy depends, in large measure, on the employment of manpower on the purchase, sale and performance of labor services. Our constitution and its preamble and the Directive Principles of State Policy have provided the philosophy and socio-political framework for economic development. The planning process, which started in 1951, has facilitated the growth of industry. A labour policy has been evolving through the institutional framework built for its formulation. Apart from these factors, the impact of political forces and social change is affecting the worker’s life.

A worker today is better aware that learning is essential for improved earnings. He is keen about self-education at adult literacy centers and even keener about the education of his children and their future. He wants them to send in more remunerative avenues which were denied to him because of requirements of skill. And this aspiration is not confined to the urban worker; it has traveled to rural areas, but not very significantly. Thus, the worker, along with the rest of the community, is forward looking, over the last twenty years the aspirations of workers have changed mainly because of the induction of a large number of young workers in the working force. Some of the workers aspirations are the result of the social consciousness; others have arisen out of



what they see around them.

It is now necessary to view the change in the attitude of the new workers in its different components: the workers attitude to work; his attitude to the union and the issues connected with the organization; his attitude to persons with whom he comes in contact outside his work place and also his attitude to his employer.

In the present age due to globalization, privatization and liberalization Industry and laws covering it are facing new challenges. Consequently many of the laws have become outdated. So a need arises for restructuring of the labour and industrial laws . To keep pace with the developments and changes the labour laws have undergone several amendments of great relevance particularly in the recent few years. Likewise a survey of the cases decided by the Supreme Court and High Courts during 2009-2012 reveals that there is a marked shift in the approach of the Indian judiciary in the area of labour management relations. Since strict compliance of the labour laws is the need of the hour and is required by the employer, it is essential that they should know the developments both legislative and judicial. This is all the more necessary for the executive, labour administrators and enforcement agencies who are responsible for non-compliance.

The studies reviewed here the observation that rural labour in urban area are characterised by the informal nature of work contracts, a predominance of casual workers, a multiplicity of income sources and extra market relations. The case studies show that markets are highly segmented where wage differentials and the amount of work available are not strictly determined by productivity and the demand and supply of labour. Other factors such as caste, ethnicity, gender and age play an important role. Those who belong to historically disadvantaged groups are more likely to be labourers and limited to poorly paid work. There are strong divisions within these broad social categories as the case studies show and this too must be taken into account while understanding the nature of labour. the latest Indian census figures show that there has been a progressive feminisation of the agricultural labour workforce - the proportion of workers engaged as cultivators among males (42.2) exceed those among females (36.50), in the category of agricultural labourers the proportion of workers among females (43.4) far exceeds males (27.5).

### **MAJOR PROBLEMS FACED BY LABOURERS**

- The majority of inter-district and interstatemigrants are illiterate and belong to the poorest sections of the society.
- The intermediaries often exploit their helplessness by giving certain advance payments and forced them into a kind of bondage.



- Most of the migrant labourers do not have a fixed place of work and keep shifting from one place to another.
- They lack bargaining power, forced to accept in-conducive working conditions and work for lesser wages.
- In the event of disputes, they have little strength to withstand and to wait for the dispute to be resolved by the formal resolution machinery.

One may be tempted to treat this as empirical evidence in support of the view that the labour market rigidities particularly the Industrial Disputes is the prime cause or an important cause of increasing employment of contract and temporary workers. Such inference will, however, be hasty since it is important to recognize that the sample used for the econometric analysis is dominated by hired workers engaged in unorganized manufacturing, and the Industrial Dispute Act does not apply to them. The same is possibly true for several other regulations which are held responsible for rigidities in the labour market. Why labour market reforms encourage unorganized manufacturing enterprises to substitute casual labour by regular wage labour is therefore a puzzle. The state governments and some of these impact both organized sector manufacturing enterprises and the unorganized sector manufacturing enterprises that have hired workers.

Another possibility is that the reform measures taken by the state governments reflect the changes in the attitude of the state governments towards enterprises and the work employed in the enterprises. The changes in attitude of the state governments have a significant bearing on the way business is done in the states, and in particular it encourages small enterprises to hire workers on a more regular basis. It is needless to say that these are speculations on what could be the reasons for the observed, robust negative relationship between labour market reforms and the proportion of casual workers, and a more thorough investigation is needed. This is a matter that may be taken up in future research.

### **Conclusion:**

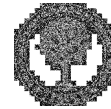
From the above discussion it is clear that migratory labour is both problematic as well as important in the contemporary period. On one hand it leads to increase in production, easy availability of labour, cheap labour etc and on the other hand migratory labour brings lot of social problems with them and may lead to acculturation and assimilation as well.



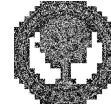
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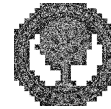
## THE VIOLATION OF ECONOMIC RIGHTS OF MULLU KURUMABAS IN NILGIRIS: PROBLEMS AND PROSPECTS

**K.Govindaraj**

Assistant Professor History Wing, DDE  
Annamalai University  
Annamalai NagarTamil Nadu

Although hunting and agriculture were the main economic activities since many decades. The former is given much importance among the Mullu Kurumbas. Several causes for the disturbance in their traditional economy. This led to scarcity of tribes to plan and leaving little scope for Mullu Kurumba children to learn their traditional activities. Thus their right to perform their own work is being violated. A big problem which some of the Mullu Kurumbas are facing now on account of the disturbance in the Traditional economy is settlement of loans. Due to the new forest rule these tribal people are not allowed to practice hunting, whereas agriculture particularly cash cropping requires a large amount of capital to cope with. Lack of capital together with their desire to meet the new demands described earlier have made many a Mullu Kurumba go in for debts at high rate of interest. There are some tribes who are unable to pay even the interest, due to which they have already surrendered their lands. They are supposed to be bonded labors on their own land which is indigestible as human being. In some cases the community people didn't have proper proof to declare their ownership. It is the duty of our State Government to protect the tribes through the laws. Article 46 of Directive principle of state policy of the Indian constitution says, that the state shall promote with special care on education and economic interest of the weaker section of the people.

The Kurumba of Nilgiri hills are entirely different from other tribal communities. The Government of India declared that, the tribes,



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Mullu Kurumbas, who are living only in Nilgiri district, are categorized as scheduled tribe. This research article focuses on the violation of economic rights of Mullu Kurumbas in a detail.

### **Violation of economic rights**

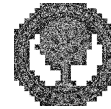
Hunting and agriculture were the main economic activities of the Mullu Kurumbas since many decades, of these two hunting particularly of a big game and it is given much importance among the Mullu Kurumbas. In recent days there are several causes for the disturbance in their traditional economy. The people who were living in the core of the forest practicing their traditional economic activities they were sent away to the buffer zone by some of the forest officers. This enabled the indigenous people not to perform their hunting to their traditional extent. The Other reason for their inability to perform hunting is disturbed by of other search economical ways for livelihood. This lead to scarcity of tribes to plan, implement corporative actives to perform hunting. Thus the old techniques of hunting and honey collecting are rarely enacted leaving little scope for Mullu Kurumba children to learn there traditional activities. With the gradual decline of hunting and Mullu Kurumbas by cooperation among Mullu Kurumbas has also decreased. Thus there right to perform their own work is been violated. The other important economic activity of the Mullu Kurumbas is agriculture. They cultivated the land in the past and continue to cultivate now also. The important change that the Mullu Kurumba who were contented with the substantiate cultivation in the past have now started growing various cash crops such as coffee, pepper, ginger, turmeric, etc. For commercial purpose besides growing paddy for subsistence, new crop has been adopted by the Mullu Kurumbas in the recent times. Most of the changes in the sphere of their agriculture activities are became kinds of problems. One important result of their new venture is that the cash cropping method is that it has strengthened the Individual enterprises and furthered



weakened the co-operation of households of their communal level. The new demands such as buying more clothes and that too of good quality, paying high price (birde price) conducting marriage on grand scale spending more on feast etc., require plenty of money for each household and these demand have accentuated their enterprises only at household level.

A big problem which some of the Mullu Kurumbas are facing now on account of the disturbance in the Traditional economy is settlement of loans. Hunting requires very nominal cash. But due to the new forest rule these tribal people are not allowed to practice hunting, where as agriculture particularly cash cropping requires a large amount of capital to cope with. They need funds to buy seeds and manure and also to employ labourers in the peak seasons. Besides regular attention has to be given to the growing crop which means they cannot engage themselves in the other remunerative field open to them. Lack of capital together with their desire to meet the new demands described earlier have made many a Mullu Kurumba go in for debts at high rate of interest. There are some tribes who are unable to pay even the interest, due to which they have already surrendered their lands and have taken to wage earning all the land they possessed were taken away by the land lords and also by the new settlers. The fertile land are to be taken over by the land lords, or the new settlers. They would give them cheap amount and make the land as their own and they would start their cultivation on fertile land. The tribal community people had to toil on the same land; with very less wage. They are supposed to be like bonded labors on their own land which is indigestible as human begin.

The other dimension to this on land is that by not granting patta, because of which they are in capable to develop the lands and thereby make it productive, those Kurumba are mostly allotted hill side lands on which only permanent crops like coffee, tea, pepper etc., can



be grown. Which need lot of investment, which the community people cannot afford, because they don't have patta they are not able to turn to any other sources such as banks etc for financial assistance due to which they are badly been exploited and are not allowed to practices their own traditional economic activities.

In some cases the community people didn't have proper proof to declare their owner ship. This was because they though just as the sky, the wind and level, which could not be owned they believed that the land which they had could not be also owned by any other person. But due to their literacy they are been badly treated. Though article 46 of Directive principal of state policy of the Indian constitution says, that the state shall promote with special care on education and economic interest of the weaker section of the people and in particular of the scheduled caste and scheduled tribes and shall protect them from social injustice and all forms of exploitation even after act and rule, which have come into force, the community people are still been violated. Thus the Mullu Kurumba were violated by the community peoples. It is the duty of our State Government to protect the tribes through the laws. Article 46 of Directive principal of state policy of the Indian constitution says, that the state shall promote with special care on education and economic interest of the weaker section of the people. They need funds to buy seeds and manure and also to employ laboures in the peak seasons. The state government should provide to facilitate them for getting loan in the Nationalized Bank.



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## GENEALOGY OF CONFESSIONAL SCIENCE AND ITS RELATION TO KNOWLEDGE-POWER

**Dr. M.P. Terence Samuel**

Assistant Professor  
Dept of Philosophy and  
Comparative Religion  
Visva-Bharati, Santiniketan

Living in the times of celebrating the prefixing of the phrase 'post' to every grand narratives of modernity, in a way rushing to break the barriers of modernity, the phrase 'postmodern' often is misunderstood as something that is 'after' the modern, in a popular sense, as if to suggest the discontinuity between modernity and postmodernity. This understanding often leads one to understand postmodern as a new era, a new fashion, a successive historical stage in relation to modernity. This leads further to the understanding of the loss of faith in the innovative developmental practices of modernity. In such a case, postmodernism is understood as a reversal of modernity, replacing one set of narratives with another set of narratives. This solipsistic understanding further leads to the a-historical account of postmodern moorings. However, if we could combine all these three moments of postmodern discourses, then we could possibly arrive at a working definition of postmodernism; that it is a continuous rereading of modern narratives which challenges the modern foundational practices, in order for a possible radical democratic politics, from the standpoint of a discursive critique.

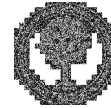
Linda Hutcheon makes clear this relation between the modern and postmodern in a succinct way, stating that postmodernism and postmodernity actively incorporate that which it contest (Quoted in Malpas, 2007: 45). Taking a clue from the oft-quoted saying of Marx that 'all that is solid melts into air', Marshall Berman says, "To be



modern is to find ourselves in an environment that promises us adventure, power, joy, growth, transformation of ourselves and the world – and, at the same time, that threatens to destroy everything we have, everything we know, everything we are” (Berman, 1982: 15). This ‘maelstrom’ of modernity may be equated with Jameson’s analysis of schizophrenic depthlessness of modernity and Lyotard’s critique of the dehumanising effects of modern progress, says Malpas (Malpas, 2007: 46). In this way, postmodernism foregrounds as well as contests modernity. If modernity, according to Berman, is about getting continually uprooted from the past towards a radically different future, due to the paced changes in the realms of knowledge, technology, power relations, markets and nature, then postmodernism can be said to be a reflective discourse that foregrounds the problems of modernity and its genealogy. If modernity is about changes that were due to the multiple localizations of practical activities based on the grand narratives of modernity, then postmodernism can be understood as the discursive practice on the schizophrenic depths of the modernity. If postmodern is about ‘out-modern modernity’ (Woods, 2010: 3, 11), the essential difference between the two may be stated as follows: whereas the modernity advanced multiple localizations of grand narratives, the postmodernity is about the local and provisional processes of legitimisation, contesting the absolute and universalising/totalising effects of modernity.

### **Science of Confession – Genealogy and Knowledge-Power**

According to Foucault, “In the erotic art, truth is drawn from pleasure itself, understood as a practice and accumulated as experience; pleasure is not considered in relation to an absolute law of the permitted and the forbidden, nor by reference to a criterion of utility, but first and foremost in relation to itself; it is experienced as pleasure, evaluated in terms of intensity, its specific quality, its duration, its reverberations in the body and the soul. Moreover, this knowledge must



be deflected back into the sexual practice itself, in order to shape it as though from within and amplify its effects. In this way, there is formed a knowledge that must remain secret, not because of an element of infamy that might attach to its object, but because of the need to hold it in the greatest reserve, since, according to tradition, it would lose its effectiveness and its virtue of being divulged" (Foucault, 1998: 57).

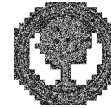
Since the middle ages, the Western societies relied upon the confessional techniques for the production and reconstruction of truth, starting from the codification of the rituals of confession by the Lateran Council in 1215 CE. From then on, there was steady decline in the accusatory procedures of criminal justice and the gradual growth of tribunals, according to Foucault. This assigned the confession a central role in the production and reproduction of truth/knowledge both in civil and religious affairs. Confession came to occupy the central position for divulging the hidden and often unexplored non-knowledge of the self; to be revealed in order to be standardised and to be clinically treated to bring about 'normalcy'. Thereafter, the Western society became singularly a confession society, and torture has accompanied in the extraction of truth, according to Foucault. And this notion of truth was further developed in psychological studies that the truth lies hidden in the unexplored pastures of the mind and soul.

From the pleasure of being recounted as the heroic narration of the primal traces of knowledge, the society passed on, through the mediation of the techniques of confession, to the forgetfulness to perceive confession as a constraining power. Rather it began to be understood as a kind of liberation, a mediating power which is necessary for getting healed and to be treated. Traditional themes in philosophy reified this notion further by stating that truth shares an original affinity with freedom. It is to be noticed that the orthodox philosophy in India too equated truth with freedom/free from bondage, rather than relating it with the relations of power.



In the discursive ritualistic practices of confession, “the speaking subject is also the subject of the statement; it is also a ritual that unfolds within a power relationship, for one does not confess without the presence (or virtual presence) of a partner who is not simply the interlocutor but the authority who requires confession, prescribes and appreciates it, and intervenes in order to judge, punish, forgive, console and reconcile; a ritual in which the truth is corroborated by the obstacles and resistances it has had to surmount in order to be formulated; and finally a ritual in which the expression alone, independently of its external consequences, produces intrinsic modifications in the person who articulates it; it exonerates, redeems and purifies him; it unburdens him of his wrongs, liberates him and promises him salvation” (Foucault, 1998: 61 – 2). The agency of domination is not with the speaking subject, but in the one who listens and reformulates the narration and who is not supposed to know. Finally, the confessional discourse takes effect not in the one who listened to it, as in the case of supposedly religious discourses, but in the one from whom the confessions were wrested.

The practice of confession, though begun in the Middle Ages as a practice of penance, it got localised multiply and variedly in the modern period. One confesses in public and in private; one admits to oneself in pleasure and pain; it is employed in a whole series of relationships – children and parents, students and educators, patients and psychiatrists, delinquents and experts, between the beloveds and so on; it is employed with varied motivations and effects – interrogations, consultations, autobiography, explanations to memos, letters, witness, etc; these confessions are recorded, transcribed, assembled, commented upon, interpreted and so on. It takes on the transformation of esoteric knowledge towards an exoteric system of knowledge. The juridical–religious domain of confession has multiplied and got localised in the modern period through scientific extortion of truth. Through the



clinical codification of the inducement to speak, by imputing some degree of sexual etiology to most of the malady and physical disturbances, integrating the sexual obscurity to scientific discourse, constituting a hermeneutic function into the ambiguous and clandestine discourses and through the medicalisation of the effects of confession, the science of confession has proliferated into various fields of knowledge (Foucault, 1998: 59, 63, 65 - 7).

The confessions were necessitated as sexuality, or for that matter humanity too, was considered to be a domain susceptible to pathology, hence the necessity for therapeutic and normalising interventions. According to Foucault, the nineteenth century Western society did not confront sex with a fundamental refusal of recognition, but to formulate a uniform truth about sex, as it was treated as a basic natural instinct harbouring a secret (Foucault, 1998: 68 – 9). So Foucault refutes the repression theory of sex formulated on the basis of economic relations as inadequate to explain the whole process of the modern discourses on sexuality and confession. Rather, he tries to understand it as discursive practice, “a process that spreads it over the surface of things and bodies (to modify them as ritualised bodies through the ritual procedures of confession), arouses it, draws it out and bids it to speak, implants it in reality and enjoins it to tell the truth: an entire glittering sexual array, reflected in a myriad of discourses, the obstination of powers, and the interplay knowledge and pleasure.” Beyond these few phosphorescences, Foucault finds a sombre law that always forbids and hence he calls the modern discourses on sexuality and confession as the ‘political economy of a will to knowledge’ (Foucault, 1998: 72 – 3).



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## Religious and Theological Implications of Confession

Foucault's analysis of confession arguably leads us to the 'othering' effects of the discourses. His work can be understood as how the discursive practices of any society create the 'other' within it and make it a practice through a process of ritualization.

In the case of sex, the confession is the medium through which the sexual act gets transformed into the speech act and sex was transposed into discourse, in the modern period. "Contrary to the view that sex has been banished to secrecy, Foucault claims that talk of sex has multiplied as practices of confession moved from religious penance to juridical process, medical diagnosis and psychiatric explorations" (Ward, 1997: 120). In the Middle Ages, the erotic art was the esoteric domain of the privileged few initiated people. The confession practised in Christianity during Middle Ages has some resemblances to erotic art, according to Foucault, especially in the direction and examination of conscience, in the search of spiritual union and the love of god. Almost it was pedagogical in nature. But the science of sex, under the guise of positivism, does not function to a certain extent as *ars erotica*, though in an extraordinarily subtle form of the political economy of the will of knowledge and the will to power, opines Foucault (Foucault, 1998: 70 - 1). Under the guise of freeing the self, the individuals are put under the surveillance of the hegemonic powers. By making a person to confess, the actual domains of power get extended through a false consciousness of the liberative potentials of confession. This leads to certain questions concerning its implications in religion in the modern period. Mary Fulkerson and Susan J Dunlop explore them as follows (Ward, 1997: 121 -2).

Though sex and confession have transposed themselves into the juridical-political institutions, they are not of small concern for religions still. Imbibing the modern discourses, religions also have the



somewhat similar understanding of sex as a hidden secret potential that needs constant surveillance and healing, if necessary. This inevitably marks a person's subjectivity on the basis of sexual identity. And this is further extended to the normalising tendencies of the social sciences, as in the case of homosexuals being disciplined and normalised. But the religious and the moral people are out of the purview of such disciplining practices.

The question which is raised on the basis of Foucault's understanding of sexuality and confession is that "Does the contemporary Christianity, or for that matter any religion and institution, require the depths of the self? If so, why do they need it?" As we have seen from the modern colonial experiences, even starting from that of the Roman Empire, the religions often played the role of the second fiddle to those in power. The exploration of the depths of the self by modern institutional practices is not of the nature of merely pedagogical, nor is it a process aiming towards the full/holistic development of the humans; but this exploration of self comes with the riders of the relations of power and hence there is this hyphenated relation between knowledge and power. Exploration of self is conditioned by the relations of power, though we may claim it to be a progress or advancement of knowledge discourses.

This further leads to the question of the approach towards religious and theological studies. Following Nietzsche's genealogical analysis of religion in modern period, Foucaultian studies on confession gives us an idea of approaching religion and theology as a discursive practice constrained with the relations of power, where knowledge systems are/were produced, having their roots in the relations of power, both domination and resistance. This anti-essentialism refuses to accept the truth-claims and tenets of religion as given. This anti-foundationalist approach towards religion and theology makes us to realise that religious and theological truth-claims are produced,



repeated, modified, recreated socially within the relations of power. It leads us to understand such truth-claims as issuing from the relations of power such as domination, resistance, hegemony etc.

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## CONDUCTOMETRIC AND MOLECULAR INTERACTION STUDIES OF NaCl IN BINARY MIXTURES OF ETHANOL AND WATER

**J.Subha<sup>a\*</sup>, S.Jagan Raj<sup>b</sup>, S. Bangaru Sudarsan Alwar<sup>c</sup>,  
S.Rekha<sup>d</sup>.**

<sup>a,d</sup>Department of Chemistry, RMD Engineering College,  
Kavarapettai, Chennai

<sup>b</sup>Department of Chemistry, Velammal Institute of Technology,  
Panchetti, Chennai

<sup>c</sup>Department of Chemistry, D.G. Vaishnav College, Arumbakkam,  
Chennai

### Introduction

Electrical conductance has focused its attention towards mixed solvent systems in the past few decades. These studies directly yield interesting information on the physicochemical aspects of the ionic species in solution, its molecular interaction and its solvational behaviour [1-5]. Sufficient importance was laid on combining water and other organic solvents, ethanol for instance. In recent years there has been an increasing interest in investigating the role of a solvent in the solvation of an ion [6-8]. Roses et al., [9] analyzed the molar conductance and dissociation constant of hydrochloric, perchloric, picric and benzoic acids as well as their tetrabutylammonium salts in propan-2 ol/water mixtures and have reported that there is an effective hydrogen bonding that accounts for the interpolation of the pK value at any solvent composition in propanol-2/water mixtures. Sadiq Khan et al., [10] analyzed the conductance data of sodium perchlorate and sodium benzoate solutions in binary mixtures of acetonitrile with water at 25°C and discussed the importance of solvent effect on the ionization of the electrolyte in terms of solute – solvent interactions. It is also seen that solute-solvent interaction studies have been accounted to be



responsible for the variation in conductance values in a binary solvent mixture.

Ultrasonic studies have also bridged the conventional techniques and have evolved into an emerging tool in highlighting information that deals with the molecular interaction of liquids and solids [11-13] and the acoustical parameters explains the fact that the dipole-dipole interaction is through hydrogen bonding between components of various mixtures.

The present investigation deals with the study of the molecular interaction of NaCl in ethanol water mixtures of several proportions at room temperature. The study also focuses on the conductance behavior of NaCl in ethanol water mixtures and the non-linear variation of the related physical parameters like density, viscosity and ultrasonic velocity.

#### **MATERIAL AND METHODS:**

The chemicals used in the present study were of high purity and analytical grade (E.Merck, India). Purification was done by standard procedure [14-15] and the solvent was redistilled before use. The density of the purified solvent used was  $0.7806\text{gcm}^{-3}$  with a coefficient of viscosity of  $0.9590\text{mPa}\cdot\text{s}$  at room temperature. The density of the liquids was measured using a 10ml specific gravity bottle. The viscosity of the pure liquids and the liquid mixtures were measured using an Oswald's viscometer with an accuracy of 0.01s. Ultrasonic velocity was measured by a single crystal variable path interferometer with an estimated accuracy of  $\pm 0.05\%$ . A highly precise digital conductivity meter, Model CDM230 and a conductivity cell were used for conductance measurements. The cell constant of the cell used was  $0.92\text{cm}^{-1}$  with an uncertainty of 0.01%. The instrument was calibrated by using freshly prepared KCl Triply distilled water (specific



conductivity of the order of  $1 \times 10^{-7} \text{ Scm}^{-1}$ ) was used throughout this study.

## RESULTS AND DISCUSSION:

Long range forces and short range forces are the two types of intermolecular forces that account for molecular interactions in binary mixture study. The long range forces arise when molecules orient together resulting in an electronic cloud overlap. These forces seem to be highly directional in nature. The combination of ethanol and water results in such strong intermolecular interactions. When water and ethanol are mixed there is also a considerable release of heat of the solution, in slight traces, but in evidently measurable form.

The density measurements of 0.001M NaCl, 0.002M NaCl, 0.003M NaCl, 0.005M NaCl, 0.008M NaCl and 0.01M NaCl in various proportions of ethanol water mixtures were studied individually and are represented in Table 1. It is seen from Table 1, that as the concentration of NaCl is increased there is a very slight increase in density for any given ethanol water composition. A graph is plotted between the density measurements of NaCl Vs % of Ethanol Content as seen in Figure 1. The density studies from Figure 1 shows that the density decreases with the increase of alcohol content. This may be due to the ionic hydration and an increased intermolecular interaction between the ethanol and water molecules which is in coherence with the available literature values [ 16,17,18 and 19]. It is also observed that on mixing ethanol and water the molecules start spreading out as the liquid becomes warmer. The substance is hence less dense and the specific gravity gets lowered. Association in liquid alcohols is much lesser than in water. They associate much less strongly and produce only polymeric H- bonded chains instead of forming large clusters. The attraction between water molecules and ethanol molecules causes a hydrogen bonding and a closer packing of the molecules. Thus the



hydrated alcohol fits in a large number of molecules into a given space, decreases its overall size and makes the structure volume-compact [20].

The measurement of viscosity gives a clear insight about the molecular interactions in the binary liquid mixtures. The viscosity behavior of ethanol water mixtures of various proportions is studied in the presence of 0.001M NaCl in Table 2. A plot is drawn between the viscosity of 0.001M NaCl and the volume fraction of ethanol in Figure 2. It is seen from the figure, that on increasing the alcohol content the viscosity steeply increases up to 50%, becomes maximum at 60% and shows a fall above 70% of ethanol. It is expected that the first solvation sheath contracts and there is existence of a structurally critical region at 40-50% of ethanol. The mobility of ions decreases at 0.5 to 0.7 volume fractions of ethanol in the presence of NaCl. However the viscosity plot for ethanol water mixtures without NaCl shows that on increasing the ethanol content, the mobility of ions decreases at 0.4 to 0.6 volume fraction of ethanol and the water structure is completely broken down, which may indulge in fixing up of maximum energy to activate itself at such a composition [21].

The variation of ultrasonic velocity of NaCl with the percentage of ethanol content is shown in Table 3. A graph is drawn between the ultrasonic velocity and the volume fraction of ethanol as seen in Figure 3. It is seen from the figure that the ultrasonic velocity increases with the increase in volume fraction of ethanol. A graph is also plotted between the ultrasonic velocities of NaCl against the concentration of various NaCl ethanol water mixtures ranging from 0.001M NaCl to 0.01M NaCl. This is graphically predicted in Figure 4. From the figure, it is seen that the ultrasonic velocity of NaCl in the binary mixtures increases with the increase in NaCl concentration. The trend observed in both the figures indicate that the increase in ultrasonic velocity may be due to the greater association in the molecules which must be the result of the ionic hydration or hydrogen bonding of the solutes. The



ionic radii of sodium and chlorine are  $0.95\text{\AA}$  and  $1.81\text{\AA}$ . It is also known that such relatively small ions induce greater order in the binary liquid medium resulting in lower compressibility and higher ultrasonic velocity [22]. This study also indicates the presence of specific molecular interaction in the liquid mixture.

The solutions of NaCl in varied compositions of water and ethanol mixtures (containing 5%, 10%, 15%, 20%, 25%, 50% and 80% by weight of ethanol) were subjected to conductivity measurements at 6 different concentrations. The experimental specific conductance values were measured for all the solutions. Its corresponding molar conductance values and its degree of dissociation values were also calculated and are shown in Table 4.  $\lambda$  Vs  $\sqrt{c}$  plots is drawn in figure 5 to find out the value of the molar conductance of NaCl at infinite dilutions for each of the water ethanol mixtures.

The molar conductance observed for pure NaCl in water is found to be  $126.45 \times 10^{-4} \text{Sm}^2\text{mol}^{-1}$ . These values are in close agreement with the 5% aqueous ethanol medium of NaCl and the trend explains a steady decrease with increasing ethanol showing an effect of ionic association. As observed in figure 5, the limiting conductance  $\lambda_{\infty}$  decreases as the weight percentage of alcohol increases. At higher ethanol proportions ethanol starts dominating and it is analyzed that there should be structural changes in the solution. This is in perfect agreement with the similar kind of trend observed in literature [23,24,25 and 26].

The specific conductance values increase with increasing salt concentration as observed in Table 4. This has been graphically presented in Fig.6. It is hence known that the inter ionic attraction gets pronounced as the concentration is increased. However with increasing ethanol content, the tendency for ion formation is enhanced as the added ethanol reduces the permittivity of the medium [2].



The degree of dissociation ( $\alpha$ ) values were also calculated. The trend reveals the fact that when the concentration of the salt is increased the  $\alpha$  values also increased. This is in turn attributed to the fact that strong intermolecular association of the ethanol halide water molecules are formed initially and the structure breaking of the complexed structure takes place thereafter [6],[7] and [25].

### **CONCLUSION:**

Conductivity has been taken as a powerful tool to investigate the microscopic property of liquid structure study. Mixed solvents find a lot of practical applications in most chemical process. The physical properties of the solvents are considerably changed even on adding small amount of water to the organic solvent. The results give a clear reflection of the solution's ability to characterize the medium based on its probing ionic behavior and molecular interaction study.

Solvation effect of NaCl in ethanol water mixture has been widely studied probing into the vicinity of the constituent particles that characterize a liquid phase into local order and long-range disorder. The intrinsic forces that strongly establish a steady state between solvent separated pair, the contact pair and neutral molecules are hence highlighted.

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## List of Tables

**Table-1:** Density measurements of 0.001MNaCl, 0.002MNaCl, 0.003MNaCl, 0.005MNaCl, 0.008MNaCl, 0.01MNaCl in Ethanol Water mixtures

**Table-2:** Viscosity measurements of 0.001MNaCl in Ethanol Water mixtures

**Table-3:** Velocity measurements of 0.001MNaCl, 0.002MNaCl, 0.003MNaCl, 0.005MNaCl, 0.008MNaCl, 0.01MNaCl in Ethanol Water mixtures

**Table-4:** Comparative analysis of  $K$ ,  $\lambda_m$ ,  $\lambda_\infty$  and  $\alpha$  for varied NaCl concentrations in ethanol water mixtures

**Table-1: Density measurements of 0.001MNaCl, 0.002MNaCl, 0.003MNaCl, 0.005MNaCl, 0.008MNaCl, 0.01MNaCl in Ethanol Water mixtures**

Conc of NaCl	% of Ethanol	$\rho \times 10^3 \text{kgm}^{-3}$
<b>0.001M</b>	5	0.99
	10	0.981
	15	0.97
	20	0.961
	25	0.954
	50	0.914
	80	0.834
<b>0.002M</b>	5	0.99
	10	0.981
	15	0.97
	20	0.961
	25	0.954
	50	0.914
	80	0.834
<b>0.003M</b>	5	0.992
	10	0.982
	15	0.972



	20	0.963
	25	0.957
	50	0.916
	80	0.837
<b>0.005M</b>	5	0.992
	10	0.983
	15	0.973
	20	0.965
	25	0.957
	50	0.917
	80	0.838
<b>0.008M</b>	5	0.993
	10	0.984
	15	0.974
	20	0.966
	25	0.958
	50	0.918
	80	0.839
<b>0.01M</b>	5	0.996
	10	0.986
	15	0.977
	20	0.967
	25	0.952
	50	0.919
	80	0.84

**Table-2: Viscosity measurements of 0.001M NaCl in Ethanol Water mixtures**

Volume Fraction of Ethanol	Viscosity of NaCl(0.001M)
0.1	1.203
0.2	1.403
0.3	1.6590
0.4	2.0054
0.5	2.215
0.6	2.297
0.7	2.242
0.8	2.123
0.9	1.850



**Table-3: Velocity measurements of 0.001MNaCl, 0.002MNaCl, 0.003MNaCl, 0.005MNaCl, 0.008MNaCl, 0.01MNaCl in Ethanol Water mixtures**

<b>Conc of NaCl</b>	<b>% of Ethanol</b>	<b><math>U \times 10^{-3}ms^{-1}</math></b>
<b>0.001M</b>	5	1526
	10	1558
	15	1579
	20	1624
	25	1636
	50	1640
	80	1660
<b>0.002M</b>	5	1530
	10	1558
	15	1580
	20	1626
	25	1640
	50	1642
	80	1664
<b>0.003M</b>	5	1533
	10	1560
	15	1581
	20	1628
	25	1642
	50	1646
	80	1666
<b>0.005M</b>	5	1536
	10	1562
	15	1582
	20	1640
	25	1644
	50	1650
	80	1667
<b>0.008M</b>	5	1538
	10	1564
	15	1586
	20	1642
	25	1646



	50	1654
	80	1672
<b>0.01M</b>	5	1542
	10	1564
	15	1587
	20	1648
	25	1648
	50	1656
	80	1674

**Table-4: Comparative analysis of  $K$ ,  $\lambda_m$ ,  $\lambda_\infty$  and  $\alpha$  for varied NaCl concentrations in ethanol water mixtures**

% of Ethanol	Conc. of NaCl	$K(S\text{ cm}^{-1})$	$\lambda_m (\text{Ohm}^{-1}\text{cm}^2\text{g equiv}^{-1})$	$\alpha$	$\lambda_\infty$
5	0.01	0.9798	97.98	0.8119	120.68
	0.008	0.8206	102.58	0.85	
	0.005	0.5097	101.94	0.8447	
	0.003	0.3036	101.2	0.8386	
	0.002	0.23	115	0.9529	
	0.001	0.1146	114.63	0.9499	
10	0.01	0.9108	91.08	0.9174	99.28
	0.008	0.7167	89.59	0.9023	
	0.005	0.4536	90.71	0.9137	
	0.003	0.2742	91.39	0.9205	
	0.002	0.1886	94.3	0.9498	
	0.001	0.0985	98.53	0.9925	
15	0.01	0.8243	82.43	0.8396	98.18
	0.008	0.6799	84.99	0.8656	
	0.005	0.425	85.01	0.8658	
	0.003	0.2355	78.51	0.7996	
	0.002	0.181	90.48	0.9216	
20	0.01	0.6964	69.64	0.8456	82.63
	0.008	0.5612	70.15	0.8517	
	0.005	0.3542	70.84	0.8601	
	0.003	0.2208	73.6	0.8936	
	0.002	0.1495	74.75	0.9076	
	0.001	0.0804	80.41	0.9763	
25	0.01	0.6385	63.85	0.8275	77.16
	0.008	0.5189	64.86	0.8406	
	0.005	0.3358	67.16	0.8704	
	0.003	0.1996	66.55	0.8625	



	0.002	0.15	74.98	0.9717	
	0.001	0.0718	71.76	0.93	
50	0.01	4434	44.34	0.8982	49.37
	0.008	0.3643	45.54	0.9224	
	0.005	0.2282	45.63	0.9243	
	0.003	0.139	46.34	0.9386	
	0.002	0.0899	44.94	0.9103	
80	0.01	0.2889	28.89	0.5845	49.42
	0.008	0.241	30.13	0.6097	
	0.005	0.1582	31.65	0.6404	
	0.003	0.1021	34.04	0.6888	
	0.002	0.0753	37.63	0.7614	
	0.001	0.0465	46.46	0.9401	

### List of Figures

**Fig. 1:** Density measurements of NaCl Vs % of Ethanol Content

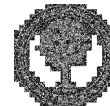
**Fig. 2:** The plot of viscosity against the Mole fraction of 0.001M NaCl in Ethanol water mixtures

**Fig. 3:** The plot of ultrasonic velocity against the Volume fraction of Ethanol

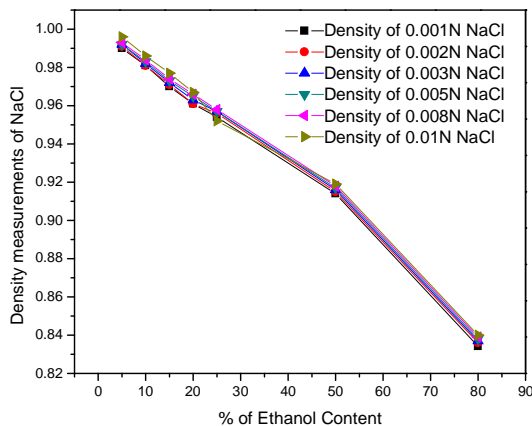
**Fig. 4:** The plot of ultrasonic velocity against the concentration of NaCl in Ethanol water mixtures

**Fig. 5:** The plot of equivalent conductance against the square root of concentration of NaCl in Ethanol water mixtures

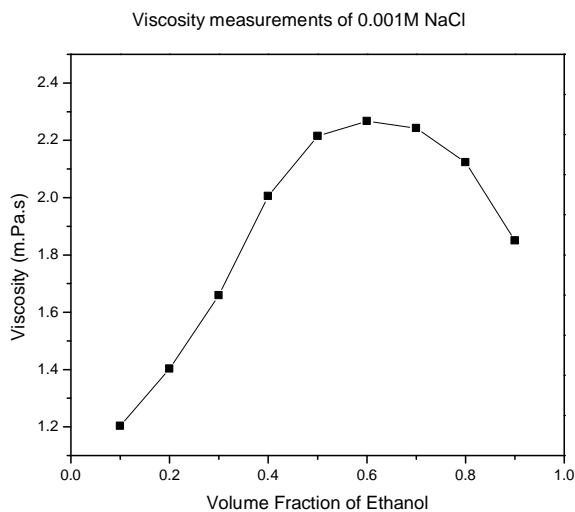
**Fig. 6:** The plot of specific conductance against the concentration of NaCl in Ethanol water mixtures



**Fig. 1: Density measurements of 0.001MNaCl, 0.002MNaCl, 0.003MNaCl, 0.005MNaCl, 0.008MNaCl, 0.01MNaCl in Ethanol Water mixtures Vs % of Ethanol content.**

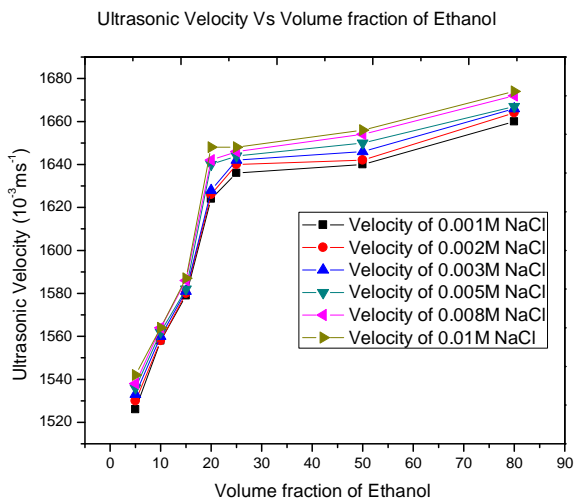


**Fig. 2: The plot of viscosity against the Mole fraction of 0.001M NaCl in Ethanol water mixtures**

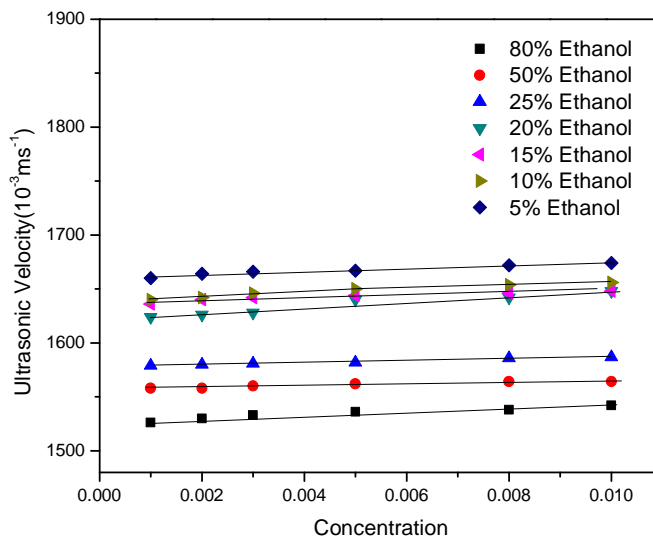




**Fig. 3: The plot of ultrasonic velocity against the Volume fraction of Ethanol**

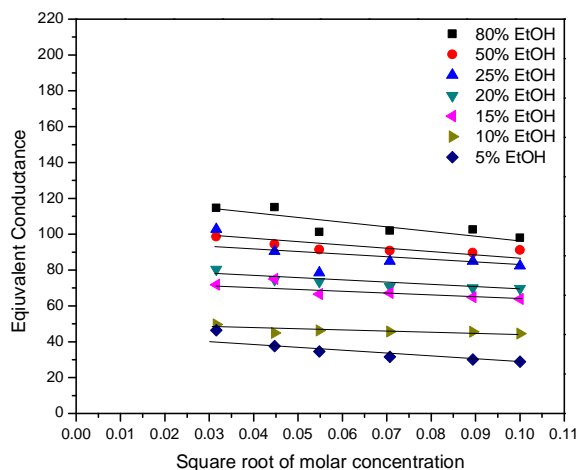


**Fig. 4: The plot of ultrasonic velocity against the concentration of NaCl in Ethanol water mixtures**

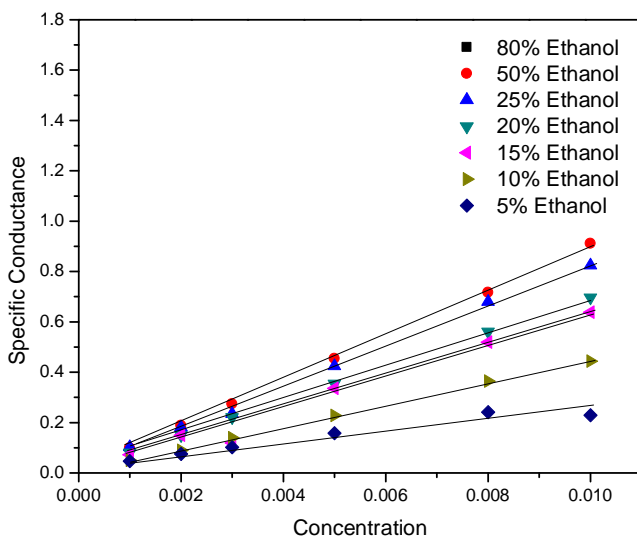




**Fig. 5:** The plot of equivalent conductance against the square root of concentration of NaCl in Ethanol water mixtures



**Fig. 6:** The plot of specific conductance against the concentration of NaCl in Ethanol water mixtures





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## THE APPLICATION OF LIKERT SCALE IN MEASURING PERCEPTIONS OF STUDENTS TOWARDS EDUCATIONAL TELEVISION

**T.Sripathy**

Department of Studies in Electronic Media  
Bangalore University, India

### INTRODUCTION

The concept of measuring perceptions is found in many areas disciplines including Social Sciences. It is an difficult and complex exercise to prepare measuring instruments to assess the perceptions of stakeholders. Many times the respondents simply respond with 'Yes' or 'No' answer, leaving the degree of perspectives or sometimes no perspectives. In such cases the data cannot be analyzed easily. The study is important to determine students' perceptions of the quality and effectiveness of educational television utilized by students participating in courses where educational television content is supplementary support to their courses.

### THE BIRTH OF LIKERT SCALES

Rensis Likert was born on 5<sup>th</sup> August 1903. The original concept of Likert scale is found in Likert's article in 1932 in Archive of Psychology titled " A technique for the measurement of attitudes". Further Likert Scale was developed in 1934 in 'Journal of social psychology article titled "A simple and reliable method of scoring the thurstone attitude scales ".Likert passed away on 3<sup>rd</sup> September 1981 in Michigan. Likert Scale generally on a scale with points with a statement. The number besides every point makes a value for the perception and total score is obtained by adding the values.

### EXAMPLES OF LIKERT SCALES

The following is the example for Application of Likert Scale in measuring perceptions of Students towards Educational Television



***Students perspectives on Pedagogy and Educational Television collaboration and understanding of paradigm shift and its impact of different techniques and technologies in effective content design, production, distribution and utilizing Video and Data content in educational television. Please simply circle the number that best represents your attitude or opinion.***

totally agree	Partially agree	Uncertain	Partially disagree didisagreeStrongly	Totally disagree
---------------	-----------------	-----------	--	------------------

1. Developing stakeholders knowledge and understandings of new possibilities in leveraging Digital Broadcasting and Interactivity of Educational Television	1	2	3	4	5
2. Account for the transition from Instructional Television Fixed Service(ITFS) platform to Enhanced Television platform	1	2	3	4	5
3. Provide a overview of digital broadcasting and Interactivity and the paradigm shift and its impact to the Indian Higher Education	1	2	3	4	5
4. Familiarize with basic principles of interaction and interactivity that Digital Broadcasting offers and	1	2	3	4	5



concepts in broadcasting content for different digital devices, formats, channels, audience and duration					
5. Equip with basic understanding of different techniques and technologies in effective content design, production and programming for digital media broadcasting	1	2	3	4	5
6. Technologies can make higher education more inclusive by providing more convenient and flexible learning opportunities to those wishing to develop skills and knowledge throughout their lives.	1	2	3	4	5

### III. PURPOSE AND OBJECTIVES OF THE STUDY

The purpose of this study to study the suitability and reliability of Likert Scale among different scales available for measuring perceptions of students for the study of 'Educational Television in Indian Higher Education – A Critical Study of Its Past, Present and Future with Stakeholder Perspectives'

### V. THEORETICAL FRAMEWORK

A review of some of the literature available has revealed some research already undertaken in various areas of Educational Television.

### PERCEPTION AND ITS IMPORTANCE ON EDUCATIONAL TELEVISION:

Increasing Attention has been paid in recent years to the instructional use of television. In general, the relevant studies have dealt with its over-all effectiveness. Several investigators who compared television teaching with classroom teaching concluded that although it



is effective at all levels of instruction, it is no more or no less effective than classroom teaching. Up to the present time, however, there have been few attempts to upgrade television instruction by experimentation. For example, the design of scenes and sequences has been left largely to the institution of producers, and the curriculum and staging of programs have often been handled by people other than educators. Little is known about how meanings are communicated by television; therefore, perceptual investigations which cover some of these basic considerations need to be conducted.

### **TYPES OF SCALES USED TO MEASURE THE PERCEPTIONS:**

Research scale is composite measurement with logical and empirical components. There are various types of scales among them four are widely popular are used by the researchers in social science research.

#### **Likert Scale**

Most commonly used in social science research. It is named after the developed Rensis Likert. The common format used in likert scale survey or questionnaire:

- Strongly Agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly Disagree

#### **Bogardus Social Distance Scale**

This scale developed by Emory Bogardus as technique for measuring peoples willingness in social relations. The common format of the questions are:



- Are you willing to use Educational Technology Softwares
- Are you willing to use Online Tools in Teaching and Learning.

### Thurstone Scale

Thurstone Scale is developed by Louis Thurstone. Scale is used for generating group of indicators of a variable to ascertain empirical structure among groups.

### Semantic Differential Scale

Differential scale asking the respondents between two groups based pre defined dimensions.

	Very Much	Some what	Neither	Some what	Very Much	
Educational Television is useful						Educational Television is NOT useful

## VIII. CONCLUSIONS

The study revealed that Likert scale is useful for evaluating the respondents opinion, attitude and perceptions about ...

Likert Scale has been widely used by researchers though it was introduced as a technique for the measurement of attitudes. Gradually, it has gain the popularly used scale in survey research in all the fields.

The main objective is to investigate the literature review of Likert scale of measurement.

Research scale is composite measurement with logical and empirical components.



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## IMPACT OF ELECTRONIC BANKING ON SERVICE QUALITY OF PUBLIC AND PRIVATE SECTOR BANKS

**S.Anitha**

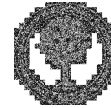
Assistant Professor

Department of Commerce

Valliammal College for Women, E-9, Anna Nagar East  
Chennai, Tamil Nadu

### INTRODUCTION

Emerging economy is bringing with it rapidly changing technologies, increasing knowledge intensity in all areas of business, and creating virtual supply chains and new forms of businesses and service delivery channels such as E-banking. As a direct consequence of the emergence of the 'digital economy', the balance of power seems to be shifting to the customers. Customers are increasingly demanding more value, with goods customised to their exact needs, at less cost, and as quickly as possible. To meet these demands, businesses need to develop innovative ways of creating value which often require different enterprise architectures, different IT infrastructures and different way of thinking about doing business. (Shah, Mahmood and Clarke ,Steve ,2009). Information technology has been one of the powerful tools in the changes that have occurred in trade and economy. It is the use of computer hardware and computer software to store, convert, and process, retrieve, transmit and protect information. Technology has become more accessible, cheaper and easier to use, which has had a major impact on the world's trade and commerce. With the introduction of the Internet and the World Wide Web companies recognized IT as a tool to do business while consumers acknowledged it as not only an opportunity to purchase goods over the internet and services but also to obtain information. (Aronsohn et al, 2006). It has also changed the way of doing banking transaction. It creates new



products, service market opportunities and better service output. Technology adoption by the banks has enabled the use of different technology tools in banking, which enable bank to reduce transaction cost, saving money and also save more time. It categorized as an electronic banking (Wandaogou ,Abdil Mumuni Moro and Jalulah ,Stephen Pambiin ,2011).

E-banking is referring to the deployment of banking services and products over electronic and communication networks directly to customers (Wandaogou ,Abdil Mumuni Moro and Jalulah ,Stephen Pambiin ,2011). It has emerged as a strategic resource for attaining efficiency, control operations, productivity, and profitability. It has changed the traditional way of banking transactions. Through the e-banking customer do not visit to the bank office in order to carry out banking transaction. For instance, customer are using automated teller machines (ATM) in place of cashier tellers, and credit cards and electronic cash in place of bank transactions (Alagheband,Parisa ,2006). It also allow customers to submit their applications for different services, make queries on their account balances and submit instructions to the bank and also electronically transfer funds to their accounts, pay bill, and conduct other banking transaction online (Afrouz, Firouzeh, 2006).It relies greatly on information and communication technology (ICT) to attain its promise for 24 hours availability and faster delivery of financial services.

E-banking is now a global phenomenon. It is a precious and influential tool for heavy development, supporting growth, promoting innovation and enhancing competitiveness. A physically powerful banking industry is an essential in every country and can have a major affect in supporting economic development through competent financial services. It has had huge impact on the banking industry. Banks require developing creative solutions of how to make full use of the new technology and how to provide their customers with high online service



quality. When lacking face to face interaction banks must increase the experienced online service quality among customers in order to attain and sustain competitive advantages and customer relationships. (Aronsohn et al, 2006). A. *Basics of Electronic Banking*: International Journal of Scientific and Research Publications, Volume 3, Issue 9, September 2013 2 ISSN 2250-3153.

Electronic banking is a high-order construct, which consists of several distribution channels. It should be noted that electronic banking is a bigger platform than just banking via the Internet. The term electronic banking can be described in many ways. In a very simple form, it can mean the provision of information or services by a bank to its customers, via a computer, television, telephone, or mobile phone (Daniel, 1999). Electronic banking has different types of delivery channels: telephone, PC, mobile and the Internet. Moreover, Personal Computer allow customer to use all e-banking facility at home without go to the bank. It gives consumers a variety of services so they can move money between accounts, pay bills, check balances, and buy and sell mutual funds, securities and also submit electronic loan applications through PC Banking. A mobile banking service is the newest service in electronic banking Customers can check their balance and make adjustments between accounts, account transactions, payments etc. Internet is the interconnection of computer communication networks which enable the customer to perform all the banking activities over the internet. It is the latest wave in the information technology. The NET is changing everything, from the way of conduct commerce and the way of distribution of information. Several benefits of strong electronic service have also been identified as including satisfied and retained customers, attraction of new customers, development of customer relationships, increased sales and market shares, enhanced corporate image, reduced costs and increased profit margins and business performance (Parasuraman et al., 2005;



Bauer et al., 2005). These benefits may explain the observed increase in the level of technology adoption in the delivery of banking services (Kalakota and Whinston, 1997; Bauer et al., 2005).

The quality of service has become as one of the major determinants of the customer satisfaction. Customer satisfaction is a critical issue for the success of any business. Service quality is the main indicator to measure the customer satisfaction. Service quality asserts that it had a direct influence on customer satisfaction and service quality is demonstrated to be an antecedent to satisfaction. The relation between Service quality and customer satisfaction are very important in business especially in service industry. In the modern competitive environments, delivering high service quality is the key for a sustainable competitive advantage. Customer satisfaction allows an organization or company to understand the key drivers that create satisfaction or dissatisfaction; and what is really driving their satisfaction during a service experience. Customer satisfaction always shows positive effect on an organization's profitability. Satisfied customers of any business repeat purchase, show brand loyalty, and give positive word of mouth, which increase company's value in the competitive market which reflects its result as profit. Consumer satisfaction is considered the primary intervening constructs in the area of service marketing because ultimately it leads to the development of consumer loyalty or re-patronization of a product or service. The objective of the study therefore is to study the explore internet banking service quality and find out their impact on consumer satisfaction and comfort

## **LITERATURE REVIEW**

Rao, K. Rama Mohana and Lakew, Tekeste Berhanu (2011) examines the service quality perceptions of customers of public sector and private sector banks in the city of Visakhapatnam, India. The

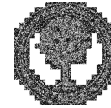


author reveals that the Reliability and Assurance dimensions of service quality scored the highest ratings while the Tangibles dimension got the lowest score. Moreover, the study found a strong dissimilarity in service quality perceptions between customers of private sector and public sector banks.

Santhiyavalli, G. (2011) determined the customer's perception of service quality of the select branches of State Bank of India and study the major factors responsible for their satisfaction. In this research SERQUAL Model has been used and study indicates that among five dimensions 'Reliability', 'Responsiveness', 'Empathy' and 'Tangibility' are the major factors responsible for customer satisfaction.

Bahl ,Sarita ,(2012) determined that security and privacy issues are the big issue in e-banking. If security and privacy issues resolved, the future of electronic banking can be very prosperous.

Gupta and Bansal (2012) developed an instrument for measuring Internet banking service quality in India and also analyzed the impact of Internet banking service quality dimensions on the Overall Internet Banking Service Quality and customer satisfaction. To measure service quality they also developed scale of 22 items. Exploratory factor analysis resulted into five dimensions: Security/Privacy, Reliability, Efficiency, Responsiveness, and Site Aesthetics. Model was further validated through Confirmatory Factor Analysis. A survey was carried on a mixed sample of 1350 Internet banking customers of private sector, public sector and foreign banks in the Delhi Metropolitan Area. Results of multiple regression analysis revealed that security/Privacy dimension carry the maximum impact on the Overall Internet Banking Service Quality whereas customer satisfaction is most impacted by the Efficiency dimension as compared to other dimensions. Rangsan. Nochai and Titida. Nochai (2013) examined the impact of seven internet banking service quality dimensions on customer satisfaction using



multinomial logistic regression analysis. A survey was done on customers who have been using Internet banking from October 2011 through December 2011 among top three banks in the Bangkok. Results showed that Safety reliability, Transactions efficiency, Customer support, Service security, Ease of use and Performance have a significant impact on customer satisfaction. Jasveen Kaur and Baljit Kaur (2013) determined the bank-wise comparison among the customers' usage of internet banking services and tried to evaluate consequent impact of the Internet Banking Service Quality on the Customer Satisfaction in India. One way Anova depicted that there is no significant difference in facilities determining the customers' usage of internet banking services of Public, Private and Foreign sector banks in India. Multiple-Regression analysis showed that responsiveness, security/privacy and site-aesthetic are the major factors that strongly influence the customer satisfaction of the online bank customers whereas Reliability and Efficiency are insignificant to customer satisfaction.

## **OBJECTIVES OF THE STUDY**

The objective of the study is:

- To examine the relationship between service quality ,comfort and customer satisfaction in public and private sector banks

## **METHODOLOGY**

The present study is exploratory in nature. Type of data is primary data. In the present study, data was collected through the personal survey method.. The questionnaire divided into two parts part A dealt with demographic information and part B dealt with service quality and satisfaction. The sample size was initially 504after normality test for outliers 345 data was retained for the factor analysis. Before applying regression, some outliers were identified with the help of Z-score and finally 324data retained for the regression analysis.



Initially factor analysis was used to obtain internet banking service quality dimensions with the help of SPSS and extracted 2 dimensions (website ease of use, comfort) as internet banking service quality. Further Cronbach's Alpha Test of Reliability. Applying this test specifies whether the items pertaining to scale, each item is internally consistent and whether they can be used to measure the proposed phenomena e.g. Internet banking service quality. In order to identify the relationship between the independent variables i.e. website ease of use, comfort dependent variables as customer satisfaction.

### **CONCEPTUAL FRAMEWORK OF THE STUDY**

The basic model is as follows: Internet Banking Customer Satisfaction = f (website ease of use, comfort, accessibility, confidence and responsiveness). Basically,  $IBCS = \beta + \beta_1 X_1 + \beta_2 X_2 + U$  Where, IBCS= Internet Banking Customer Satisfaction,  $X_1$ = Website Ease of Use,  $X_2$ = COMFORT, There is  $\beta$  constant and  $\beta$ 's ( $\beta_1$ , &  $\beta_2$ ) are coefficients to estimate, and U is the error term.

### **HYPOTHESIS**

H1-Internet banking service quality dimensions have a positive association with customer satisfaction. Hypothesis 1-1: The Website ease of use dimension has a positive association with satisfaction. Hypothesis 1-2: The Comfort dimension has a positive association with satisfaction

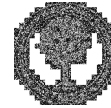
### **DATA ANALYSIS AND RESULT**

Factor analysis was performed on collected data and extracted five service quality dimensions namely Website ease of use, and comfortable According to Zkimund, Babain & Griffin (2010) simple regression analysis and correlations are mathematically the same in many respects; however the correlation is an interdependence technique and regression is a dependence technique. The R square



ranges from 0-1 and this shows how much of the dependent variable is explained by the independent variables (Burns & Bush, 2010). The higher the R square the stronger the association between the dependent variable and the independent variable (Burns & Bush, 2010). When performing regression analysis normality is not always required when analysing variables. However the results are slightly improved if the data is normally distributed (Tabachnick & Fidell, 2007). Multicollinearity should not exist because multicollinearity problems weaken the regression model (Pallant, 2007). Multicollinearity exists when there is a strong relationship between the independent variables. The independent variables must not correlate highly with each other, r value should not exceed than 0.9, an r value of above 0.9 indicates strong correlation which weakens the regression model (Pallant, 2007). A regression analysis was performed to test the relationship between the dependent variable (satisfaction) on the independent variables (Website ease of use, comfort, accessibility, confidence and responsiveness

Table Customer satisfaction and service quality dimension							
Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.	Collinearity Statistics		
B	Std. Error	Beta	Tolerance	VIF			
(Constant)	-.017	.024	-.739	.460			
Weou	.501	.025	.487	20.401	.000	.994	1.006
comfort	.453	.026	.422	17.696	.000	.994	1.006
a. Dependent Variable: satisfaction							
b. Adjusted R Square = 0.661 at .000 degree of freedom							
Mahalanobis. Distance = 17.5, Cook's Distance = 0.044							



The R square (coefficient of determination) value was 0.661 which means that the IBSQ dimensions accounted for 66.1% of the variance in satisfaction. Again, about 33.9% of the variance in satisfaction was due to reasons not related to the service quality dimensions considered in the model. The statistical findings show that all dimensions i.e. Website ease of use, comfort, accessibility, confidence and responsiveness were significant predictors of customer satisfaction. The strongest relationship were between the website ease of use with satisfaction, comfort with satisfaction with the Beta value for website ease of use is 0.501, comfort is 0.453 and accessibility is 0.318. The outcome of Hypothesis 1-1 was that 'website ease of use' had a positive relationship with 'customer satisfaction'. The regression analysis showed website ease of use to be significant at the 0.000 level which is lower than the 0.05 confidence level for this study. The outcome of Hypothesis 1-2 was that 'comfort' had a positive relationship with 'customer satisfaction'. The regression analysis showed comfort to be significant at the 0.000 level which is lower than the 0.05 confidence level for this study. The dimensions together explain 66.1% variance in customer satisfaction. As far as this descriptive statistics is concerned, customer's satisfaction on Internet banking is above satisfactory level. The table also suggests that the most important factors on which the customers of internet banking are generally satisfied. As far as the mean values are concerned, customers are fairly satisfied on website ease of use, comfort and accessibility. Customer satisfaction is resulted from quick secured and easy navigated website; new technology which the bank is using, comfort of the customer is comes from always availability, easy language, convenient services provided by the banks. And service like need not to visit branch, availability of helpline etc. shows accessibility factor. The overall regression model and its ANOVA are summarized as follows:



ANOVA					
Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	389.283	5	77.857	234.517	.000a
Residual					
Total	197.201	594		.332	
	586.484		599		
a. Predictors: (Constant), responsiveness, comfort,					

From the ANOVA Test (table6.3) the Sig. value 0.05 is greater than the calculated Sig. value 0.000. It reflects the null hypothesis at 5% level of significance. It means there was a significant correlation between dependent variable and independent variables. Therefore customer satisfaction level depends on quality dimension in Indore. The ANOVA table shown under table 6.3 depicting significant F values implies that the model and data are well fit in explaining customer satisfaction in internet banking. Based on the data found in the table 6.2 above, it can be interpreted that the independent variables such as website ease of use, comfort

## RESULTS

1. Ease of service use has a significant effect on customer satisfaction from e-banking.
2. Website design has a significant effect on customer satisfaction from e-banking.
3. Speed of connectivity and transactions has a significant effect on customer satisfaction from e-banking.
4. Information security has a significant effect on customer satisfaction from e-banking.



5. Information content has a significant effect on customer satisfaction from e-banking.
6. Support service has a significant effect on customer satisfaction from e-banking

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## EPR Spectra of rare-earth ion in Lithium Fluoroborate Glasses

*P. Indira, B. Sreedhar, A.K. Bhatnagar*

Bhavan's New Science College, Narayanguda, ICT and School of Physics, University of Hyderabad,  
Hyderabad, India.

### Abstract

EPR spectra of  $Gd^{3+}$  ions in alkali fluoroborate system of ( $R = Li, Na$ ) glasses have been studied. The spectra is typical of  $Gd^{3+}$  ions present in the glass system. It was also observed that the slopes of  $N$  vs.  $1/T$  plots, peak-to-peak widths and the relative intensities  $r_g \approx 2.0$  and  $r_g \approx 6.0$  independent of temperature and strong functions of alkali content present in the glass. It was found that the  $Gd^{3+}$  ions are surrounded by alkali ions.

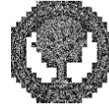
### Introduction:

Borate glasses continue to be investigated with considerable attention because of their peculiar structure resulting in interesting properties. The interest in rare-earth ions doped glasses continues because the rate at which and the mechanism by which the excited states of these ions form and decay are of great importance in their development for applications as phosphors, laser materials, solar energy converters and other electronic devices including fibre optics [1,2]. Studies of EPR properties of rare-earth (RE) ions in glasses make it possible to get some information on the chemical and structural environment about the metal ion centre, hence such studies are important.  $Gd^{3+}$  is one of the rare-earth ions which has been used to study the glasses by EPR. Since the rare-earth elements are characterized by the 4f electrons, the understanding of how the 4f electrons contribute to the chemical bonding is an important problem to understand the properties of rare-earth complexes. Another problem encountered in any study of a rare-earth doped system is the determination of the location of the rare-earth ion within the host lattice. EPR is a powerful technique which not only permits one to observe the paramagnetic properties of a paramagnetic centre but also is capable of revealing considerable details about the environment around it through a determination of the symmetry of the paramagnetic site and the identification of its ground state.  $Gd^{3+}$  happens to be a good rare-earth paramagnetic center and therefore, a number of studies of EPR of  $Gd^{3+}$  have been recently reported [2,3-19]. There is hardly any report of this rare-earth ion in alkali fluoroborate glasses, therefore, it was considered of interest to study the EPR of  $Gd^{3+}$  ions in alkali fluoroborate glasses in addition to EPR studies of transition metal ions, the results of which have been described already. Some results of optical absorption are also presented.

### Experimental details:

Approximate molar quantities of analar grade LiF, NaF and  $H_3BO_3$  were weighed to yield approximately 5 to 7 gms of batches of mixtures. Mixtures were melted around  $1150^\circ C$ . Glasses were prepared using melt quenching method. Glasses thus formed were annealed at 573 K for 15 min before measuring their properties. Glasses thus formed were annealed at 573 K for 15 min before measuring their properties. Gd-doped glasses also did not show any colour. EPR spectra were recorded at room temperature on a JEOL FE3X microwave spectrometer operating in the X-band frequencies with a field modulation of 100 kHz. The microwave frequency was set at 9.225 GHz and the magnetic field was scanned between 0 and 5000 G. Care was taken to see that the samples were of the same size and weight (100 mg) and were not exposed to moisture before studying the above properties.

The composition of glasses studied is given in Table 1. EPR spectra of annealed glasses were recorded at room temperature and at other few lower temperatures. A temperature stability of  $\pm 2$  K was obtained while recording the EPR spectrum.



**Table 1**  
**List of Gd<sup>3+</sup> doped alkali fluoroborate glasses**

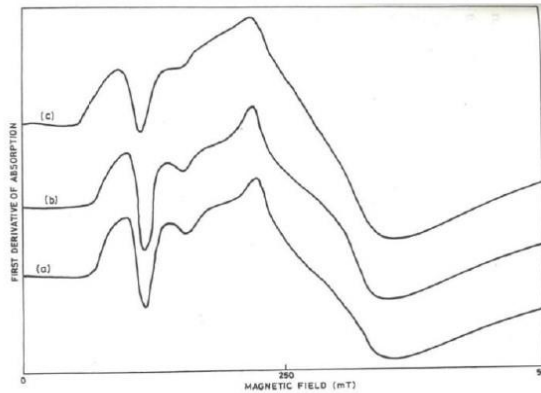
S.No.	Glass name	Composition
1	LFB	(LiF-B <sub>2</sub> O <sub>3</sub> )
2	LFB1Gd	(LiF-B <sub>2</sub> O <sub>3</sub> ) <sub>0.99</sub> (Gd <sub>2</sub> O <sub>3</sub> ) <sub>0.01</sub>
3	LFB5Gd	(LiF-B <sub>2</sub> O <sub>3</sub> ) <sub>0.95</sub> (Gd <sub>2</sub> O <sub>3</sub> ) <sub>0.05</sub>
4	NFB	(NaF-B <sub>2</sub> O <sub>3</sub> )
5	NFB1Gd	(NaF-B <sub>2</sub> O <sub>3</sub> ) <sub>0.99</sub> (Gd <sub>2</sub> O <sub>3</sub> ) <sub>0.01</sub>
6	LNFB	(0.25LiF-0.25NaF-0.5B <sub>2</sub> O <sub>3</sub> )
8	LNFB1Gd	(0.25LiF-0.25NaF-0.5B <sub>2</sub> O <sub>3</sub> ) <sub>0.99</sub> (Gd <sub>2</sub> O <sub>3</sub> ) <sub>0.01</sub>

**Results and discussion:**

No EPR signal characteristic of Gd<sup>3+</sup> is observed in undoped glasses. The Gd-doped glasses show resonances near  $g \sim 6.0$ ,  $g \sim 4.8$  and  $g \sim 2.0$ , a characteristic of so called U-spectrum of Gd<sup>3+</sup> in glasses [20]. Fig. 1 shows the EPR spectra of (a) LFB1Gd, (b) NFB1Gd and (c) LNFB1Gd glass samples at room temperature. The EPR spectra were also recorded at different temperatures below room temperature for all the glass samples. The peak-to-peak widths of all resonances are found to be independent of temperature and values of these are listed in Table 2.

**Figures**

**Fig. 1**



ESR spectra of (a) LFB1Gd, (b) NFB1Gd and (c) LNFB1Gd glass system at room temperature.

**Fig. 2**

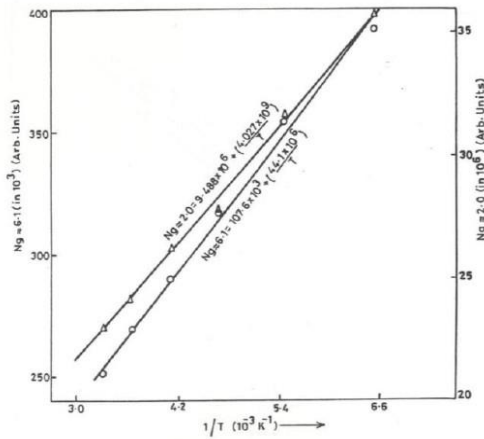
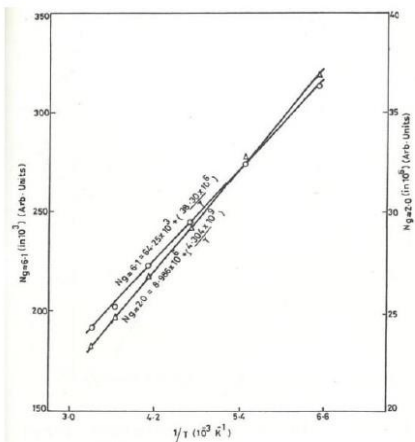


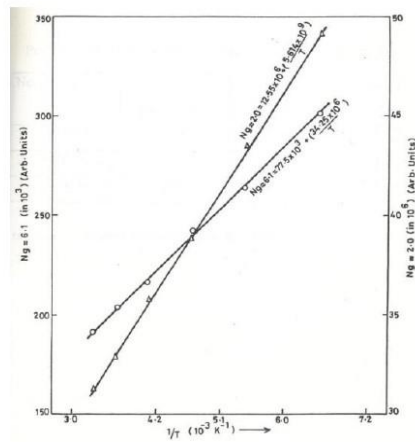
Fig 6.07 Variation of  $N_{g=6.0}$  and  $N_{g=2.0}$  with  $1/T$  for LFB1Gd glass system.

Fig. 3

Fig. 4



Variation of  $N_{g=6.0}$  and  $N_{g=2.0}$  with  $1/T$  for NFB1Gd glass system.



Variation of  $N_{g=6.0}$  and  $N_{g=2.0}$  with  $1/T$  for LNFB1Gd glass system.

The number of spins participating in for  $g \sim 6.0$  and  $g \sim 2.0$  resonances at various temperatures for the three glasses is calculated using the relation ( $N \approx I_{pp}(\Delta H_{pp})^2$ ). Figures 2, 3 and 4 show plots of  $N_{g=6.0}$  and  $N_{g=2.0}$  as a function of  $1/T$  for the LFB1Gd, NFB1Gd and LNFB1Gd glasses, respectively. In all cases  $N$  decreases with increasing temperature, a result expected from a paramagnetic impurity. All the data were fitted to straight lines using the least square method and are shown in respective figures. The slopes of the lines in



these figures represent the rates at which the number of spins increases with decrease in temperature. Tables 2 and 3 show that the line widths and the slopes of the plots are strongly dependent on the alkali content present in the glass samples. The ratios of number of spins for resonances at  $g \sim 6.0$  and  $g \sim 2.0$  to the total number of spins [i.e.,  $r_{g \sim 6.0} = N_{g \sim 6.0} / (N_{g \sim 6.0} + N_{g \sim 2.0})$ ;  $r_{g \sim 2.0} = N_{g \sim 2.0} / (N_{g \sim 6.0} + N_{g \sim 2.0})$ ] for all the glass samples are found independent of temperature but strongly dependent on the alkali content of a glass sample. These results indicate that the  $Gd^{3+}$  ions are surrounded by the alkali ions. Sreedhar et al. [15] observed a variation of these relative quantities with temperature) in sulphate glasses)

As indicated before, EPR spectra of all  $Gd_2O_3$  doped glasses show prominent resonance features at  $g$  values of 6.0, 4.3 and 2.0, popularly known as U-spectrum in literature. The explanation of the U-spectrum of  $Gd^{3+}$  has been discussed by many authors in different ways. Chepeleva et al. [21] were the first to discuss the U-spectrum and interpreted  $g \sim 6.0$ .

**Table 2**  
 Peak-to-peak widths of the resonance lines for  $Gd^{3+}$  doped glasses

S.No.	Glass	$\Delta H_{pp}$ for $g \sim 6.0$ (gauss)	$\Delta H_{pp}$ for $g \sim 4.3$ (gauss)	$\Delta H_{pp}$ for $g \sim 2.0$ (gauss)
1	LFB1Gd	192	164	1315
2	NFB1Gd	162	167	1278
3	LNFB1Gd	206	*	1410

\* Resonance appeared as shoulder

**Table 3**  
 Slopes of the plots  $N$  vs  $1/T$  and the relative number of spins for various resonances  $Gd^{3+}$  doped glasses

S.No.	Glass	$m_{g \sim 2.0}$	$m_{g \sim 6.0}$	$r_{g \sim 2.0}$	$r_{g \sim 6.0}$
1	LFB1Gd	$4.027 \times 10^9$	$44.1 \times 10^6$	0.989	0.011
2	NFB1Gd	$4.304 \times 10^9$	$38.3 \times 10^6$	0.992	0.008
3	LNFB1Gd	$5.614 \times 10^9$	$34.3 \times 10^6$	0.994	0.004

resonance to a strong cubic field on the basis of the solutions obtained for a "cubic" Hamiltonian in the strong crystal field limit where the Zeeman interaction may be treated as a perturbation.

Nicklin et al [22] attributed the three prominent features at  $g \sim 6.0$ , 2.8 (observed by them) and 2.0 to three distinct types of rare-earth sites. The  $g \sim 6.0$  feature was attributed to rare-earth sites characterized by a strong cubic crystal field as suggested by Chepeleva et al. Cugunov and Kliava [23] and Koopmans et al. [24] employed computer simulation techniques in their analysis but the final interpretation differ with each other. Cugunov and Kliava [23] attributed  $g \sim 6.0$  feature to well defined rhombic crystal field and the broad resonance encompassing  $g \sim 2.0$  arising from clusters of  $Gd^{3+}$  ions. In contrast, this  $g \sim 6.0$  resonance was considered a feature characteristic of intermediate crystal field strength sites of axial symmetry and have attributed the broadened general appearance of the U-spectrum to isolated rare-earth ions at a wide variety of sites.



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**Conclusions:**

From EPR spectra of  $Gd^{3+}$  doped glasses at different temperatures, the linear relationships between  $N$  and  $1/T$  were established. It was also observed that the slopes of  $N$  vs.  $1/T$  plots, peak-to-peak widths and the relative intensities  $r_g \approx 2.0$  and  $r_g \approx 6.0$  independent of temperature and strong functions of alkali content present in the glass. This indicates that the  $Gd^{3+}$  ions are surrounded by alkali ions.

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