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NAAS Rating : 3.12; InfoBase Index : 2.00

Chief Editor  
**Dharam Vir**

Volume 30, Number 1 (Summer), 2017



**CENTRE FOR STUDIES OF NATIONAL DEVELOPMENT**  
**MEERUT-250004 (INDIA)**

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## ***The Challenges and Prospects of Science, Technology and Innovation for National Development in Nigeria***

***Ojieh Chukwuemeka Ojione\****

*The principal economic goal of a nation is to produce a high and rising standard of living for its citizens. [And] the ability to do so depends on the productivity with which a nation's resources (labour and capital) are employed....Productivity is the prime determinant in the long run of a nation's standard of living, for it is the root cause of national per capita income. The productivity of human resources determines their wages, while the productivity with which capital is employed determines the return it earns for its holders....Productivity is the prime determinant in the competitive advantage and the national prosperity. As for that productivity, [science and] technological innovation [STI] is the key factor (Göker, 1996). In Nigeria, this has met with stiff challenges thereby, constraining the process of national development in Nigeria. This article interrogates these challenges against the prospects which science, technology and innovation (STI) hold for Nigeria's development.*

**[Keywords :** Science, Technology, Innovation, National development, Standard of living]

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## **1. Introduction**

There is an obvious intersection between science, technology and innovation (STI) and national prosperity or development. This is because science, technology and innovation do not only accelerate but also deepen a nation's development process. The tantalizing hint of the potential roles of science, technology and innovation for national development generate greater anxiety in the knowledge that in the globalizing world of today, that is, one that is racing through rapid change, its effects on science, technology and innovation can be profound (Mazarr, 2002 : 2). "Today, science and technology [and innovation] have become and will continue to be a measure of any nation's development and success; it has become a measure of respect that any nation and its citizens command in the comity of nations" (Ukah, 2009). "The development and mastery of modern technology has become the hallmark of nationhood in our contemporary world" (Okah-Avae, 2003 : 9).

Stressing the need for science, technology and innovation (STI) for Nigeria's development, the then (Nigeria's) Minister for Science and Technology, Professor Ita Okon Bassey Ewa, noted that :

The global economic landscape is experiencing rapid changes. Globalization, especially is creating considerable new opportunities and new challenges. Its impact on national economies is driven by significant progress in S&T as exemplified by a plethora of breakthroughs in Biotechnology, Space Research, Energy Development, and Information & Communication Technologies (ICT), among others. It is therefore obvious that if Nigeria, given its natural endowments, is to successfully transform its economy and take her rightful place in the comity of nations, S&T and its integration in national socio-economic development processes must be accorded the highest priority (Federal Republic of Nigeria September, 2011).

The bottom line of what science, technology and innovation (STI) bring about is modernization—improved ways of doing things. In a country eager to develop as is the case with Nigeria, science, technology and innovation are bound to have profound effects on the process of reform and change. They provide veritable means of finding and utilizing underdeveloped talents in a developing nation like Nigeria. The need for science, technology and innovation on national development is underscored by the emergence of a new world atmosphere characterized by "the benefits of applying science and technology to the solution of the problem of living" (Okonjo, 2000 : 344). It is about obtaining increased knowledge through science and technology to resolve the problems associated with people's daily living even at work and thereby, causing increased labour productivity for national development.

From colonial period to the early years of independence, Nigerian governments did not quite appreciate the relevance of science, technology and innovation in driving economic development. In fact, the great economic feats achieved by the various post-independence regional governments as represented in the groundnut pyramids of the North, Cocoa House of the West, palm produces of the East and rubber of the Mid-West and which are still eulogized with nostalgia, were products of mercantilist endeavours rather than scientific or technological breakthroughs. And even when initially, programmes to address issues of science and technology began to engage government's attention, they mainly focused on science education for skill acquisition (Okongwu, 2007). Thus, there was a long-time disconnect between economic planning and science and technology in Nigeria.

The situation was such that the Federal Ministry of Science and Technology was established as a separate entity only in 1985. The first National Science and Technology Policy in the country was produced in 1986 and was reviewed in 1997, 2003, and 2005 during which it adopted the National Innovation System (NIS) approach as a framework for Science, Technology and Innovation (STI) system reform in Nigeria. The last and subsisting effort at fashioning a national policy framework on science, technology and innovation for Nigeria was the Federal Republic of Nigeria Science, Technology and Innovation (STI) Policy launched in September, 2011. In a statement of commitment during the launch, the then President Goodluck Ebele Jonathan declared :

We are going to run our economy based on Science and Technology ... because [there is] nowhere in this World now that you can move your economy without science and technology. For the next 4 years we will emphasize so much on S&T because we have no choice, without that we are just dreaming .... (Federal Republic of Nigeria September, 2011).

Speaking on the same occasion, the then Science and Technology Minister defined the core mission of the new policy as :

the evolution of a new Nigeria that harnesses, develops and utilizes STI to build a large, strong, diversified, sustainable and competitive economy that guarantees a high standard of living and quality of life to its citizens. Specifically, the new STI policy was designed to provide a strong platform for science, technology and innovation engagement with economic transformation that is citizen centred. (Federal Republic of Nigeria September, 2011).

A marked difference between the new policy and previous ones is that it was the first time of including the word "innovation" in the policy title thus,



emphasizing innovation, “which has become a global tool for fast-tracking sustainable development” (Federal Republic of Nigeria September, 2011).

Because of the wide consultation and the range of stakeholders that made input in bringing it about, the new policy prides itself as all inclusive and citizens’ centred. Again, its being backed with a legal status for enforcement has made it a novelty. It is specific on how it would be funded by designing a :

funding mechanism that involves the government, the organized private sector and international development partners. It also calls for an annual budgetary allocation to science and technology activities of at least two per cent of gross domestic product (GDP) over the next five years, followed by “a gradual increase to 2.5 per cent” in the next ten years (SciDev.Net, 2011).

The general objective of the policy is to “build a strong Science, Technology and Innovation capability and capacity needed to evolve a modern economy.” So, the policy deliberately links science, technology and innovation with economic development. Unfortunately however, there continue to exist huge challenges to the prospect of science, technology and innovation (STI) to bring about Nigeria’s transformation to development. This article therefore, seeks to interrogate the challenges and prospects of science, technology and innovation (STI) on Nigeria’s national development. But first of all, what are science, technology and innovation?

## **2. Some Conceptual Definitions and Clarifications**

It is imperative for us to have working definitions and clarifications of the key terms/concepts in this article, so as to evaluate the challenges and prospects they face and hold for Nigeria’s development.

The Oxford Advanced Learner’s Dictionary of Current English defines science as “knowledge about the structure and behaviour of the natural and physical world, based on facts that you can prove”. How this knowledge that is, about the structure and behaviour of the natural and physical world is exploited for everyday living becomes imperative. This is where technology comes in. Hence, technology is “the systematic study and development of techniques for making and doing things” (Okah-Avae, 2003 : 1). Technology, just as science, is indispensable for any nation that is to attain development. Innovation is the series of waves of creation and development of new products and services including the evolution of better ways of marketing and distribution of services. Innovations are thus, outcomes of technological endeavours. It is the engine that drives a nation’s development and because :

innovation drives industrial development, industrial development in turn increases the incentive for innovation to bring new technologies and raise productivity, expand market size, create wealth, which leads to economic growth and development.... (Okongwu, 2007 : 39).

The cord that ties the trio of science, technology and innovation to national development is productivity. "Productivity is the prime determinant in the long run of a nation's standard of living, for it is the root cause of national per capita income. The productivity of human resources determines their wages, while the productivity with which capital is employed determines the return it earns for its holders." (Göker, 1996). Hence, when on 25<sup>th</sup> September, 2013 the Federal Government launched the national policy on productivity it called on Nigerians to imbibe the culture for considerable improvement in productivity indices and summarily affect economic development at all tiers of the government. According to the then Minister of Labour and Productivity, Mr. Emeka Wogu the policy is meant to create awareness for the need to encourage productivity at work place which will in turn boost the country's growth and development (The PolicyNG, 2014).

The policy "seeks to provide for all tiers of government, a systematic and comprehensive roadmap and a charter for ensuring the promotion of a planned and balanced economic deployment of material and human resources for the benefit of Nigerians" (The PolicyNG, 2014).

This is where the link between technology and labour productivity becomes manifest. This is so because according to Babawale (2006 : 95), "high productivity is a function of the employment generated in an economy." The new STI policy being founded on enhancing the "standard of living and quality of life of its [Nigerian] citizens", underscores the propriety of this article. This is because, since productivity of a nation's human resource base determines the citizens' well-being, and this well-being is an index of national development, it only follows that whatever would be key to bringing this about is worthy of attention and that is where STI comes in. It is all about the use of STI to enhance productivity which in turn, manifests in citizens' well-being via improved standard of living which is the core index of national development. It is about constructing the scientific and technological infrastructure for the cultural and economic revolutions in Nigeria, particularly with emphasis "on the infrastructure for production revolution" (Okonjo, 2000 : 342). It is investment in human capital to raise labour productivity and that this would be especially so, if the investment in human resources "is matched by the technology, relevant to the daily needs of the population and best

suited to the skills of the work force ...” (Okonjo, 2000 : 342). It is in this regard that it becomes imperative to examine the role of the Ministry of Science and Technology as facilitator of the requisite environment for the STI culture that will cause increased labour productivity for national development.

### **3. The Science and Technology Ministry and the Development of the State/Country**

The Ministry of Science and Technology, one of the several Nigerian Federal Ministries, was created for the first time as a separate ministry in 1985.

The vision of the Ministry is to make Nigeria, in the nearest future, an acknowledged member of the fast developing Scientific and Technologically progressive nations of the world and to be the Africa’s Leader in Scientific and Technological development. (Ministry of Science and Technology, February 14, 2009).

Its “mission is to chart the course of Scientific and Technological development of the nation.”

Specifically, the ministry engages in the following activities :

- » Planning and guiding Science and Technology Research and Development (R&D)
- » Monitoring progress in (R&D) among the industrial and educational communities
- » Ensuring that public R&D efforts align with the overall development plan of the nation
- » Linking researchers with entrepreneurs for commercialization of R&D results
- » Nurturing projects using the facilities of Technology Incubation and Science and Technology Parks
- » Promoting strategic projects through direct intervention with public or private bodies
- » Advising the government on Science and Technology policy matters, and implementing these policies.

The Ministry is responsible for a number of parastatals or government-owned agencies which include :

- » Federal College of Chemical and Leather Technology (CHELTECH)

- » Federal Institute of Industrial Research, Oshodi (FIIRO)
- » National Agency for Science and Engineering Infrastructure (NASENI)
- » National Board for Technology Incubation (NBTI)
- » National Biotechnology Development Agency (NABDA)
- » National Centre for Technology Management (NACETEM)
- » National Office of Technology Acquisition and Promotion (NOTAP)
- » National Research Institute for Chemical Technology (NARICT)
- » National Space Research and Development Agency (NARSDA)
- » Nigeria Atomic Energy Commission (NAEC)
- » Nigerian Building and Road Research Institute (NBBRI)
- » Nigerian Communication Satellite (NIGCOMSAT), LTD
- » National Information Technology Development Agency (NITDA)
- » Nigerian Institute of Science Laboratory Technology (NISLT)
- » Nigerian Institute for Trypanosomiasis and Onchocerciasis (NITOR)
- » Nigerian Natural Medicine Development Agency (NNMDA)
- » Project Development Institute (PRODA)
- » Raw Materials Research and Development Council (RMRDC)
- » Sheda Science and Technology Complex (Wikipedia 2014).

It is in these regulatory and institutional frameworks as represented in the ministry's assigned roles or activities which are executed through its parastatals or agencies that it should enhance industrialization and increased productivity for national development. An evaluation of the ministry's role in industrial development rightly fits into an evaluation of the challenges and prospects of science, technology and innovation for national development.

#### **4. Challenges and Prospects of Science, Technology and Innovation for National Development**

We begin here, with a tentative conclusion which is that, there exist enormous challenges to the prospects of STI being engine of national development in Nigeria. Some of the challenges are examined below.

##### **4.1 Funding**

A major challenge to science, technology and innovation to bring about development in Nigeria is the weak structure of the economic base vis-à-vis the

economies of the advanced nations for instance which have deployed STI to cause their nations' development. Thus, the Federal Ministry of Science and Technology just like other government agencies is poorly funded, For instance :

the ministry's annual allocation represents some 0.2 per cent of Nigeria's GDP.... for 2013, it was allocated an abysmal N38.6bn.... out of this dismal figure, the ministry is expected to feed more than 100 affiliated agencies, and fund overhead and personnel costs. What is left to engage in research is a dismal amount that should, ideally, be one federal university's one year R&D allocation. From 1999 to 2013, the arithmetic progression—and regression—of the embarrassing sum the ministry receives annually is evidence [that] we are more than likely to miss the train of science-based development currently sweeping through the world. (Adelakun, 2013).

#### **4.2 Lack of Investor-Friendly Climate**

To revolutionize the production process and cause economic growth to bring about development, the need for massive investment in science and technology cannot be overemphasized. In this regard, Okongwu (2007), talks of the need for there to be “willing, able and daring groups of entrepreneurs to appreciate the potential” of science, technology and innovation to provoke an upswing in economic development. Needless to say that in Nigeria there is a huge apathy on the part of investors in committing their wealth to such projects as STI. This is due to among other reasons, the unfavorable investment climate characterized by frequent policy somersaults, absence of congenial credit facilities and the long gestation periods for some of such investments. It is common knowledge that Nigerian businessmen want quick and maximum turnovers on their investments.

#### **4.3 Technology Gap and Fraudulent Technology Transfer Procedures**

That there is a widening innovation gap between smaller nations like Nigeria and those of the advanced West and the emergent ones of Asia is stating the obvious. Thus, given the rapid changes in scientific and technological innovations; the shortening life span of innovation cycles, it will turn out that what a country like Nigeria would be celebrating as a breakthrough would have entered the realm of a shipwreck and abandonment in the advanced world so that, the process of innovation in the small nations becomes a vicious circle. Also, that most of the technologies being supplied Nigeria and other Third World nations are obsolete, is also, stating the obvious. So, if one of the strategies to national development is technology transfer and if technology transfer is :

“the flow of applicable knowledge, skill, capability, expertise, equipment or facility for the manufacture, construction, management, processing or production of a device, products, system or services from one location, sector or activity, to another, within a specific time frame” (Okongwu, 2007 : 15). It closely follows that what is to be transferred would not only be at the discretion of the owner/transferee, but that which often, fits to be dispensed with.

It is known for instance, that the foreign foods (rice, poultry, beef, etc.) found in Nigerian markets were already at the verge of over-staying their maximum shelf lives in the storage facilities of their nations of origin and had to be evacuated to Third World nations to make room for these facilities in the industrialized nations of North America and Europe and the industrializing ones of Asia to be re-stocked with fresh consignments with optimal nutritional values. Otherwise, what else explains their much reduced shelf span or even expired status upon arrival here. What of gas flaring? Apart from Russia where else will you find the magnitude of it as done in Nigeria (the largest natural gas flaring nation in Africa) and probably other Third World nations? What have the GSM service providers been up to in Nigeria but fraud? Not even in neighbouring countries of the West Coast of Africa would they render the kind of shoddy services they give to Nigerians. The foregoing throws up the issue of corruption as a constraining variable in the capacity of science, technology and innovation to cause national development in Nigeria.

#### **4.4 Corruption and Impunity**

That corruption is endemic in Nigeria and that it is an explanatory variable in the nation's advancement and growth being on the reverse is over-sung. This thus, needs not detain us in this article. Suffice it to state that it is common knowledge that most of the regulatory agencies charged with the maintenance of standards in Nigeria have been gravely compromised.

#### **4.5 The Energy Crisis**

There is a direct nexus between science, technology, innovation and energy. This is what Okongwu (2007 : 12) calls the “Technology-Energy Linkage” in which he opines that “major technological developments in human societies have been intimately linked with the availability of energy resources and ability of any given society to exploit these resources of energy.” That Nigeria, the largest crude oil producer in Africa and fifth in the world imports almost all its petroleum products, and has witnessed perennial acute fuel scarcity characterized by un-ending queues of motorists at petrol filling stations is no news. In fact Nigerians have become accustomed to relying on fuel powered generating sets as the primary source of electricity while the national source of power serves as a rare standby. The



foregoing epitomizes the challenges posed to science, technology and innovation to positively impact national development.

#### **4.6 Human Capital**

The industrial relations angle to science, technology and innovation to national development is all about :

the availability of adequate pool of skilled workforce of appropriate quality and mix in science and technology scientists, engineers, technologists, artisans, craftsmen and craftswomen and other cadres in various disciplines, including high technology (Okongwu, 2007 : 42).

In Nigeria, there is an alarming dearth of skilled manpower which has resulted partly from neglect on the part of government for the development of the human resource base of its citizenry including the neglect of institutions originally fashioned to produce requisite manpower in this regard. No wonder, when sometime in the year 2014, the Delta State government proscribed further intake into the Sapele Technical College, it was because the institution which was envisioned to produce manpower in trade and vocational skills had surreptitiously transformed itself into a conventional secondary grammar school. So further admission was stopped so that the students already there could graduate or be relocated and the school restored to its original vision of producing middle-level technical and vocational manpower. Without standing brief for the school, its authorities may have acted the way they did in order that the school remained afloat given the low patronage of technical education by Nigerians due to discouragement even from government which emphasizes “big certificates”.

#### **4.7 General Apathy**

Fears have been expressed concerning the negative impacts science, technology and innovation could have on national development arising for instance, from the negative uses to which the information technology of the internet has been put as well as the surge in terrorist activities and other unwholesome practices which STI has facilitated.

The foregoing should not however detract from the overriding advantages because at the end of the day their potentially destructive aspects remain less tangible. Prospects are that, with the right education and appropriate regulatory guidelines in place, science, technology and innovation will effectively supplant the more traditional avenues to development via their positive contributions to national development.

Already, science, technology and innovation have begun to revolutionize the conduct of industrial relations and labour productivity to bring about national

development in Nigeria. This is well evidenced in the positive contributions ICT has brought to the processes of work and doing business in Nigeria. Nigeria may be starting late but it is better late than never so that, the factor of technology gap talked about earlier should not be a deterrent. There are a couple of safety nets even for the late starter. This is where the phrase “jump-starting” or “fast-tracking” as generously used in the new STI policy or what Keun Lee and John Mathews call “stage-skipping or leapfrogging” comes to play. This ensures that in the process of becoming STI compliant, awareness of the teething problems which the earlier entrant into the STI world had, had saves the late starter from such hurdles. The fear that improved STI with regards to labour could rob the labour force of its jobs is unfounded after all, years after the Industrial Revolution brought machines into the workplace, economists are yet to disprove labour as a veritable factor of production. STI will add to the capital and entrepreneurial elements of productivity for better efficiency and by so doing enhance productivity.

## **5. Conclusion**

Going by the National Productivity Policy 2013, the state and local governments are key to the policy implementation strategies and were to operate with the Federal Ministry of Science and Technology and National Productivity Centre, to jump-start the country’s productivity growth. In addition, the states were to adopt the policy document by establishing productivity councils and committees at various levels of governance in the states for proper implementation of the policy (The PolicyNG, 2014). In this wise, states should emulate the Federal Government and waste no more time in establishing full fledged Ministries of Science, Technology and Innovation. Such a ministry like its Federal counterpart would undertake to scientifically harness the rich endowments of the states. Furthermore, capacity development in this regard can be assured by renewed emphasis on technical and vocational education. This can be done through the establishment of more technical and vocational colleges, mono-technics, polytechnics, institutes of technology, etc. More Universities of Science and Technology to parent the numerous polytechnics and serve as research centres for the advancement of science, technology and innovation for the overall development of the nation is advocated to make STI the engine of national development in Nigeria.

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# ***Entrepreneurial Passion as Mediator of the Entrepreneurial Self Efficacy and Entrepreneurial Performance Relationship : An Empirical Study in Small & Medium Enterprises***

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*The aim of the this study is to empirically examine the entrepreneurial role in view of its potential factors which create an impact on entrepreneurial performance. The sample size of the study is 121 entrepreneur's working in Lahore region mainly relating to service and manufacturing enterprises. The hierarchical regression analyses are run to analyze the data for the study. The results of the study confirms that passion have a strong impact on entrepreneurial self efficacy. Further study results confirm that entrepreneurial passion for development new enterprises invigorate the individual performance as well as it also shows that that identity centrality plays a driving role in pursuing entrepreneurial journey. An*

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*overall result suggests that it is passion that derive entrepreneurial self efficacy and improve individual performance. The results show that entrepreneurial self efficacy leads to passion for an activity and in return passion appears to drive entrepreneurial passion, for founding and developing new enterprises.*

**[Keywords :** Entrepreneurial passion, Entrepreneurial self efficacy, Entrepreneurial performance, Individual performance]

## 1. Introduction

Performance required a great hardship, commitment and objectivity in order to attain the desired level among the competitors. Entrepreneurial commitment is a key indication that exerts consistent effort in the ups and downs of the enterprise (Schindehutte et al., 2006). In order to achieve desired enterprise goals, performance is a very important factor in entrepreneurship. For this it is very much important to understand which factors influence entrepreneurial performance.

The most influential factor that plays an important role to enhance performance in entrepreneurship is self-efficacy (Bandura, 1991). As Hallak et al., (2012) in his study in the area of tourism management found self-efficacy as an important predictor of entrepreneurial performance and suggest that entrepreneurial self-efficacy as a strong predictor of high performance. Based on the self-efficacy theory (Bandura, 1977) it is described as the individual confidence in his abilities that derive potential which stimulate him to ascertain enterprise performance. Self-efficacy is considered to be the critical factor in entrepreneurship because it continuously exerts a force to keep on performing even in the challenging situation (Shane et al., 2003). When an individual believes that he can do it, then his confidence leads him to perform well in his entrepreneurial career.

It is observed that another critical factor that highly relate to entrepreneurial performance is identity impact, particularly in entrepreneurial passion (Cardon et al., 2013). Centered on the self-concordance model, self-identity includes connecting one's personality with certain behavior which encourage him to pursuit goals even when a person is getting sick of doing the same process (Houser-Marko and Sheldon, 2006).

Moreover, few researchers in different fields attempt to find out the association between entrepreneurial self-efficacy and performance (Hallak et al., 2012) and also suggest that there is still need to examine how both of these constructs affect entrepreneurial performance in different field of study. So if our purpose mediating the relationship found, then this play a helping role in

understanding the phenomena, with more clarity that, why self-efficacy is so impactful for entrepreneurial performance due to self-efficacy on entrepreneurial passion relationship.

However, our prime objective is to empirically examine the entrepreneurial role in view of its potential factors which have an impact on entrepreneurial performance. In past little attention is paid, particularly in an entrepreneurial role (Murinieć et al., 2007). However Cardon et al. (2013) shed a light on the passion as instinct factor that stimulate entrepreneurship role in a substantial way. Previously Cardon et al. (2013) attempts to set, entrepreneurial passion as a criterion validity measure of entrepreneurial passion for founding and developing. Study results failed to find out the relationship of passion on developing, but found a unique relationship with entrepreneurial passion for founding. According to Cardon et al. (2009) entrepreneurial passion for founding and developing are both the potential drivers of high performance, so that is why she suggests to find out their relationship because passion for developing is also a potential contributor to entrepreneurial performance (Cardon et al., 2013). Hence on the basis of his suggestion study aims to examine the relationship of both the potential drivers of passion on entrepreneurial performance because performance is a critical factor that advances the entrepreneurial career successfully. However, in the best of our information the relationship has not yet examined empirically between passion (developing and founding) and performance.

Secondly, the study aims to add to the work on self-efficacy and performance. On the other hand the relationship among self-efficacy and performance is well documented in small medium enterprises (Bandura, 1991). The study aims to find out the relationship of entrepreneurial self-efficacy and performance while mediating the effect of passion in the model. This study further suggest that inclusion of passion may diminish the importance of previous research results, but if research supports the study, then this may help to find out other potential factors which stimulate passion in order to achieve desired performance in entrepreneurship.

The research proceeded by reviewing the role of performance in entrepreneurship. Then we deliberate the potential effects of entrepreneurial self-efficacy on performance simultaneously through passion. Further study aims to find out the potential constructs passion for founding and developing impact by mediating its role. Then this study aim to test the hypothesis at the end, this study aim to discuss the results with implications.

## **2. Literature Review & Hypothesis**

### **2.1 Performance in Entrepreneurship**

The performance requires objectivity to make the decision for specifications or goals (Dransfield, 2000). Entrepreneurial Performance is the individual's ability to be effective in many careers (e.g., Medication, Store, Suppliers, Marketing, etc.) help to attain better outcomes in discussions (Lewicki et al., 2003), to obtain company success. Entrepreneurial performance is to promote primary company concepts, developing new products, identifying market opportunities, make a modern environment, building healthy investor relationships, and also ready to react upon amazing market patterns (DeNoble et al., 1999). Entrepreneurial commitment level was a key indication of the best possible performance allowing entrepreneurs to keep continue to go on as they proceed against the opportunities and get over fatigue and pain to complete a procedure or meet a procedure (Schindehutte et al., 2006). For instance, the effective entrepreneurs might have or make excellent self-regulatory (Ericsson et al., 2006) systems that help them to notice, control, and improve their own performance, and that provide them with enhanced attention of their own perceptive highly effective factors (Kanfer, 1990; Zimmerman, 2006). Besides the many actions engaged further, acquiring a concept, financing the enterprise, purchasing the sources required, building a place of work, selecting staff, promotion the provider along with merchandise or more, one common business person requires many weeks to secure a completely new organization journey on the floor (Carter et al., 1996). As a result of enormous cost effective dedication of time, attempt, along with investment into a completely new organization to have this started out, and the ongoing cost effective dedication connected with sources to take care of the business, up to the particular indicates useful overall performance is necessary during this process. However, performance is very much affected due to entrepreneurial functions, such as positive and negative effects (Foo et al., 2009), so on the reasons for that, many of us assimilate the outcomes in the discussion underneath involving two critical elements proposed inside materials do the job to get related to functionality, entrepreneurial self-efficacy (DeNoble et al., 1999) in addition to entrepreneurial passion (Cardon et al., 2009).

### **2.2 Entrepreneurial Self-Efficacy and Performance**

Entrepreneurial self-efficacy is context specific valuate of self-efficacy. Based on "self-efficacy theory" (Bandura, 1977) self-efficacy described as a person's perception in his abilities to proficiently accomplish the projects of business

enterprise. It is usually approved that persons who regarded on their personal capability and sources will be effective in their initiatives and show greater performance level (Bandura, 1989). Self-efficacy is considered to be the best interpreter of an individual's performance in common (Locke, & Latham, 2002). Self-efficacy is usually a state such as characteristic that usually will increase together with encounter and is also extremely strongly related precise potential which influence the actual result (Phillips, & Gully, 1997). For example, Cervone and Peake (1986) discovered that the higher was the instated recognized self-efficacy, the longer people persevered on complicated and impossible problems before they quit. Therefore, people with a powerful sense of self efficacy will exert a higher level of attempt to get to know their responsibilities, and feature failing to things which are in their control, rather than accusing exterior aspects (Bandura, 1994). Thus, self-efficacy enables entrepreneurs to recover speedily via established facilitates, and at last will probably obtain their personalized objectives (Bandura, 1997). Conversely, people who have lower self-efficacy feel they cannot perform the job, and thus are generally less likely to make a critical, prolonged attempt as well as many consider complicated projects as risks that are to be prevented (Margolis, & McCabe, 2006).

Self-efficacy specifically, is regarded the most immediate inspirational aspects of performance (Lathan, & Pinder, 2005). The link between self-efficacy and performance provided the emotional literary work that is the base for the individual self-efficacy scale. Procedures involved in small companies are due to the entrepreneurial techniques, actions, and abilities of the individuals. A lot of the business owners could be recognized via business owners depending on their own identity connected with entrepreneurial self-efficacy (Chen et al., 1998) the way it performs a crucial part in creating their entrepreneurial objectives which cause to accomplish great entrepreneurial performance (Boyd, & Vozikis, 1994). Entrepreneurial self-efficacy impacts performance by impacting business owner passions, inspirations, and determination levels (Chen et al., 1998). It is also favorably relevant to entrepreneurial performance (Lindsay, & Balan, 2005). For example, in a study of over 300 business supervisors, discovered a positive connection between entrepreneurial self-efficacy and entrepreneurial performance. They describe that when person have a question in his capability, then he is not able to execute well, hence self-efficacy performance relationship. Centered on prior self-efficacy research, this study believe that entrepreneurial self-efficacy may positively relate to entrepreneurial performance even when they are experiencing complicated or uncertain difficulties in the company procedure.



Thus, such powerful determining may cause to better results from the procedure. So, we hypothesize that :

Hypothesis 1 : *Entrepreneurial self-efficacy is positively related to entrepreneurial performance.*

Even though all of us predict making certain the company this link inside our exploration, all of us add to the literary functions by indicating that will enterprise awareness may mediate the hyperlink among entrepreneurial self-efficacy and performance. For this sort of mediation to occur, self-efficacy has to positively relate to passion and entrepreneurial passion should positively relate to entrepreneurial performance. This study take the actual previous link first, then a second option.

### **2.3 Entrepreneurial Self-Efficacy and Passion**

Passion is determined as a different range of positive impacts, such as pleasure (Bierly, et al., 2000) really alike (Baum, & Locke, 2004; Cardon et al., 2005), understanding, along with happiness (Smilor, 1997) which happen to include in the entrepreneurial process and gives a mental supply with regard to working with entrepreneurial difficulties. Appreciation has been related to travel, dedication, want to do the job expanded hours, bravery, fantastic stages associated with energy, along with dedication facing difficulties (Bierly et al., 2000) in order to perform well (Brannback et al., 2006).

For entrepreneurial passion, self-identity is regarded an essential element, and this can be deemed the “subjective perception of by yourself to be a person” (Vignoles et al., 2006). Cardon et al. (2013) boasts that will business passion likely be included quite possibly unique stages of desire to have distinct positions along with associated behavior that are frequent throughout entrepreneurship such as a desire to have creating possibilities, desire to have start brand-new firms, and also desire to have generating the organization. Therefore, to comprehend the passion of business owners, commitment along with self-efficacy and also performance, many of us consider just the identity-meaningfulness elements of the build by concentrating on the two particular factors associated with individual desire for founding and developing of business.

Passion is turned on not because some entrepreneurs are naturally getting rid of to such emotions, but rather, because they are involved in something that pertains to a significant self-identity for them (Cardon et al., 2009). Such as, acknowledgement notion shows that individuals will probably realize together with issues that they are confident throughout performing, so that you can

safeguard their thoughts of self-efficacy (Vignoles et al., 2006). Most entrepreneurs who are involved in identical role are more passionate toward creating and developing company. Therefore, identity identification is a fundamental piece of entrepreneurial passion, showing which self-efficacy must estimation your identity identification section of passion and individuals are generally fervent about the components of their identity that a lot of fulfill their particular self-esteem as well as self-efficacy needs (Vignoles et al., 2006). This means that identity identification as a part of entrepreneurial passion and it may take place when self-efficacy is extremely good.

## **2.4 Entrepreneurial Passion and Performance**

The other offered mediation is the relationship associated with entrepreneurial passion and performance. Individual passion, which include personality connected factor may perhaps enjoy an important aspect within enhancing upwards entrepreneurial efficiency. A good identity principle zoom lens, that supply helpful tips in wherever focus may well appear it affect performance (Cardon et al., 2012).

Murnieks as well as Mosakowski (2006) likewise create facts, in view of that enthusiasm is developed whenever a large entrepreneurial personality will be substantial. In the same way, the silent majority in a new start ups extremely involving in a certain identity, position (such seeing that “runner”, “dieter”, or “entrepreneur”) are usually carried out nicely within the accomplishment with regards to affiliated objectives (Houser-Marko & Sheldon, 2006). These kinds of self-meaning includes connecting one’s personality using a certain behavior or strategy of accomplishing, individuals in the company effects just one defines (Houser-Marko & Sheldon). That takes place while using self-concordance design (Sheldon, & Elliot, 1999; Sheldon, & Houser-Marko, 2001), which will be based upon self-determination thought (Deci, & This individual, 1985, 2000). Within the self-concordance design, entities indulge in objectives extended after they experience extremely strategy for founding and for the purpose or after they discover with the uncovered with the goal (Houser-Marko, & Sheldon, 2006). They will accomplish their finest to keep efficiency because of the personality, by contribution in certain kinds of behavior, even though they do not possess “great knowledge, expertise, or sources in order to anticipate achievements” (Houser-Marko, & Sheldon, 2006). To ensure factors information on persona, identity provokes some sort of founder personality, in which the entrepreneur’s focus involved within founding some sort of enterprise with regard to commercializing as well as choices and also get their self as a developer role, in

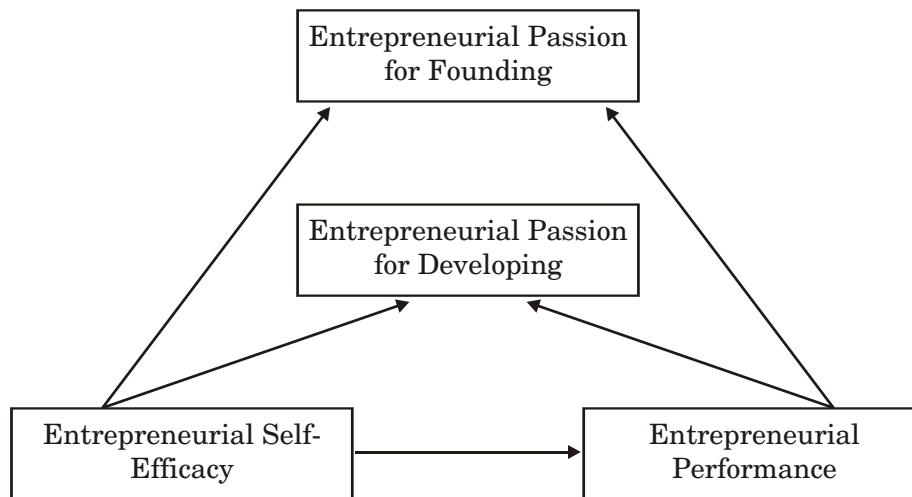


which the entrepreneur's focus is good for proper behavior in order to grace with presence to, growing, as well as growing this enterprise as soon as it is often created (Gartner et al., 1999). Typically, particular person's energy with regard to identity, importance as well as consonance of their behaviour (Hogg, et al., 1995), due to the fact once the facts are usually built-into this self-concept, entrepreneurs are extremely enthusiastic to act in ways efficient with those facts (Burke, & Reitzes, 1981; McCall, & Simmons, 1966) to have an entrepreneurial efficiency. Based on the above discussion, this study hypothesize that :

Hypothesis 2 : *There is a positive relationship between entrepreneurial self-efficacy and performance when mediated by entrepreneurial passion for founding.*

Hypothesis 3 : *There is a positive relationship between entrepreneurial self-efficacy and performance when mediated by entrepreneurial passion for developing.*

Figure-1 : Conceptual Model



### 3. Methodology

This study tested the hypothesis with a sample of 121 entrepreneur's who are working in Lahore region. Total 181 entrepreneurs were contacted through online questionnaire and total 121 usable questionnaire included for the data analysis purpose. All respondents mainly belong to service and manufacturing enterprises. The sample is taken from small firms, which are profit base firms, privately owned and have worked with less than 36 employees. For newly started venture first six years is very critical from the development point of you (Shrader et al., 2000). The

main aim of the research is to collect data from those entrepreneur's who are in search of identifying new market opportunities in order to expand their businesses as well as from those who are very much profound to develop their firms, so for this sake we aimed to select those entrepreneur's whose experience to operate business is in between 7 to 10 years. As our focus on small entrepreneur's, because they assume to be more vibrant in order to identify market opportunities and further develop their business, so that we come to know that the basic instinct factor which stimulate small business entrepreneurs to lead to entrepreneurial performance while others failed to achieve (Morse et al., 2007).

### **3.1 Survey Design**

A research design is the plan for selecting the sources and types of information to be used to answer the research question. In the literature, three types of research designs have been identified, Exploratory, Descriptive, and Causal/Hypothesis testing (Zikmund, 2000; Sekaran, 2003). Therefore this study focuses on descriptive, causal (hypothesis testing) and correlation approach to investigate the relationships between various variables. A questionnaire survey approach was employed to collect the data through online questionnaires to measure the variables under investigation. Furthermore, the cross-sectional research setting was used in this study. The data collected through questionnaire method from the entrepreneur's working in Lahore Region. For the convenience of entrepreneur study separate criterion and predictor variables in a survey so that it finds easy for the entrepreneur's to respond (Podsakoff et al.). The anonymity factor is also assumed to be employed in the questionnaire so that the entrepreneurs respond honestly without feeling fear to leak out the personal information. Different scale end points may apply in the questionnaire so that respondent does not loose his interest.

### **3.2 Measures**

A survey assumes to collect on a five point scale from strongly agree to disagree.

#### **3.2.1 Entrepreneurial Performance**

To measure the performance individuals are considered as the unit of analysis. To measure the entrepreneurial performance personal self- assessment of entrepreneur's is required, so that it draws a clear picture in order to understand how they rate business performance according to their abilities. In this regard, a scale developed by Kropp et al. (2006) is assumed to be used in our study. The

subjective measure of performance is not unusual in small businesses. However, for this sake five-point Likert scale from strongly disagree to strongly agree is used to collect the entrepreneurial subjective business performance which is used to validate entrepreneurial business performance. Scale is previously used and validated by the Hallak et al. (2012) in his study.

### **3.2.2 Entrepreneurial Passion**

The scale which assumes to apply for entrepreneurial passion is derived from Cardon et al. (2013) study. For entrepreneurial passion separate measures are to be chosen for entrepreneurial passion for founding and development and one sub scale item for each category is to be used which is identity centrality and the same was adopted from the study of Cardon et al. (2013). Four items assume to be used for entrepreneurial passion for founding and three items scale assume to be used for entrepreneurial passion for developing. The scale has previously used and proof to be valid by Cardon et al. (2013).

### **3.2.3 Self-Efficacy**

In order to assess the entrepreneurial self-efficacy four items Scale designed is used. The scale is used and validated previously by Zhao et al.al. (2005). Respondents were asks to indicate their self-confidence being an entrepreneur (e.g., identifying new business opportunities, creating new products or services, thinking creatively, and commercializing an idea). They were asked to indicate their confidence on a five-point scale (1 = not very confident, 5 = very confident).

### **3.2.4 Control Variables**

Firms age, and number of employees are assumed to consider as control variables.

## **4. Results & Discussion**

This study employed exploratory factor analysis through direct oblimin rotation in order to inspect the discriminant validity of the concepts, because the oblimin rotation factor allows examining the accurate impact of all influences (Samiee & Chabowski, 2012). Further, this study apply hierarchical regression analysis using SPSS because for small sample size this technique is very much valid, especially in entrepreneurial research studies (Short, Ketchen, Combs, & Ireland, 2010). For large sample size exploratory and confirmatory analysis are generally used to reduce the sampling error, researchers notes that sample size more then 50 respondents provides adequate reliability for exploratory factor

analysis( De winter et al., 2009). Exploratory factor analysis with direct oblimin rotation was conducted to examine the discriminant validity of the constructs, and found items were above 0.40 and retain for the study which results are shown in Table-1. Confirmatory factor analysis were further conducting using AMOS 18.0 (IBM, Armonk, NY, USA) to determine cross factors loading and found measures were fit for the model.

**Table-1 : Confirmatory Analysis In SPSS**

	1	2	3	4
a3	0.712			
b3	0.714			
c3	0.580			
d3	0.655			
e3	0.640			
f3	0.558			
a4		0.667		
b4		0.725		
c4		0.697		
d4				
a5			0.592	
b5			0.674	
c5			0.657	
a7				0.786
b7				0.739
c7				0.727
d7				0.588

Table-2 provides the means, standard deviations, and correlations for variables used in the study. All measures have Cronbach's alpha reliabilities greater than .7, which is considered acceptable (Crook, Shook, Morris, & Madden, 2010; Nunnally, 1978). The conceptual model and hypotheses were tested using hierarchical regression analysis using SPSS (18.0, IBM). Studies with smaller sample sizes are common in entrepreneurial research (Short, Ketchen, Combs, & Ireland, 2010), and use of regression analysis avoids issues of model fit that can become problematic with use of structural equation modeling in small data sets (Kline, 2005).

In the first step, control variables were entered with performance as the outcome variable. In the second step, entrepreneurial self-efficacy was entered. In the third step, each type of passion was entered individually, resulting in the two models to test hypothesis 2, and hypothesis 3. Results of these regressions are displayed in Table-3. In hypothesis 1, this study argued that greater entrepreneurial self-efficacy would lead to greater entrepreneurial performance, which was supported ( $\beta = .458, p < .01$ ). In the remaining hypotheses, this study argued that entrepreneurial passion mediates the effect of entrepreneurial self-efficacy on entrepreneurial performance, and these hypotheses were first tested following procedures recommended by Baron and Kenney (1986). If mediation is present, we would expect the effect of self-efficacy on each type of passion to be significant, and would expect the effect of self-efficacy on performance to be reduced with the addition of passion in the model. In addition to the models described above, regression analyses were run to determine the effect of entrepreneurial self-efficacy on each type of passion—passion for founding, and developing—and each effect was positive and significant at  $p < .001$  (see Table-4).

**Table-2 : Descriptive Statistics, Scale Reliabilities and Correlation Table**

S.No.	Variable	Mean	SD	1	2	3	4
1.	Gender	1.41	0.49	—			
2.	Mstatus	1.62	0.48	- 0.09	—		
3.	Age	2.32	1.02	0.02	.465**	—	
4.	HEDegree	3.28	1.21	0.1	0.04	.06	—
5.	Tindustry	1.57	0.49	- .002	.275*	.07	.274*
6.	Fage	2.07	0.77	.07	.255*	.27*	- .00
7.	NEmployes	1.41	0.52	.03	- 0.027	.06	.087
8.	Estatus	1.8	0.4	.006	0.02	.157	.259*
9.	ESE	3.9	0.72	.03	- 0.09	- .185	.218
10.	PFounding	3.96	0.46	.018	- 0.16	- .112	.367*
11.	PDeveloping	3.99	0.56	.032	- 0.07	- .197	.304**
12.	EFP	3.8	0.73	.15	0.07	- .064	.229

**Table-2 : Descriptive Statistics, Scale Reliabilities and Correlation Table  
(Continued)**

5	6	7	8	9	10	11	12
—							
0.07	—						
0.00	0.05	—					
-.23*	0.13	.272*	—				
0.18	0.11	- 0.18	0.15	—			
0.17	0.09	0.09	0.19	.52**	—		
0.18	0.03	- 0.12	0.12	.65**	.79*	—	
.21	0.08	.25*	.25*	.44**	.46*	.40*	—

\*p 0.05, \*\*p 0.01 Regression results (standardized coefficients)

**Table-3 : The Effect of Entrepreneurial Self-Efficacy  
and Entrepreneurial Passion on Entrepreneurial Performance**

DV EP	Model 1	Model 2	Model 3	Model 4	Model 5
Gender	.12	.122	.147	0.124	
Mstatus	.1	.127	.181	0.129	
Age	-.19	-.114	.081	-0.091	
Hedegree	.86	.041	.07	0.009	
Tindustry	.22	.109	.173	0.1	
Fage	.04	.09	.104	0.079	
Nemployees	.26	.392	.151	0.399	
Estatus	.23	.087	.215	0.083	
ESE		.458*	.128	0.354*	.299
Epfoundng			.201**		.391
EPDeveloping				0.183*	-.098
Adjusted R Square	.16	0.332	0.36	0.342	.244
R Square		0.418	0.451	0.436	.275
F	2.664	4.87	4.933	4.643	8.84

\*p 0.05; \*\*p 0.01 Regression Results (standardized coefficients).

Hypothesis 2 states that entrepreneurial passion for founding mediates the effect of entrepreneurial self-efficacy on entrepreneurial performance, and it is supported ( $p < .01$ ). Further, the coefficient for self-efficacy becomes insignificant when passion for founding is entered into the regression analysis (see Table-3), indicating full mediation. Hypothesis 3, stating that passion for developing mediates the effect of entrepreneurial self-efficacy on performance, is also supported ( $p < .05$ ). However, the fact that the coefficient for entrepreneurial self-efficacy remains significant at  $p < .05$  (see Table-3) suggests partial rather than full mediation.

This study examined whether the two types of passion mediate the effect of entrepreneurial self-efficacy on performance when examined simultaneously. Using multiple hierarchical regression analysis with performance as the dependent variable, researcher entered entrepreneurial self-efficacy alone in the first step, adding the three types of passion simultaneously in the second step. While the effects of passion for founding on performance is positive and significant ( $p < .01$  and  $p < .05$ , respectively; see Table-3, Model 5), while the effect of passion for developing is insignificant ( $p < .01$  and  $p < .05$  respectively). Arguing that inclusion of passion item will reduce the impact of relationship between entrepreneurial self-efficacy and performance. This study found that passion for founding reduces the self-efficacy impact on performance. However, passion for developing is not significantly support our argument hence, proved non-significant.

**Table-4 : The Effect of Entrepreneurial Self-Efficacy on Entrepreneurial Passion**

Variable	Passion for founding	Passion for Developing
Gender	-.074	-.009
Mstatus	-.228	-.008
Age	-.004	-.12
HEDegree	.28	.177
Tindustry	.057	.048
Fage	.222	.063
Nemployees	.16	-.036
Estatus	.160***	.22***
ESE	-.019	.57
Adj R square	.35	.38
F	5.192	5.77

\*\*  $p < .01$ ; \*\*\*  $p < .001$  Regression results (standardized coefficients).

## **5. Conclusion**

This research examined the relationship between ESE and entrepreneurial performance by mediating passion for founding and developing new enterprises among entrepreneurs serving in services or manufacturing enterprises. It focused on the individual entrepreneurs as the unit of analysis as he or she has a dominant influence on the business activities. Focusing on entrepreneurs in Upper Punjab region of Pakistan, research find that contrary to previous studies conducted in other industries, entrepreneurs passion fuel self efficacy and increases the entrepreneurial performance.

The purpose of our study was to examine two espoused drivers of performance in entrepreneurship, specifically looking at the relationship between entrepreneurial self-efficacy and performance, both directly and as mediated by entrepreneurial passion for founding and developing. Prior research has found evidence that self efficacy has a strong relationship with entrepreneurial performance (Hallak et al., 2012) but given that entrepreneurial passion has also been suggested to have an influence on engaged goal pursuit (Cardon et al., 2013), and previous work that has suggested that passion rather than self-efficacy is a key driver to regulate entrepreneurial behavior (Murnieks et al., 2014), this study sought to examine how these variables work together in their influence on entrepreneurial performance. However, results confirms that passion immensely effect the entrepreneurial self efficacy. Contrary to this this study infer that passion for development new enterprises invigorate the individual performance, but result differs this argument which is in confirmatory with the previous study conducted by Cardon et al., (2013). Study confirms that identity centrality plays a driving role in pursuing entrepreneurial journey.

The conceptualization of entrepreneurial passion is based on an individual identifying with active “doer” identities of founder, and developer, all associated with doing things, with engaging with activities (Cardon et al., 2009). Because of this, entrepreneurial passion may be more relevant to individual performance especially in the face of failures. Overall results suggests that it is passion that derive entrepreneurial self efficacy and improve individual performance. Feelings of self-confidence in pursuing entrepreneurship may make entrepreneurs more passionate because people tend to identify with activities they are good at. When their self-efficacy leads to passion for an activity, their passion in turn appears to drive entrepreneurial pursuits, for founding and developing new enterprises.



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## **Political Economy of Inequality : A Theoretical Construct**

**V. P. Rakesh\***

*In social sciences, inequalities has always been a matter of intense debate. Some thinkers like Aristotle considered inequalities natural whereas others—most of the modern thinkers argue that inequalities are product of social economic and political environment. However it is pertinent to mention that many scholars consider inequalities, as incentives to achieve higher and higher goals specially in the sphere of generation of wealth. Nevertheless almost all agree that inequalities must not grow out of proportion and constitute a threat to social stability and more importantly they argue that inequalities must infringe upon the basic foundation of modern societies equality of opportunity. Theoretically it has been established that equality is the soul of democracy but to attain this lofty ideal of equality is utopian. Therefore, considering the paradox coexistence of the intrinsic value of equality and with instrumental values of inequality—incentives to produce wealth, in consideration state must keep inequalities well in limit. The state, while designing public policy must keep the basic fact in consideration that inequality is multidimensional, and one type of inequality reinforces the other. The other serious issues in debate of equality has been added by the rapid advances in technology. Many apprehensions are there that inequalities,, which are by and large product of social environment and are being tolerated for protecting*

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*individual liberty and also for incentivizing wealth generation process, by technological advances may become natural at least in biological sense.*

[**Keyword :** Inequality, Liberty, Equality of opportunity, Right to property, Democracy, Incentives]

## 1. Introduction

The debate whether inequalities are natural or created by social system of process has always been a matter of intense debate in social science. Aristotle argued that “inequality is not only morally correct but also natural and intrinsic to human nature. He famously argued in his Politics...The freeman rules over the slave after another manner from that in which the male rules over the female, or the man over the child...The slave has no deliberative faculty at all; the woman has, but it is without authority, and the child has, but it is immature. So it must necessarily be supposed to be with the moral virtues also; all should partake of them, but only in such manner and degree as is required by each for the fulfilment of his duty...The courage of a man is shown in commanding, of a woman in obeying. And this holds of all other virtues, as will be more clearly seen if we look at them in detail, for those who say generally that virtue consists in a good disposition of the soul, or in doing rightly, or the like, only deceive themselves...All classes must be deemed to have their special attributes; as the poet says of women, ‘Silence is a woman’s glory’, but this is not equally the glory of man” (Aristotle, 350 BCE, Book 1 : 13). This Aristocratic and feudal notion of society has been contested and for long has been discarded. As a matter of fact as Amartya Sen argued that the whole idea of inequality has undergone sea change. There are many fundamental questions related to equality like “Inequality among whom?” and “Inequality of what?” For example as Sen has remarked that slavery it did not appear obnoxious to Athenian intellectuals because they could not do without it (Sen, 1973). However, there are some common themes in social sciences that continue to be debated right from early Roman, Greek and Indian civilization to till date. Like the issue of economic equality, which has always been viewed as normative issue like how much inequality is permissible and also what does economic equality stands for equality of income or wealth or equality of opportunity. The often quoted dictum in this regard is there is nothing unequal than equal treatment with unequal. Some argue that the essence of equality is in creating an environment in which all are treated and could be treated equally. In other words equality does include positive or affirmative discrimination. The other common concern about state



intervening to promote economic equality often violate individually liberty and acts as disincentive to create wealth and opportunity. What is missed in these argument is equality does not mean horizontal or mathematical equality of one plus one is equals to two or two minus one means equal to one, but that of equality of opportunity (Sen, 1973).

This debate with all its dimensions is as long as civilization, as Aristotle was of the view that wealth or income should not be distributed equally, but proportional to each individual's merit. For Aristotle merit, mean what good the position incur to sty, what is the purpose of being wealthy? (Sandel Michael J., 2009) If the issue is the stability of the system is virtue and as Aristotle argues the purpose of state is ensure "moral development of the citizen" then surely it is equality more purposeful than equality. Aristotle miss the virtue of equality and continued to argue that political power to middle class is the surest recipe for stability and other virtues. So many economist and political thinkers of 19th Century like J. S. Mill when Mill argues that only that wealth is to be considered virtuous which is earned by labour and intellect. He argues that "Private property, in every defence made of it, is supposed to mean, the guarantee to individuals of the fruits of their own labour and abstinence. The guarantee to them of the fruits of the labour and abstinence of others, transmitted to them without any merit or exertion of their own, is not of the essence of the institutions ..... To produce inequality, where without infringing any rights you might produce equality, to make one man rich where you might make four men comfortable, is bad economy; it is squandering the means of happiness, 13 nor do you give the slightest additional stimulus to the production of wealth by thus vitiating its distribution. ( Mill J.S 1988). But with the development of political institutions, technology and democracy the thinking about inequality has undergone sea change. In the contemporary non argues they way Aristotle argued to support slavery or say that "Silence is a woman's glory". However, there is there is a tendency to overlook or gloss over the issue of inequalities —specially economic inequalities and justify it wealth as an incentives to produce more or economic prosperity and individual liberty as opposing forces. The most frustrating part of this debate is the pitching of the debate as equality versus liberty. The renowned economist J. M. Keynes (1930 : 7), who was not a socialist or communist but considered the savior of market capitalism, has understood this in right perspective and asserted that with democratic institutions wedded to market—the situation can be achieved in which social recognition will be based on creativity not on massing wealth and holding position.



Here what intends to be argued that foundation of fair society is based equality of opportunity and which in turn depend upon fair distribution of income and hierarchies. Greater equality of income widens the opportunities and social equality help to utilize them. In other words the quest for equality and eradication of poverty are mutually reinforcing .

Empirical evidences are there that issue of equality is by and large a function of political orientation of the system. The important opposition to the intrinsic value of equality comes from those who feel the pursuit of equality will adversely affect the social stability and social order. But as it has been argued by John Rawls (1971 : 120) that “the social system is not an unchangeable order beyond human control but a pattern of human action”. Therefore, the supporter of inequality—talk about inequality—a natural phenomena and often seek support from Locke, who argued that that right to property is a natural right. However, Locke himself had also argued that a person can possess wealth as it can but only that he /she acquired by his / her labour. Adam Smith the most ardent supporter of right to wealth or property too argued that a society can not be happy if large number of people are dispossessed of wealth and do not have adequate means to meet their bare necessities (Smith Adam, 1776, Book I : 80).

## **2. The Intrinsic Value of Equality and Political System**

The fundamental question that is often raised is whether equality has any intrinsic value or it is only instrumental as generally argued from Greek Philosophers who considered inequality just and natural but were also conscious that extreme inequalities are threatening to social order. However, empirically it has been noticed that whatever inequality social and economic exist are product of social environment or order and are not natural. The distribution of virtues in whatever way one likes to define are normally distributed and it is nurture deficit that creates inequalities (Krit Parakeh, 2016). This nurture deficit is the concern of policy makers often resulting in affirmative action and resistance to it. However, it is also a fact that deeper the inequalities larger is the deprivation and more is the discords and vice versa. Thus if social and political order ensures that people have entitlements to meet their basic needs society will be more harmonious else this is what the intrinsic value of equality. On this ground John Raw has forcefully argued that a fair or just society respects and assiduously endeavors for relative equality and all the laws governing society must be framed under the “Veil of Ignorance”, i.e. laws are to formulated considering everybody equal. This is fair

and natural but when the veil is lifted the hierarchies are reflected—thus is any of this hierarchy reflects arises from the nurture deficit, it must be countered and corrected. This is what again reinforcing the intrinsic value of utility and supporting the argument that equality is natural and fair and inequalities are reflective of relative power given to them by social order. This stream of thought essentially comes from various sources right from Machiavelli to Marx to Ambedkar

Machiavelli was of the view for political stability—keeping inequalities in check is at most necessary and more over in his opinion many among those who amass wealth. Not always necessarily achieve it by legal and just means. In his opinion many people using brute force and by cunning maneuvers obstruct others to exercise their right to acquire and hold property. In other words some people become reaching at the expense of others. Therefore he made a strong case for relative equality. The other prominent thinker as mentioned above John Locke though a strong proponent of right to property—which he consider a natural right and in his opinion state has been created to protect this right (John Locke : 18, 124) was also strong advocate of equality, in his opinion every body has to right to acquire as much as he can from nature by sheer labor and toil. But in the opinion of Thomas Michael J. (1973 : 44), he simultaneously argues that it is impossible amass wealth. Some people amassing wealth and others without means of subsistence is against natural order as advocated by John Lock. Montesquieu also argued that equality is the soul of democracy, even it is not possible to attain the lofty ideal of perfect equality but the state must endeavor to determine the highest possible reasonable limit within which people can mass and hold wealth and beyond which it is the responsibility of the state, no body should be allowed to (Montesquieu, 1949 : 44-55).

The political fallout of inequalities has been examined by Karl Marx most vividly than any other social philosopher. Marx was of the view that gross neglect of the intrinsic value of equality that is all man are born equal divide society in two hostile opponents and is the cause of constant class struggle. Although he argued that it is class struggle which leads society to higher level of political system, which is less exploitative than the previous one, but it is not always necessary that class struggle will always results in reconstruction of society. Many times the class struggle may results in chaos. In which direction the society will move largely depends upon the relative strength of the warring classes. If the exploitative class (proletariats) is more powerful vis-à-vis exploiter (the bourgeois), there will be

reconstruction otherwise repression and chaos may increase (Marx, K. and Engels, F., 1848). Therefore, the key to equality is the arousal of class consciousness of the have-nots

### 3. The Contradictions

For equality—besides this conceptual frame of class struggle, there are others streaks of political thoughts—who do not support communism or class struggle also advocate equality. For example J. M. Keynes as mentioned above and Joseph Schumpeter for varying reasons and processes—support concept of equality. Keynes is of the opinion that following prudent economic policies and judicious intervention of democratic government—the ideals of equality can be achieved. On the other hand Schumpeter believes the inequality which is the bane of capitalism will be eradicated under the pressure of democratic compulsions. Schumpeter argues that committed to liberty—democratic system nurtures institutions like free press and free elections—which constantly questions the contradiction of capitalism—which eventually results in transformation of capitalism in an egalitarian society. His catch phrase for such eventually transformation is capitalism will fail not because of its failure but because of its successes (Schumpeter, J. A., 1948 : 61-63). Almost similar argument has been advanced by Fukuyama, F. (1992) he argued that provision of public goods by government in democratic societies and the freedom to consume leads us to both heavens i.e. equality and liberty.

In contemporary discourse it is not possible for any political system to forego any of the concern i.e. liberty and equality, as matter of fact many economists and political scientist as well believes that economic equality is corollary of functioning of democratic system based on the principle of liberty. However they argue the *raison d'être* of democracy is liberty and not equality. This concept has been nicely articulated by Milton Friedman the noted neo-liberal economist has argued it nicely that inequalities are to be tackled nor for the sake any thing else but for compassion. Any attempt to force equality by state has always resulted in loss of the both equality as well as liberty. He argued that any society which gives top priority to equality always losses both but who puts liberty at the top of the agenda achieves later or sooner both (Friedman, M. and Friedman, R. D., 1980 : 148). Many scholars before and after Friedman has questioned this wisdom. The agree it is possible to exercise political liberty amidst the severe economic inequalities. There are inherent contradiction in this thinking as pointed by Jefferson that there

is nothing unequal than to treat unequals equally. This very point has been raised by B. R Ambedkar, in very persuasive speech on the last meeting of the Constituent Assembly. He drew the attention in the contradiction and said that from 26th Jan 1950 onward we will be living in society riddled with contradictions. India will follow political equality—every citizen will carry equal political value i.e. equal right to vote but Indian social and economic structure does not recognize that every human being are equally valuable. How long India can live with this contradiction? If India ignore this and does not resolve it, its political freedom may also be in danger (Ambedkar, 1949). Indeed if one takes the border view of the society the co-existence of political liberty and vast and deep inequalities coupled with several deprivations appears very frustrating and grotesque to the extent of cruelty. In this regards, A. K Sen has remarked that it is beyond sense to acceptance the co-existence of huge stock piles of food grains and mal-nutrition (Sen, 2011 : 197). There is a theoretical as well as empirical experience that inequalities are reinforcing and one type of inequality enhances the sting of other. For example the woes of social (caste) inequalities increases to poor person of at the lowest hierarchy and if she happens to be women these woes further multiplies (Sen, *ibid.* : 189, 190). It is true that democratic system endeavours to keep in check inequalities and designs various—all inclusive interventions and specific group target programmes to eliminate inequality. The right to education, right to food, right to work are the examples of former and reservations in schools and college and jobs is example of other category, The basic philosophical and practical foundation of these twin arrangements is one human right enforces other (Sen, 2000 : 10-11). For example right to vote gives people choice, education gives voice and right to work and food enables people exercise the voice and choice .

#### **4. The Free Market and Democracy**

But the persisting questions is why despite so many democratic interventions why inequalities are not only persisting but increasing. For example the Oxfam studies reveal that in 2014 one percent adult population was owner of the 48 percent percent of the world. The other statistic from the same study is 5.5. percent population of the world account for 80 percent of the global wealth. The worrying issues is not persisting inequalities but also the rate of concentration of wealth is increasing. The other worrying trend is only one third trillionners have acquired wealth in inheritance and financial, banking and pharma sectors are sources of riches of other twenty percent are rich. The Oxfam report also suggest that these

super rich spend huge amounts in lobbying and cultivating public opinion in their favour. On the basis of these trends Sen says that democracy per se is not a boon, it is boon only when it attains its objectives (Sen, 2011 : 182).

As matter of fact the deliberation in equality and liberty has two alternative dimensions. One test the consistency of liberty and equality and argues that without equality or at least keeping them at manageable level—democracy loses relevance. The other argues that if liberty is ensured and the functioning of democracy will automatically keep check on inequities. The proponents of former suggest government interventions to direct the economy and society in the right or desired direction, whereas the advocate of latter approach talk about least governance or night watchman government. The basic function of government as per the advocate of non interference or minimum interference approach is to enforce contracts and ensure the rights of people in which right to property is also included. This theory argues that in free society whatever people have is function of free exchange and as long as the following three principles are adhered state has little business to interfere in the lives of people : (a) The person who has earned property or wealth by just means has the right to hold it, (b) Person has right to hold property if acquired by inheritance and (c) other than these two methods—any other means of acquiring property is not just (Nozick, R., 1974). Thus if wealth is acquired by free play or market forces and is accordance with the above principles state has no right to alter the distribution of wealth in society and attempt to redistribute property can not be achieved without violating human rights.

However, the other streak of thinking argues that in democratic societies inequalities are tolerable only if it ensures benefit to the least advantage and equally important is the fact that inequities are associated or attached to office acquired by proving worth and the this opportunity of proving worth was available equally to all (Rawls, 1997 : 100). This stream of thought argues that natural rights of people must not be violated in quest of equality and it also argues that inequalities serve social purpose but has to be kept in reasonable limit. For example it is fair to pay a scientist more, who discovers or works to save the life of people and finds such a drug which could protect from infectious waste borne diseases to which the poor are more prone to be inflicted. Likewise an entrepreneur who creates jobs and provide products or lower the price is surely be rewarded with high profit compared to the inefficient one. Yet Rawls is not arguing for equality of outcome (or condition) but stays within the realm of advocating equality of opportunity. He argues (p. 100) “...in order to treat all persons equally, to provide

genuine equal opportunity, society must give more attention to those with fewer native assets and to those born into the less favorable social positions”.

In twenty first century we see one more debate in democracy and development , some argue that in democracy decision making process is delayed hence the process of growth slow down poverty reduction slow down and so inequality increases. The former Prime Minister of Singapore, Lee Kuwan Yee advanced this argument. These set of scholars say that it is a cruel dilemma that rapid economic growth and democracy rarely co-exist. On the contrary other set of scholars agree that democracy is a self correcting process and there is not necessarily a tradeoff between growth and democracy. Many goods things co-exist. The only necessity is democracy should check the rent seeking behavior (Bhagwati, 1994) These scholars argues that if freedom of press and judiciary are effective democracy will deliver the desired result. These scholars cite the example of India and forcefully agree that India could avert famine and is rapidly progressing country and has proudly not only maintained but has deepen democracy (Sen, 1999). However, recent researches specially of Picketty establishes that the issue of inequality is not only a economic question but essentially a political question , which can not be solved by economic processes or market but by political decision making system. Picketty in his recent researches has proved that inequalities are on increase and now they have reached to the level of pre French revolution. He states that the share of wealth in national income was about 7 time in 1700 but it declined to 2.5 in 1950 due to judicious political and economic intervention but again due changes in economic and political orientation has increase to 6 time of the gross domestic product of developed world (Picketty, T., 2014 :116-117 ). As far lesson to India are concern at the end of century—Pradhan argued that despite India being a democracy its system is in the grip of four pressures groups—the big land lords, monopoly capital , organized labour and bureaucrats (Bardhan, 1984). He was of the view unless this political equation changes—poverty eradication will remain slow and deprivations will continue to persist. Recently the researches of Deaton (2013) also comes to the same conclusions that pressure groups because of their sheer political clout keeps on improving their lots at the expense voice less people.

## **5. Technology and Inequality : The Threats Loom Large**

The above argument lead us to conclude that relative equality is a desirable social goal but not the only desirable goal at any cost. The goals, like liberty often come in conflict with equality. Some people may prefer equality more and other



liberty but there is no such extreme position but tradeoffs. These tradeoffs are generally settled through legitimate means of democratic process. But the question of voice and choice in democracy often remains unresolved those who are vociferous because of their sheer strength or economic clout often get the marginalized voices muffled. This has to be guarded against. However, new and more threatening dimensions of inequalities are knocking at the door of humanity. It is a well established fact that with the development of technology owners of business and enterprises needed skilled labour therefore they promoted public education and training. Labour was centre to production process, indispensable to earn profit, as Marx argued and developed theory of surplus value and class struggle. The interaction of labour capital—cannot be friction free. Therefore, avoid the tussles—capitalist always tried to replace labour by machine. The modern technology—specially the computation development and artificial intelligence is increasing making labour redundant. The process of automation is changing the contours of not only of jobs but also social and political discourses in which conventional tools of social interaction are becoming redundant, populism is on rise and perception has become alternative truth. The technology poses that vast network of artificial intelligence, specially of computing and bio-metrics may give enormous powers to the elite controlling these and the night mare of “Animal Farm” of George Orwell may come true. But much bigger threat is technology has acquired the capacity to turn inequalities—which just have been mentioned product of social order and are subject to correction may become biological. The artificial intelligence and advances in bio-technology are so empowering that—with the help of science some people who can afford can buy the kind of brain or face or body constitution they like (Yuval Harai, 2011). Thus the inequality—especially of human being which was considered un-natural may become real or biological. Thus the aristocratic notation that “some are born great may come true”. This appears nightmarish- as it may make social stratification like slave and master - permanent.

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## **Nuclear Energy : Its Inception and Regulation**

**Vichitra Gupta\***

*World today is facing a serious problem of global warming that has further resulted in melting of glaciers and overall rise in sea level. The signs of ecosystem changes are evident all over the planet. In the current phase of rapid industrialization, the energy demands have also been rising at a fast pace leading to large-scale burning of fossil fuels such as coal, oil and natural gas. This not only leads to the emission of pollutants but also greenhouse gases such as CO<sub>2</sub> start accumulating in the atmosphere which causes global warming leading to global climate change. Need of the hour, hence is to investigate the sources of clean energy to feed the sprawling industries and boosting economies. Nuclear energy is one such source of power generation which is devoid of any greenhouse gas emissions, is cost-effective and has a high energy yield per unit mass of fuel. Thus the recent years have witnessed more and more nations resorting to nuclear power generation as an alternative to the conventional energy sources. Nuclear power generation, though exhibits good efficiency and an environment-friendly approach, has certain pitfalls to its usage. If not used safely, it can adversely affect the health of people, livestock, and vegetation and can disturb the ecological balance. Such effects may last for several days, years or in severe cases can also lead to death after prolonged suffering. Mutation of genes, cell proteins, membranes etc caused due to radiation outflow from nuclear reactors may even get passed*

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*on to the future generations or may cause sterility in living beings. If a nuclear disaster occurs, the entire region suffers social, economic and cultural decline for many years. Hence, the regulatory measures for nuclear safety and radiation management need to be adopted at the national as well as international level. Emergency arrangements and disaster-preparedness is also a must in order to reduce the effects, in case a catastrophe occurs.*

**[Keywords :** Nuclear power, IAEA, AERB, Nuclear hazards, Radiation pollution, ORPAS]

## **1. Introduction**

On account of overgrowing industrialization and rapidly rising demands on energy, the world is increasingly falling into the trap of climate change and thereby exploring alternate sources of energy has become an essential requirement towards sustainable development. The large-scale burning of fossil fuels such as coal, oil and natural gas leads to emission of carbon dioxide and other greenhouse gases that not only contaminate the atmosphere but are also responsible for global warming which in turn causes melting of glaciers and changes in precipitation patterns. The damage to environment resulting into global climate change causing havoc and suffering to mankind on long term basis has led to the entire debate on 'Save the Planet'. Alternative sources of energy such as thermal power, hydroelectric power generation, wind energy, nuclear power generation etc are thus being progressively deployed out of which nuclear energy has been termed clean energy as it is devoid of any greenhouse gases or other emissions. Studies have also reported it to be cost-effective and having a much higher power yield per unit mass of fuel input. Thus more and more countries are opting for it.

According to Nuclear Energy Institute Report, as of July 2015, around 30 countries worldwide are operating 438 nuclear reactors for electricity generation and 67 new nuclear plants are under construction in 15 countries. First Experimental Breeder Reaction EBR-1 was constructed on December 29, 1950 in Arco, Idaho (USA) to produce electricity by nuclear energy. Breeder reactor concept was validated and within a span of less than three years in 1954, in Russia, the nuclear power plant AFS-1 with a net electrical output of 5MW was connected to the national power grid as the first nuclear power plant at Calder Hall 1 with a net output of 50MW and connected it to the national grid within two years of Russian achievement on August 27, 1956. Within a span of seven decades, thereafter half the world is producing about 384 GW of nuclear energy based electricity in 31 countries and another 65 GW to be operated in 16 other countries is in the pipeline.

However, like other energy sources, nuclear energy too has certain pitfalls and consequences. This so-called clean energy source has made the population of the world increasingly vulnerable to radioactive explosive hazards. Nuclear disasters are the most devastating with long-term impact among all the man-made disasters that the world community has faced so far. A nuclear or radiation accident has been defined by the International Atomic Energy Agency as an 'event that has led to significant consequences to people, the environment or the facility'. When the core of a nuclear reactor melts down, a significant amount of radioactive materials are released into the atmosphere leading to radiation disaster. Apart from the disasters, there is a fear of spillage of nuclear reactants into the hands of terrorist organizations who are vying for the same. Probabilities are there that if the fissile material of nuclear energy falls into the hands of terrorist groups, it may lead to disastrous consequences as the radiation spillage may cause multiple damages to both the present and future generations. Therefore, the world today has become vulnerable not only on account of the civil nuclear programme but also growing terrorist threat to nuclear installations and the radiation impact thereby.

Nuclear energy though contributing to the industrial and economic growth is a source of radiation pollution that can not only affect the health of the living beings forever but have the potential to wipe out entire civilizations, make the land barren or contaminated. The effects of radiation pollution are so harsh that once an area gets affected by a nuclear accident, it would be faced with economic, social and political decline. It would adversely affect the exports since nobody would prefer to buy products coming from that area. People, who once migrate from that area, would be reluctant to return back. Even the flora and fauna may get genetically and physically deformed. Radiation pollution, if not checked in time, can potentially pose such serious health hazards in the contaminated people that dying at once seems easier to them than leading a life full of suffering and disease. The fission reaction that occurs in a nuclear reactor is responsible for causing nuclear chain reaction that produces a huge amount of energy. If this reaction is not kept under control, not only a large uncontrolled amount of heat is released causing explosions but harmful radiations are also released which are capable of inflicting life-endangering damages. Such health hazards are irreparable and may get passed on over generations.

Through the process of nuclear disintegration, in addition to the large amount of energy, highly toxic radiations are also released. The major radioisotopes used in nuclear power plants are iodine-131, Strontium-90, tritium etc. Strontium-90 from industrial discharge may get settled over the crop fields

where it enters into the food chain. The cattle that graze in those fields get contaminated and the milk that they produce is also contaminated. In the bodies of the humans who drink that milk, Strontium-90 replaces calcium from the bones and may lead to bone cancer or Leukamia. Iodine-131 replaces the safe iodine in the thyroid glands leading to thyroid cancer. This damages the WBCs, bone marrow, lymph nodes etc. Tritium, another radioactive pollutant replaces hydrogen in water. When such contaminated water is consumed, it may cause cell mutations within the body or birth defects in the generations to come.

## **2. Initial and Residual Effects**

The people working in nuclear power plants, radium watch dial painting units, uranium mines etc. suffer continuous contamination at a slow rate. While working over there, people suffer initial health effects such as headache, diarrhoea, vomiting, nausea, bleeding, damages to body organs such as lungs, eardrums, body cells etc. The Residual effects are caused when nuclear radiations composed of fast moving neutrons produced immediately after explosion cause serious damage to cell membranes, genetic cell material and nucleic acids. Such effects are residual as they are prolonged and may continue for several months to years or till the death of the person. Excessive exposure or accumulation of radiation can cause tumour formation, thyroid cancer, blood cancer, bone cancer etc. that develop slowly in the body over the time. Radiation exposure also leads to an increase in the frequency of chromosomal aberrations that in turn leads to genetic mutations in the individual which may get passed on to subsequent generations as birth defects.

Radiation effects can either be Somatic effects or Genetic effects. Somatic effects refer to the damage of cell membrane, cell growth proteins, blood cancer, bone cancer or even death, depending upon dosage. A dose of 25 Rems may cause changes in blood and damage to cells, nausea, vomiting, headache etc. A dose of 100 Rems cause the loss of leucocytes and cell damage. A dose of 300 Rems cause damage to nerve cells and internal harm. With a dosage of 200-400 Rems, there are 10% chances of death. At 350-550 Rems, 25% death chances are expected and at 550-750 Rems, the chances can increase upto 50% in a single month itself. With heavy dosage, high damage to cells, subcutaneous bleeding and hair loss is expected at the initial stage. The delayed effects could be tumour formation and cancer, dividing of cells of intestine, bone marrow, gonads and skin. Genetic effects such as mutations or damage of DNA molecules resulting from radiation exposure may get passed on to the future generations. Such children born out of contaminated parents are either crippled or deformed from birth.

In case of a nuclear accident, the radiation fallout may pollute the water supplies not only for a few days but for years to come. Aquatic organisms show high sensitivity to radiation. The Chernobyl accident (Ukraine, 1986) not only claimed thousands of human lives and unleashed a thyroid cancer epidemic in the area but also adversely affected the nature, contaminating it for years to come. The water bodies were contaminated by radioactive particles which led to genetic mutations in fishes, deforming them. The land became infertile due to radioactive deposits on the topsoil of the area. Similarly, the nuclear mishap at the nuclear power plant of Three Mile Island (US, 1979), was the most serious nuclear disaster of US history. Even after decontamination of the area, the soil samples and in local food such as coconut, meat etc. were shown to have radioactivity level high enough to pose a health risk to the people.

### **3. Sources of Nuclear Pollution**

Natural Sources of radiation pollution are cosmic rays from outer space and due to tectonic activity such as emission from earth's crust, seabeds, sediments, volcanic activity etc. Man-made sources of radiation pollution include the use of radioactive materials in power plants and medical technology, radioactive fallouts during nuclear power testing or nuclear weapon testing, mining and processing of radioactive ores, industrial applications and nuclear wastes from nuclear power plants, leakage in nuclear power reactors etc.

The radioactive material when released into the environment due to any of the above causes enters the human bodies through breathing of contaminated air, through eating of contaminated food including milk of cattle that might have grazed on radioactive grass, through the pores of skin. Once contaminated with radiation, health hazards are very serious. As regards the natural sources of radiation, we cannot do much to control or avoid it but the radiation exposure due to man-made activities can be controlled. National and International agencies have been formulating and implementing significant measures in order to regulate radiation pollution.

### **4. Regulatory Measures to be taken care of**

In India, nuclear energy is the fourth largest source of generating electricity to feed the sprawling industries. India has tremendous potential to enhance its capacity in the field of nuclear energy so as to address its energy shortfall. It even has the opportunity to develop itself as one of the world leaders in nuclear technology in the next few decades, when it could become a leading exporter of



nuclear energy at least in South-Asian region. However, to achieve such endeavour India's nuclear establishments must adopt a safety culture and a more global and principled approach to gain the confidence of its own people and of the regional and international community. India must learn from the drawbacks of others and must put its institutional mechanism in force to avoid any disaster.

In order to regulate nuclear operations and take decisions regarding site selection with a mission to ensure nuclear safety, the Atomic Energy Regulatory Board (AERB), an autonomous body of Atomic Energy Commission has been established. Since its inception, AERB has been reporting to the Atomic Energy Commission headed by the DAE. While providing license for any nuclear installation, AERB ensures that the area does not fall under seismic zone. The area should not be densely populated so that in case of any nuclear accident, evacuation is easier. AERB also lays down directions with regards to nuclear power plants and ionizing radiation being used for medical purposes so as to ensure they pose no risk to the health and environment. There should be regular monitoring of the presence of any radioactive substance in risk-prone area. The production and use of radioisotopes needs to be minimized. Careless handling of radioactive substances should be completely avoided. The nuclear power plants should be checked regularly for any potential damage or leakage. Monitoring and timely management can save thousands of lives. People working in nuclear power plants, radium watch dial painting factories or any nuclear research establishments should be provided with safety equipment and should use protection measures so as to avoid any occupational exposure to radiation.

Indian nuclear power plant that was started in 1969, took almost fourteen years to evolve a regulatory body and mechanism but even by today it may not claim to be full proof. This is obvious from the remark of UN International Atomic Energy Agency that India needs a full-fledged national policy for nuclear safety and radioactive waste management and needs to install more internal emergency arrangements. India had invited IAEA in 2015 for international scrutiny of its civilian nuclear reactors. IAEA on a 12-day review of India's nuclear safety standards pointed out that India has a strong commitment to safety but its AERB needs more autonomy from the government. Six preliminary suggestions were given at the end of the review which included nuclear waste management, internal emergency arrangements and a well-defined national policy for nuclear safety. All the suggestions were accepted by AERB as a matter of policy. S.S. Bajaj, Chairman of AERB said that AERB is committed to pursue the improvements suggested with the mission of further strengthening the regulatory framework.

The regulatory framework for the safe use of nuclear energy and ionizing radiation is based on the following acts, Atomic Energy Act 1962, Atomic Energy (Radiation Protection) Rules AE(RP)R 2004, Notification NO GSR 388 on “The Radiation Surveillance Procedure for medical applications of Radiation”, 1989, The Safety Code for Medical Diagnostic X-ray Equipment and Installations (No. AERB/SC/Med-2 Rev-1 2001).

The Safety Code for Medical Diagnostic X-ray Equipment and Installations lays down directions that the X-ray units should be approved by the competent authority, installation and room-layout should be according to certain predefined specifications enlisted in the Safety Code. Radiological Safety Office shall conduct periodic survey and routine quality assurance tests of X-ray units. All radiation workers should use personal monitoring badges. Unless it is absolutely necessary, frequent X-ray diagnosis should not be done.

Radioactive wastes should be disposed off carefully so that any radiation from those wastes may not cause any significant harm. Such wastes should be stored in shielded containers or large underground tanks and allowed to decay below the harmful level. Intermediate radioactive wastes should be diluted with inert materials before being released into the environment. High activity wastes should be converted into solids by mixing it with glass-forming chemicals in a melter to form molten glass and solidify it so that the waste is trapped in that state. Waste in this form does not radiate to the outer environment.

## **5. International Atomic Energy Agency (IAEA)**

At the international level, IAEA prescribes safety standards for the safe, peaceful and secured use of nuclear energy. Through its Occupational Radiation Protection Appraisal Service (ORPAS), IAEA provides a review of the secured safety infrastructure of nuclear-related occupations. Safety standards have been laid down by IAEA by integrating regulatory measures from across the world. It also organizes various study programmes where the countries can exchange their knowledge of nuclear safety procedures amongst themselves.

IAEA has defined nuclear security and safety as “The achievement of proper operating conditions, prevention of accidents or mitigation of accident consequences resulting in protection of workers, the public and the environment from undue radiation hazard, the prevention and detection of and response to theft, sabotage, unauthorized access, illegal transfer or malicious acts involving nuclear material, other radioactive substances or their associated facilities.” IAEA Convention on Nuclear Safety was adopted on June 17, 1994 at Vienna that came into force on October 24, 1996. The objectives of the Convention are to “maintain a

high level of nuclear safety worldwide, to establish and maintain effective defences in nuclear installations against radiological hazards, and to prevent accidents having radiological consequences.” The amendment to the Convention in 2015 adopted comprehensive principles to be followed by the nation states to minimize the risk factor by evolving institutional and regulatory framework.

IAEA through its Global Nuclear Safety and Security Network, shares the information amongst the nations with regard to nuclear safety programmes. Thus, GNSSN is the “worldwide gateway to sharing nuclear safety and security knowledge and services to facilitate capacity building among its member states”. Vision of GNSSN is to enhance the nuclear safety by coordinating stake-holders activities and bringing them to nuclear regulatory portals. It is a global framework for achieving and maintaining high level of safety and security at nuclear facilities and activities. GNSSN has public and registration parts, in which public part provides access to information available to all users without registration GNSSN, other Agency websites and relevant external sources. The restricted site is used as a collaboration platform for safety and security teams, forums and user communities and requires official nomination and a registration.

## **6. Conclusion**

Nuclear programme is a major undertaking that requires careful planning, preparedness and a major investment in time. The nations must ensure the safe possession and handling of nuclear material and the long time commitment to safety before embarking upon a nuclear power programme. The technology up-gradation is one of the major ways of containing nuclear disaster for which proper and adequate facilities related to research and development is required. The life of individuals must not be endangered for lack of proper and adequate initiatives on part of the political leaders and scientific community. Nuclear energy should be used within the safety standards and the safety codes developed by national and international agencies should be strictly complied with. If not used carefully, it can cause irreparable harm to human health, livestock, flora and fauna, soil and other natural elements. Any nuclear disaster would bring decline to the area, economically and socially. Awareness of the safety standards should be spread amongst the nations through awareness programmes. Mutual exchange of knowledge about radiation safety must be organized periodically. Lives and health of the people, safety of nature and environment should get precedence over the pace of industrialization and accelerated economic growth. There is no doubt that nuclear energy contributes to reduction of greenhouse gas emissions and hence requires to be expanded at a faster pace but with careful handling. If handled

carefully and in compliance with the safety regulations, this clean form of energy can be a major step towards environmental protection and sustainable development.

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## **Popularity of One-piece Dresses amongst College Going Girls in Ludhiana District**

**Jasleen Kaur\* and Surabhi Mahajan\*\***

*Fashion is a distinctive and often accepted trend in the style in which a person dresses. Different times witness different fashion. One fashionable apparel of today's era is the one-piece dress which gives a unique look to the wearer. The present investigation was undertaken to explore the popularity of one-piece dresses amongst college going girls. The study was conducted on ninety college going girls in Ludhiana and an interview schedule was used for collecting data. The results of the investigation were interpreted using percentages and Chi square. The collected data revealed that most of the respondents liked to wear one-piece dresses and their liking was affected by their social personal traits like age, income, type of family etc. Maximum respondents contained less than five one-piece dresses in their wardrobe. Also, majority of respondents had straight one-piece dresses without any embellishment. one-piece dresses were found to be popular because of the comfort they provide to the wearer.*

**[Keywords :** Wardrobe, One-piece dresses, College going girls, Fashion, Embellishment]

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## **1. Introduction**

A one-piece dress is a garment consisting of a skirt with an attached bodice or a matching bodice giving the effect of a one-piece garment. It is one of the popular garments among women or girls. These dresses are distinguished from each other in length, construction and purpose. Wrap dress, sheath dress, princess dress, a-line dress etc are different types of one-piece dresses based on construction. The objective of this paper is to study the popularity of one-piece dresses among college going girls.

## **2. Methodology**

Three different colleges of Punjab Agricultural University, Ludhiana were purposely selected. Thirty respondents from each college were randomly chosen for the study. An interview schedule was framed that contained questions regarding the liking for one-piece dresses and information about the number, silhouette and embellishment of one-piece dresses they have in their wardrobe. The data collected from respondents was coded, tabulated and analyzed.

## **3. Result and Discussion**

The results obtained from the present investigation are discussed in following five sub-heads :

### **3.1 Socio-Personal Background of the Respondents**

Table-1 depicts socio-personal background of the respondents on next page. The data indicate that the maximum percentage of respondents, almost three-fourth (75.56%) were in the age group of 18-21 years. The education status of the respondents was categorized into three : intermediate, graduate and post graduate. The data reveal that majority of the respondents, more than three-fourth (77.78%) were intermediate. A big difference in the total percentage of respondents belonging to nuclear and joint families was observed. Maximum percentages of the respondents (83.33%) were living in nuclear families. More than two-third of them (70%) belonged to urban areas, while remaining less than one-third (30 percent) respondents were from rural areas. As far as monthly family income of the respondents was concerned, it was observed that the largest percentage of respondents, more than half (53.33%) had monthly family income between Rs. 25,000-50,000, followed by one out of every six having income of less than Rs. 25,000.



Table-1 : Socio-Personal Background of the Respondents

n=90

General Profile	No. of Respondents	Percentage (%)
<b>Age (in years)</b>		
18-21	68	75.56
21-24	16	17.77
24-27	6	6.67
<b>Education</b>		
Intermediate	70	77.78
Graduate	16	17.78
Post graduate	4	4.44
<b>Family Type</b>		
Nuclear	75	83.33
Joint	15	16.67
<b>Area Type</b>		
Urban	63	70
Rural	27	30
<b>Family Income ( in Rs.)</b>		
Below 25,000	15	16.67
25,000-50,000	48	53.33
50,000-75,000	14	15.56
75,000-1,00,000	9	10.00
Above 1,00,000	4	4.44

### 3.2 Liking of Respondents for One-piece Dresses

The college going girls were asked about their likeness for one-piece dresses. It is apparent that maximum percentage of respondents, more than two-third (69%) liked to wear one-piece dresses, while rest of the respondents (31%) didn't like to wear one-piece dresses for various reasons like family inhibitions, discomfort and body shaming. Results are depicted in Figure-1 on next page.

### 3.3 Effect of Socio-personal Traits on Liking for One-piece Dresses

A critical analysis of data has revealed that the liking for one-piece dresses was affected by socio-personal traits of the respondents.

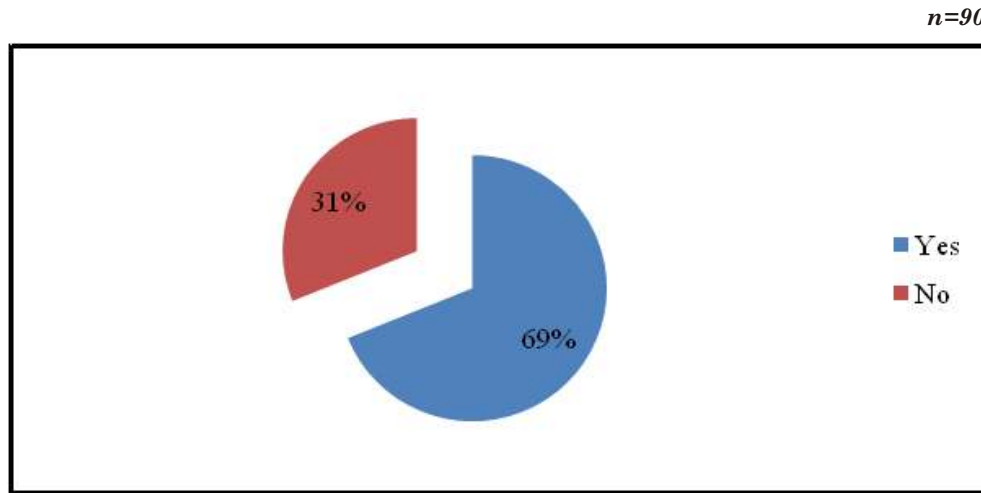


Figure-1 : Liking of Respondents for One-piece Dresses

### 3.3.1 Effect of Family Type of Respondents on their Liking for One-piece Dresses

The result shows that majority of respondents belonging to nuclear families (53%) like to wear one-piece dresses as compared to respondents belonging to joint families (1%). The reason behind this can be the conservative family values of joint families. The statistically calculated chi square test value (5.01) shows that there is significant association between family type and liking towards one-piece dresses at 5 percent level of significance.

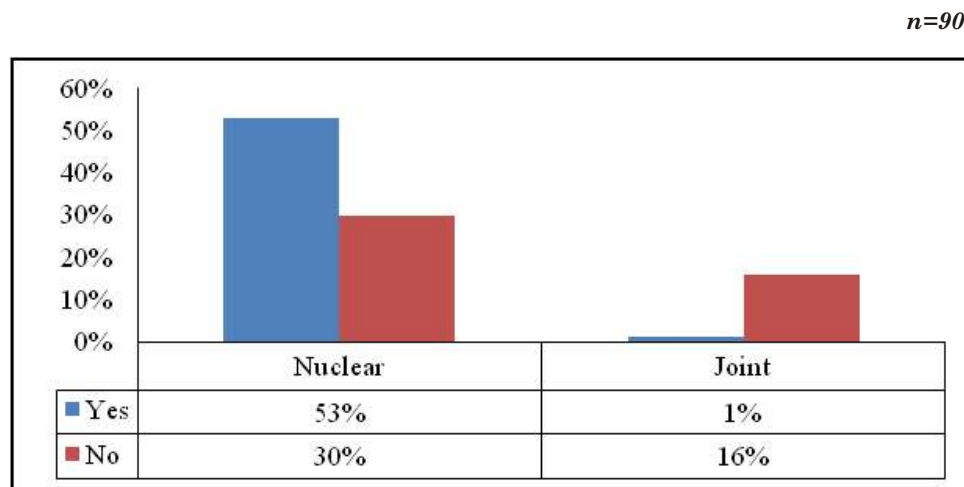


Figure-2 : Effect of Family Type of Respondents on their Liking for One-piece Dresses

Chi square : 5.01  
Significant at 5 percent

### 3.3.2 Effect of Residential Area of Respondents on their Liking for One-piece Dresses

The result shows that majority of respondents belonging to urban areas (60%) like to wear one-piece dresses more in comparison to respondents belonging to rural areas (8.89%). The statistical calculated chi square test value (32.02) shows that there is significant association between residential area of respondents and their liking towards one-piece dresses at 5 percent level of significance.

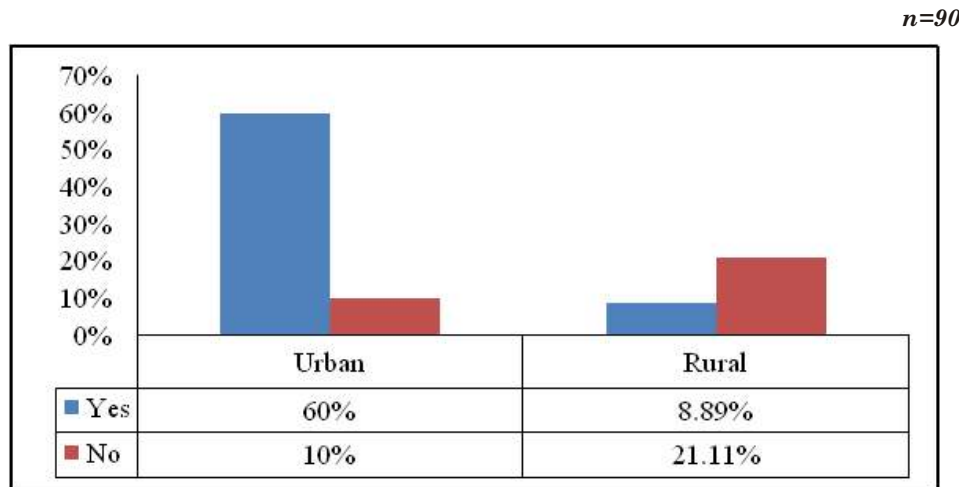


Figure-3 : Effect of Residential Area of Respondents on their Liking for one-piece Dresses  
Chi square : 32.02  
Significant at 5 percent

### 3.4 Details of the One-piece Dresses Possessed by the Respondents

An effort was made to record the information regarding the one-piece dresses possessed by the respondents. The results of the investigation are discussed below :

#### 3.4.1 Number of One-piece Dresses

It was observed that maximum percentage of respondents i.e. 64.52 percent has less than five one-piece dresses in their wardrobe.

Table-2 : Number of One-piece Dresses

*n=62*

No. of One-piece Dresses	No. of Respondents	Percentage (%)
Less than 5	40	64.52
5-10	18	29.03
More than 10	4	6.45

### 3.4.2 Silhouette of One-piece Dresses Possessed by the Respondents

It is observed from the table- 3 that maximum number of respondents i.e. (85.5%) has straight one-piece dresses followed by A-line and full skirt silhouette of one-piece dresses by 46.77 and 37.1 percent respondents respectively.

**Table-3 : Silhouette of One-piece Dresses Possessed by the Respondents**

*n=62\**

Silhouette Type	No. of Respondents	Percentage (%)
Straight	53	85.50
A-line	29	46.77
Full skirt	23	37.1

### 3.4.3 Embellishment on the Possessed One-piece Dresses

It was observed from the table 4.3 that most of the respondents (48.39%) possessed one-piece dresses with no embellishment followed by embellishment in the form of printing (20.97%), trimmings (14.51%), and stonework (9.68%). The least liked embellishment was painting which was preferred by only 1.61 percent of the respondents.

**Table-4 : Embellishment on the Possessed One-piece Dresses**

*n=62*

Embellishment	No. of Respondents	Percentage (%)
Embroidery	3	4.84
Printing	13	20.97
Stone work	6	9.68
Painting	1	1.61
Trimmings	9	14.51
No embellishment	30	48.39

### 3.5 Reasons for Popularity of One-piece Dresses

It is observed from table-5 that most the respondents (50%) liked one-piece dresses because they feel comfortable in it followed by respondents with reasons modernity (16.67%), easy to don and doff (13.33%) and unique appearance

(11.11%). The least preferred reason is that it gives younger look by 8.89 percent of respondents.

**Table-5 : Reasons for Popularity of One-piece Dresses**

*n=90*

Reasons	No. of Respondents	Percentage (%)
Unique appearance	10	11.11
Comfortable	45	50.00
Easy to don and doff	12	13.33
Modernity	15	16.67
Gives younger look	8	8.89

#### 4. Conclusion

Fashion is ever-changing and while some styles manage to become timeless classics, other trends only enjoy a brief hype before they die down. In other words, fashion trends always comes and go, some stay for a longer period of time and some just get vanished in months. Nevertheless, the fashion industry in India is constantly transforming and growing, irrespective of such trends. India's transformation in women's clothing and fashion over the years has not been as drastic as compared to its western counterparts, owing to various traditional beliefs and values still held by most Indian women. With changing times, even the most traditional apparels have been modified to hold an urban look without compromising on tradition. Following India's independence in 1947, as the country began to create its own identity, its citizen, especially the women, began their very own transformation that eventually set the standards of Indian fashion.

One-piece dresses have been popular throughout the globe, including India. Though these dresses have seen many ups and downs, still on the basis of the this study, it can be concluded that one-piece dresses are popular amongst college going girls in Ludhiana district as majority of them liked one-piece dresses because of its comfort. Also most of the respondents had one-piece dresses already in their wardrobe, which once again points out the fact that one-piece dresses are one of the popular fashion garments. Fashion of wearing one-piece dresses among the Indian girls and women is likely to continue in future also.

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## **Education : A Gateway to Human Development**

**Mamta Kumari\*, Bhawana Asnani\*\* and Jagdeep Singh\*\*\***

*Education makes people easy to lead, but difficult to drive; easy to govern but impossible to enslave. Education is an important instrument to overcome violence and improve respect for human rights and bringing up generations of young people to coexist more peacefully. Providing education helps women acquire the fundamental skills and values needed to find productive employment, to adjust to changing labor market requirements over their lifetimes, and to live politically, socially and culturally meaningful lives. Higher levels of education also result in better health and longer life expectancy. In Brazil, illiterate women have an average of 6.5 children, whereas those with secondary education have 2.5 children. In the southern Indian state of Kerala, where literacy is universal, the infant mortality rate is the lowest in the entire developing world and the fertility rate is the lowest in India (UNICEF, 1999). The World Bank initiative to support education for diversity concentrates on three very specific aspects of education systems : curriculum, textbooks and teaching methods. These three key ingredients of any education system aim at modernizing the curriculum, replacing the existing textbooks and improving*

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*the quality of teaching through improved teaching methods and investment in teacher education. Social cohesion is not only a matter of combating social exclusion and poverty but also about creating solidarity in society such that exclusion will be minimized. Therefore a strategy must tackle exclusion by means of both prevention and cure. Women can participate in many other networks and institutions that help to knit society together. Charitable, sports and social and cultural associations, educational institutions, Industries, together with organizations for children and young people, play a particularly important part in building unity and engage segments of society in socially useful voluntary activities. Government should create a favorable environment for encouraging such bodies and activities, which often make suitable partners for government-sponsored programmes to empower women and ultimately the society.*

**[Keywords :** Empowerment, Education, Human rights, Poverty, Literacy]

## **1. Introduction**

The concept of human development is complex and multidimensional. The term ‘human development’ may be defined as an expansion of human capabilities, a widening of choices, an enhancement of freedom, and a fulfillment of human rights. The first UNDP Human Development Report published in 1990 stated that: “The basic objective of development is to create an enabling environment for people to enjoy long, healthy and creative lives”. It also defined human development as “a process of enlarging people’s choices”, “and strengthen human capabilities” in a way which enables them to lead longer, healthier and fuller lives.

## **2. Components of Human Development**

The noted Pakistani economist Mahbub ul Haq stated four essential pillars of human development. These are : Equality, Sustainability, Productivity and Empowerment.

### **2.1 Equality**

If development is viewed in terms of enhancing people’s basic capabilities, people must enjoy equitable access to opportunities. Such may be called equality-related capabilities. To ensure equality-related capabilities or access to opportunities what is essential is that the societal institutional structure needs to be more favourable or progressive.

### **2.2 Sustainability**

Another important facet of human development is that development should “keep going”, should “last long”. The concept of sustainable development focuses on

the need to maintain the long term protective capacity of the biosphere. This then suggests that growth cannot go on indefinitely; there are, of course, “limits to growth”.

### **2.3 Productivity**

Another component of human development is productivity which requires investment in people. This is commonly called investment in human capital. Investment in human capital-in addition to physical capital-can add more productivity.

### **2.4 Empowerment**

The empowerment of people, particularly women is another component of human development. In other words, genuine human development requires empowerment in all aspects of life. Empowerment implies a political democracy in which people themselves make the decisions about their lives. Under it, people enjoy greater political and civil liberties and remain free from excessive controls and regulations. Empowerment refers to decentralization of power so that the benefits of governance are reaped by all peoples. Discrimination against women in health and education is very costly from the viewpoint of achieving development goals. Education of women can lead to a virtuous circle of lower fertility, better care of children, more educational opportunity, and higher productivity. Above all, as women’s education rises, women’s independence in making their own choices also increases.<sup>1</sup>

## **3. Role of Education in Human Development**

The real meaning of education is much more than the success in personal and professional life. People in the modern society have narrowed the meaning of education. The education really means to improve the physical, social and mental well-being, develop personality and improve skill level. Education plays a great role in the life of everyone all through the life. It is the most important tool offers inner and outer strength to a person and is the fundamental rights of everyone and capable of bringing any desired change and upliftment in the human mind and society. Good and proper education plays a great role in shaping the future and professional career. Social issues like inequality, gender discrimination, religious differences and so many problems are there because of the lack of education.<sup>2</sup>

Education helps reduce poverty by preparing individuals to contribute productively in work environments. Health is also impacted by education through the knowledge of dietary requirements. Consuming recommended amounts of

nutrients is beneficial for maintaining and improving health. Knowing what to do in accidents or emergency situations is another way that education contributes to health.<sup>3</sup> In such a modern, technological and competitive world, there is still the issue of education among poor and uneducated people of the society which needs to be solved as soon as possible. Through contributing to personal development and growth, education helps to build character. A primary role of education is to equip people with the knowledge and confidence to make a difference in the transformation of society.

On the other hand, based on the eight Millennium Development Goals (MDGs), education is a major catalyst for human development (UN, 2010). Education creates choices and opportunities for people, reduces the twin burdens of poverty and diseases, and gives a stronger voice in society. Education provides knowledge and skills, encourages new behavior and increases individual and collective empowerment and in this way can be counted as the center of social and economic development.

Education is an important instrument to overcome violence and improve respect for human rights and bringing up generations of young people to coexist more peacefully. Providing education helps women acquire the fundamental skills and values needed to find productive employment, to adjust to changing labor market requirements over their lifetimes, and to live politically, socially and culturally meaningful lives. Higher levels of education also result in better health and longer life expectancy.

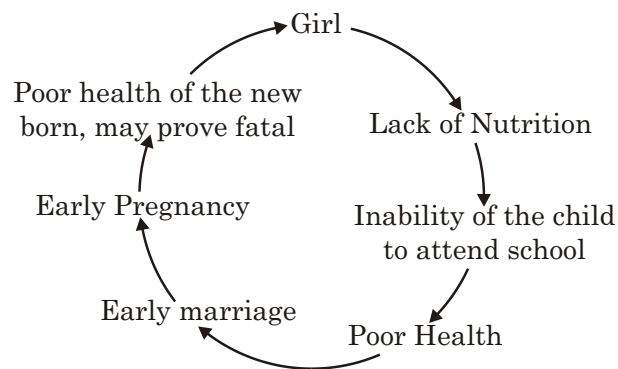
#### **4. Benefits of Women Education**

Benefits of women education are as follows :

1. Education creates awareness among girls.
2. Educated girls can run their own lives and households more efficiently.
3. Education gives them financial independence. Education imbibes confidence and skills in girls which enables them to take up a vocation if required and hence provide financial help to the family.
4. Educated girls who will later on become educated mothers can look after the studies of their children. Educated mothers help their children to develop good habits and values.
5. Educated mothers understand the day-to-day problems their children may face and help in providing more meaningful solutions to these problems.

According to many reports (Population Crisis committee, 1988 and World Conference of Women, 1995) in the developing countries a majority of women

reside in rural area, supporting their household with subsistence farming, rising children, and maintaining their properties. They are usually the most exploited and least privileged members of households, overburdened with work for their families but marginalized in regard to the distribution of resources.<sup>4</sup> As it was mentioned, investing in education provides the foundation for accelerating social and economic development of nations. Considering the case of female education, increasing women's education not only increases their productivity but also result in greater child health and nutrition. More educated mothers lead to multiplier effect on the quality of nation's human resources for many generations to come. As women carry a disproportionate burden of the poverty which disturbs developing societies, significant improvement in their role and status of the education can have an important impact on breaking vicious circle of poverty and inadequate education (Figure-1).



**Figure-1 : A Vicious Cycle**

Infant mortality rate is one of the best single indicators of a nation's overall health status, particularly among the poor countries, and it is also a very good indicator of life more generally which focuses on internal factor associated with modernization, economic growth, education, fertility and income inequality. Educated women with high social status in the family and the society usually have more autonomy in declining in the number of children to have and in seeking medical treatment for themselves and their children. Numerous studies show that mother's education is one of the most important predictors to infant mortality.<sup>5,6</sup> Generally, educated women bring social benefits by growing up fewer, healthier and educated children. Based on the Millennium Development goals one of the goals trying to improve and control is combating HIV/AIDS, Malaria and other disease. According to the historical points, the HIV-AIDS pandemic is very much in African Area and female bear the greatest burden. Education can change this situation, by giving women information and learning the way that they can keep themselves safe.<sup>7</sup> The

other important benefits of women's education for health is via reducing fertility which in turn can raise the family resources devoted to each child. Among better educated women the use of contraceptive methods is higher and fertility rates are lower. Education enables them to have access information on modern contraception and their proper use and to appreciate their role in fertility regulation and even the use of effective contraceptives enables them to avoid unplanned pregnancy that may compel them to enter into marriage earlier than desired. Better education will increase the productivity by raising the level of cognitive skills, innovation, finding and using new technologies. In this way that, high level of education is associated with lower mortality and fertility, better health, reducing gender inequality and enhancing the analyzing power in order to solve the problems.

## 5. Conclusion

Jawaharlal Nehru has remarked "when a woman moves forward, the family moves, the village moves and the nation moves". As female education rises, fertility, population growth, and infant and child mortality fall and family health and child nutrition improves. Education in addition associated with increases in women's participation in the labor force and their contributions to household and national income. Moreover, education especially girls' education has a direct and proven impact on the goals related to child and reproductive health and social and gender sustainability. Education also promotes economic growth, national productivity and innovation, and values of democracy and social cohesion.

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## ***Decomposition of Manufacturing Growth : An Analysis of Interstate Disparities***

***Anjali Agarwal\****

*In India, the dismal performance of the manufacturing sector has become a pivotal issue during the post-reform period that needs immediate attention. Indian manufacturing has been reeling under a low growth and stagnating employment under the high growth regime. Inter-state disparity in levels of development, employment and incomes is a major issue of economic, social and political significance in India. This study reveals that Tamil Nadu and West Bengal have been witnessing a declining trend in manufacturing, whereas the states of Gujarat and Maharashtra have emerged as most industrialized over time. The inter-state disparities have widened during the post-reform period and is also recognized as a concern to be addressed through public policy. We have applied secondary data from Annual Survey of Industries (ASI) and National Sample Survey Organization (NSSO) for the period 1980-2008 to analyze trends which influence the interstate manufacturing growth in terms of setting-up of new industries, infrastructure, level of industrialization, production technique etc. It was found that that location of new industries is primarily guided by existing industrial concentration rather than other factors. Interstate differentials in the growth of manufacturing have serious implications on development and*

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*need to be reduced through concrete policy action in the coming years as high potential of growth still exists in the manufacturing sector of the states.*

**[Keywords :** Interstate disparity, Manufacturing, Employment, Infrastructure, Industries]

## 1. Introduction

The disparity in the Inter-regional levels of development and incomes is a major issue of political, economic and social debate in India because of its domino effect on the overall economic growth of the nation. As the literature has pointed out, industry plays a dominant role in creating as well as mitigating disparities among different regions. Many steps in the form of policies and programmes are adopted from time to time to promote development of relatively less developed states and regions by giving them privileged treatment in central public investment decisions, and fiscal and financial concessions and incentives.

It is generally seen that industry tends to go where industry already exists. New industry is attracted by developed infrastructure, assemblage and linkages, but eventually, when diminishing returns set in, the industries shift from the more industrialized regions to the lesser developed regions. During the eighties and the nineties, there were two main important periods of reforms. The de-licensing of one-third of all three-digit industries in 1985 marked the arrival of first array of reforms. The second array of reforms launched in 1991 were a clinical moment in India's history; It changed the complete DNA of Indian industrial model. Industrial policy was no longer a complicated system of industrial licensing with reduction in tariff barriers and relaxation on restrictions on foreign investment.

Inclusive growth and balanced sectoral development have always been the major objectives of the national policy in India. However, economic liberalization reduced the role of the central government in curbing regional imbalances through controls and regulations and enhanced inter-state competition. What has been the experience in India? Who have been the leaders and laggards? Have inter-regional disparities in levels of incomes, economic development and industrial activity increased or declined over the post-reform period?

The objective of this paper is to investigate and analyze the growth of the organized manufacturing sector in India at the state level. An industry-specific analysis will be vital in explaining the industrial composition and spatial concentration in the manufacturing sector in various states. Section 1 deals with the introduction and 2 with literature review. Section 3 includes growth trends in



interstate manufacturing and its distribution. We have regrouped industries on the basis of raw material to study agricultural and non-agricultural based industries in section 4. Interstate variations in the levels of productivity and factor intensity have been dealt with in section 5. In the process the study also analyses the differences in the industrial structure and factors responsible for variations in the extent and structure of industrialization. Section 6 suitably concludes findings with policy implications.

## **2. Literature Review**

There is a plethora of literature available on manufacturing growth among Indian states over the years. Roy (1993-94) analysis concluded that co-efficient of variation of per capita NSDP in constant prices increased during the study period 1967-68 to 1985-86. Das and Barua (1995) were of the view that the inter-state disparity widened during the 1970-90 period. Mathur's (2001) focus on the period of eighties and nineties revealed that there is a steep acceleration in the coefficient of variation of per capita income after the reform period upto 1996. Kurian (2000) believed that the prominence in the role of private sector after 1980's further escalated the inter-state disparities.

Recent studies relating to the post-reform period have pointed to a trend towards greater divergence in industrial growth as industrialized states were found to be growing faster than backward states (Bhattacharya and Sakthival, 2004). Nair (2005) found this trend to be in complete contrast when compared with the pre-reform period. Krishna (2004) has envisaged that the coefficient of variation among states has increased over time even though the relative position of states hasn't shown much change.

Why does manufacturing growth differ among states? It is one of the lingering questions with many possible answers : infrastructure, labour-laws and expanding markets are among the factors most often mentioned to justify this difference. Agricultural growth is also seen as essential contributor on both supply and demand side affecting the rate of manufacturing growth. According to a study (Sastry et. al., 2003), agriculture played a vital role in industrial growth first through the production channel during sixties, but by nineties it contributed greatly through the demand channel.

To find answers to the questions posed above, we have utilized the secondary data for major Indian states. Major sources of data for study are : CSO for Gross State Domestic Product (GSDP) estimates, Annual Survey of Industries (ASI) for

organized manufacturing and National Sample Survey Organization (NSSO) survey of employment and unemployment and unorganized enterprises for unorganized manufacturing. The period of study is from 1980 to 2008, largely guided by availability of latest data. We have chosen 1993-94 as the base year for normalizations. The 3-digit level of National Industrial Classifications (NIC): NIC-87 (50th Round), NIC-98 (61st Round), and NIC-04 (68th Round) is the unit of product dis-aggregation used here.

### 3. Trends in Inter-State Manufacturing

In the last 3 decades, India has gradually moved towards manufacturing with its share increasing from 13.8% to 17% in National GDP. The growth rate of aggregate manufacturing has been healthy especially during 2000-08 period where it touched 8%.

**Table-1 : Share of Manufacturing in Total GSDP and Growth Rate in Manufacturing GSDP (%)**

States	Share (%)				Growth Rate (%)			
	1980	1990	2000	2008	1980-90	1990-00	2000-08	1980-08
Andhra Pradesh	13.86	15.32	13.69	12.05	5.36	5.2	6.92	5.1
Bihar	9.92	12.56	9.17	13.27	6.24	3.18	6.44	3.94
Gujarat	18.92	26.14	30.41	29.94	8.29	9.48	11.71	8.17
Haryana	13.65	19.1	20.59	20	10.42	6.8	8.13	7.33
Karnataka	15.25	18.63	17.26	19.85	7.07	6.9	10.51	7.42
Kerala	9.52	11.11	11.68	9.96	3.26	5.92	6.19	5.12
Madhya Pradesh	11.11	15.5	16.46	15.35	6.52	6.58	5.26	5.82
Maharashtra	24.92	26.08	23.93	23.46	6.79	6.27	8.64	6.29
Orissa	9.08	11.29	12.13	17.04	8.78	4.17	15.6	6.68
Punjab	9.21	13.61	15.96	16.05	8.98	6.43	6.18	6.49
Rajasthan	12.43	12.36	16.5	15.63	6.66	9.37	7.84	6.96
Tamil Nadu	31.47	28.54	24.36	23.32	4.06	5.06	7.7	4.56
Uttar Pradesh	9.01	13.87	13.85	14.02	9.53	4.8	6.26	5.65
West Bengal	20.31	17.8	17.28	16.37	3.32	6.36	6.07	5.21
India	13.80	16.60	17.20	17.00	7.44	7.02	8.02	6.77

Source : ASI, mospi.gov

As is evident from table-1, the share of manufacturing in the Gross State Domestic Product (GSDP) varies very widely among the Indian states. With respect to this indicator, we observe that Gujarat can be considered to be the most industrialized state in the country with manufacturing contributing almost 30% of the state output in 2008-09. The top five states in terms of the extent of industrialization were Gujarat (30%), Maharashtra (23%), Tamil Nadu (23%), Karnataka (20%) and Haryana (20%).

Kerala had the lowest percentage of about 10% of its GSDP originating from manufacturing. Huge input costs and labour costs have led to stagnation in industrial sector in Kerala. Andhra Pradesh followed by Bihar and Uttar Pradesh were other states with low level of industrialization with only 12 to 14 per cent of their SDP originating in manufacturing.

Tamil Nadu and West Bengal saw a 'deindustrialization' insofar as manufacturing now contributes only 16.4 per cent in SDP as compared to 20.3 per cent 28 years back. The fastest advancement in industrialization was made by the states of Gujarat and Orissa in the period of 1980-2008 with an increase of 11 and 8 percentage points. Despite changes in different directions and magnitude, the overall disparity in the degree of industrialization seems to have normalized. Both standard deviation (SD) and coefficients of variation (CV) have declined from one decade to another since 1980- 81.

The trends in growth rate of GSDP suggest that Gujarat is the only state that maintained a steady growth rate of more than 8% during the entire period. Bihar, Tamil Nadu and West Bengal showed the least growth in manufacturing over this period. Some moderately industrialized states like Orissa and Karnataka have showed healthy signs of growth in the most recent decade with a 15% and 10% jump in growth rate respectively. The statistical anatomy of the growth rate suggests that since 1980 to 2008, both the standard deviation and coefficient of variation of the data has increased, suggesting increasing inequality in the industrial growth process.

A decomposition of the states into high and low industrialization based on the share of manufacturing over the years also sheds light to an interesting observation. While the better industrialized states grew slower than less industrialized counterparts during 1981-91, the reverse seems to have happened in recent decades. States which were not able to utilize their resources in this era of fast paced economic development are now lagging behind.

The pre-reform period saw a focus on less industrially developed states with myriad of policies devised to mitigate the disparities in degree of industrialization.

Most of these policies have been removed, if not reversed, since the introduction of economic reforms following the “free flow of goods and services” in the country. This change was not a good one for the backward states as they lost the competitive advantage they enjoyed earlier.

This is evident from the fact that backward states like Uttar Pradesh, Bihar and Orissa saw a major decline in growth rate of manufacturing output in the post-reform period (1990-00) as compared to pre-reform period.

### 3.1 Distribution of Manufacturing GDP and Employment

**Table-2 : State-wise Distribution of Manufacturing GDP and Employment (%)**

States	Share in Manu. GDP (%)				Share in Employment (%)			
	1980	1990	2000	2008	1980	1990	2000	2008
Andhra Pradesh	7.33	6.80	6.14	6.12	9.08	8.53	7.73	8.17
Bihar	4.17	4.51	2.54	3.62	5.71	3.07	5.61	4.65
Gujarat	7.98	9.58	11.72	13.70	6.42	8.25	5.60	7.25
Haryana	2.54	3.4	3.63	3.7	1.91	1.71	1.72	2.32
Karnataka	5.21	5.38	5.86	6.77	6.05	6.13	5.44	4.98
Kerala	2.71	2.15	2.32	1.98	4.46	3.93	3.94	3.6
Madhya Pradesh	5.71	6.31	5.70	4.71	5.51	4.36	5.3	5.29
Maharashtra	20.51	20.34	19.89	19.70	9.85	10.26	10.36	10.5
Orissa	1.79	1.55	1.49	2.21	3.67	2.94	3.53	3.8
Punjab	2.41	3.09	3.46	2.92	2.35	1.87	2.32	2.6
Rajasthan	3.25	3.47	4.46	3.99	3.86	3.07	3.51	4.5
Tamil Nadu	14.81	12.12	11.37	10.58	12.8	14.86	12.7	11.1
Uttar Pradesh	7.38	9.68	8.35	7.39	13.26	12.55	15.3	15.8
West Bengal	9.70	6.91	7.5	7.02	10.87	14.38	12.12	10.74

Source : ASI, mospi.gov

Table-2 shows that Maharashtra still accounts for the largest share in manufacturing output of the country with almost a one-fifth share in country's manufacturing GDP. Tamil Nadu used to be the second highest contributor to manufacturing output during 1980s but its share has reduced from 14.8% to 10.6%

during the recent period. Its place has been taken by Gujarat which now contributes to 13.7% of the manufacturing GDP up from 8% in 1980s. This pattern of changes in the GSDP shares seems to be in line with the changes in investment shares reported in an earlier study covering the immediate pre-reform and post-reform periods (Chakravorty and Lall, 2007).

The states having highest share of manufacturing GDP in 1980- Maharashtra, Gujarat, Tamil Nadu and West Bengal have maintained their share and saw their cumulative share decline a meagre 2 percentage points from 53% in 1980 to 51% in 2008. In its entirety, we do not observe a big relative difference in the positions of the different states, barring Gujarat with a 6 percentage point leap and Tamil Nadu and West Bengal with a 4 and 3% percentage point decline respectively. This shows that the structure of Indian Manufacturing hasn't changed much with respect to output with dominant players maintaining their position since three decades.

In the employment race among states, Uttar Pradesh leads with the largest share in manufacturing securing a 15% stake in total manufacturing employment. Uttar Pradesh is followed by a close fight among Tamil Nadu, West Bengal and Maharashtra with an approximate share of 10-11% each. The employment trends have not shown any dramatic changes for the major states and infact have plummeted for states like Karnataka and Bihar.

However, large differences have been observed between the employment shares and the GSDP shares of individual states. Maharashtra, which captures over 21 per cent stake in GSDP, contributed only 11 per cent of employment among the major states. Another highly industrialized state Gujarat shows similar trends with 14 per cent SDP had only 7 per cent share in employment. On the other hand, Uttar Pradesh with 16 per cent employment has much less, about 8 per cent share in GSDP. Similarly, West Bengal which has a 10.7 per cent stake in employment contributes only 7% to output. This is a reflection of large variations of the industrial structure and productivity among states. This could signify many things. It could mean that the top manufacturing states in India are going for a capital intensive growth substituting labour in the process. It can also signify that the labour intensive industries are not contributing much to the manufacturing GDP.

The more robust growth of the manufacturing sector in some states as compared to others indicates the importance of state level factors and policies. Thereby, it becomes imperative to establish whether or not certain elements of

institutional policy framework are causal drivers of the patterns seen in industrial performance.

#### 4. Agricultural based VS Non-agricultural based Industries

**Table-3 : Interstate Share of Agri based and Non-Agri based Industries in GVA and Employment (%)**

States	GVA Share (%)				Employment Share (%)			
	Agri Based		Non-Agri Based		Agri Based		Non-Agri Based	
States	1980	2008	1980	2008	1980	2008	1980	2008
Andhra Pradesh	6.36	6.89	3.83	6.35	12.6	13.5	5.22	7.09
Bihar	2.12	0.66	7.42	2.95	2.1	0.61	7.65	3.74
Gujarat	13.18	7.47	8.06	15.3	11.47	6.71	8.56	12.05
Haryana	2.1	3.93	3.58	4.25	1.49	3.72	3.24	4.92
Karnataka	4.66	10.12	5.54	6.13	4.85	8.37	5.35	5.65
Kerala	3.63	1.86	2.55	0.58	5.18	5.83	2.12	1.78
Madhya	4.05	5.05	6.74	5.03	3.83	2.56	3.75	4.48
Maharashtra	20.05	14.36	27.19	27.92	15.83	9.03	19.81	16.38
Orissa	1.29	0.53	2.56	2.28	1.09	0.95	1.99	2.3
Punjab	2.98	6.14	2.63	1.52	2.64	4.66	3.63	5.57
Rajasthan	2.41	3.84	2.13	2.86	1.87	2.86	2.47	3.31
Tamil Nadu	11.99	18.01	8.74	8.31	10.7	21.82	10.66	12.8
Uttar Pradesh	7.84	8.83	5.16	6.21	11.02	7.57	7.23	7.78
West Bengal	11.34	3.82	11.66	2.5	12.5	6.09	14.53	4.21

**Source : ASI, mospi.go, Various rounds of NSSO Employment Unemployment Survey.**

To identify the class of industries which dominate the structure of different states, we identify the major product groups at 2-digit level) of different states (Table-3). We have regrouped 2-digit industry groups into the broad agricultural and non-agricultural based on agricultural raw materials. Agricultural-based products have always dominated the Indian manufacturing industry in terms of

employment, employing majority of workers working in the sector. Even though there has been a decline from its share of 58% in 1980-81, the share was about 50% in 2008. Their share in gross value added in manufacturing has, however, been much lower. It was about 33% in 1980-81, and declined to less than 25% in 2006-07. This indicates the lower productivity of agricultural-based industries as compared to non agricultural-based industries.

The broad analysis of table shows that most of the highly industrial states like Maharashtra, Gujarat and West Bengal witnessed a big decrease in the share of agricultural-based manufacturing GVA. Similar kind of downsizing was seen in the share of these states in agricultural based manufacturing employment. On the other hand, Karnataka, Punjab and Tamil Nadu saw an increase in the overall share in agricultural-based manufacturing GVA. Tamil Nadu has more than doubled its employment share and now accounts for 21% of the agricultural-based manufacturing employment followed by Andhra Pradesh (13.5%) and Maharashtra (9%). Large variations were observed in the GVA and employment of agricultural-based industries suggesting big structural changes in the composition of agricultural based industries in last three decades.

Non-agricultural based industries were comparatively stable and did not register too many fluctuations. Gujarat, which registered a growth from 8% to 15% and Andhra Pradesh (3% to 6%) witnesses a boom in non-agricultural based industries. States Like West Bengal and Bihar saw some major fall in their non-agricultural GVA share. The changes in the GVA of no-agricultural industries were complimented by similar changes in total employment. It was also noticed that the two segments of manufacturing industry - agricultural based and other followed each other. The states with larger share employment also have a large share of value added and vice-versa. Correlating the state shares between agricultural and non-agricultural industries in 2008-09, the coefficient turned out to be +0.80 in respect of workers and +0.75 in respect of value added.

## **5. Interstate Variations in the Levels of Productivity and Factor Intensity**

### **5.1 Organized Manufacturing**

In this section we attempt a comparison of productivity, defined in terms of gross value added per worker, among states, in organized manufacturing and in individual 2-digit product groups. Among the states in this study, Maharashtra registered the highest per worker productivity of almost Rs. 17 lakhs per worker



whereas Kerala witnesses the minimum productivity at Rs. 67000 per worker. The national average productivity for 2006-07 was Rs.2.50 lakh per worker (Table -4).

**Table-4 : Gross Value Added Per Worker (2008-09)**

Industry	AP	BR	GJ	HR	KT	KL	MH	MP	OR	PB	RN	TN	UP	WB	ALL
20-21	1.12	1.1	1.36	1.73	1.75	0.34	6.6	0.86	0.53	1.1	1.74	0.86	0.8	0.57	1.25
22	0.21	2.12	1.51	1.78	11.46	0.09	1.76	1.41	0.23	7.27	2.69	2.19	1.72	2	1.11
23 + 24+ 25	1.09	0.53	1.45	1.22	2.22	0.99	4.5	2.41	0.54	2.16	1.86	1.5	1.14	0.64	1.52
26	0.4	0.74	1.39	1.28	0.82	1.01	45.85	5.78	0.63	1.16	1.61	0.53	0.47	1.31	0.92
27	0.78	0.34	0.7	0.26	1.01	0.41	12.32	0.44	1.44	0.5	NE	0.56	0.39	1.02	0.76
28	2.14	0.72	1.38	1.71	1.83	1.99	12.25	1.06	1.99	1.65	NE	1.49	0.71	1.63	1.83
29	0.42	1.25	1.26	1.13	1.83	.58	2.25	0.85	NE	0.84	0.72	0.75	0.28	1.47	0.96
30	4.07	3.83	5.15	3.09	3.19	2.4	21.31	2.97	NE	2.66	4.02	0.84	1.62	4.09	3.83
31	6.59	1.95	22.39	2.17	3.45	NE	12.53	1.83	1.92	1.1	1.99	4.37	2.14	5.75	10.4
32	2.01	0.46	2.02	0.73	3.3	1.06	3.27	4.27	1.61	0.63	3.34	2.26	0.33	1.25	1.97
33	5.8	4.62	3.27	3.57	9.33	0.96	5.06	11.82	5.17	0.89	3.21	1.92	1.83	1.81	4.07
34	1.04	1.27	2.05	1.26	1.68	0.55	1304	0.35	0.46	0.67	1.11	1.82	0.31	0.98	1.45
35-36	3.46	6.35	2.57	2.82	4.39	2.01	22.55	1.72	2.22	1.88	5.52	3.18	1.32	2.24	3.56
37	1.21	2.92	2.36	4.75	3.02	2.05	69.45	1.33	0.23	1.07	3.57	4.55	1.6	1.33	3.89
38	1.25	—	1.53	1.36	1.39	2.5	28.63	0.18	NE	0.9	1.81	1.64	0.93	2.18	1.89
All	1.74	2.83	3.64	2.51	2.62	0.67	17.05	2.39	2.96	1.06	2.64	1.45	0.97	1.44	2.50

**Source : ASI, mospi.gov**

**Note :** AP: Andhra Pradesh, BR: Bihar, GJ: Gujarat, HR: Haryana, KT: Karnataka, KL: Kerala, MH: Maharashtra, MP: Madhya Pradesh, OR: Orissa, PB: Punjab, RN: Rajasthan, TN: Tamil Nadu, UP: Uttar Pradesh, WB: West Bengal

Thus, even though a sizeable part of the interregional productivity disparity in the organized manufacturing as a whole can be attributed to the differences in the structure of industries, part of them are also because there are interstate differences in productivity even in the same product groups. Thus, for chemical products the group with highest productivity (Rs. 10 lakh) on an all-India basis, generated a value added of about Rs. 12 lakh per worker in Maharashtra, the figure being as low as Rs. 1 lakh for Punjab. Highest productivity in any industry in any state is in transport equipment in Maharashtra (Rs. 69 lakh), but it has as low a productivity as Rs. 23,000 in Orissa. Industry with lowest productivity (Rs.

76,000) on an all-India basis viz. wood products, shows a variation between less than Rs. 31,000 in Haryana and as high as Rs. 13 lakhs in Maharashtra.

Maharashtra had the highest value added per worker in 10 out of the 15 industry groups in which the organized manufacturing was divided. Bihar, Andhra Pradesh, Uttar Pradesh, Madhya Pradesh and Orissa featured as the states with the lowest or second lowest value added per worker in case of several industry groups. Thus, it appears that besides the difference in composition of industries, there are significantly larger variations across the states in their regional social, economic, technological and labour market characteristics that produce wide variations in productivity in an industry.

## **5.2 Factor Intensity**

According to Lary (1968), the ratio of value added to the number of workers is a composite index of the amount of human and physical capital embodied in the production of a good. Hence, value added per worker can give a good idea of factor intensity for an industry.

There are two advantages of value added per employee as a criterion of capital intensity :

1. Being a flow rather than a stock, it appropriately applies to the notion of factor inputs into production, and, therefore, it is more relevant to the theory of the production function.
2. It bypasses the difficulty of measuring the stock of capital.

Industries can be classified into labour intensive and capital intensive depending on whether the ratio is lower or higher than the average of the manufacturing sector of the state. A higher value indicates a higher capital intensity of the industry, whereas lower value depicts labour intensity for the industry.

Large variations are observed in capital intensity in the same industry among the states (Table-5). Andhra Pradesh, a state with a relatively higher share with respect to employment showed a large number of capital-intensive industries in 2008-09. A cross examination of results from Table 3 and Table 5 show high correspondence. Punjab and Tamil Nadu had shown great surge in the share of Agricultural Based industries in organized manufacturing GVA. This is also evident from Table 5, where agricultural-based industries form bulk of the capital intensive industries. Gujarat, Maharashtra and Karnataka showed an increasing trend in capital-intensive industries, whereas industries in West Bengal, Uttar

Pradesh and Punjab employed labour-intensive techniques for the production process. Manufacturing of basic chemicals (30), petroleum products (31) and basic metals (33) were the top capital intensive industries in most of the states.

**Table-5 : Technology Adopted (2008-09)**

States	Labour Intensive	Capital Intensive
Andhra Pradesh	22, 26, 29	28, 30, 31, 32, 35-36
Bihar	23 + 24 + 25, 26, 27, 28, 32	30, 33, 35-36, 37
Gujarat	27, 20-21, 29	31, 30,
Haryana	27, 32, 29, 34	30, 33, 35-36, 37
Karnataka	26, 27, 38, 34	22, 30, 31, 33, 35-36, 37
Kerala	22, 20-21, 27	28, 29, 30, 35-36, 37, 38
Madhya Pradesh	22, 20-21, 29, 32, 33, 23	26, 30, 35-36, 37, 38
Maharashtra	27, 29, 34, 35	33, 32, 30, 26
Orissa	22, 37, 34	33
Punjab	27, 32, 34, 38	22, 23 + 24 + 25, 30, 35-36
Rajasthan	26, 29, 34, 31	30, 32, 33, 35-36, 37
Tamil Nadu	29, 20-21, 26-27, 29	22, 23-25, 37, 35-36, 31
Uttar Pradesh	20-21, 26, 27, 29, 32, 34	22, 23+24+25, 30
West Bengal	20-21, 23-24-25, 34	30, 31, 35-36, 38

**Source : Calculated from Table-4**

Maharashtra has 12 industries having productivity higher than national average pertaining to petroleum products, chemicals, rubber and plastic products, machinery and automobiles. This has been clearly depicted in the growth rate of employment, which is below the national average. It is mainly due to the adoption of more capital-intensive production techniques in the manufacturing sector. Tamil Nadu, on the other hand has a low value of capital intensity and a low productivity. But it has relied on a more labour intensive approach having a similar share in both output and employment.

### **5-3 Infrastructure**

Various factors can influence the differential performance of states in industrial growth during the post-reform period. For example, Paul (2011) looked

at the impact of banking outreach, physical infrastructure and labour market flexibility on growth of manufacturing industries across 14 major states of India in the post-liberalization period and found that while the first two influenced industrial growths significantly the last had no significant impact. Today, infrastructure is one of the most widely regarded differentiators of status and growth of manufacturing industry.

Table-6 : Infrastructure and Level of Industrialization

States	1980-81		1990-91		2000-01	
	Index Rank	% Share Rank	Index Rank	% Share Rank	Index Rank	% Share Rank
Andhra Pradesh	8	6	8	8	12	12
Assam	15	11	13	15	11	16
Bihar	12	10	15	11	17	15
Gujarat	5	4	5	2	6	1
Haryana	4	7	4	4	5	4
Himachal Pradesh	13	16	10	16	10	10
Karnataka	10	5	9	5	9	6
Kerala	3	12	2	14	3	14
Madhya Pradesh	17	9	17	7	20	7
Maharashtra	6	2	6	3	8	3
Orissa	14	14	12	13	14	13
Punjab	1	13	1	10	1	9
Rajasthan	16	8	16	12	19	8
Tamil Nadu	2	1	3	1	4	2
Uttar Pradesh	9	15	7	9	7	11
West Bengal	7	3	11	6	13	5

**Source :** Index = Infrastructure Index by CMIE and Share = Share of GSDP in Manu. GDP from ASI

Infrastructure which includes physical, economic and social aspects like road length and railway length per unit of geographical area, energy consumption, hospitals, banking facilities, educational facilities, post and telecommunications have been agglomerated together to conceive a collective “infrastructure index”. We have utilized the infrastructure index to examine the relationship between infrastructure and the extent of industrialization. The infrastructure index is constructed by Centre for Monitoring Indian Economy (CMIE). It is observed that there is not a very significant relation between the two. The rank correlation coefficient between the two was 0.36 for the year 1980-81. It was stronger in 1990-91 at 0.42, but grew weaker at 0.33 in 2000-01. This finding is not as per our expectation that infrastructure influences the manufacturing in a big way (Table-6).

We should be careful in not misreading the inference of this statistical picture as the fact that infrastructure does not play any role in setting the pace of industrial development in different states. There can be a lot of different reasons for the relationship not showing up as expected. The quality of data may vary across states or since this is a composite indicator, presence of a dominant variable can overshadow the influence of other items. A weak statistical correlation coupled with moderate to high growth in highly industrialized states point towards towards the finding that new industries go where industries exist which are also the states that have better developed infrastructure. When states with a developed infrastructure and low level of industrialization were put up against states with both developed infrastructure and industrial base, they failed to attract more industry. This is very well illustrated by the state of Kerala which even though does very well on infrastructure index but does not attract industry while Gujarat, with a superior level of existing industrial base does. This hypothesis can be extended for Punjab, which suffers from low industrialization despite good infrastructure when compared with Maharashtra, scoring well on both infrastructure and industrialization indices.

## **6. Conclusion**

It is quite clear that states have performed differently from each other in terms of direction and extent of growth of manufacturing industries but also with respect to changes in their overall structure. A wide disparity across states is a major concern that needs to be addressed through public policy. The investigation

and analysis of various aspects of industrial development in different states reveal the following trends :

### **6.1 Emergence of Gujarat**

Rewinding to 1980-81, we see that the states of Tamil Nadu, Maharashtra and West Bengal were the leaders in Indian manufacturing with industries occupying a healthy share of the SGDP. Fast forward to 2008-09, Gujarat and Maharashtra emerged as new age industrial leaders. Gujarat is at the top with 30 per cent of its GSDP originating from manufacturing. Gujarat is not only ahead of everyone in this industrial race but it also continues to run faster than everyone with fastest rate of growth followed by emerging states like Haryana, Punjab and Himachal Pradesh. Gujarat has also focused on making itself an attractive investment destination globally as well suggesting emphasis on capital-intensive industries. A comprehensive policy was formulated to generate technically competent manpower, facilitating investment through global channels, creating adequate provisions for upgrading and improving the infrastructure and ensuring balanced regional development. (Govt. of Gujarat, 2009a).

### **6.2 Decline for Maharashtra and West Bengal**

During the last decade, Maharashtra encountered a downfall in the manufacturing sector due to localized concentration of industries, elevated land prices, political indecisiveness and bureaucratic delays due to the coalition government, scarce power resources, lack of infra-structural facilities and the cut-throat competition from other states in attracting industries. Strong industrial players like West Bengal (WB) and Andhra Pradesh (AP) showed a lackluster performance both in share and growth rates of GSDP. According to the World Bank “ease of doing business” index, Uttar Pradesh and West Bengal have offered ‘poor’ investment climates (World Bank, 2004)

### **6.3 Increased Divergence**

The growth rate of manufacturing GSDP suggest a complete reversal in the trends. Earlier states with low level of industrialization used to have higher growth rates as compared to highly industrialized states. But this has not been the case since 2001, where the more industrialized states have dominated. Thus, manufacturing growth in recent times has led to increasing divergence. Both standard deviation (SD) and coefficients of variation (CV) have increased from one decade to another since 1980- 81.

#### **6.4 Shift Away from Agricultural-based Manufacturing**

Agricultural-based industries are losing their sheen in recent times in most states. Barring states of Karnataka and Punjab which have shown high productivity in such industries, rest of the states witnessed a declining trend in productivity. The share of the states in the ownership of the agricultural and non-agricultural industries also witnessed a high correlation reinstating the fact that industry goes where industry exists.

#### **6.5 Economic Reforms hurt Industrially Backward States in Short Run**

During pre-reform period, policy mechanisms were devised that used the “backwardness” of regions as a criterion in industrial licensing, special packages for development of industrial infrastructure in poorer states. The period of last two to three decades, especially since the introduction of economic reforms, removed government regulations on investment and licensing, thereby hurting the industrialization of poorer states. States like Uttar Pradesh, Bihar and Orissa witnessed slowest growth in the 1990-2000 period.

#### **6.6 Productivity and Capital Intensive Approach**

The national average productivity for 2006-07 was Rs.2.50 lakh per worker. Maharashtra witnessed the highest productivity (Rs. 17 lakhs per worker) followed by Gujarat, whereas Kerala saw the minimum productivity at Rs. 67000 per worker. Chemical Products and Basic Metals industry accounted for the highest productivity per worker. Most of the industrially developed states inclined towards the use of capital-intensive technologies. One of the interesting facts observed is that a few states have recorded high growth rates despite employing labour-intensive techniques.

States are competing with one another to project themselves as investment friendly by relaxing of regulations for facilitating ‘ease of doing business’. Infrastructure did not play a very significant role in the determination of level of industrialization to the extent we hoped. It was found that that location of new industries is primarily guided by existing industrial concentration rather than other factors. A detailed study of all related factors is a subject of further study to boost overall growth in manufacturing sector as high potential of growth still exists in manufacturing.



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## ***Initiatives taken by Government of India for the Welfare of Senior Citizens***

***Mamta Sagar\****

*The aged, also known as the 'Senior Citizens', 'Golden Agers' or 'Greying Persons' are the repositories of experiences and wisdom in any society. In most traditional societies, therefore, they have enjoyed unparalleled sense of honour, respect, and legitimate authority. They were the ones who were vested with the authority for decision-making with regard to the economic affairs and social matters, both within the family as well as for the community. The rising number of older persons on the one hand, and the declining number of the younger population on the other, mean that there is a shortage of care-givers for the older population. As Indian Constitution ensures the well-being of older persons, the Government of India announced the National Policy for Older Persons (NPOP) in 1999, wherein all aspects of life concerning the aged have been addressed. The present paper is an attempt to review various initiatives taken by Government of India for the welfare of senior citizens. It has been emphasized that the main thrust of welfare should be to identify the more vulnerable among the older persons such as the poor, the disabled, the infirm, the chronically sick and those without family support, and provide welfare service to them on priority basis by the government. Besides the initiatives on the part of government,*

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*voluntary organizations will have to be encouraged and assisted to organize various services for senior citizens.*

[**Keywords :** Welfare, Senior Citizens, Voluntary organizations, NGOs, PRIs]

## **1. Introduction**

There is a global concern for the steep rise in the number of aged in the last few years. The unprecedented growth in size of aged assumes a great challenge in a developing country like India which is in transition. The position of the aged, including their level and degree of participation in various aspects of social life, involvement in decision-making and dispersions of power and authority is far from statics. The present day situation poses a fundamental question and concern regarding the chronological age of old age itself. While reviewing studies on old age in India, one finds the lack of gerontological literature. This is because very less interest has been shown by social scientists to investigate and analyze the socio-economic and welfare aspects of old age. The rising number of older persons on the one hand, and the declining number of the younger population on the other, mean that there is a shortage of care-givers for the older population. As Indian Constitution ensures the well-being of older persons, the Government of India announced the National Policy for Older Persons (NPOP) in 1999, wherein all aspects of life concerning the aged have been addressed. The present paper is an attempt to review various initiatives taken by Government of India for the welfare of senior citizens.

## **2. Objectives of the Study and Methodology**

Caring for the senior citizens is the fulfilment of needs and requirements that are unique to senior citizens. It encompasses such services as assisted living, old age homes, adult day care, long term care, nursing homes (often referred to as residential care), and home care. Because of such wide variety of elderly care services found nationally, which is often influenced by different cultural perspectives on elderly citizens, care for the aged cannot to be limited to any one practice. Many countries in Asia, including India, use government established elderly care quite infrequently, preferring the traditional methods of being cared for by younger generations of family members

Besides family members, it is responsibility of society as well as government to take care of senior citizens. Today not only government, but also NGOs have come forward with helping hands to serve these experienced persons. The study attempts to review the welfare schemes of the government for the senior citizens in India. Its specific objectives are as follows :

1. To provide demographic composition of aging in India.
2. To prepare a profile of the aged in India.
3. To analyze and review policy and programmes for the welfare of elderly persons in rural India.

Due to non-availability of the primary source of information on old age, the available secondary sources have been used in the present study.

### 3. Findings and Discussion

#### 3.1 Demographic Composition of Aging in India

According to Population Census 2011 there are nearly 104 million elderly persons (aged 60 years or above) in India; 53 million females and 51 million males. A report released by the United Nations Population Fund and HelpAge India suggests that the number of elderly persons is expected to grow to 173 million by 2026. In the last three decades the older adult population (those 65 years of age and older) has grown twice as fast as the rest of the population. About 36 million people or 12 percent of the population are age 65 or older. Approximately 49 million citizens are overage 85. The following table provides data on percentage of population in age group 60 years and above to total population by sex and residence India & bigger States, 2011 :

**Table-1 : Percentage of Population in Age Group 60 Years and above to Total Population by Sex and Residence India & bigger States, 2011**

India & bigger States	Total			Rural			Urban		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
<b>India</b>	8.0	7.7	8.4	8.1	7.8	8.4	7.9	7.6	8.2
Assam	6.1	6.2	6.0	6.0	6.1	5.9	6.6	6.8	6.4
Bihar	7.0	7.2	6.7	6.9	7.2	6.6	7.2	7.1	7.3
Delhi	5.9	5.7	6.2	5.4	5.2	5.7	6.0	5.8	6.3
Himachal Pradesh	10.4	10.4	10.3	10.5	10.6	10.5	8.7	8.8	8.6
Jammu & Kashmir	8.4	8.5	8.3	8.0	8.2	7.9	9.9	9.8	9.9
Jharkhand	6.7	6.7	6.6	6.6	6.6	6.6	6.9	7.1	6.8
Kerala	12.6	11.8	13.3	12.6	11.8	13.4	12.4	11.8	13.0
Madhya Pradesh	7.1	6.8	7.4	7.2	6.9	7.5	7.0	6.7	7.3
Punjab	9.5	9.1	10.0	9.9	9.4	10.5	8.8	8.5	9.2
Uttar Pradesh	6.8	6.6	7.1	6.9	6.7	7.2	6.5	6.3	6.7
West Bengal	8.2	8.2	8.2	7.5	7.4	7.6	10.1	10.3	10.0

It is evident from table-1 that at the National level percentage of aged (60+) population is 8.0 composition of 60+ aged female population is higher in all of the bigger states except Assam, Bihar, Himachal Pradesh, Jammu & Kashmir and Jharkhand. In rural areas population in the age group 60+ constitutes 8.1 percent of the total population and variation in aged population ranges from 5.4 percent in Delhi to 12.6 percent in Kerala. The urban population and variation in aged population in most of states is lower than the corresponding rural share except for Assam, Bihar Delhi, Jammu & Kashmir, Jharkhand, Rajasthan and West Bengal.

### 3-2 Profile of the Aged in India

The ageing of a population is an obvious consequence of the process of demographic transition. The following table gives a profile of on elderly people in India, 2011 :

**Table-2 : Profile of Elderly People in India : At a Glance**

#### 1. Total Population (in millions)

Population	Male	Female	Total
Rural	427.8	406.0	833.8
Urban	195.5	181.6	377.1
Total	632.3	587.6	1210.9

#### 2. Population Aged 60+ (in millions)

Population	Male	Female	Total
Rural	36.0	37.03	73.3
Urban	15.1	15.5	30.6
Total	51.1	52.8	103.9

#### 3. Share of Elderly Population in Total Population on (%)

Rural	8.4	9.2	8.8
Urban	7.7	8.5	8.1
Total	8.2	9.0	8.6

#### 4. Economy : Old age Dependence Ratio

Rural	14.5	15.8	15.1
Urban	11.8	13.1	12.4
Total	13.6	14.9	14.2

**5. Elderly Population Working (%)**

Rural	66.4	28.4	47.1
Urban	46.1	11.3	28.5
Total	60.4	23.4	41.6

**6. Health : Life Expectancy 60+ (Years)**

Total	16.9	19.8	17.9
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**7. Death Rate (60-64 year) (Per Thousand)**

Rural	22.3	17.2	19.7
Urban	16.6	13.4	15.0
Total	20.7	16.1	18.4

**7. Physically Disabled Among 60+ (Per Hundred Thousand)**

Rural	5713	5476	5593
Urban	4361	4007	4181
Total	5314	5045	5177

**8. Education**

Rural	50.5	18.4	34.2
Urban	79.6	52.7	66.0
Total	59.1	28.5	43.5

**Sources : Population Census 2011, SRS Report 2013**

According to population Census 2011, there are nearly 104 million elderly persons (aged 60 years or above) in India, 53 million females and 51 million males. Both the share and size of elderly population is increasing over time. From 56% in 1961 the proportion has increased to 8.6% in 2011. For males it was marginally lower at 8.2% while for females it was 9.0% as regards rural and urban areas 71% of elderly population resides in rural areas while 29% is in urban areas. In rural areas 66% of elderly men and 28% of elderly women were working, while in urban areas only 46% of elderly men and about 11% of elderly women were working. The percent of literates among elderly persons increased from 27% in 1991 to 44% in 2011. The literacy rates among elderly females (28%) is less than half of the literacy rate among elderly males (59%). Prevalence of heart diseases among elderly population was much higher in urban area than in rural parts. In 2011, the elderly population accounted for 8.0 percent of total population. For males it was marginally lower at 7.7 percent while for females it was 8.4 percent.

It has been observed that the share of aged population in most of the states exceed than all India level (8.0 percent). This was particularly true for Kerala,



Himachal Pradesh, Maharashtra, Punjab, Tamil Nadu, Orissa and Karnataka. Among the states the proportion of elderly in total population was more than 8 percent in Maharashtra, Tamil Nadu, Punjab, Himachal Pradesh. In Kerala the proportion of elderly in total population of the state was highest (12.6 percent) in year 2011.

Inadequate financial resources are mentioned as one of the major problems of the Indian elderly. The financial inadequacy seems to be of higher degree among the elderly women compared to their male counterparts. Another major problem is related to the loss of economic independence with the increase in age. The elderly continue to work though their working hours decrease with increasing age. Financial problems are more common among widows and among the elderly who live in nuclear families. Economic insecurity is considered to be the sole concern of the elderly in barely sustainable households in India. The major sources of worry for the elderly are stress and economic dependence. For understanding their economic dependence it is important to analyze gainful employment among elderly. Secondly, regarding feminization of the elderly population it has been found that elderly female outnumbered elderly male in almost every state except Bihar, Haryana, Punjab and Uttar Pradesh.

The financial and economic well being of the elderly is closely linked to their level of education and past work status. Under usual circumstances, most of the elderly in the formal sector would have retired from the labour force. However, given the Indian situation where the unorganized sector accounts for a larger share of the work force and where rural labour is predominantly in agriculture or allied activities, there is no question of formal retirement for the elderly. In fact, being economically active is probably a positive feature of the aged population in India since it helps to keep at bay many of the age related health problems that arise from a feeling of being unwanted, isolated and useless.

The process of biological ageing brings with it several accompanying health problems or diseases. It is obvious that people become more and more susceptible to chronic diseases, physical disabilities and mental incapacities in their old age. It has been found that heart disease is the major chronic problem among both elderly male and elderly female. Prevalence of heart diseases among elderly males and females was much higher in urban areas than in rural areas. Among elderly males, most common problem was urinary problem. On the other side, more elderly females reported to suffer from problem of joints.

### **3.3 Policies and Programmes for the Welfare of Elderly Persons in India**

Population ageing is an important emerging phenomenon in India, warranting a strong multi-sectorial policy and programme response so that future

generations benefit and live longer with happiness and security. Financial security for the old is under increasing strain throughout India. The result is a looming old age crisis that threatens not only the elderly but also their children and grandchildren who must shoulder, directly or indirectly, much of the increasing burden of providing for the aged.

Population ageing is often taken to be one of the greatest triumphs of humanity. Social planners and policy makers, meanwhile, consider it an important challenge. The rapid growth of the elderly population is specially relevant in terms of public policy, since there are increasing health, welfare and social security needs that need to be catered to.

The Ministry of Social Justice and Empowerment is the nodal ministry for the welfare of senior citizens. The Ageing Division in the Social Defence Bureau of the department of Social Justice and Empowerment develops and implements programmes and policy for senior citizens in close collaborating with State Government, Non-Governmental Organizations and civil society. The programmes for senior citizens aims at their welfare and maintenance, especially for indigent senior citizens, by supporting old age homes, day care centres, mobile medicare units etc. These programmes are implemented through providing support for capacity building of Government. Non-Governmental organizations (NGOs) Panchayati Raj institutions (PRIs)/local bodies and community at large.

Programmes for the welfare of elderly persons in India are as follows :

### **3.3.1 Ministry of Rural Development**

The Ministry of Rural Development is implementing the Indra Gandhi National Old age pension Scheme (IGNOAPS) under which central assistance is given towards pension @Rs. 200/- per month to person above 60 years and @ 500/- per month to persons above 80 years belonging to a household below poverty line, which is meant to be supplemented by at least an equal contributions by the states.

### **3.3.2 Integrated Programme for Older Persons (IPOP)**

The Ministry of Social Justice and Empowerment is implementing a central sector scheme of integrated programme for older persons since 1992 with the objective of improving the quality of the life senior citizens by providing basic amenities like shelter, food, medical care and entertainment opportunists etc. The following projects are being assisted under the IPOP scheme :

- Maintenance of Old Age Homes
- Maintenance of Respite Care Homes
- Running of Multi service centers for older Persons

- Helplines and counseling for Older Persons
- Awareness projects etc.

### **3-3-3 The National Policy on Older Persons (NPOP)**

The National Policy on Older Persons (NPOP) was announced in January 1999 to reaffirm the commitment of the State to ensure the well-being of the older persons. The Policy envisages State support to ensure financial and food security, health care, shelter and other needs of older persons, equitable share in development, protection against abuse and exploitation, and availability of services to improve the quality of their lives.

### **3-3-4 The Maintenance and Welfare of Parents and Senior Citizens Act, 2007**

This act was enacted in December 2007, which provides for :

- Maintenance of parents/Senior citizens by Children/relatives made obligatory.
- Revocation of transfer of property by senior citizens in case of negligence by relatives.
- Establishment of old age homes for indigent senior citizens.
- Protection of life and property etc.

### **3-3-5 Ministry of Health & Family Welfare**

The following facilities has been provided for elderly :

- Separate ques for older persons in governmental hospitals.
- The Ministry implemented the National Programme for the health care for the elderly (NPHCE) from the year 2010-11.

### **3-3-6 Ministry of Finance**

Several instructions on health insurance for senior citizens to CEOs of all general health insurance companies which includes :

- Allowing entry to health insurance scheme till 65 years of age.
- Transparency in the premium charged.

### **3-3-7 Ministry of Railways**

The following facilities have been provided by the ministry of railways

- Separate ticket counters for senior citizens of age 60 and above.
- Provision of lower berth to male passengers of 60 years and above and female passengers of 45 years and above.
- 40%-60% concession in basic rail fare for male (60 years) and female(58 years) senior citizen respectively.

### 3.3.8 Pension Portal

A pension portal has been set up by the department of Pensions Government of India, to enable senior citizens to get information regarding the status of their application, the amount of pension etc. As per recommendation of the sixth pay commission, additional pension will be provided as per details given below to older persons.

**Table-3 : Additional pension to be provided to Older Persons**

Age Group	% pension to be added
80+	20
85+	30
90+	40
95+	50
100+	100

Sankalp is an initiative from Department of Pension & Pensioner's Welfare Government of India to provide a place for the pensioners to access opportunities available for useful interventions in the society.

### 3.3.9 New Schemes

The Central Government is in the process of developing newer plans and schemes to benefit senior citizens. In the 2007-08 Budget, the Finance Minister has proposed to provide monthly income to seniors and develop new health insurance schemes.

For the benefit of senior citizens it has been proposed that :

- The Nations Housing, Bank will introduce a riverse mortgage scheme
- An exclusive health insurance for senior citizens is to be offered by the National Insurance Company
- The Maintenance of parents and senior citizens bill of 2007. This bill has been recently introduced in Parliament. It provides for the maintenance of parents, establishment of old homes, provision of medical care and protection of life and property of senior citizens.

These new development for senior citizens are meant to get them on the path to a better, peaceful and financially sound life.

## 4. Conclusion

The World's elderly population people 60 years of age and older is 650 Million by 2050, the graying population is forecast to reach 2 billion. There is a need to

prepare health care providers and societies to meet the needs of elderly people is essential, Health care services should be based on the felt needs of the elderly population, which would involve a comprehensive baseline morbidity survey and functional assessment in health areas that are perceived to be important to them. Education, training and information needs of older persons will also have to be met. The main thrust of welfare should be to identify the more vulnerable among the older persons such as the poor, the disabled, the infirm, the chronically sick and those without family support, and provide welfare service to them on priority basis by the government. Voluntary organizations will have to be encouraged and assisted to organize services such as day care, multi-service citizens, outreach services, supply of disability related aids and appliances, assistance to old persons to learn to use them, short term stay services and friendly home visits by social workers.

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## ***Mahesh Dattani and the Marginalization of Alternative Gender***

***Neerja Deswal\****

*Mahesh Dattani is one of the few Indian dramatists who write his plays originally in English. But, he does not follow western dramatic canons. He has Indianized his plays- in terms of the way language is used, as well as, in the themes that he has chosen. Indian society has always been conservative, when dealing with/talking about alternative gender identities. It is not surprising that literature has been a reflection of the same reservations. But, Mahesh Dattani has chosen to write about this 'taboo' topic in his plays. He has given a voice to those who are side-lined because of their sexual orientation. His efforts to rewrite the stereotypical notions from a fresh perspective have been widely appreciated by the literary critics. I propose to analyze in my research paper how he challenges the clichéd notions of society about alternative gender.*

**[Keywords :** Mahesh Dattani, Gender identities, Stereotypes, Marginalization, Homosexuality]

Mahesh Dattani is one of the most unorthodox contemporary playwrights of Indian English drama who has used the medium of theatre to present the invisible issues of our society to the audience. His writings reflect that theatre is the mirror of real life.

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He draws his inspiration from Vijay Tendulkar, Girish Karnad, Madhu Rye and Arthur Miller. The other playwrights who have inspired him the most are pointed out by him in an interview; The playwright Madhu Rye influenced me a great deal in his portrayal of middle class Gujarati hypocrisies. Vijay Tendulkar's "Silence the Court is in session" and 'Sakharam Binder' impressed me with their complex portrayal of women characters" (Subramanyam, 2002 : 134).

But, unlike Girish Karnad who seeks inspiration for his plays from history and myths; Dattani raises the voice of contemporary urban Indian society and the fast changing scenario of the modern society. His excellence as a playwright lies in the very fact that he writes about what he knows and presents the 'here and now' of our times. He himself remarked during a conversation : "Theatre to me is a reflection of what you observe ... I write plays for the sheer pleasure of communicating through this dynamic medium" (Anita Nair : 24).

Thus, he addresses all the burning issues related to any middle class or upper middle class Indian of urban Indian society like—gender discrimination, child sexual abuse, marginalized sexualities and religious intolerance leading to social disharmony. Tanu Pant in her article rightly states : "He has chronicled the social victim and the follies, foibles and prejudices of Indian society". (32) She further focuses on his usage of theatre as a powerful tool of social change. She expresses : "Dattani tackles issues that affect societies the world over. Just like Ibsen and Shaw, Dattani also exposes the evils prevalent in the society." (33)

With this sociological undercurrent in his plays, he resembles Ibsen and Shaw. And in his turn, he also seeks to inspire the young generation of Indian English Dramatists to talk about the issues which are normally brushed under the carpet. In one of his interviews, Dattani raised his concerns about this selective social focus :

"You can talk about feminism, because in a way that is accepted. But you cannot talk about gay issues because that is not Indian ... [that] does not happen here. You can't talk about a middle-class house wife fantasizing about having sex with a cook or actually having a sex life—that is not Indian either—that's confrontational even if it is in Indian" (Mee, 1997 : 163).

The present research paper attempts to reveal Mahesh Dattani as a social visionary, putting forward the invisible issues of marginalized sexualities in his plays. In our country, cultural variations are so vast that marginalization of people on the basis of caste, religion, community, gender and sexuality is a common problem that mars the psyche of the Indian populace. Mahesh Dattani, the first



playwright to receive a Sahitya Academy Award, has been a trendsetter in this respect who has given homosexuals and members of the transgender communities in India a voice to articulate their hidden fears and desires which had so long been suppressed by the homophobic traditional Indian society.

Dattani writes about issues which are considered alien to the Indian society. Interestingly, the playwright derives his concept of the new gender construction from nature, which forms the pivot for all social and mythological beliefs. The two mutually exclusive, 'masculine' and 'feminine' worlds are brought together as a generative whole. Dattani carefully selects two very potent images of Shiva in "Dance like a Man" and the conjoined Siamese twins in "Tara" to reveal the existence of shared spaces between the masculine and feminine worlds.

His idea of an alternative gender is firmly grounded on the notion of the self. The self that defines one's gendered identity is a shared where both the 'masculine' and the 'feminine' reside not in forced but natural harmony. Such a notion of gender is invigorating and also, enabling and would act as an antidote to traditional notions of gender that perpetuates discrimination, marginalization and violence.

Mahesh Dattani's preoccupation with gender issues is part of his larger concern with issues relating to marginalized identities in the contemporary social setup. What Dattani is interested in exposing is how 'normative' power operates in society in the process of side-lining various dis-empowered groups. Dattani explores 'gender' within such a framework. Unlike feminists, he does not separate and analyze women characters from others. Rather, the point that he drives home is that women are marginalized in ways very similar to those used to segregate other dis-empowered groups. Dattani's plays are thus 'fresh' in the sense that they analyze gender in a more comprehensive manner than what traditional feminism has sought to do. In Dattani's theatrical world both men and women are victims as well as oppressors. Dattani is only interested in revealing the mechanism by which such relationships are forged in contemporary urban society and seeks to posit alternative gender identities that would redress the dangers inherent in traditional gender roles.

Dattani's characters struggle to etch out individual identities within the oppressive realms of stringent gender dichotomy. His plays do not camouflage the ugliness of human snobbery and bias. On the contrary, the inadequacy of the prevalent gender stereotypes is brought to the fore front. The oppression is no longer restricted only to women, but faced equally by all individuals. His plays are

a slice of life, where socially fore-grounded characters and the marginalized are compelled to exist in a state of forced harmony. Dattani questions the social norms that advocate construction of gender identities based absolutely on individual's biological sex.

Never didactic, Dattani does not want his audience to lose themselves solely in the glitter of a performance. He pulls them out of their complacency, encouraging them to be self-critical, forcing them to analyze their own thoughts, feelings, prejudices and attitudes in real life. The playwright takes a rational and objective stand in revealing the layers of hypocrisies and prejudices in the accepted gender dichotomy. The anomaly, with regard to what is projected as ideal and the disruption in practice, is of utmost concern to Dattani. He identifies the years of social conditioning as the reason behind these double standards. He questions the propriety of 'gender roles' allocated to sexed bodies resulting in the formation of 'gender stereotypes'.

The patriarchal stereotypes that Dattani presents in his plays encompass a wide range of expectations levelled on an individual from social behaviour to personal choices. Be it, Amritlal in *Dance like a Man* or Hasmukh Mehta and Mr. Patel in *Where There's a Will* and Tara, respectively. These stereotypical patriarchs try incessantly throughout their lives to force their progenies into an ideal archetype of masculinity. Dattani provides a unique twist to the stereotypes associated with the patriarchal order that view women at the receiving end of the hegemonic power structure of the society. His plays dispel this notion and expose oppression that even men are subject to within such structure. Controversial yet ever relevant questions like—How are men and women constructed in terms of gender? What is the definition of their roles are the roles meaningful? And most importantly can these roles be interchanged?

Dattani answers these questions by "repositioning" the stereotypes. Amritlal finds Jairaj effeminate because he is a Bharatnatyam dancer in *Dance like a Man*. Hasmukh Mehta doesn't consider his son Ajit "manly" enough because he refuses to be mirror image of his father in *Where There's a Will*. Ajit has no choice but a list of choices to be followed. The protagonist Ajit does not want to be barely a photocopy of his father Hasmukh Mehta. He expresses his anguish, "I don't think he has ever listened to me in his entire life" [455].

The dramatic canvas of Dattani is coloured with all sorts of unconventional, contemporary and free from taboos themes. Homosexuality, as an argument of preference rather than a psychotic disorder, has been presented by Dattani in his

plays like *Bravely Fought the Queen*, *On a Muggy Night in Mumbai* and *Do the Needful*. His plays observe gay/homosexual relationship as an identity crisis which results from being marginalized and oppressed in the traditional society of India. The identity of gays and lesbians has not yet been recognized and they are left to lead a secluded life with their own inhibitions. Dattani admits : “I have found out that sexuality can’t be strait-jacketed or compartmentalized. They are varying degrees of love and bonding one feels for another person irrespective of gender” (Ayyar Raj, 2015 : 37).

All homosexual individuals on *On a Muggy Night in Mumbai* are forced to either conceal their sexual orientation (Bunny and Ed) or live under perpetual guilt of not being a normal, heterosexual male. Tara, one of Dattani’s most popular and critically acclaimed plays, faces the question of gender identity squarely. Tara and Chandan are not mere characters; their entire lives are but a question of ‘rights’ which are different for men and women in our society. Dattani seems to ask a series of significant questions like—What makes a man more worthy to live? Why should men be ‘masterly’ and women subservient? Why should the bravery of a queen make her ‘manly’? Why cannot men and women be more open about their sexuality? How does one define ‘manly’ and ‘feminine’?

A reading of Dattani’s plays makes us confront some of our own demons of prejudices, and also makes us wonder as to how much of the text actually emerges from our own conscience. He identifies various forms of dis-empowered groups such as women, the physically challenged, weak men, homosexuals and transgenders in one (un)happy family and tries to find shared spaces amongst them.

It might be safe to say that Dattani consciously seems to be refuting the conventional understandings of pre-assumed characteristics of what men and women are, and construct a more flexible and pertinent gender identity through repositioning the stereotypes. He refuses to accept the prevalent dichotomy of gender with fixed roles and expectations that cannot be interchanged. His plays seem to create a world where gender is not a one-dimensional, static and predetermined force; instead, it is a flexible and interchangeable notion, subject to an individual’s choice. Both images depict the dual self-images of perfect balance and harmony. Dattani points out that nature does not divide individuals with the attributes from both worlds.

Repositioning of the stereotypes and the analysis of the shared spaces clarifies the playwrights stand on reconstruction of a new gender identity which is not pre-determined by the biological sex of an individual but a matter of

individual's inclination and orientation. Dattani seeks to undo concepts like 'effeminate' and 'boisterous' and establish a flexible gender which encourages individual identities instead of creating a race of archetypes. He envisages a vision of a liberal society where individual choices like profession and sexuality, and human virtues of bravery, strength, submissiveness etc. are not pre-determined by an individual's biological sex albeit gender. On the contrary, individual choices should be the watermarks of their gender. Dattani has been accused by critics of subverting the existing gender stereotypes only to create new ones. A careful study of his plays reveals that the playwright refutes all possible structure of stereotyping and expounds a theory of a multi-dimensional gender which respects individual orientation, consequently leaving no space for marginalization of alternative gender.

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## ***The Myth of Asian Values in the Right to Information Privacy in Indonesia***

***Nenny Rianarizkiwati\****

*Information privacy is a part of human rights under the right to privacy. Although in the Indonesian Amended Constitution is not clearly stated the right to privacy, however this right implicitly written on it. This paper focuses on the right to information privacy in Indonesia; from its historical background, interpretation, and implementation of the right. The history of Indonesia is a defining moment to acknowledge the right of people or citizen through the Constitution, however there is no warranty for the right to privacy generally and right to information privacy particularly. The aim of this paper is to analyze how Asian values give impact in drafting amended Indonesia Constitution, so that the right to privacy is not explicitly pronounced. Asian values become tools to analyze whether Indonesia considers those values on the amendment process or not, why Indonesia reluctantly declares right to information privacy, and how Asian values enshrine the right of Indonesian people through constitution.*

**[Keywords :** Asian Values, Constitution, Human Rights, Privacy]

### **I. Introduction**

The Indonesian Constitution today has a shifting paradigm in term of human rights compares to the one issued in 1945. In the earlier version of the Constitution,

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the issue of human rights was not elaborated in a systemic and concise method. In the process of discussion and drafting the Constitution in 1945, there were 2 (two) group in which one group agree to submit human rights in the Constitution and another group rejected the idea to submit them in the Constitution. At the moment of Constitution discussion, there were not any international legal instruments that manage about human rights, as the first instrument was issued in 1948 and known as Universal Declaration of Human Rights (UDHR).

The discussion on whether human rights must be submitted in the Constitution or not was based on the idea that Indonesia has communal community, while human rights more or less are focus on individualism. Therefore the debate over this problem comes to an end by submitting some of human rights and citizen rights in the 1945 Constitution. Later on, there were changing in the Indonesian Constitution as the result of changing form of state; from unitary state into federal state in 1949, then again return to unitary state in 1950. In every phase of changing form of state, the Constitution was changed and included the human rights. In 1959, there were Presidential Decree that decided to return to 1945 Constitution and therefore human rights provisions were not as complete as 1949 and 1950 Constitution.

Long after approximately 40 (forty) years later, as a result of reformation era, Indonesia showed great effort to amend its Constitution. In 2000, the focus of amendment were about human rights provisions to be stated clearly in the Chapter relates to Human Rights. There are 10 (ten) articles about human rights, with its duties of state and individual to respect human rights and the restriction on the implementation for derogable rights.<sup>1</sup> To compare the content of UDHR, the majority of human rights on the UDHR are stated in the 1945 Amended Constitution, however the right to privacy is not clearly confirmed on the 1945 Amended Constitution.

The incomplete types of human rights in the 1945 Amended Constitution raise an issue, why Indonesia does not adopt all the human rights mentioned in the UDHR, especially the right to privacy. To answer the question, it must be look at the historical background of making the 1945 Amended Constitution to understand what possible reason not to include the right to privacy in the Constitution. This paper tries to analyze the absence of the right to privacy in the 1945 Amended Constitution. *First*, what is the consideration for Indonesia not to explicitly affirm the right to privacy in the 1945 Amended Constitution? To response this question, the consideration from external reason of Asian values are

used to analyze whether those values influence the discussion on the amendment process. *Second*, the right to privacy and its categories will be explained to understand the concept of privacy. Furthermore, this paper will analyze the right to information privacy in Indonesia. *Third*, the example of Laws regarding information privacy will be explained as implementation of Constitution in Indonesia. The conclusion of this paper is that although the right to privacy is not clearly stated in the 1945 Amended Constitution, however Indonesia acknowledges the right to information privacy in the 1945 Amended Constitution and its Laws under the Constitution.

## **2. Asian Values in the Constitution : Myth or Reality ?**

In 1945, before the independence day of Indonesia, there were discussion about the foundation of the state, in this included whether or not human rights were submitted in the Constitution. There were 2 (two) different group on the discussion. First, the group that has idea to refuse submission of human rights in the Constitution because it was based on the sociological background in Indonesia. Soekarno, the founding father of Indonesia, thought that human rights is not adequate to be implemented in Indonesia because human rights support individual rights while Indonesia communities are bounded by communalism. It is not saying that Soekarno rejected the idea of accepted human rights in society, however, in Soekarno's point of view, the submission of human rights into Constitution will eliminate the spirit of communalism in Indonesia. Human rights is enshrined in social justice within community, so there is no need to submit human rights into Constitution.<sup>2</sup>

Muhammad Hatta, also the founding father of Indonesia and the first Indonesian vice president, on the other side thought that human rights are important to be declared in the Constitution. Hatta agreed to Soekarno that Indonesia communities are bounded by communalism, however affirmation of the existence of human rights in the Constitution is important to guarantee the protection of citizen rights and everyone in the community. Moreover, Hatta considered that by affirming human rights, it will give guidance for the government how to manage its power over the people and avoid absolute power of government.<sup>3</sup>

Bridging the gap between the ideas whether human rights must be included in the Constitution or not, therefore the discussion ended with conclusion that some of human rights and citizen rights are admitted in the Constitution. A few



kind of human rights are acknowledge in the 1945 Constitution. The agreement about human rights and citizen rights in the 1945 Constitution was about the right to religion, right to education, and right to social welfare.<sup>4</sup>

In 1949 when Indonesia had changed its state form into federal state and in 1950 had returned into unitary state, the 1945 Constitution was changed into 1949 Federal Constitution and 1950 Temporary Constitution. In both Constitutions, the provisions regarding human rights became quite similar as they refer to UDHR. In term of civil and political rights, there were right to self-determination, equality before the law, protection against discrimination, legal assistance, personal security, freedom of movement, due process of law, privacy, are some examples of right included on the 1949 and 1950 Constitution. In term of economic, social, and cultural rights, the 1949 and 1950 Constitution declared right to work, right to a just and fair wage, right to form a labor union, right to social security, and right to social welfare.<sup>5</sup> However, in 1959 as Indonesia had decided to return to 1945 Constitution, the notion of human rights was only stated in a few articles.

The situation has significantly changed when the people assembly decided to amend the original 1945 Constitution. The process of amendment had initiated in 1999, and human rights were discussed in 2000. In the amendment process, discussion about human rights was influenced with external factor of cultural relativity that considered Asian values to be included into Constitution. The need to consider Asian values had explained in the Laws regarding Human Rights. Government of Indonesia gave explanation that international legal instruments on human rights are needed to consider in order discussing human rights and to adopt other values from those instruments to be implemented in Indonesia's national regulation. Common problem in the discussion concerning human rights happens when traditional conflict of Asian values and western values collides. Western values criticizes that Asian values ignore civil and political rights. While from Asian perspectives, western values struggle for civil and political rights in which contradict with colonialism happened in the past.<sup>6</sup> For Asian, western values are not consistent to be implemented to embrace civil and political rights.

The emerging Asian values around 1970-1980 related to the rejection of human rights universality in outer western countries. Asian leader declared that Asian cultures differ from those in western and justify the difference from the interpretation of human rights standard. Jack Donnelly identifies 6 (six) problems that give good reason for implementation of Asian values. *First*, the reason that Asian leaders refuse to implement human rights within their territory is because

the issue of sovereignty, that “imposing the human rights standard of one’s own country or region on other countries or regions is an infringement upon other countries’ sovereignty and interference into other countries’ internal affairs.”<sup>7</sup>

*Second* reason is that the infringement of human rights can be justified to achieve demand of development. *Third*, it is common in most Asian countries to sacrifice economic and social rights to the pursuit of rapid growth. *Fourth*, Asian values observe that western human rights practices reflect a corrosive, hedonistic individualism. Western human rights are considered inadequate attention to social duties. Moreover, it is incompatible both with traditional values and plausible conception of human dignity and decency. *Fifth*, Asian community is more focus on the duties rather than on the rights and *Lastly*, individualism does not fit to vision and social relationship in traditional values of Asian. According to Asian values, individual rights look like moral inversion.<sup>8</sup>

Asian values are the result of perspective on human rights implementation and political will of a country, not about the principle of human rights. International legal instruments on human rights are used as social and political parameter for humanity. Universal human rights give space for Asian how to implement those rights. Human rights can be implemented through various interpretations in local regulations.<sup>9</sup> Asian countries resistance to human rights relate to cultural relativism, so that every country may have different interpretation to implement human rights in their own country.

In the context of Indonesia, there is no standing position whether Indonesia reject or follow the Asian values. Indonesia realizes there is a conflict between Asian values and western values on human rights standard, therefore Indonesia chooses to balance those values with its own interpretation. Cultural relativity is the focus on discussing Asian values to classify and determine what kind of human rights to be arranged and implemented in the Law and other regulation. Indonesia also consider that Asian values is different to individualism, therefore need local wisdom to interpret universal human rights into Indonesian community.

### **3. The Right to Information Privacy in Indonesian Constitution**

The first academic article which talks about the right to privacy was produced by Samuel D. Warren and Louis D. Brandeis in 1890. In their article, they introduce the right to privacy as originate from the right to life relates to their properties and other things, and develop to be “the right to be let alone”.<sup>10</sup> From 1890 up to now, the right to privacy is emerging as the technology flourish. At that

moment Warren and Brandeis wrote the article, the technology was only instant photography published in the newspaper. Recent technology such as telephone, television, computer, internet and its application, usage of scanner and biometric<sup>11</sup> are believed as the threat of implementation privacy.

The right to privacy formally had emerged since 1948 when UDHR declare it in Article 12 by stating that :

“No one shall be subjected to arbitrary interference with his privacy, family, home or correspondence, nor to attacks upon his honour and reputation. Everyone has the right to the protection of the law against such interference or attacks.”<sup>12</sup>

This article also exists in Article 17 International Covenant on Civil and Political Rights (ICCPR) to guarantee the right to privacy. Definition, concept, and scope the right to privacy is important to be discussed to give guidance for individual in implementing the right to be let alone.

Privacy is a broad concept, and it is difficult to make a definition on it but it is easier to identify. Privacy is individual freedom from the judgments of others.<sup>13</sup> Raymond Wacks states that privacy is an abstract concept. It is difficult to understand the concept of privacy, including its values. According to Wacks, privacy consists of “limited accessibility”, they are secrecy, anonymity, and solitude. Secrecy means information known about an individual, anonymity means attention paid to an individual, and solitude is physical access to an individual. A loss of privacy happens where others obtain information about an individual, pay attention, or gain access to him or her.<sup>14</sup> Jerry Kang has different point of view regarding privacy. Kang distinguishes privacy into 3 (three) categories, they are territory, choice, and information. Territory relates to attack of physical area in private or public area, choice relates to someone’s ability to choose without any interference from other, and information relates to how people can make control over his or her information.<sup>15</sup>

From another perspective, the right to privacy can be divided into 4 (four) categories based on the area of protected privacy. David Banisar divided the right to privacy as information privacy, bodily privacy, communication privacy, and territorial privacy. The definition of those privacy is as below :

“Information Privacy, involving the establishment of rules governing the collection and handling of personal data such as credit information and medical records;

Bodily Privacy, concerning the protection of people's physical beings against invasive procedure such as drug testing and cavity searches;

Privacy of Communication, covering the security and privacy of mail, telephones, email and other forms of communication; and

Territorial Privacy, concerning the setting of limits on intrusion into domestic and other environments such as the workplace or public space.”<sup>16</sup>

Based on Banisar's explanation, the scope of the right to privacy is easy to define. For the purpose of this paper, the scope is limited in information privacy only.

The right to access information, can be tracked in Article 19 UDHR, that “everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers.”<sup>17</sup> Based on this statement, right to information is a part of right to freedom of opinion and expression. Moreover, article 19 UDHR limits the right to information in activity to “seek, receive, and impart” information of others. In a more detail arrangement, Article 19 sub (2) ICCPR explains that the right to information can be exercise “*either orally, in writing or in print, in the form of art, or through any other media of his choice.*”<sup>18</sup> However, everyone's right to information as derogable right must be balanced and limited by other's right to privacy. his is the most important part to implement right to information and right to privacy in just and transparent methods.

In the context of Indonesia, the 1945 Amended Constitution does not clearly declare the right to privacy. However, the right to privacy implicitly enshrines in Article 28G sub (1) in which states that “every person shall have the right to protection of his/herself, family, honour, dignity, and property, and shall have the right to feel secure against and receive protection from the threat of fear to do or not do something that is a human right”.<sup>19</sup> The notions on Article 28G sub (1) in 1945 Amended Constitution more or less are similar with Article 12 UDHR. The difference between them is that in Article 12 UDHR declares the protection to privacy, while Article 28G in 1945 Amended Constitution declares the protection of his/herself. However, it can be inferred that protection of his/herself means protection of privacy.

In connection with the right to information, the 1945 Amended Constitution states in Article 28F that “every person shall have the right to communicate and to

obtain information for the purpose of the development of his/her self and social environment, and shall have the right to seek, obtain, possess, store, process and convey information by employing all available types of channels.”<sup>20</sup> To compare the right Article 28F in 1945 Amended Constitution with Article 19 UDHR, the difference between them is that scope of activities in Article 28F in 1945 Amended Constitution goes beyond Article 19 UDHR. Scope of activities in Article 19 UDHR is “(1) to seek, (2) receive, and (3) impart information” while in Article 28F in 1945 Amended Constitution is (1) seek, (2) obtain, (3) possess, (4) store, (5) process and (6) convey information.

Article 28F and Article 28G sub (1) of 1945 Amended Constitution together gives clarity regarding the right to information privacy in Indonesia. The scope of activities on Article 28F of 1945 Amended Constitution possibly make a loosen protection for the right to privacy. By promising that everyone can seek, obtain, possess, store, process, and convey information in one side, it means that privacy of someone is threaten because other people has access and many activities to do over his/her information.

#### **4. Implementation of the Right to Information Privacy**

After the second amendment of Indonesian Constitution in August 2000, Government of Indonesia approximately has been issuing 506 (five hundred and six) Laws under the Constitution.<sup>21</sup> Among of those, there are few Laws regarding the implementation of human rights in general and right to privacy in particular, they are 71 (seventy one) Laws regarding human rights. Indonesia does not have either Law on Privacy or Law on Data Protection. The Laws which guarantee protection of personal data can be observed in the Law on Civil Administration and the Law on Information and Electronic Transaction as 2 (two) example on the implementation of the right to information privacy in Indonesia. The aspects that will be elaborate are the definition of personal data and how the state guarantees the protection of personal data.

The Law number 23 of 2006 on Civil Administration which had renewed with Law number 24 of 2013, arrange about personal data. The Law defines that personal data is specific individual data that must be kept, stored, and guarded. The secrecy of personal data also must be protected.<sup>22</sup> Personal data that must be kept secret under Law number 23 of 2006 are Number of Family Card, Citizen Number, date of birth, physical and mental condition, Citizen Number of his/her mother and father, and some of important moment which is private and need to be

protected.<sup>23</sup> There is no further explanation about important moment which must be protected. The personal data that are kept secret under this law is relatively simple and not detailed protect personal data.

The need to protect personal data becomes important so that the Law has renewed by Law number 24 of 2013. In the new Law regarding Civil Administration, the personal data that must be kept includes physical and mental condition, fingers print, iris of the eyes, signature, and other data which is humiliate someone. However there is no detailed explanation about what data that could be humiliate someone.<sup>24</sup> Personal data as private information as it defines in Law on Civil Administration proves that Indonesia implement human rights on information privacy. Although right to privacy is not explicitly stated in the Law, however the secrecy of personal data is guaranteed by the Law.

The Law number 11 of 2008 on Information and Electronic Transaction and its renewal Law were enacted as the result of development on technology relates to economic and electronic transaction. The definition on personal data does not exist in this Law, however it can be found in the organic regulation of the Law. In Government Regulation number 82 of 2012 regarding Implementation of System and Electronic Transaction and Regulation of Ministry on Communication and Informatics number 20 of 2016 regarding Personal Data Protection in Electronic System,<sup>25</sup> personal data defines as specific individual data that must be kept, stored, guarded, and secrecy protected.<sup>26</sup> Moreover, specific individual data are information that true and real that can be identify someone directly or indirectly, and the data are used in according to regulations.<sup>27</sup>

Apart from definition about personal data relates information and electronic transactions, Law on Information and Electronic Transaction protects secrecy of personal data through electronic means. Usage of information in electronic means regarding personal data must be under the consent of data subject, as part of privacy rights. According to this Law, privacy rights can be defined into 3 (three) points. *First*, privacy is right to enjoy his/her personal life and free from any interference. *Second*, privacy is right to communicate with others people without afraid on surveillance by third party. *Lastly*, privacy is right to control information access regarding other people's personal live and his/her data.<sup>28</sup> The state guarantee the protection everyone's right on information privacy, so that there is expectation from individual to state that his/her personal data is used only for specific purpose. In other hand, state expects that everyone will give his/her personal data with confidence for specific purpose.



## 5. Conclusion

There are 3 (three) conclusions of this paper. *First*, human rights provisions in 1945 Amended Constitution in Indonesia has influenced by Asian values. Although Indonesia never declare to refuse or to support Asian values into Constitution, however Indonesia defense its sovereignty by choosing human rights provisions in UDHR to be placed on the Constitution. *Second*, in term of human right to privacy, Indonesia implicitly accepts the right to privacy as “protection of his/herself”. To be more specific, the right to privacy includes right to information privacy in which involves the establishment of rules governing the collection and handling of personal data. *Third*, the conclusion about the implementation on the right to privacy in Indonesia can be traced on Law on Civil Administration and Law on Information and Electronic Transaction. From both Laws, the government of Indonesia guarantees the protection of personal data and its secrecy. The gathering of personal data must be gathered and used for special purpose.

Recommendations for arrangement relating personal data are that Indonesia makes improvement and amendment in Constitution to clarify that the protection for his/herself is similar as the right to privacy. Asian values are used as guidance to implement local wisdom of Indonesia in the Constitution. Moreover, Indonesia needs to make Law on Personal Data Protection or Law on Privacy to organize protection on personal data in order to secure everyone’s right to information privacy.

## Footnotes

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## ***HIV/AIDS : Fighting Stigma in Socio-Cultural Perspective***

***Sangeeta Gupta\****

*Almost all the countries of the world are facing the problem of the dreadful disease of AIDS, which makes it a burning topic in itself. We all know that HIV/AIDS is not only a biomedical phenomenon but also a social reality rooted in human behavior. The UNAIDS and WHO estimates show that we have about 3.5 to 5 million people suffering with HIV in India itself. In India awareness programmes, which are regarded as the primary means through which to halt the spread of HIV/AIDS, are mainly targeted at truck drivers and sex-workers. Although this prevention campaign is merited, as a result, women, in particular married women remain isolated and vulnerable. Increased research needs to be conducted to ascertain levels of knowledge and awareness, as well as to examine issues such as stigma, the impact of gender, and effective means of information dissemination and behaviour change. The paper analyzes prevention of HIV/AIDS stigma in socio-cultural perspective.*

[**Keywords :** HIV/AIDS, Stigma, Socio-cultural perspective, Youth]

### **1. Introduction**

HIV/AIDS is so dreadful disease that 6 crore people have come in the grip of AIDS and 2.5 crore people have died all over the world. This is also found in

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children and new born babies. 21 lakh children, below the age of 15 years are in the grip of AIDS. About 4.3 lakhs new born babies were also suffering from AIDS in 2008.<sup>1</sup>

AIDS stands for “Acquired Immuno Deficiency Syndrome.” It occurs when people are infected with HIV. HIV is a very small germ called virus which makes the body weak and less able to fight with sickness. It destroys the white blood cells which protect us from falling sick. After the attack of the virus, the white cells can no longer fight against disease germs and the person becomes susceptible to diseases. According to the National AIDS Control Organization (NACO) report, over 90 percent of the currently infected people in India are in the productive age group. It is spreading with an unprecedented speed and has emerged as a serious socio-economic and public health problem as well. Therefore, it is necessary to take the required steps to extricate this disease from the universe itself. There is no accurate vaccine available till now for curing it and the present drugs are also unaffordable. In this condition the sociologists can play an important role for studying and analyzing this dreadful disease.

In the society, we find various prejudices, misbehavior, negative attitude towards the people suffering from AIDS. Even the family members, peer groups, community people, neighbours, nears and dears do not leave them unremarked. Due to these pre-assumed psychological confrontations, these people are not properly cared and paid attention which affects the successful treatment procedure and maintenance of their health.

It is observed that, this is a world wide practice regarding the discrimination of AIDS sufferers, various religious communities social groups, individual across the countries are the living examples. Even the discriminatory factors like racism, castism, homophobia also work with the AIDS stigma. Such suffering are all the time seen in the light of unacceptable activities such as-women abuse, prostitution and drug abuse. These psychological confrontations make it more difficult for the people trying to come out from AIDS and manage their treatment at personal levels and find it difficult to fight with AIDS epidemic as a whole. Because of this stigma the government efforts with effective action become meaningless when the question of cure, treatment and testing of HIV arises.

While there is strict control over female sexuality, the same is not true for males. There is no pressure on men to remain virgins till marriage; neither is there a big stigma attached to pre-marital sex for men. Studies from all over the country reveal that sexual activity is high among adolescent boys. Between 12-25 per cent of patients at sexually transmitted diseases (STD) clinics are in their teens. The

first encounters are mostly with sex-workers or with other boys. Despite knowing their HIV status, individuals are forced to marry under social pressure. On the other hand, widows whose husbands have died of HIV related illnesses but they themselves are HIV negative, face a lot of stigma in society and, in spite of the growing acceptance of widow remarriage they find it very difficult to get married again. This is compounded by the fact that women in strong patrilineal systems such as these, in India, have very little access to resources.

## **2. Stigma of HIV/AIDS**

Stigma is a negative assessment associated with a particular object or issue. HIV/AIDS/STDs lead to stigma not only to the infected persons, but also to their families. Stigma is made worse by a lack of knowledge about HIV/AIDS. In a country like India, people generally don't care for diagnosis due to fear of stigma attached to it. Knowledge of how HIV/AIDS is transmitted is one of several factors that enable youth to protect themselves from the virus. Correct knowledge can also reduce stigma and discrimination against people living with HIV/AIDS.

There are various value-based assumptions among the people in the society for the HIV/AIDS :

1. It is a challenging and life threatening disease therefore, people react to it in a strong way.
2. It is associated with several undesirable activities like prostitution, sexuality and drug abuse.
3. It spreads by the way of sexual acts therefore, goes alongwith moral baggage. People in the society suffer from many misconceptions, wrong information regarding the transmission of virus and health risk.
4. Such people are considered personally irresponsible.
5. Cultural factors which include religious and moral beliefs are also associated with AIDS and direct towards the punishment for such people.

For many people, still it is a new disease and psychological stigma is also associated with it. Even the information received by the people is incomplete and phobia generative. It develops a realization that it is better to keep away from it, in place of knowing the details of the disease.

Even today many people in every society know little about the risk of transmission of AIDS and suffer from the phobia of falling sick. In short, keeping away is a general practice among the common people regarding this dreadful disease.



### **3. Levels of Stigma**

Usually such people suffer from negative treatment and denial of opportunities at all levels in personal life, e.g., when they are willing to travel, avail health care facilities and go for the employment opportunities, they are shunned at. Various levels of stigma are as follows :

#### **3.1 Level of Government**

At the govt. level, favourable policies, rules and regulations may have a significant influence on the lives of people, suffering from AIDS. At the time of the formation of policies, social practices and biases must be taken into account. There are many examples in this regard :

1. In case of Uganda, HIV affected people are dismissed from the armed forces.
2. The Chinese govt. has made compulsory HIV testing for its citizen who are living outside the country for more than a year.
3. The U.K. Govt. has the provision of prosecuting a person who has passed the virus to some other person knowingly or unknowingly.

By this way, spread of AIDS can be checked. At the time of framing the policies, people suffering from AIDS should not be neglected and they must be given due respect and regard specifically after finding them positive.

#### **3.2 Level of Doctors**

The confidence should be maintained during the treatment and the solving of problems in health care sittings so that the sufferers should not feel guilty. In many cases, they do not know to whom they should disclose their HIV status. The studies conducted by WHO reveal that in many countries like Indonesia, India, Thailand and Philippines, health workers breached the confidence of the HIV+. Not only this but doctors in health care settings in medical resource shortage areas may provide no drugs because of frustrations for HIVs and may leave them to die hard. This frustration based discrimination should be avoided and due priorities should be provided to the AIDS sufferers. Same view also expressed by S. Mohammad Afsaj in his article “Doctors Do Discriminate, say HIV-Pregnant Women.”<sup>2</sup>

#### **3.3 Place of Employment**

Employment is another area where HIV+ suffer from stigma. Problem of adjustment arises with co-workers, employers etc. Such patients suffer from social isolation, discriminatory practices, termination, refusal of employment etc.

### **3.4 During Travel and getting Accommodation**

Residence and Stay is another very significant problem faced by HIV+. There are countries like China and US which require declaration of HIV status at the time of entry in the country.

### **3.5 Place of Education**

At the school level, such children suffer from the stigma and discrimination. Usually they become the focus of the school principal, class teacher and other administrative staff. They are treated separately if not badly all the time. This discrimination is realized by the students who suffer from this killer disease. Also on many occasions like selection from the stage presentation, group songs, group dynamics etc., they are treated in a discriminatory manner and not selected. They become psychological ill and attach routine things with their disease. The class teacher also informs other students to behave properly and be extra careful with such. Thus other children also escape from such suffering children. In short, such children do not receive a normal schooling environment as they need a special attention by the school staff all the time.<sup>3</sup>

The problem is not confined only upto the classroom teaching. Many of the children need hostels to complete their education as they are from far off places. The AIDS stigma follow them and put them in trouble in hostels as well. The fellow hostel mates do not like to keep company with them when they come to know about their disease. Normal children do not feel comfortable with such children and they escape until or unless sitting together is highly required. AIDS suffering students need medical care more than other students. In such cases it becomes the duty and responsibility of hostel staff for which reason they refuse to provide accommodation on pretext of insufficient medical arrangements.<sup>4</sup>

Stigma within the family is the important part of Indian social structure. It is a primary groups which provides all the support to its members at the time of need, sickness and casualty, not only in India but abroad also. But in the case of AIDS, the response is not all the time positive. Level of discrimination may be different but it exists in majority of the families.

There are many cases of women, when diagnosed with AIDS, checked out from homes by the family members.

### **3.6 At Community Level**

Activities at community level play an important role in the well being of people. But in the case of AIDS patient, community's reaction is negative. It is also

found all over the world. Generally, such persons are forced to leave their homes, schools and jobs. They are not allowed to go for shopping also. It is a sort of rejection at verbal and physical level. Such cases are reported in Brazil, Colombia, Ethiopia, India, South Africa etc. The community avoids, talking and participation in the common discussion. Such people feel very isolated and shameful for this reason.

In the Indian scenario it becomes all the more serious particularly in the rural communities, where people are not adequately educated and aware about the where about of HIV+ status. For ruralities, it is like a ghost. By knowing this, people become afraid and take it as a big problem. There are cases, where they become adamant on burning the houses HIV+ couples.<sup>5</sup>

#### **4. Preventive Measures**

All such discrimination shortens the life of such people. Thus there is an ardent need for timely intervention in the area of treatment of opportunistic diseases, advocating healthy life styles and providing an enabling environment for those in need for care and support. For this an immediate and effective response is required from every educated individual in the society worldwide.

There is an urgent need to speak up for people suffering with HIV+/AIDS to avoid the feeling of loneliness and making their lives meaningful and happy.

The example of “Frech First Lady Carla Bruni” is admirable in this reference. She placed one child in her lap and cuddled him. She also planted a firm kiss on his cheek at ‘NAZ’ foundation. After kissing, she gave the message to the other people in the society that kissing and touching does not transmit AIDS.

But only one or two examples of such types are not sufficient. It requires a joint effort. Thus all of us should come forward to remove the stigma related with AIDS. There is an ardent need for a concerted and coordinated effort by different countries to generate awareness and remove any stigma related with HIV/AIDS as it is not India’s problem alone, but a worldwide problem.

Stigma and discrimination is a major problem in response to HIV/AIDS. Ignorance and lack of awareness are the main responsible factors for this. So it becomes important to provide clear and full information to ensure people are not afraid of being infected through casual contact. The need to know how HIV/AID is transmitted how the virus dies very quickly when exposed to air.<sup>6</sup>

Both man & women experience stigma, women experience stigma more severely because they are economically and socially dependent. Women suffer additional burden of stigma and discrimination. Often, they are blamed for her

husband and child falling sick, suspected of infidelity by the family and society leading to rejection and expulsion by the family and community at large also.<sup>7</sup>

Not only this women are often first to be tested for HIV during pregnancy. An intensive campaign was launched against the spread of this disease, soon after the first case was reported in 1986 both at governmental and non-governmental levels. At the informational level too, especially United Nations, thus is on their priority list.<sup>8</sup>

## **5. Concluding Remarks**

HIV infection has social characteristics such as the stigma, and they may greatly affect the social relationship of HIV carriers. HIV infection has been reported to induce suppression of sexual activities and prevention of the development of intimate relationships such as marriage and love affairs. Hence, community action against HIV/AIDS as an integral part of the international endeavour for their control has achieved international recognition. But how to build up an effective controlling mechanism in the high risk communities with highly diversified socio-cultural contexts remains a challenge to all of us. How to employ the native socio-cultural and educational resources and to encompass target populations into our care-taking system remains an impasse to the social sciences and public health institutions.

## **6. Suggestions**

The following suggestions may be useful for the prevention of HIV/AIDS :

1. Education is the important factor that can play an important role in removing the stigma. By imparting education, we can make them aware that HIV/AIDS can not enter the human body by eating or shaking hands or exchanging clothes with the effected patients.
2. We should make them know that in some cases bad character is not the factor for this, it could be by our ignorance.
3. Media can play a major role in this matter. Some newspapers and magazines have begun to give some space to AIDS related stigmas.
4. Role models and opinion leaders can have tremendous influence. The stars of bollywood, sports icons and other opinion leaders must now come forward to speak for AIDS.
5. It should be included in the school curricula. Educational institutions must educate youth on HIV/AIDS and on safe sexual behaviour.

6. NGOs should start more programmes for this disease and for women to get organized where they see themselves not as isolated but as part of a larger whole.
7. We should provide alternative livelihood to those who want to move out of sex work.
8. HIV test prior to marriage of both of the spouses should be must.
9. Economic empowerment programme should go together with HIV treatment and care programmes.

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## **ICT : Pedagogy Integration for Pre-Service Teachers**

**Pooja Pant\* and Alka Muddgal\*\***

*The new challenge in this technology prone world lies before the teacher education institutions. They are to prepare a generation of teachers ready to teach digital natives. To achieve this they need appropriate resources, expertise of implementation and careful planning. The paper highlights use of ICT in the field of teacher preparation program and ways and means to achieve them through appropriate integration of ICT in Pedagogy. It aims to help preservice teachers and teacher education institutes to consider the possibilities for integrating technology and pedagogy. The objectives of the paper are to identify the technological resources for integrating technology with pedagogy and outline the possible challenges and barriers faced by pre-service teachers and teacher educators and suggest an appropriate model for integrating ICT and pedagogy for the pre-service teachers*

**[Keywords :** ICT, Competency, Digital natives, Pedagogy, Pre-service teachers]

### **1. Introduction**

The history of the mankind witnessed the first revolution with the invention of written language, for the first time people could store and retrieve information

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without relying on their memory. The evolution of Printing press brought out the second revolution that led to dissemination of information through books, pamphlets etc. to wider areas. The third revolution was brought by information and communication technology (ICT) by dissemination of information as well as knowledge.

We are leading towards a fourth revolution with the use of Wikipedia, Skype, Viber, Instagram, Facebook, Twitter, Google plus etc., these have transformed the way we live, learn, work and play. In the present times learning is moving beyond the four walls of the classroom, and that new terms have been coined to express these innovative ways of learning, terms like :

- m-learning or mobile learning, and
- u-learning or ubiquitous learning

The ever increasing demand of globalized world has been a teacher well equipped with content and advanced pedagogical techniques in order to cater to the learners of 21<sup>st</sup> century. A recent development in this direction is the effort made by researchers and teachers is to integrate technology and pedagogy to the present generation learning community. The boom in the information and communication technology in the present times clearly indicates the inclination towards use of technology for the process of teaching and learning. ICT refers to all the technologies by means of which we can detect the information signals, interpret them and exchange information with others. In order to completely harness the opportunities provided by information and communication technology for teaching and learning UNESCO document of information and communication technology in Teacher education (2002) are :

- Access to digital technologies by both teachers and students in classrooms, teacher education institutes and schools.
- Availability of meaningful and high quality digital content.
- Competent teachers who can use tools of ICT in order to achieve high academic standards.

Teacher education institutions have a daunting task of preparing teachers to use these tools of information and communication technology for the learning process. For this purpose the demand of competency expected from teachers for using ICT in schools is to be mapped with the teacher preparation program in teacher education institutions, this requires availability of resources, expertise and careful planning.

Society for information technology and teacher education (SITE 2002) has outlined basic principles of effective teacher education as under :



Principle I : *Technology should be infused into the entire teacher education programme.*

Use of technology in teacher education program should not be restricted to one or two subjects rather; the pre-service teachers need to be exposed to a wide range of technological implementations during their teacher preparation.

Principle II : *Technology should be introduced in context.*

The use of technology should not only be in terms of use of basic computational skills like use of word, spreadsheet and knowledge of devices alone but apart from these the teacher educators must also present exemplary models for technological interventions in pedagogy as well as field experience for the use of technology. Pre-service teachers need to use it as a learner for their own study purpose as well as thinking creatively about it while teaching.

Principle III : *Students should experience innovative technology-supported learning environments in their teacher education programme.*

Incorporation of technology by the teacher or teacher educators should aim at transformation of the learning environment. This can be best achieved by using multimedia in the classrooms for the purpose of teaching and learning.

In the Indian context the teaching and learning can be based on above principles if the teachers are competent in using technology. Further the levels of expected competency are as shown below :

## **2. Background**

### **2.1 ICT Competency amongst Teachers in India**

ICT competency for the teachers as well as teacher educators needs to be developed in stages, as some of them are highly competent in using technology and may find it difficult to compete with their technologically novice counterparts. The document of National policy of ICT in school education defines ICT Literacy in terms of levels of competence. Based on the stages of schooling at which a student or teacher is introduced to ICT, they may progress to different levels. It also emphasizes on changing the competency levels with changing times. The three levels of competency defined in this document are :

#### **2.1.1 Basic**

- » Basic Computer operations
- » Storing retrieval and managing data
- » Use of word processor

- » Connecting to internet, surfing on net
- » Basic knowledge of input output devices
- » Use of e-mail
- » Connect, disconnect and troubleshoot digital devices

### **2.1.2 Intermediate**

- » Use of software applications for managing content and digital devices
- » Extensive use of web sites and search engines to locate, retrieve and manage content as well as resources.
- » Installation, uninstallation and trouble-shooting of the software

### **2.1.3 Advanced**

- » Use different software applications to enhance ones own learning—database applications,
- » Analysis of data and problem solving, computing, design, graphical and audio-visual communication;
- » Undertake research and carry out projects using web resources;
- » Use ICT for documentation and presentation; create and participate in web based networks for cooperative and collaborative learning;
- » Becoming aware of issues of cyber security, copyright and safe use of ICT and take necessary steps to protect oneself and ICT resources.

This document highlights the various means of capacity building through pre-service teacher education programs in India as given below :

1. Orientation of teacher educators for using ICT by sensitizing them to use ICT, also they need to be trained to use the information and communication technology in all the spheres.
2. Including the Compulsory component of ICT in Pre-service teacher education curriculum
3. In the years to come also, the ICT competency should also become the eligibility criteria for appointments of teachers.

Also National Council for teacher education (NCTE) has made it compulsory for all teacher training institutions to have ICT infrastructure availability.

At the entry level of the pre-service teachers in teacher education institutes the testing of ICT competency need to be introduced not for the purpose of selection but for deciding on the competency levels of the new entrants. After making

decision on their level of competency the these pre-service need to be taken to the next levels of competency through appropriate training and help. Also, Information and Communication Technology need to be used as an integral part of the respective pedagogies of the trainee teachers. The suggested frame work for Including ICT in the Teacher Education Curriculum is discussed in the next section.

### 3. Framework for including ICT in Teacher Education Curriculum

According to the new NCTE frame work for teacher education ICT must become the integral part of it. The integration of ICT should not be restricted as a core or optional subject rather ICT need to be integrated at all levels along with training in ICT as per the competency level of the pre- service teachers at the entry level like :

- » Planning of lessons
- » Projects and assignments
- » Content creation
- » Assessment

ICT can be made integral part of teacher education curriculum by integrating it with the pedagogy as shown below in a diagrammatic manner :

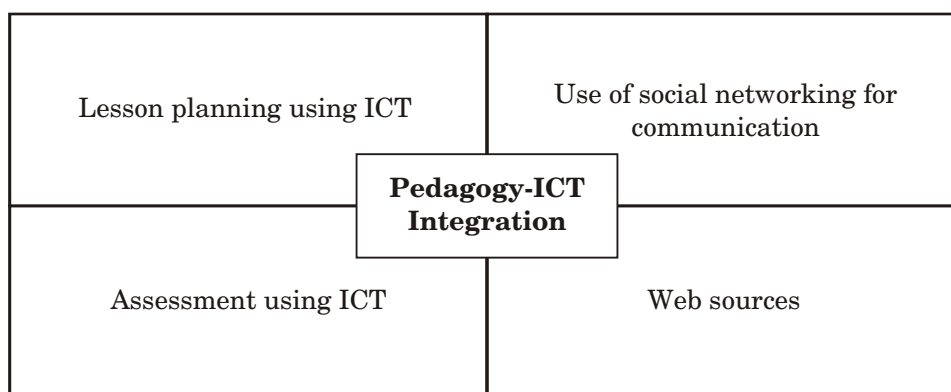


Figure-1 : ICT Pedagogy Integration framework

The details of integration of ICT and means of achieving it are described in the following sections :

#### 3.1 ICT as an Compulsory Elective Subject

After entering into the teacher education institutions the pre-service teachers need to be tested for their level of competency whether basic, intermediate

or advanced. Depending upon the level the pre-service teachers can be taught ICT Skills by introducing the following as compulsory elective subject at B.Ed/ B.El.Ed/D.El.Ed level :

- ICT Basic level
- ICT Intermediate
- ICT Advance

The table given below specifies the offering of optional Subject of ICT for the student based on their ICT competency :

**Table-1 : Frame work of ICT as Compulsory Elective Course at different Levels**

Pre-service teachers			
Level	Courses		
	ICT Basic	ICT Intermediate	ICT Advanced
Beginner	✓	✓	✓
Basic		✓	✓
Intermediate			✓
Advanced			✓

The curriculum for these three courses of ICT needs to be mapped with the competency as specified by the National policy of ICT in school education. Apart from this ICT need to be used in each and every course of the teacher education program.

### **3.2 ICT in Lesson Planning**

Use of information and communication technology for planning a lesson can be made easy and readily accessible for the teachers as well as the pre-service teachers. Few suggestive tool that can be used for the purpose of lesson planning are given below

#### **3.2.1 WebQuest**

According to Dodge (1995) WebQuest includes are inquiry-based activities planned by the teachers and through which students get a chance to interact with resources suggested by teachers on the Internet . These structures are planned to support the work done by students using appropriate sources and technology. By using WebQuests it is possible to construct collaborative activities, in order to improve critical—thinking skills as well social skill, increase level of motivation, and provides hands— on experience (Leahy & Twomey, 2005). As specified by March (1998) that WebQuests were designed to bring all the effective instructional

practices together and integrate student activities. It is an ideal way to deliver a lesson over web.

The inquiry activity may be of the form such as a problem to be solved, designing or creation of product etc. Teachers can create their own WebQuests in accordance to the curricular needs. Also, they can use a WebQuest that someone else has created.

WebQuests have a definite structure :

- **Introduction :** For orienting the students for the inquiry based activity and also, for creating interest amongst the learners
- **Task :** It includes clear and concise description of the outcome of the learning activity
- **Process :** Lists the steps learners will take to accomplish the task and the digital, web-based and other learning resources that support learners in this process. This has to be crisp, clear and precise.
- **Evaluation :** Provides a rubric to indicate how learners' performance will be assessed
- **Conclusions :** Summarizes what students have learnt, their reflections
- **Teacher Page :** This page is for providing a link to a template in order to allow the teacher to implement the web quest design. The template comprises of : 1.Top, 2. Introduction, 3. Learners, 4. Standards, 5. Process, 6. Resources, 7. Evaluation, 8. Conclusion, 9. Student Page and 10. Credits.

### 3.2.2 Edcanvas

It is free WEB2.0 tool for creating and sharing the lessons digitally. These lessons are a visual delight. Through the use of the canvas or blending space, the teachers can create, organize, present and share the available online resources with their students. It is possible to link the relevant images, videos and other files in accordance to the requirement of the topic to the lesson plan for the students or other teachers. The resources for upload may be acquired through the built in search tool of Edcanvas. It also provides space for uploading the questions based on the uploaded content. Once the students have received the content they can give a 'thumbs up' to show that they have understood the concept or material and also, they can questions relevant to the material

### 3.2.3 Wiki Spaces

They allow sharing of lessons, media, and other materials online with students, or lets them collaborate to build their own educational wiki on Wiki

spaces. This is a very effective tool for sharing the ideas of planning a lesson amongst the pre-service and the in-service teachers. Similar tools for lesson planning are also provided through Betterlessons.org, Soft Schools, Sparknotes, Qwiki, Gapminder, Learnboost etc.

- **Teachers Pay Teachers** : If teachers have great lessons to share or if they are looking for something to add to their classes? On this site they can do both, selling their own class materials and buying high-quality resources from other teachers.
- **Capzles** : It makes it simple to gather media like photos, videos, documents, and even blog posts into one place, making it perfect for teaching, learning, or online projects.
- **Quizlet** : Quizlet makes it easy for teachers to create study tools for students, especially flashcards that can make memorizing important information a snap.
- **Pinterest** : Teachers can pin just about any image they find interesting on this site, but many teachers are using it as a place to collect great lesson plans, projects, and inspirational materials.
- **Google Education** : Google offers a number of great edtech resources for teachers, including email and collaborative apps, videos, lesson plan search, professional development, and even educational grants
- **Popplet** : Teachers and their students can use Popplet to brainstorm ideas, create mindmaps, share, and collaborate.

### 3.3 Use of Social Networking for Communication

Prensky (2001) has coined the term ‘digital natives’ for the children born in the beginning of this century. Their world consists of television, texting, camera phones, iPads, interactive video games. They can do multitasking with all these tools in an efficient manner. As they chat online with friends, they use a form of shorthand they have created themselves like WBU (what about you), BRB (be right back), IRL (in real life), NP (no problem), LOL (laugh out aloud). This generation requires high level of social and creative engagement.

Muirhead, B., & Juwah, C. (2004) highlight the importance of interaction in learning in accordance to the modern theories of learning.

For this purpose the teachers need to be prepared for the use of social networking for the process of teaching and learning. Few such tools of social networking that can be of great use to the teachers and need to be a part of teacher training are specified below ;

### 3.3.1 Blogging

Journal writing has long been an activity utilized in the primary classrooms. Journal writing allows students to reflect on what they are learning and how they are learning. This traditional, notebook-and-pencil activity goes online as a blog. Blogs (a short form of the weblog) are personal journal websites on which a user can type an entry, add images, video and links to other websites. Readers of a blog usually can post comments.

For primary school students, the use of blogs have been found to be an engaging and effective way to promote writing skills, particularly when student peers provide feedback to the blog's writer. It is exactly this feedback and sharing mechanism that makes the blog different to the traditional journal. In the notebook-and-pencil version, the contents of the journal are private to the student, apart from the teacher and whomever the student decides to share the journal with. With the blog, access can be provided to the teacher, the class, the student's parents and the world.

### 3.3.2 School Circle

This is a new web tool for facilitating communication between teachers and students. It allows teachers to create circles for their classes. A circle is a space designated by the teachers for their classes and where they can invite parents to join in. It can be used to organize class events, assign tasks, share documents, messages, files and pictures. The parents can be invited to join this class circle and there is an option to designate a 'room parent' who can be entrusted with the management of that task (e.g invite other parents, create new circles, share content with other parents...etc).

Other than these there are many tools provided by ICT for social and collaborative learning to take place a few of these have been listed below with which the teacher trainees need to be acquainted during teacher preparation programme.

- **EduBlogs** : EduBlogs offers a safe and secure place to set up blogs for the teachers or for their classrooms.
- **Skype** : Skype can be a great tool for keeping in touch with other educators or even attending meetings online. It helps teachers to connect with other classrooms, of other countries.
- **OpenStudy** : Encourage students to work together to learn class material by using a social study site like OpenStudy.
- **ePals** : It lets the student connect to other students, by helping them to learn languages and understand cultures different from their own



- **Twitter** : There are so many ways Twitter can be used in education. Teachers can connect with other educators, take part in chats, share their ideas, or even use it in the classroom to reach out to students

### **3.4 Assessment**

Black & William (1999) specified key factors for assessment as learning through assessment is possible only if there is a provision of effective feedback to the pupils, they are actively involved in learning, adjusting teaching in accordance to the feedback of assessment, recognition of influence of motivation on learning, self-assessment by the students and scope of improvement.

ICT can be crucial in enabling teachers to make apt and accurate decisions the level of learning attainment by the learner and then predicting the achieved grades. It also plays an essential role in reporting of the assessment. It is essential for the pre-service teachers to be trained in th Some such tools of assessment have been specified below.

#### **3.4.1 Socrative**

It is a method of evaluation based on student response system. In this there is a 'teachers room' which can be accessed by the students using the 'room number' and the teachers can provide MCQ, short answer question, quiz etc to the students. The students are able to see the statistics of the other students responses in their own screen. It is available for computers, mobile devices, and tablets, this student response system engages students through games and exercises on any device they have on hand. The teachers can easily assess student progress and track grades.

#### **3.4.2 Edmodo**

It is a learning management system which is liked by school students because of its resemblance to facebook. It is possible to create quiz with Edmodo and give immediate feedback to the learners. It allows them to see the correct answer key once the quiz is over. Also, the teacher can show comparative statistical data of assessment prepared by Edmodo to the learners.

#### **3.4.3 ClassDojo**

It is a powerful classroom management tool for teachers for recording students behaviour and building positive rapport with students in class. ClassDojo captures and generates data on behaviour that teachers can share with parents and administrators. It has also released an excellent new service that allows teachers to communicate with parents via exchanging messages. There are two types of messages teachers can send through ClassDojo : a) Direct messages which

are messages that can be sent to parents on an individual basis, and b) Broadcast Messages, these are messages to be sent to parents as a whole group.

## **4. Other Pedagogical Tools for Pre-Service Teacher Training**

### **4.1 Tools for creating Virtual Environment**

Another collaborative activity is where students work together to discover a place or environment, or to understand a topic. This can be done using an online environment or a virtual environment. Some education-specific, virtual worlds have been constructed to allow students to work together to develop their understanding of a topic.

For example, Quest Atlantis is an online world that uses a videogame for school students to work on educational 'quests' with other students and mentors. Research with students who have used such virtual worlds have demonstrated that students engage deeply with the content and gain team work skills that support them in collaboratively and effectively solving the problems presented to them (Barab, Gresalfi & Arici, 2009).

Other tool that support collaborative learning include discussion boards, which can be used to encourage students to have discussions and debates. Apart from discussion boards the other tools are Edusim, Mingoville, Minecraft, Shaker etc.

### **4.2 Tools of Animation**

#### **4.2.1 Slowmation**

Creating a slowmation is a way for students to explain a concept or process by designing and making a stop-motion animation that is played slowly, at two frames per second. In a slowmation, the learner (or group of learners) plans how to explain the concept or process through a series of images. These images are then stitched together to make the animation. A voice-over narration helps to explain the concept or process

The other tools available online for creating animation for language as well as mathematics teaching could be :

- **Educreations** : Educreations is an amazing online tool for the iPad that lets teachers (or students) create videos that teach a given topic. Perfect for studying or getting students to display their level of knowledge acquired by them.

- **Animoto** : Animoto makes it simple to create video-based lessons or presentations for the classroom and to share them with students or anyone else.

### 4.3 Tools for Learning

Apart from this the future teachers must be well acquainted with the tools of learning for the students or learners available through Information and communication technology. Hence the teacher training program must include the knowledge about the following :

- **Kerpoof** : On Kerpoof, students can get creative with their learning with games, interactive activities, drawing tools, and more that are both fun and educational.
- **StudySync** : With a digital library, weekly writing practice, online writing and peer reviews, Common Core assignments, and multimedia lessons available, this site is a fully-featured tool for teaching and learning that can be a big help in the classroom.
- **Google Earth** : From geography projects to learning about geological processes, Google Earth can be an amazing and fast way to show students anywhere in the world.

## 5. Challenges and Barriers

The very recent curricular changes as proposed by NCTE highlight the importance of introducing Information and Communication Technology (ICT) as in the teacher preparation program, however, it is true that most of the teacher preparation programs are not embedding technology into their teaching.

The major hindrances in using technology for preparing teachers may be categorized into the following broad areas :

- Resource limitations,
- Teacher trainers knowledge and skills regarding technology—pedagogy integration,
- Student teachers and teachers attitudes and beliefs towards use of ICT.

Using technology effectively to promote student learning means thinking about effective learning strategies and effective classroom management. Teachers are faced with challenges and barriers all the time. Technology's place in society causes teachers educators to consider the implications for them in their role as educator and as lifelong learners themselves. The constant challenge for teachers

is to draw upon their continually developing knowledge and skills about what to teach and how to teach. Technology is just one, but an important consideration in that equation.

## **6. Suggestions**

The suggestion for future research are given below :

- Developing a competency based regional guideline on technology-pedagogy integration by teachers
- Developing course materials for pre-service teacher education and training modules for in-service teacher training
- Designing model ICT-integrated e-lesson plans and rubric based evaluation tools for teachers
- To assess their students' learning using ICT
- Training teacher educators through 'training of trainers' workshops at regional, national as well as international level
- Creating both online and offline networking for teacher trainers, heads and various teacher training institutions in integrating ICT in classroom teaching through innovative practices
- Rewarding the most innovative e-lesson plans and ICT integration pedagogies, and for the inclusion of international resources.

## **7. Conclusion**

The pace of technological change in society and in schools has been exponential and will continue to be so. Teachers are using ICT to support their role in mentoring students with structure and advice, monitoring their progress and assessing their accomplishments. When students use technology to conduct research projects, analyze data, solve problems, design products and assess their own work, they work with others to create and communicate new knowledge and understandings. This paper has presented a range of tools that need to be introduced in the teacher education programme. These strategies are based on theories of learning that allow teachers to provide different experiences for their students. Technology is changing all the time and what we know about how to use that technology effectively is developing continuously. As a future teacher, student teachers need to continue to develop their understanding regarding the use of technology to help their students learn effectively in future.

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## ***Symbiosis between Man and Environment***

***Vandana\****

*The relationship between the man and the environment has been established in the early periods itself. Human beings live in the kingdom of nature and interact with it constantly. The influence of nature in the form of the air he breathes, the water he drinks, the food he eats, and the flow of energy and information. Any change in the environment can not only result in devastating effects, but can also pose a threat to the human race. The present paper is an attempt to explore symbiosis between man and environment. It has been emphasized that all of us but especially politicians, financiers and industrialists must begin to respond to qualities of society and environment, not solely to momentary profits and self-serving new stories.*

**[Keywords :** Symbiosis, Environment, Bio-diversity, Ecological balance]

### **1. Introduction**

Ever since the dawn of creation humanity has been dependent on Environment. The earth is the only home of human being, and therefore, we should take very special care of planet earth. Earth has been called Mother in our Indian society for this very reason.

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A sociologist drew conclusion of very far reaching effects of environment on Man and his personality. He brought a very important formula like this : He enunciated that  $IrE=P$ , where I stand for individual human being, r for response, E for environment and finally P for personality of that individual human being. A sociologist is not an environmentalist in the real sense of the term, when he finds such a deep rooted correlation between Man and his environment, the environmentalist has much to investigate suggest and draw correlation in this field.

## **2. Man-Environment Relationships**

The study of relationship between man and environment has always been, in one way or the other, a focal theme in geography but the concept of geography as environmental science and facets of man-environment relationship charged through time with the development of human society and the dimension of environment. In the beginning of the process of evolution of man and his society physical elements of the planet earth e.g. terrain, soil, water, climate, flora and fauna formed man's environment and man was basically a "Physical man" because of his limited wants, requirements and total dependence on nature.

As the men become social, economic and technologic man, he broadened his environment by creating his own environment through his design and skill to have provision for better food, shelter, access and comfort. The man-environmental relationships, thus, can be perceived and evaluated in a variety of ways and approaches like : Environmental deterministic approach, Teleological approach, Possibilistic approach, Economic deterministic approach, and Ecological approach.

## **3. Environment and Man**

The environment affects man through (i) biophysical limitations, (ii) behavioral controls and (iii) resource availability, weather and climate affect human well-being and health. Biologically, human body can function properly only in certain suited environmental conditions in terms of oxygen, heat, light, humidity and precipitation, wind, lighting fog, clouds , atmospheric electricity and space. Even the survival of human body depends on the above factors.

The most significant aspect of the environment in influencing human activity is the availability of resources. The richness or poorness, quality and quantity and above all the availability of renewable and non-renewable resources decide the type of human activities, economic viability, social organization, political stability, international relation etc.



Urbanization, industrial expansion and land use changes very often change weather and climate-though in long-term perspective. Economic activities of man are capable of affecting the heat balance of the earth and its atmosphere which in turn transforms weather and climate at regional and global scales. In fact, man changes the atmospheric conditions through : (i) changes in the natural gaseous composition of the atmosphere mainly in the lower part, (ii) changes in the water vapour content of the troposphere and the stratosphere through direct (cloud seeding) and indirect means (deforestation), (iii) changes and alternation of land surfaces (deforestation, mining, urbanization etc.), (iv) introduction of aerosol in the lower atmosphere, (v) release of additional heat in the atmosphere (from urban & industrial sources) etc.

The burning of hydro-carbon fuels has increased the concentration of CO<sub>2</sub> in the atmosphere. The natural content of CO<sub>2</sub> in the atmosphere was fixed at 0.029% or 290 ppm (part per million) before industrial revolution (before 1860A)D but at present the atmospheric level of concentration of CO<sub>2</sub> is estimated to be 0.0319% (319 ppm), an increase of 10% and it is expected that by the turn of the present century it would increase to 0.0370% (370 ppm, an increase of 25 percent over the pre-industrial level). The increase in CO<sub>2</sub> content of the atmosphere may change heat balance by increasing the level of sensible heat in the atmosphere because CO<sub>2</sub> allows more absorption of incoming short wave terrestrial radiation. Release of chlorofluorocarbon (cfc) in the atmosphere through the propellants used in spray and dispensers and fluids used in refrigerators and air conditioners and of nitrogen oxides emitted from the engines of supersonic Jets (flying at the height of about 60,000 feet with a speed of more than twice the speed of sound) is capable of depletion of ozone. It may be pointed out that ozone gas in atmosphere (ozone layer in concentrated mostly at a height of 15 km. 356/55 km) absorbs ultraviolet rays of the sun and thus protects the earth from becoming too hot. Depletion in ozone layer means less absorption of ultraviolet rays and thus increase in the temperature through increased solar ultraviolet radiation due to decrease in the concentration of O<sub>3</sub> (ozone) would cause skin cancer, immune-suppression in human body, decrease photosynthesis, water use efficiency and crop a field. The marine environment would also suffer drastic damages as the productivity of phytoplankton would be reduced due to decrease in photosynthesis and therefore, zooplankton feeding on phytoplankton would starve. This will also affect the mortality of larvae of zooplankton. The species composition of marine ecosystem may change as certain species are more vulnerable to ultraviolet radiation. Ultraviolet radiation also accelerates the photochemical processes that create urban smogs.

#### **4. An Agreement for Action**

At global level developed and developing countries took very serious note of it for the first time and attempted to get countries assembled to do something in early nineties in this direction.

The UNESCO held in 1968 a special conference of experts on the scientific principles of the national use and conservation of the natural resources of the biosphere. The proposals were made under the 20th recommendation as under :

To organize research work on “Man and Biosphere” regarding the scientific, technical and educational aspects of the problems concerning the national use and conservation of the natural resources of the biosphere and the improvement of the environment.

Before the UNESCO conference the Swedish government put forward a proposal for holding a special U. N. conference on “Man & Environment” at a meeting of the U.N. Economic & social council (ECOSOC). This proposed was adopted by ECOSOC, seconded by UNESCO and satisfied at the XXII General Assembly of U.N. This international conference was held at Stockholm, Sweden in 1972 and “Declaration on the Human Environment” was adopted.

In 1972, the U.N. conference on the Human Environment, resolved to establish the UNEP (United Nations Environment Programmed) Governments signed a number of regional and international agreements to tackle specific issues, such as protecting wetlands and regulating the international trade in endangered species. These agreements, along with controls on toxic chemicals and pollution, have helped to slow the tide of destruction but have not reversed.

In 1987, the world commission on Environment and Development (the Brundtland commission) concluded that economic development must become less ecologically destructive. In its landmark report “our common future”, it said that “Humanity has the ability to make development sustainable to ensure that it meets needs of the present without compromising the ability of future generations to meet their own needs”. It also called for 'a new era of environmentally sound economic development.

In 1992, the largest ever meeting of world leaders took place at the limited nations conference on Environment and development in Rio-de-Janeiro, Brazil. An historic set of agreements was signed at the “earth summit”, including two binding agreements, (i) the convention on climate change, which targets industrial and other emissions of green house gases such as CO<sub>2</sub> and (ii) the convention on the biological diversity, the first global agreement on the conservation and sustainable use of biological diversity.

The bio-diversity treaty gained rapid and widespread acceptance. Over 150 governments signed the document at the Rio-de-Janeiro conference, and since then 175 countries have satisfied the agreement. The convention has three main goals which are :

1. The conservation of bio-diversity.
2. Sustainable use of the components of bio-diversity, and
3. Sharing the benefits arising from the commercial and other utilization of genetic resources in a fair and equitable way.

The Berlin summit was held in 1996 again in 1997 “the III conference of cop3 to the limited nations framework on 'climatic change” (FCCC) was held in Kyoto, Japan in which about 1500 delegates from 159 countries participated and reached on an agreement to set legal binding for cutting off the emission of green house gases by an aggregate of 5.2% from 1990 levels during the year 2008-2012. In the same meet European Union agreed for a cut by 8%, U.S.A. by 7% and Japan by 6% while developing countries did not agree to any cut after eleven days of non-stop negotiations. The participating countries could reach to a conclusion that the developing countries be exempted, since it was the industrial Revolution in Europe and the U.S.A. that raised the level of CO<sub>2</sub> in atmosphere by 30% as early as 1980. It has been rightly said that “the earth in a unique planet.” It has delicate equilibrium mechanism, if even a single mechanism male-functions, the entire ecosystem will be affected.

## **5. Follow-up Action**

A major challenge for the 21<sup>st</sup> century will be making the conservation and sustainable use of environment a compelling basis for development policies, business decisions, and consumer desires. The convention has already accomplished a great deal on the road to sustainable development by transforming & the international community’s approach to environment. This progress has been driven by the conventions inherent strengths of near universal membership, a comprehensive and science driven mandates international financial support for national projects world class scientific and technological advice and the political involvement of governments. However, many challenges still lie ahead. After a surge of interest in the wake of the Rio-summit, many observers are disappointed by the slow progress towards sustainable development during the 1990s. Attention to environmental problems was distracted by a series of economic crisis, budget deficits and local and regional conflicts.

## 6. Symbiosis between Man and Environment

Symbiosis has been defined by “The shorter oxford Dictionary on Historical principles” on biological association of two different organisms (usually animal & plant) which live attached to each other, or one is a tenant of the other and contribute each other’s support.

As the word suggests symbolism in the linguistic sense means a mutually beneficial partnership between organisms of different kinds especially such an association where one lives within the other. We find symbiosis between man and environment because man lives within the environment because man lives within the environment. This correlation or interdependence is such that it becomes a mutually beneficial partnership between man and environment both being of two different kinds. Environment is undoubtedly beneficial to man and as a corollary man ought to prove to be beneficial as a sane partner. Here we find that man has failed miserably to prove such a sane partner. This state of affairs is dangerous.

As a matter of fact, environment refers to all of the external conditions that surround and/or affect the person or organism. Again, the definition given by “Webster’s New Collegiate Dictionary” is “the aggregate of all the external conditions and influence affecting the life & development of an organism.” According to this definition, man’s environment consists of everything which affects him directly or indirectly.

Everything becomes very important part of man’s environment and he is turn, for better or for worse, become a part of that environment. It is important to note that various components and aspects of environment interact with each other, regardless of whether or not this interaction is brought directly or not.

The psychologist the biologist, the chemist, the physicist, the city planner, the sociologist, the political scientist all have their special areas of environmental interest which overlap and are interrelated since people tend to give most of their directly and immediately and over which they are able to exercise some control, there is a strong tendency to overlook or ignore indirect, delayed or cumulative effects of environment related action or policies. Scientists in many disciplines including ecology are still in the process of discovering and identifying important environmental phenomena and relationships and that the specific proposals of economists should be based upon up-to-date information. By the same token proposal by physical and biological scientists and by group of concerned citizens should be based upon sound economic as well as ecological principle.

The concept of natural resources in man created as well as nature centered. This is so because man developed the concept in connection with his efforts to

satisfy his wants. The great economic geographer Erich Zimmermann in his classic “world Resources and Industries” defined resources in term of their function in meeting man’s wants. In the words of Professor Henry Hunker the word “resources” is an abstraction reflecting human appraisal and relating to a function or operation. Natural resources include natural processes such as hydrologic cycle and photosynthesis as well as the natural objects and substances which man considers useful or enjoyable.

But although resource qualification of particular object and substances may change with technology, culture, population numbers, climate, some natural phenomena are considered to be harmful or undesirable and some to be either useless or so plentiful as to have no scarcity value at present.

A scientific response to problems of this kind inevitably involves the consideration of environmental variables, aspects of human ecology, and aspects of human thought. All are interdependent. Process of problem definition, monitoring, modeling and analysis, risk-assessment, evaluations communication and social response have characterized human societies for many generations.

## **7. Man’s Impact on Environment**

Man has altered all of nature. Environmental goals must be defined before we can hope to reverse our detrimental actions and their effects. Then and then only solutions can be thought about.

Recent changes through time in trends & features of man’s impact on environment are noted below :

1. Increasing variety of Impacts : Powerful pesticides and chemical contaminants, deep well injections of wastes are of recent development.
2. Intensification of Impacts : Increasing severity of noise in cities, air-pollution episodes, increasing damage to forests and crops by air pollutants.
3. Geographical spreading of Impact : Local environmental problems become regional problems, and many national problems assume international or even worldwide importance in the long run.
4. Increasing complexity and repercussions of Impacts : Numerous indirect effects of man’s activity are e.g. (i) changes in the climate (ii) deterioration of soils (iii) earthquakes (iv) damage to forest and (v) unconscious alteration of animal evolution etc.
5. Increasing per capita Impact : Compounding the effects of greatly expanding populations is a general increase in per capita consumption and environment

- impact. With the increase of population, increases the number of trucks and autos and there by the increase of consumption of fuel.
6. Cities are nodes of greatest environmental Impact : Cities become centers of cultural change and diffusion. The intensity of urban effects on climate and hydrology are noteworthy examples.
  7. Many Environmental changes are irreversible or persistent for very long Periods, e.g. (i) several types of land subsidence, (ii) some induced earthquakes (iii) animal extinctions, (iv) contamination of ground water (v) lake eutrophication (vi) some effects of herbicides and (vii) ecological impacts of introduced organisms. Thus man is trading future environmental quality, and future management options, for present expedience.
  8. Man is simplifying and homogenizing the biological landscape : Modern agricultural practice viz. (i) mono culture (ii) pesticide usages (iii) biological impacts of introduced animals reduce the complexity of ecosystems. Subsequently, simplified systems are more likely to be upset. The spread of organism by man has broken down many distinctive qualities of flora and fauna. Again, man's inadvertent creation of new hybrid organism has further deteriorated the situation.
  9. Some organisms have greater power than man to adopt by evolution to environmental changes, eg. Insects and organisms with shorter life cycles.
  10. Man's unique ability to adapt culturally to new environmental conditions, although great, may not be sufficient to compensate for new environmental demands on him as an organism.
  11. War has an important influence on environment : For example, threats of widespread nuclear explosions and radio-active contamination and the use of biological and chemical killers. Furthermore, tremendous expenditure on war and armament, loss of life, material and finances to mankind, diversion of attention and resources from environmental problems.
  12. Political control has been required to develop and maintain major environmental modifications, e.g. (a) Mesopotamian agriculture, (b) present projects : (i) soviet water transfer (ii) land reclamations (iii) major canals (iv) pesticide usage and so on.
  13. The some few basic causes of environmental degradation underlie a wide spectrum of impacts : (a) Ignorance about environmental systems, (b) attitude, (c) population growth, (d) Technological development, (e) economics, (f) synergism.



## **8. Setting Environmental Goals**

The following environmental goals need to be set :

1. Concentration should be on the present keeping in mind the past impacts as they bear on the present and prospective alterations. Changes are occurring fast yet we must develop some coherent views of what the world should be.
2. Short range goals should be developed. To formulate alternatives for the present state of affairs is more difficult than simply to protest against evils. The present quality of human life is paramount. Preoccupation with tomorrow often brings delay today. Man cannot afford delay. Large scale scientific mobilization is the only way to avert crisis.
3. The problem of ecological balance is man's most serious threat today. Something should be done lest crisis strikes with an intensity just short of total annihilation, while no major effort is being made at anticipatory solutions.

Now the question arises as to what extent is present science ready to fulfill this task under the conditions of economic progress on the transformation of environment i.e. the biosphere to a new state which is called Noosphere. According to V. I. Vernad's key, a Soviet scientist the noosphere is a new geological phenomenon on our planet. Man has become a large scale transforming force at the global (geological) scale. The planet's appearance changes even more radically under man's influence. The chemical composition of the biosphere changes only gradually, though in a certain direction. The Earth's atmosphere and its natural waters undergo change both physically and chemically. Man creates new species and distribution of animals and plants. He forms consciously and spontaneously a new environment for himself both by transforming its former properties and by creating new ones.

In policy planning and research both the demands of life and impact of public opinion should be given priority. It is very important to forecast the main orientations of scientific investigation which will constitute the modern front of research work. These trends are following :

1. The development of scientific forecasting of the natural resource requirements of society in the future. Further, prospecting for, and the economic evaluation of these resources is also necessary.
2. The study of natural environmental hazards and the development of the means of forecasting and active prevention.
3. The development of scientific basis for the prevention of and measures against the pollution of the environment, as well as, changes of its composition in a direction unfavorable to mankind.



4. The transformation of the environment providing for a rational use of natural resources and the distribution of social production, and the weakening and elimination of the negative consequences of society's influence upon the environment
5. The protection of the environment with a view to future scientific investigations.

Forecasting in natural resource studies indicated by the necessity of a complete transition from a spontaneous to a planned use of these resources. It must be based on the extent of reserves, natural renewal and the consequences that occur when resources are being removed from the environment. Such an approach to the exploitation of natural resources will help mankind to prevent or at least soften resource deficiencies and environmental crisis. Examples are deficiency of fresh water and the process of anthropogenic erosion and deflation developing on cultivated land.

The danger from the increasing pollution of the environment, causing a variety of disaster, results, in the key subject in the problem of 'Man and Environment'. The utmost necessity is to obtain valuable and reliable information for tackling the problem in future by :

1. Systematically estimating the actual toxicity, rates of the most common industrial effluents, the pesticides used in agriculture and the refuse from large cities as they effect different living organisms under different geographical conditions.
2. Organizing a system for the collection of coded information and control over the rate of air pollution, and water and soil contamination.
3. Systematically investigating potential "self-cleaning processes" which are found in various natural mechanisms, as well as an estimation of the maximum load which they are able to sustain.

Further efforts are needed for :

1. Remolding of the environment for the purpose of the rational explanation of natural resources and the weakening and elimination of the society's negative influence upon the environment.
2. Conservation of rare species of wild animals by restricting hunting and finishing.
3. Conservation of environment for the purpose of recreation.

Apart from the function of conserving natural genetic materials (gene funds of living plants and animals in ecosystems), reservations are a priceless bridgehead

from which to carry out research work on a purposeful remolding of nature. Such research work is necessary for studying the processes of heat and moisture exchange in the environment, the factors of biological productivity and in general, the features of the natural structures and mechanisms created in the environment during the geological evolution of the biosphere.

A reference may be made to the soviet national report for the 1968 UNESCO conference entitled "The Resources of the Biosphere of the U.S.S.R. : Scientific fundamentals for their rational use and protection". In 1960 the book "Soviet Geography" Results & Tasks stated :

"Modern geography is not a descriptive cognitive science with the main object of studying unknown countries and lands. It is a science of transformative character, its main object being the study of discovered lands and countries mastered long ago by man which are of greatly changed nature, dense population and highly developed economy, use of natural resources in the transformation of nature."

Modern geography should be defined as "Constructive Geography"—a science of the planned transformation and control of the environment in the interests of mankind. There is a close relationship and interaction of all components within the geography environment which become particularly complicated under the influence of their economic utilization. The difficulties lie in the necessity of changing from common description to quantitative analysis which are more precise and have a concrete technical and economic content.

Some basic solution and action in the future is that the most serious problem will be settled principally by (i) political decision (ii) by economic choice and (iii) by education of people.

Solutions should be buttressed by sound knowledge and understanding. We know far too little about the interactions that occur within any ecological system. We do not understand the dynamics of our environment or the effects of technology upon it.

Basic solutions reside in correcting basic causes. We must attach basic cause of environmental degradation, not just symptoms. We must strive to :

1. Learn and communicate the nature of environmental problems, removing our ignorance,
2. Adopt new attitude which recognize man's natural dependence on other components of the ecosystem,
3. Reduce the human population,

4. Abandon blind faith in and blind use of technology, and
5. Restructure economic system to reduce production and consumption and to hold producers responsible for environmental costs.

Obstacles are many which also require following solutions :

1. Requires that man should change his life style.
2. Economic growth must be planted by environmental ethics.

Personal level efforts should be made, viz., (a) reuse instead of recycling and (b) conservation of limited resources of energy. All of us but especially politicians, financiers and industrialists must begin to respond to qualities of society and environment, not solely to momentary profits and self-serving new stories. We must adopt value systems and recognize the worth of ecological balance and social harmony. Economic system aim to maximize short term gains, whereas ecologists strive to minimize longer term liabilities.

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## **Social Status and Brand Preference for Mobile Phones : A Descriptive Study**

**Mrinal Singh\* and D. P. Singh\*\***

*Mobile phones are an essential element of daily life. The purchase of mobile phones is an important decision with a variety of mobile phone brands available to choose from in the market. With the strong presence of different brands, there is a brand war among leading mobile brands. This study is intended to investigate the pattern of brand preference based of different attributes. These attributes are such as age, gender, income level, educational qualification etc. the study in conducted in Delhi and NCR. A sample of 150 respondents has been taken to note and describe different relationships. Excel has been used to plot various graphs and pi-charts. This study reveals that, demographic factors of consumers have an influence on brand choice and brand switching of customers of mobile phone. Demographic factors such as gender, age, and monthly income influences the attitudes governing brand choice and brand switching for the customers of mobile phone. It was found that, although the choice of a mobile phone is a subjective choice situation, there are some general factors that seem to guide the choices. It can be seen that youth's brand*

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*preference is driven by a number of factors like-picture quality of a secondary camera, video quality resolution, attributes, size of the screen, internal storage, expandable memory, price etc. We have seen that the students who are doing graduation are more inclined toward the mobile phones which have better look, reasonable price, and smart features while the students who are pursuing post-graduation are less price conscious, They need smart phone with advanced features and memory. So, we can conclude that that as the age increases; it also changes the procedure of choosing the mobile phones.*

[**Keywords** : Mobile phones, mobile technology, demographic profiles, education, social status, income level, age and gender]

## 1. Introduction

Mobile phones aren't just a rich person's fashion today. It is transforming the way thousands of people do business in a country where even landline phones were a luxury a decade ago. As an essential element of daily life, the purchase of a mobile phone is an important decision with a variety of mobile phone brands available to choose from. Each mobile phone manufacturer consistently updates their offerings with the latest technological updates and many customers have a preferred brand that suits them or a brand they have become familiar with. Across the globe, even people with low incomes are now adopting cellular phones as tools for enhancing their business.

According to Oxford English Dictionary one of the earliest uses of word "mobile" was in association with the Latin phrase "mobile vulgus", i.e. excitable crowd. Today's mobile phones live up to these origins. Cell phone technology introduces new senses of speed and connectivity to social life. If the fixed line telephone has brought communication links into the workplace and homes, the "mobile" puts them straight into the hands of numbers and varieties of individuals.

## 2. A Brief History of the Mobile Phone as a Technology

The idea for cellular telephony originated in the US. The first cellular call and the first call from a hand held cellular device also were placed in the US. The mobile phone merges the landline telephony system with wireless communication. The landline telephone was first patented in 1876. Mobile radio systems have been used since the early 1900's in the form of ship to shore radio, and were installed in some police cars in Detroit starting in 1921. The blending of landline telephone and radio communication came after the Second World War. The first commercially available "mobile radiophone service" that allowed calls from fixed to mobile telephones was offered in St. Louis in 1946. By 1964 there were 1.5 million mobile

phone users in the US. This was a non-cellular system that made relatively inefficient use of the radio bandwidth. In addition, the telephones were large, energy intensive car-mounted devices. In the drive to produce a more efficient mobile telephone system, researchers W. Rae Young and Douglas Ring of Bell Labs developed the idea of cellular telephony, in which geographical areas are divided into a mesh of cells, each with its own cell tower. This allowed a far more efficient use of the radio spectrum and the “cell” phones needed less power to send and receive a signal. The first installation was in 1969 on the Amtrak Metro liner that traveled between New York City and Washington. Four years later Martin Cooper of Motorola made the first cellular call from a prototype handheld cell phone.

The world’s first commercial automated cellular network was launched in Japan by NTT in 1979, initially in the metropolitan area of Tokyo. On 6 March 1983, the DynaTAc mobile phone launched on the first US 1G network by Ameritech. In 1991, the second generation (2G) cellular technology was launched in Finland by Radiolinja on the GSM standard and ten years later, in 2001, the third generation (3G) was launched in Japan by NTT DoCoMo on the WCDMA Standard.

### **3. Different Brands of Mobile Phones**

There are many brands of cell phones available in Indian market. So far, as contemporary brands of cell phones or mobile phones is concerned in Indian market. Samsung, XIOMI, Motorola, LG, Sony Ericson, iPhone, Oppo, Vivo and so on are seen to exist in the competitive market. Samsung, LG, Xiaomi, Sony Ericson and iPhone have secured prominent position in the market. With the strong presence of these brands, many other brands which also exist in the market are facing hard times and the brand war among these leading mobile brands has provided the market with better mobile sets and variety of features.

#### **3.1 Samsung**

Samsung offers a wide selection of powerful and stylish internet-ready Smart phones, which include Android, Bada and Windows mobile devices. It has increased its market share in Nepalese market due to its affordable range of prices and android applications. It is mostly popular among the youngsters of Nepal.

#### **3.2 Motorola**

Motorola was an American multinational telecommunications company founded on September 25, 1928, based in Schaumburg, Illinois. After having lost

\$4.3 billion from 2007 to 2009, the company was divided into two independent public companies, Motorola Mobility and Motorola Solutions on January 4, 2011. Motorola Solutions is generally considered to be the direct successor to Motorola, as the reorganization was structured with Motorola Mobility being spun off. Motorola Mobility was acquired by Lenovo in 2014.

### **3.3 iPhone**

The iPhone is a line of smart phones which is designed and marketed by Apple Inc. It runs Apple's iOS mobile operating system, known as the "iPhone OS". In the recent years it has gained huge popularity worldwide. An iPhone has captured a huge market especially of the higher income group. It has thus threatened established brands sales such as that of Nokia and Samsung in the market as well as worldwide.

### **3.4 MiXiaomi**

Xiaomi is a privately owned Chinese electronics company headquartered in Beijing. It is the world's 4th largest smart phone maker. Xiaomi designs, develops, and sells smart phones, mobile apps, laptops, and related consumer electronics. Since the release of its first smart phone in August 2011, Xiaomi has gained market share in mainland China and expanded into developing a wider range of consumer electronics, including a smart home (IoT) device ecosystem.

### **3.5 Oppo**

OPPO Electronics Corp. (commonly referred to as OPPO, stylized as oppo) is a Chinese electronics manufacturer based in Dongguan, Guangdong. Its major product lines include smart phones, Blu-ray players and other electronic devices. Globally registered in 2004 and founded in 2001, the company has registered the OPPO brand name in many parts of the world. It is a subsidiary of BBK Electronics Corporation which markets smart phones under the Oppo, OnePlus and Vivo brands. It has also recently acquired the rights to sponsor the Indian national cricket team for the period 2017-2022.

## **4. Brand Preference**

Brand is the "name, term, design, symbol, or any other feature that identifies one seller's good or service as distinct from those of other sellers." One of the indicators of the strength of a brand in the hearts and minds of customers, brand preference represents which brands are preferred under assumptions of equality in



price and availability. It can be defined as the priority that the buyer or consumer gives to a brand. It is revealed in the purchase and use of one brand and not of competitive brands.

We have chosen these five mobile brands-Samsung, XiomiMi, Motorola, Apple (iPhone), Oppo because my work is basically targeting youth section which is again further divided in to two parts i.e. graduates and post graduates. Firstly, in today's time the youth is attracted towards the brands which give them smart and advanced features in reasonable prices. The brand which we have taken are mostly Chinese and Japanese brands which are giving all these attributes in their mobile phones in a reasonable price and you can easily think to switch your mobile phone at regular interval of time and try some other phone with new features again. Secondly, if a student is pursuing post-graduation and wants to maintain standard with style and price is not an issue for that purpose we have taken brands like Samsung and Apple.

How does consumer process competitive brand information and make a final value judgment? The consumer builds an attitude towards various brands through preference among the brand in the choice set. However two factors can intervene between the purchase intention and purchase decision. The first factor is attitude of another. The extent to which person's attitude reduces one's preferred alternative depends on the intensity of other person's negative attitude towards consumer's preferred alternative and consumer's motivation to comply with the other person's wishes.

The stages of consumer decision making process for the purchase are shown below :

- » **Problem/Need Recognition** : Recognize what the problem or need is and identify the product or type of product which is required.
- » **Information Search** : The consumer researches the product which would satisfy the recognized need.
- » **Evaluation of Alternatives** : The consumer evaluates the searched alternatives. Generally, the information search reveals multiple products for the consumer to evaluate and understand which product would be appropriate.
- » **Purchase Decision** : After the consumer has evaluated all the options and would be having the intention to buy any product, there could be now only two things which might just change the decision of the consumer of buying the

product that is what the other peers of the consumer think of the product and any unforeseen circumstances. Unforeseen circumstances for example in this case could be financial losses which led to not buying of the product.

- » **Post Purchase Behaviour :** After the purchase the consumer may experience post purchase dissonance feeling that buying another product would have been better. addressing post purchase dissonance spreads good word for the product and increases the chance of frequent repurchase.

These five stages are a framework to evaluate customers' buying decision process. However, it is not necessary that customers get through every stage, nor is it necessary that they proceed in any particular order. For example, if a customer feels the urge to buy chocolate, he or she might go straight to the purchase decision stage, skipping information search and evaluation.

Brand gives a strategic form of position for competition and makes the product different from other competitor's brands. Mobile phone choice is based on personal feelings, opinions and tastes, there are also some other general factors which appear to have an influence on choice. The most important factors that influence brand choice when changing the mobile phones are : technical problems, price, innovative services, brand, reliability, basic properties and design.

The competition in terms of product similarity and increased number of competing brands in the market have led the marketers to consider and study the factors that determine consumers brand choice decision making. There are number of factors that affect the way the consumer choose a particular brand than other brands. Various factors influence the consumers when they are making a choice among alternate brands. These factors consist of price, gender, income level, age, innovative features.

The price is a dominant and the most important factor affecting the decision making and purchase process of any products. Price of the phone has been identified as a critical factor in the choice of the mobile phone, especially among younger people. In case of mobiles, for youth, price can be a key factor of attraction. The product's price may vary based on economic conditions and perception of the consumers. Price is used by many of the consumers as an indication of the brands quality which is a vital factor in the purchase decision. The factor brand, price and characteristics of mobile phone are the main factors for purchasing new mobile phone and technical problems.

Consumers prefer the purchase of mobile phone handset with value added facilities like camera (front and rear), large screen, internal memory, expandable

memory and low price. Consumers purchase new phones due to the fact that their existing one's capacity is not appropriate referring to the idea that new accessories features such as built-in cameras, better memory, more develop messaging services and color displays are influencing consumer decisions to acquire new models. Stylish appearance is one of the important factors to attract the consumers towards the factor. It may be the reason; the phone manufacturers are continuously changing the physical design of mobile phones with same configuration. Consumers are very conscious about style and shape.

The consumer perceives the quality of a brand is a crucial factor that affects the brand choice. Product quality frames the products' ability to carry out its functions. The features of mobile phone are basically the set of competencies, services and applications offered to the users. These can be Bluetooth, camera, dual SIM, video recorder, Wi-Fi connectivity and so on and they vary from brand to brand. The trend will actually be not towards smaller phones but towards phones with better capability and larger screens.

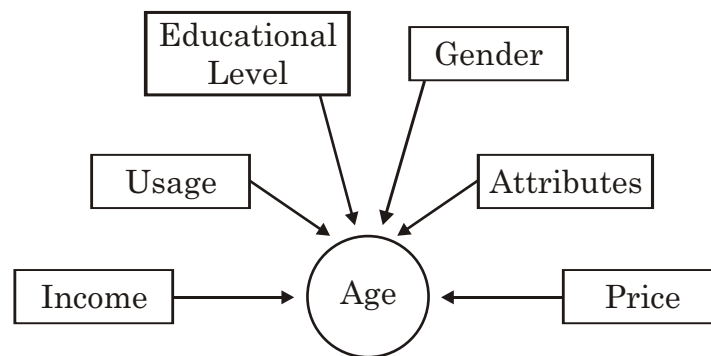


Figure-1 : Theoretical Framework for study of Brand Preference of Mobile Phones

## 5. Research Methodology

### 5.1 Statement of Problem

In present context, mobile phone has a huge impact in lives of people daily. Now-a-days, the customers are more dynamic. Their taste, needs and preference are changing with the advancement in technology and communication with the outside world. There are large number of manufacturers are producing and selling different variety of mobile phones and models into the mobile market. Therefore, a huge competition is there in the mobile phone market to sell their products. The major problems identified regarding the mobile phone brands is to determine the

most preferred brand and to identify the attributes which are significant in preference of a specific brand. Understanding the type of mobile phone, a buyer prefers is a major concern for marketers. This research will help in determining the choice of mobile phone consumer prefers according to their age, gender and income.

## 5.2 Objectives

The main objective of this study is to understand the mobile brand preference and the various factors affecting the choice of brand. The objectives of the study are as follows :

1. To determine the preferences of mobile phone brands on the basis of age, gender, and family income.
- 2 To identify the product attributes sought by consumers in the mobile phone brand.
- 3 To understand the trend in mobile phone usage by customers.

## 5.3 Research Plan and Design

The main purpose of the study is to find out the mobile brand preferences of respondents in Greater Noida. In Greater Noida, specifically we have chosen Jagat farm area because there we can easily find out the targeted groups. This research will help in determining the choice of mobile phone consumer prefers according to their age, gender and income. The research is quantitative in nature. The data collected is analyzed statistically to interpret findings and results. Primary as well as secondary data are used. For primary sources of data, questionnaire is used. For secondary data, various sources like internet, journals are used.

## 5.4 Population and Sample

The population used for this study is comprised of all students who are pursuing graduation(age group between 17-21) and post-graduation(age group between 22-25). For this purpose convenience sampling is done. To gather the primary information on preference of consumers, questionnaire survey was conducted with 150 respondents.

Description of the sample is as follows :

- **Sampling frame** : Students of Greater Noida region especially Jagat farm constitute sampling frame.

- **Sampling unit :** Sampling unit refers to smallest possible individual eligible respondent. The sample unit for this study are students who are in graduation (age group between 17 to 21) and post-graduation (age group between 22 to 25).
- **Sample size :** The size of the sample is 150.
- **Sampling technique :** The sampling technique which is used here is convenience sampling (also known as grab sampling, accidental sampling, or opportunity sampling). Convenience sampling is done purely on the basis of convenience or accessibility. It is a type of non-probability sampling that involves the sample being drawn from that part of the population that is close to hand. The advantages of this type of sampling are the availability and the quickness with which data can be gathered. This sampling technique has been mainly chosen because of time, financial constraints and lack of expertise.

### **5.5 Tool Used**

Data from the sampled respondents have been collected by administering questionnaire to them. For the analysis of the data in this research, MS EXCEL was used. With the help of MS EXCEL, data collected from the sources were classified, tabulated and analyzed.

## **6. Results and Conclusions**

Mobile phones are an essential element of daily life. The purchase of mobile phones is an important decision with a variety of mobile phone brands available to choose from. With the strong presence of different brands, there is a brand war among leading mobile brands. This study reveals that, demographic factors of consumers have an influence on brand choice and brand switching of customers of mobile phone. Demographic factors such as Gender, Age, and Monthly Income influences the attitudes governing brand choice and brand switching for the customers of mobile phone. It was found that, although the choice of a mobile phone is a subjective choice situation, there are some general factors that seem to guide the choices. It can be seen that youth's brand preference is driven by a number of factors like-picture quality of a secondary camera, video quality resolution, attributes, size of the screen, internal storage, expandable memory\ price.

We have seen that the students who are doing graduation are more inclined toward the mobile phones which have better look, reasonable price, smart features while the students who are pursuing post-graduation are less price conscious, they need smart phone with advanced features and memory. So, we can conclude that that as the age increases; it also changes the procedure of choosing the mobile phones.

Based on the conclusions drawn, I have made an attempt to enumerate number of recommendations :

1. According to the data, females are using Xiomi mobile phones more because the camera quality is very good whereas males here preferred Samsung so we can interpret here as Samsung is a brand and definitely there is a durability associated with it.
2. Males are spending more money when buying a new set because males are tech-savy, they need high resolution graphic card to run the games whereas females usually uses mobile phones for basic requirements like watsapp etc that is why they are spending less money.
3. Both male and female have same requirement that the size of the screen should be between 5 to 5.5 inch. By this we can say that clarity or visualization plays an important role in mobile phones.
4. Both male and female prefer mobile phones which have 16 GB internal memory. As today there are so many apps which help youngsters in many ways so companies can launch the mobile phones which have atleast 16 GB internal storage.
5. Male and females both like high resolution secondary camera because these days “selfie” is popular among them.
6. Males usually switch brands because they need better look and features whereas females usually switch mobile phones due to better look and they are price conscious. So, for males price is not an issue they want smart phone with high definition features whereas female want nice look in reasonable price.
7. Both male and female students are attracted towards newer technology and will be able to shift from one mobile phone to another if it uses better technology. Mobile phone companies should carry out periodic survey to help in identifying these new technology features and decide which ones to add to its product. Moreover, by determining which combination of these features match the current trends and consumer needs would be cost effective to the

mobile phone companies. In turn, product design is also very important in the success of the brand.

8. Graduation student spend less as compared to post graduation student. Company should develop the mobile phones according to the need of the customer. As post-graduation student require more space, smart features, high video quality resolution so definitely the price of the phone would be high.
9. Graduation student prefer mobile phones which are recommended by someone, catch ads, better look whereas post-graduation students prefer brands which have better look and features.
10. It is recommended that companies concentrate more on developing quality and affordable mobile phones and spend more time on enhancing their products to offer it at lower prices which can be done by employing cost reduction measures.
11. Business class students are looking mobile phone which have better features and looks whereas professional as well as service class students are price conscious. So company can launch the mobile phones which are specifically targeting these two class by introducing innovation in reasonable price.
12. Business class prefer Apple (iPhone) mobile to maintain the standard and security.
13. Business as well as professional class spends more time on internet as compare to service class.

## **7. Limitations of the Study**

The limitations of this study are as follows :

1. The research is based on the sample size of 150. A study based on larger sample size is needed to validate the findings of this study.
2. The age group has been selected above 17 years so as to reduce the response error.
3. Opinions of respondents have been taken as a sense of truth which may not be correct. The other limitations of the questionnaire may also have crept in.
4. The study was restricted to Jagat farm only, selected region of Greater Noida was considered for the research, thus neglecting the views of other respondents in those regions.



5. The research has made a genuine attempt to obtain a sample by convenient sampling method who were ready to share the information. But there were respondents who were using prominent Brands and were not ready to share his experience.
6. The research has been prepared within a span of two month and thus there was limited time for conducting the research and literature review.

## **Reference**

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## **Poverty and Child Health Issues in Rajasthan : A Brief Understanding**

**Prahlad Kumar Bairwa\***

*According to the World Bank, India is one of the poorest countries in the world. Some of the main issues responsible for widespread poverty in India are poor health services, child malnutrition and inadequate education and training. Almost half of India's population drops out of school by the age of 13 and only one in 10 people receive some form of job training. One-third of the world's malnourished children live in India according to UNICEF, where 46 percent of all children below the age of three are too small for their age, 47 percent are underweight and at least 16 percent are wasted. The present paper aims to understand the issue of migration, poverty and high levels of infant, child illness and death amongst the poor households in rural as well as urban slum communities in India with particular reference to Rajasthan. It has been shown that there is natural connection between women's employment and children's nutrition. children's health and well-being emerge as the result of a complex combination of factors, which include mother's work, independent income, nutrition, father and his relatives support to their mother, willingness and ability to access emergency reproductive care, awareness of health risk and implications of local aetiology, access to good curative services for the children and a safe social and physical environment, including clean drinking water, a proper drainage system and rodent and pest free conditions of living.*

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**[Keywords :** Poverty, Child health, Migration, Slum communities]

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## 1. Introduction

This paper highlights the issue of migration, poverty and high levels of infant and child illness and death amongst the poor households in rural as well as urban slum communities in Rajasthan. Rajasthan is known for highest infant mortality rates in India. The issue of poverty is significant in Rajasthan where approx 14.71% population is living below the poverty line. (RBI, 2013). It is the fact that the beginning of the new economic policy since 1991 has led to increasing number of poor migrants from rural area to urban areas in search of employment. This migration problem contributes to the rising levels of urban poverty in cities such as Jaipur, Delhi, Mumbai and Bangalore.

The issues of migration, poverty and child health are connected with each other. The poverty and lack of the economic resources and job opportunities in the villages leads to the migration from village to cities. Once they migrate to city, they settle down on permanent basis which leads to the increase of population, slums and unauthorized occupation. Due to this problem children are the most affected because they do not get proper care. From morning to evening husband and wife do work and most of the children live alone in the houses or have to accompany the parents to the work place due to which for the whole day they play with dust. Consequently children are contracted by illness and face various health problems. Despite all these problems, migration is not always problematic only, some time it is also fruitful for the rural poor.

The central point of this paper is that many poor people from the rural areas mostly of them Dalits are forced to move on a regular and chronic basis and that this movement has both negative and positive consequences for their health and nutritional status.

In practical migration and health is not connected with each other but health problem occurs due to the lack of employment and economic resources. Migration is self-imposed upon individuals and families as a means to gain employment, income and related economic well-being and security. The Migrant people living in poor urban slums face several problems because of the lack of basic public facilities such as sanitation water, dispensaries.

## 2. Migration and Related Issues in Rajasthan

In the context of Rajasthan migration, it has to be understood in the distinctive way, where majority of the population belong to the poor agrarian economy. In the native towns, women face various social restrictions such as Purda Customs, great social pressure for producing children particularly male child

(now-a-days this mentality has been changed) and a high level of infant and maternal mortality rate. In case of women, the context of the migration is different from their male counterparts. It has been observed that the role of migrant women in economic sector has generally changed and so does their relationship with members of their immediate and extended families. The relationships outside those defined by kinship expand. This combined with greater access to health-services alters the social and medical setting in which migrant women experience birthing and motherhood. This has further positive implications for the quality of life that their children would experience. The shifts in mothers' work and nutrition and the environmental conditions in the basti (slum) in which they live, are perhaps the two most important migration-related factors to have a profound impact on the health and survival of their infants and children. Overall, there seems to be a greater tendency for the more recently migrated women to experience increased child mortality and make poorer use of preventive health services than longer term residents. According to the works of Brockerhoff (1994) and Stephenson et. al. (2003) suggest that "the rates of child mortality experienced by rural migrants lies between that of rural and urban non-migrants. In the work presented here we suggest some reasons why this may be the case (unlike the demographic studies mentioned which highlight the pattern but not the reasons for the increase noted), as well as describe other occasions where straightforward patterns are more difficult to discern."

It is well known documented demographic fact that Rajasthan is well known state in terms of the high rate of child mortality among poor families in rural and urban areas and Dalits are most affected among them. According to Sample Registration Survey (SRS), 2011, conducted by the Registrar General of India, "the infant mortality rate (IMR) in the state is 52 per 1000 live births. The IMR in the state has reduced by 3 points over the last one year, which is equal to the amount of decrease in the IMR in the country. As per the SRS 2010, the IMR in the state was 55 per 1,000 live births" (SRS, 2011).

According to the official of health department said that they have become successful in reducing IMR in the state by 3 between 2010 to 2011 points because of various schemes launched by the state government to improve maternal and infant healthcare services which include Janani Shishu Suraksha Yojna.

According to the article published in TOI, Nov 1, 2012 that "Rajasthan is still one among few states which have higher IMR in comparison to the national average which is now 44 deaths per 1000 live births. The other states which have higher IMR than the national average are Madhya Pradesh with 59, UP and Odisha with 57. Assam, Chhattisgarh and Meghalaya have also have IMR above

national average. The health department has a daunting task ahead in bringing down the IMR as the Centre has assigned 'difficult' targets. As per the approved state programme implementation plan 2012-13, the Centre has laid out goals and service delivery targets specifically for the state's health department, under which the health department has been given the targets to reduce IMR to 37 by the end of 2012-13. The Centre has set target for the state government to reduce IMR to 25 per 1000 live births by the end of 2014-15" (Times of India, November 1, 2012). But according to the data of SRS "the gap was 3 deaths per 1000 live births in 2011, but it rose to 4 in 2012 and it remained 4 in 2013 but increased to 5 deaths in 2014" (SRS, 2015). What is even more worrisome is that IMR among females has not taken a dip in Rajasthan. For the past two years, it has stagnated at 49 deaths per 1000 live births. However, IMR among males is constantly reducing. The same report released by the Centre has also revealed that sex ratio at birth (SRB) is continuously falling in rural areas in the state while in urban areas it has slightly increased. The decreasing SRB in the state and higher IMR among females in comparison to males would further affect sex ratio in the state badly.

The increasing levels of migration taking place within India particularly in metropolitan cities where nearly one-third of their population is made up of migrants whereby rising numbers of people face a dislocation in their living conditions and the health consequences as a result of this. Opportunities in urban areas for employment, education, etc have been a pull factor attracting migrants from rural to urban areas and from smaller towns and cities to larger urban areas. There is also migration in the opposite direction from urban to rural areas due to various reasons. The migration during the last decade, i.e., migrants with duration of residence of 0-9 years at the place of enumeration, by various migration streams are summarized in the following table :

**Table-1 : Number of Intra-State and Inter-State Migrants in the Country (Duration of Residence 0-9 Years) By Rural Urban Status in India, 2001**

Rural Urban Status of Place of Last Residence	Rural Urban Status of Place of Enumeration		
	Total	Rural	Urban
Total	97,560,320	61,428,374	36,131,946
Rural	73,949,607	53,354,376	20,595,231
Urban	20,655,277	6,266,503	14,388,774
Unclassified	2,955,436	1,807,495	1,147,941

Source : Table D-2, Census of India, 2001

Out of about 98 million, total intra-state and inter-state migrants in the country during last decade, 61 million have moved to rural areas and 36 million to

urban areas. Migration stream out of rural areas (73 million) to another rural areas was quite high (53 million) in comparison to from rural to urban areas (20 million). About 6 million migrants went to rural areas from urban areas. On the basis of net migrants by last residence during the past decade, i.e., the difference between in-migration and out-migration, in each state, Maharashtra stands at the top of the list with 2.3 million net migrants, followed by Delhi (1.7 million), Gujarat (0.68 million) and Haryana (0.67 million) as per census. Uttar Pradesh (-2.6 million) and Bihar (-1.7 million) were the two states with largest number of net migrants migrating out of the state. There are various reasons for migration as per information collected in Census 2001 for migration by last residence. Most of the female migrants have cited 'Marriage' as the reason for migration, especially when the migration is within the state. For males, the major reasons for migration are 'work/employment' and education' (censusindia.gov.in).

**Table-2 : Reasons for Migration of Migrants by Last Residence with Duration (0-9 Years) in India, 2001**

Reason for migrations	Number of Migrants			Percentage to Migrants		
	Persons	Males	Females	Persons	Males	Females
Total migrants	98,301,342	32,896,986	65,404,356	100.0	100.0	100.0
Reason for migration : Work/Employment	14,446,224	12,373,333	2,072,891	14.7	37.6	3.2
Business	1,136,372	950,245	186,127	1.2	2.9	0.3
Education	2,915,189	2,038,675	876,514	3.0	6.2	1.3
Marriage	43,100,911	679,852	42,421,059	43.8	2.1	64.9
Moved after birth	6,577,380	3,428,673	3,148,707	6.7	10.4	4.8
Moved with households	20,608,105	8,262,143	12,345,962	21.0	25.1	18.9
Other	9,517,161	5,164,065	4,353,096	9.7	15.7	6.7

**Source : Table D3, Census of India 2001** ([http://censusindia.gov.in/Census\\_And\\_You/migrations.aspx](http://censusindia.gov.in/Census_And_You/migrations.aspx))

According to the 2001 Census, over 70% lived in rural areas. According to the 2011 census, there were 27 million-plus cities in India, with Mumbai, Delhi and Kolkata having populations over 10 million. There are 53 urban agglomerations in India with a population of 1 million or more as of 2011 against 35 in 2001. In Jaipur, the Capital city of Rajasthan, migration population has been increased from 2,324,000 in 2001 to 3,073,000 in 2011 that 32% change within 10 years (Census of India, 2011).

### 3. Population Policy of Rajasthan

Rajasthan Government has taken several steps to acknowledge the need to focus on the urban as well as the rural poor. “The estimated population of Rajasthan in 1996 was about 5 crores, which would grow to 8 crores even if it were to achieve replacement level of fertility by 2016. With limited natural resources at its disposal, Rajasthan cannot afford the continuation of its rapid population growth, since it is not difficult to visualize the quantum jump in the demand for food grains, water and other basic infrastructure to just sustain this level of human population. Thus there is a growing consensus in the State that the declaration in the rate of growth of population and its qualitative improvement are among the key determinants for sustainable development of the State. To develop a meaningful approach to achieve these objectives, efforts have been made to develop a policy document, a state specific effective population program. Accordingly, the State Government has taken the initiative to formulate a Population Policy for the State, to set its own demographic goals and to specify the strategies and interventions proposed to attain policy goals and objectives. It has been realized that investments in the population stabilization program will have high rates of return not only in the economic sector, but in social and environmental sectors also. In this document of “Population Policy for Rajasthan”, efforts have been made to evolve a practical as well as ethically sound and culturally appropriate holistic approach, with particular emphasis on ending gender discrimination and ensuring popular support to meet the objectives of the Population Policy. The policy document focuses on formulation, implementation, monitoring and evaluation of the Reproductive & Child Health Programme. It reflects the commitment of the Government towards the overall welfare of the people of Rajasthan” (<http://www.poline.org/node/530095>)

Family Welfare Programme is inseparably linked with other sectors and demands intervention and efficient policies in these sectors so that changes can be brought in the social, economic, cultural, and political environment. Therefore, the objectives set by the Family Welfare Department and other related departments that are playing an important role in this area can alone determine the objectives of population stabilization.

#### 3.1 Goals

According to the Population Policy of Rajasthan, the goal has been set to achieve replacement level fertility by the year 2016, though it was difficult but essential to attain the objective. With this in view, the rate of contraceptive use has



to be increased to 68 per cent by the year 2016. Following provisions have been adopted by the Government of Rajasthan in population policy :

### 3-2 Marriageable Age

Since ancient period Child Marriage (Bal Vivah) custom has been a big problem. Most of the families particularly in the rural areas followed the custom of Child marriage by the reason due to lack of awareness, lack of education facilities, and feeling of responsibility of the parents. Therefore, Government of Rajasthan has taken various steps to stop this custom. These are following :

- To educate girls and boys equally and to get them married at right age so that they are ready for responsible parenthood.
- To increase awareness of legal age at marriage that is 18 for girl and 21 for boy.
- To increase awareness of child rights such as right to education.

### 3-3 Reduction in Maternal Mortality Rate (MMR)

- Make antenatal services accessible to all pregnant women and ensure their examination for early detection of risks associated with pregnancy.
- Increase institutional deliveries from 11.6 per cent in 1995 to 50 per cent till 2016.
- Expand emergency and obstetric care services.
- Provide safe abortion services in 75 per cent of the primary health centres till 2016.
- Increase assistance at delivery by trained persons from 33 per cent in 1995 to 100 per cent by 2005.

**Table-3 : Indicators from 1997 to 2016 in India**

Indicators	1997	2001	2004	2007	2011	2013	2016
Total fertility rate	4.11	3.74	3.41	3.09	2.65	2.43	2.10
Birth rate	32.1	29.2	27.5	25.6	22.6	20.9	18.4
Contraceptive prevalence rate	38.5	42.2	48.2	52.7	58.8	61.8	68.0
Death rate	8.9	8.7	8.4	7.9	7.5	7.2	7.0
Infant mortality rate	85.0	77.4	72.7	68.1	62.2	60.1	56.8

Source : MMR Report.

### **3-4 Reduction in Child and Infant Mortality Rate**

- Eradicate polio by ensuring 100 per cent coverage of children by 2000.
- Provide full immunization coverage from 38 per cent in 1996 to at least 90 per cent of children in 2007.
- Ensure 90 per cent use of ORS for diarrhoea control by 2007.
- Reduce incidence of acute respiratory infection by 70 per cent by 2003.
- Increase capacity of correct diagnosis and management of diarrhoeal diseases at sub-centre level to 70 per cent by 2007.
- Ensure that 70 per cent children get five doses of Vitamin A by 2007.
- Eliminate chronic and severe malnutrition among children as soon as possible and increase birth weight of children.

### **3-5 Reduction in Fertility Rate**

- Educate all the eligible couples about the contraceptive choices available, and encourage them to take responsible decisions.
- Promote spacing method use by encouraging couples to have first child after two years of marriage; second child after 3-5 years of the first one and then to promote terminal methods to those couples having two or more children.
- Encourage males to share responsibility and increase the use of contraceptive methods especially male sterilization.
- Increase age of woman at first birth from 16.2 to 20 years as early as possible.

### **3-6 Reproductive Tract Infections**

- Document prevalence and incidence rates of reproductive tract infections in different parts of the state.
- Reduce the prevalence rate of reproductive tract infections substantially with special emphasis on women in lower social and economic groups.
- Create awareness and educate people on HIV/AIDS and provide counseling services.

### **3-7 Infertility**

- Provide counseling and clinical services to couples facing the problems of infertility.

### **3-8 Goals for other Departments**

- Ensure that women enjoy social, economic and political rights.
- Raise female literacy rate from the present rate of 20.44 per cent
- Ensure that mean age at marriage for women is increased from 15 years in 1993 to 18 years.
- Reduce severe and mild mal-nutrition among women and children.
- Reduce prevalence of child labour among children below 14 years.

The expectations are that through this new population policy of the state government, the objective of a small and happy family will be achieved. This policy will make it possible to considerably reduce population growth rate and as a result will provide more opportunities for employment, provide basic necessities to the people, and ensure steady economic development. On the personal level, small families will mean the availability of better educational and health services, and improvement in the nutritional status. Consequently, women's health will improve and there will be less infant and child mortality. Fewer children will also ease the pressure on housing, check the fragmentation of agricultural land, and help to conserve scarce natural resources.

In brief, by controlling population growth, it will be possible to tackle the problems of housing, forests, drinking water, education, environment, transport, etc. Small families will mean better educational and health services, smoothening the path of economic development, which in turn will mean happier and better standard of living of the people, and the consequent increase in production and income. To achieve these objectives, the family welfare programme will have to be made a people's programme so that an atmosphere is created in which every person has a firm conviction that a small family is a happy family.

## **4. Programme Management in Urban Areas**

Primary health structure is available in rural areas for family welfare and mother and child health services. Similar structure is not available in urban areas. Considering the rapid migration of rural folk to urban slums such structure is much needed in cities. Following are major components of the strategy to achieve this :

1. Provision of one ANM or a nurse for 20,000 population.
2. One Reproductive Health Centre for a population of 200,000.
3. Such centres will also be set up in slums and areas of deprived sections of society.

4. Encourage industrialists for ensuring private sector's participation in this endeavor.

Following are major components of the strategy to seek cooperation of private sector :

1. Industrial houses to provide health services at district and block headquarters.
2. Defined geographical areas will be linked to the health services provided by the Industrial Houses to provide family welfare and RCH services.
3. Adoption of remote rural areas by the industrial houses to provide mobile services until regular health service delivery system is in place.

Department of Panchayat and Rural Development focuses on the the following :

1. Review of the family welfare programme should be a permanent agenda in the meetings of the District Council, Panchayat Samiti, Gram Panchayat and Gram Sabha.
2. The basic responsibility of the implementation of family welfare programme will be with the Gram Panchayat.
3. If the employee of PHC, sub-centre, ayurvedic dispensary located in a panchayat area, is not present at head quarter for providing continuous services, the Sarpanch can report such matters to the District Collector.
4. At least two pages will be set-aside in the magazine "Rajasthan Vikas" for the material provided by IEC Bureau.

Panchayat should regularly review the implementation of family welfare programme, and if the officials are not providing services required according to the needs, Panchayat should send their feed back to higher officials.

Along with the above provisions various other programmes and policies have been implemented such as the Medicare Relief Card system (1999) to provide free medical services to the urban poor at the state hospital, and more recently the Janani Surakhsha Yojana (JSY, 2005) has been set up to ensure antenatal, delivery and postpartum care to poor pregnant mothers who are given Rs. 600/- towards this end at the time of their delivery. There are so many schemes for the urban poor who address their housing and sanitation and employment / food security needs. The Jawaharlal Nehru National Urban Renewal Mission (JNNURM, 2005) is funding projects on improving water supply, sewage and waste management, provision of toilets, lighting, child care centres in 60 cities in the country, including Jaipur. There are also urban self-employment and wage employment programmes which have been initiated. Some of these programmes

will no doubt provide critical relief to the urban poor. They may still not be able to reach the most vulnerable group, including a number of migrant families. In order to understand the specific characteristics of the urban migrants, we need first to learn from their experiences.

Notions of health were, however, submerged within wider discourses of well-being, such as to do with ownership and employment. Migration was indirectly connected to health in that it was seen as an important means of procuring better livelihoods, income, food and residence. It is general perception that 'how can poor be concerned about matters like health (swasthya) when they don't even have enough to eat? The connection between income and food is particularly stark for those households that are dependent on daily wage earnings. So many family members sometimes keep postponing meals until the money had come in to buy food. When families move out of rural contexts, they also lose the access their children have to mid-day meals provided at rural schools, and in this sense become worse off as a result of their move.

## **5. Conclusion**

Nevertheless, a number of migrants saw the basti as a place where their children could have access to a greater amount and range of especially cooked and 'junk' food. Most of the children have weekly intake of foods that is to drink half a cup of tea in the mornings, and either have a 'toast' (rusk) or roti and in the meal they have a roti with a little vegetable during the day. Very few children drank milk, or consumed curd, eggs or fresh fruit. Goat meat or chicken was occasionally eaten but the portions were very small as the dish was shared amongst a large family. Hence by biomedical standards the children were not having a nutritious diet.

It is also fact that there is natural connection between women's employment and children's nutrition. The women who are employed give up breastfeeding and switch to other kinds of milk (goat, cow, tinned) as compared to women who do not work. Women who worked also shifted much of the childcare and household chores onto their older children, especially daughters.

The access to food gained by their move to the basti was offset in local perceptions by the view of the basti as a dirty, rodent-and-mosquito infested environment. The pollution included the more hazardous chemical wastes that made up the environment which the children lived and worked in. The lack of proper drainage and toilet facilities meant that there was a high incidence of diarrhoea. Diarrhoea (dasth or tutti lagna) was, however, not regarded as an illness and was seen to be a result simply of stomach disorder. The insignificance attributed to diarrhoea and related under-reporting is very likely to contribute

significantly to child morbidity and death in the basti. The effects of dehydration or sookhna, a common reason given by parents for the unexplained death of their infants, were not linked to diarrhoea in local perceptions. It is often seen that health workers working in these contexts are themselves unaware of the differences and the dangers of blood in the stool indicated in the latter. Recognizing the difference between diarrhoea and dysentery is important in determining the nature of the cure as being an oral rehydration packet or an antibiotic. The NFHS-2 report also does not distinguish between diarrhoea and dysentery. In fact it positively discourages the use of drugs to treat childhood diarrhoea.

So many studies has been done in this regard and major conclusion is that children's health and well-being emerge as the result of a complex combination of factors, which include mother's work, independent income, nutrition, father and his relatives support to their mother, willingness and ability to access emergency reproductive care, awareness of health risk and implications of local aetiology, access to good curative services for the children and a safe social and physical environment, including clean drinking water, a proper drainage system and rodent and pest free conditions of living.

## Acknowledgement

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## ***Interpersonal Strategies used in Business Communication***

***Sufia Azim\****

*Communication plays a vital role in the functioning of business organizations. It is an important and continuous process in an organization which cannot be avoided or separated. Principles of interpersonal communication are communicators, message, noise, response, background and channel. Interpersonal communication promotes better interpersonal relationship, availability of information and decision making in an organization. There are various styles and strategies of interpersonal communication. This paper focus on the importance of interpersonal communication for the sustenance of an organization.*

**[Keywords :** Interpersonal strategies, Business communication, business organizations, Interpersonal relationship]

### **1. Introduction**

Interpersonal communication refers to the ways of interacting with people to share and exchange ideas, knowledge and feelings. In everyday encounter people get involved interpersonally as in like at ticket counter, making enquiry, taking a

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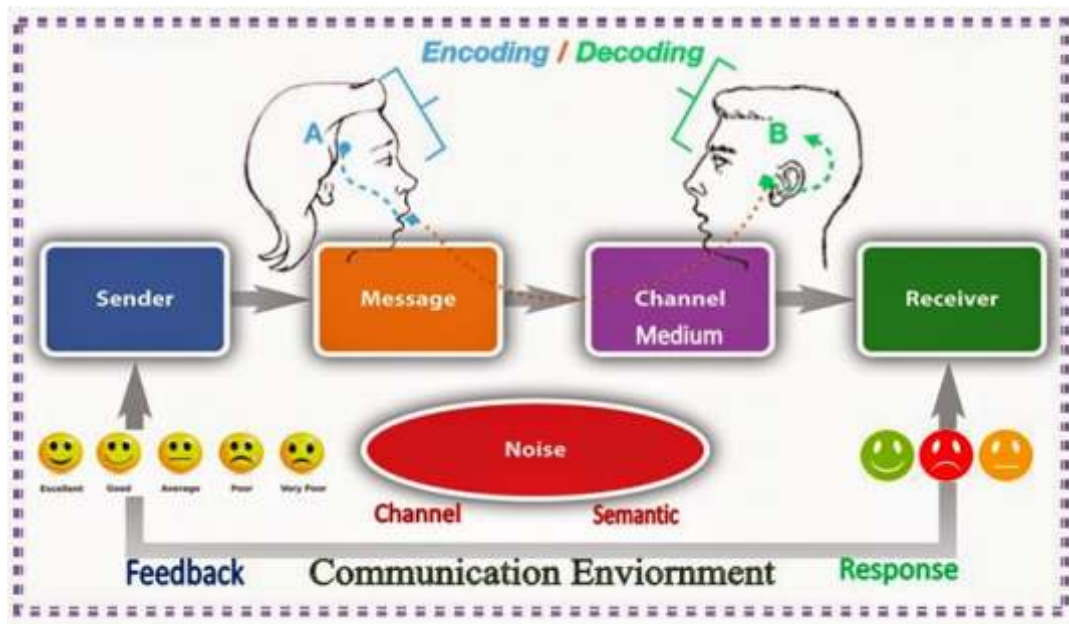


token of canteen, talking on phone ,online shopping and new social media applications like whatsapp, facebook, twitter, line, skype and so on.

Hartley (1999 : 20) defines interpersonal communication as having the following characteristics :

- Communication from one person to another.
- Communication which is face-to-face.
- Both the form and the content of the communication reflect the personal characteristics of the individuals as well as their social roles and relationships.

When two or more people are in same context communication will take place no matter how precise or unconscious it is. It takes place even without verbal words through gestures and postures. Hartley (1999) suggests that interpersonal communication includes the following aspects : non-verbal communication, reinforcement, questioning, reflecting, opening and closing, explanation, listening and self-disclosure.



Source : [https://www.google.co.in/url?sa=i&rct=j&q=&esrc=s&source=images&cd=&cad=rja&uact=8&ved=0ahUKEwiO5LLe79HKAhWXY4KHdbnAysQjRwIBw&url=http%3A%2F%2Fscholarsacademia.blogspot.com%2F2015%2F04%2Fcommunication-skills.html&psig=AFQjCNFi-fKm4r55ggqk\\_prckl0jkUWIw&ust=1454254875402959](https://www.google.co.in/url?sa=i&rct=j&q=&esrc=s&source=images&cd=&cad=rja&uact=8&ved=0ahUKEwiO5LLe79HKAhWXY4KHdbnAysQjRwIBw&url=http%3A%2F%2Fscholarsacademia.blogspot.com%2F2015%2F04%2Fcommunication-skills.html&psig=AFQjCNFi-fKm4r55ggqk_prckl0jkUWIw&ust=1454254875402959)

One can communicate interpersonally through various ways such as by speech, writing, gestures and among them spoken communication dominates all

other forms of communication. For instance interpersonal communication that is done at business for meetings, projects, formal chit-chat. Interpersonal communication with those outside the business organization can be in various forms, too counting client meetings, employment interviews, or sales visits. So as to comprehend the principles of effective interpersonal communication, it is beneficial to look at the fundamental process of communication.

The basic process of communication starts with a perceived idea by one person. The sender (that person) chooses to decode the perception into a message and eventually conveys the message through some medium of communication. The receiver then interprets the message and gave the positive feedback, which means message, has been interpreted. Errors can occur in any stage of communication such as while delivering the message by sender or misinterpretation of message by receiver consequently it breaks down the communication (Ibid, 2005).

## **2. Principles of Interpersonal Communication**

### **2.1 Participants**

Interpersonal communication takes place at least between two people. It is a two way process where participants send and receive message from each other.

### **2.2 Message**

Communication includes exchange of both verbal and non verbal message. Non verbal message gives additional information about the idea conveyed in interaction. Particularly it can reveal more about emotions which is the basic substance of interpersonal discourse.

### **2.3 Noise**

Noise has unique implication in the communication theory. It twists the actual message send and received thus leading to mis-communication. Things like jargons, unfitting body language, ignorance, and cultural difference are included in noise in interpersonal communication. Thus anything which leads to misinterpretation is considered noise in context of communication.

### **2.4 Feedback**

Feedback is given by receiver. It helps the sender to know how accurately the message has been understood along with sender reaction. Some sender gives direct oral feedback whereas some of them give it through non verbal ways such as facial expressions or changes in postures signals that the receiver is not comfortable with

the message. Nodding signals agreement on a certain point and eye contact shows the interest of the receiver in the topic.

## **2.5 Context**

It plays a vital role in communication. It includes situational as well as social background.

## **2.6 Channel**

It refers to medium by which message is transported from one person to another person. Interpersonal communication uses the medium of both spoken and written communication.

## **2.7 Communication Channel**

It is the medium use to deliver message from one person to another. It is divided into two categories : direct and indirect communication. Direct channel is clear and visible and easily identified by the receiver. It is in the direct control of sender .It includes both the verbal and non-verbal communication. Verbal communication can be achieved through both speech and writing whereas non-verbal communication is achieved through facial expressions and controlled body moments.

Channels which are identified unconsciously by the receiver and are not in the direct control of the speaker are indirect channels. It includes body language which consists of inner feelings and emotions. It also includes an urge of something, protrusion, vibes, and perceptions.

## **3. Business Communication**

Business communication is used for transmitting and assembling information. Such communication is carried out through e-mail, meetings, workplace, notice and business calls. Such type of communication is carried out at workplace between managers and co-workers. It focus more on correct use of grammar, formal language, apprehensible question and amiable tone (Ibid,2005).

Business communication differs from Interpersonal communication as the later is a casual conversation between friends, family, classmates, peers, co-workers. Such communication is done in informal situations such as cracking a joke, informal topics, and easy going conversation. This communication is error tolerant and focuses more on communicative competence rather than linguistics

competence as the goal is to communicate message. It allows use of incorrect grammar, jargons, and slangs (Sethi and Seth, 2005).

Interpersonal business communication becomes fruitful with the application of following features in the communication :

1. **Clarity** : The success of interpersonal communication depends on its clarity. If the message is not transparent interpersonal communication can never be effective.
2. **Large number of communication channels** : Interpersonal communication flourish only when there are large numbers of people to interact.
3. **Accuracy and Lucidity in communication** : Interpersonal communication can prosper when it is accurate and lucid.
4. **Assessment** : It is an important feature in effective Interpersonal communication.
5. **Disagreement** : At workplace disagreement can occur frequently (Mukherjee, 2013).

The success in business not only depends on the content of the message but it also depends on use of persuasive language. The success and failure of any brand or organization depends on the successful interaction with internal and external customers. The communication with the employees is internal whereas the interaction with the suppliers, government, shareholders and the media (Ibid, 2013).

### **3.1 Advantages of Interpersonal Business Communication**

- **Better interpersonal relationships** : It is important to maintain a good will with the internal and external customers. It helps in effective running of organization effectively. Good communication helps in maintaining future relationship.
- **Better information availability** : Effective interpersonal communication gives better information at an appropriate time and place. It is very essential component for success of business. The problems of the customer can be solved quickly.
- **Better decision-making** : With the flow of information decision making becomes better and it helps in solving problems better and faster.

Better communication helps to build better company image, recognize and remove bottlenecks, improve productivity amongst employees, and ensure high level of employee satisfaction (Mukherjee, 2013 : 13).

### 3-2 Styles of Interpersonal Business Communication

Bateman and Zeithaml (1990) identified six core styles of interpersonal communication that are used in business settings : controlling, egalitarian, structuring, dynamic, relinquishing, and withdrawal. “Different individuals use different communication styles”, the authors observed. “A communicator should realize that some styles are more effective than others in certain situations” (cited in Sethi and Seth, 2014 : 38).

1. **Controlling style** : The controlling style is a single way communication, mostly used in business by managers who do not want feedback. At times it is useful as it enforces stress on the workers in order to accomplish a particular task.
2. **Egalitarian style** : Egalitarian style is a two way communication which involves sharing information rather than giving instruction. It is used in a situation where co-operation is required.
3. **Structure style** : The structure style of interpersonal communication is used to set agenda set by the organization. It is used to inform others about the objectives of the company which need to be accomplished.
4. **Dynamic style** : The dynamic style is used for motivating another person to get the work done. It is a crucial style in critical situation.
5. **Relinquishing Style** : The relinquishing style is polite form of interpersonal communication rather than an order which is mandatory to be obeyed. In business communication manager would ask the employees to assist in solving the problem and it is not imposed on them they can participate in the matter if they wish and have knowledge relating to it.
6. **Withdrawal style** : The withdrawal style is used by manager to dodge the communication. Managers use this style when they avoid participation in the conversation.

### 4. Use of Social Media for Interpersonal Business Communication

Interpersonal communication has always been an essential part of human beings. Before the revolution in technology like invention of personal computer, cell phones the communication was carried out face to face, orally or through writing. ‘Technological Determinism Theory attempts to help explain how changes in methods of communication through advancements in technology impacts general society.’ The innovation has changed the medium of communication. Now people can interact virtually with known and unknown people (Scarabota et. al., 2012 : 7).

Social media has both positive and negative impact on its users. It enables communication without face to face presence of participants which enables interpersonal behavior. 'Social exchange theory is derived from basic principles of economics and compares human behavior to that of transactions in a market place environment. The theory begins with the principle that human social behavior is based upon the drive to maximize benefits while minimizing costs'. In social exchange theory, the six main rewards that exist, consisting of both the tangible and intangible, are love, money, status, goods, information, and services. The identified costs in social exchange theory are time and energy (Ripa & Carrasco, 2007) (Cited in Scarabota et. al., 2012 : 13).

Communication through social networking takes place in two ways by mobile phones and internet. It takes between known and unknown people. Increase use of cell phone and internet requires interpersonal skills. Gossieaux & Moran (2010) were of the view that the interpersonal impact of both offline and online context is same. The difference between online and offline communication is that former happens virtually whereas later happens face to face. The text based communication done through internet is recorded on a community's website and is easily accessible to any registered number.

#### **4.1 Mobile Communication**

Through technological development people are able to participate virtually which was not possible earlier. The mobile has become a mediator between people, knowledge and entertainment. Mobile communication is two sided which requires involvement of both the speaker and receiver (Scarabota et. al., 2012)

In contrast to internet surfing there is instant messaging which is most popular method of communication. Texting is another way of communication the SMS (short message service). It has been an area of debate and study which include two lengthy books collection (Glotz and Bertschi 2005; Harper, Plaen, and Taylor 2005) (cited in Goggin, 2006). Text message was a result of an accident which was sent for the first time in 1993 by Nokia engineering student. But at that time it was just ignored (Agar 2003). Cell phone are designed in different way to attract customers such as inclusion of QWERTY for texting and many other features such as all smart phones have a number of application to attract buyers. Some phones give the facility of long messaging as well as v.

#### **4.2 Online Communication**

Over the past decade technology has advanced much. During 20<sup>th</sup> century people use to interact through face- to- face and telephones (Hinduja & Patchin,



2007). However the growth in technology has increased the use of online and telecommunications (Hinduja and Patchin, 2008, cited in Scarabota et. al., 2012 : 5). Therefore it is observed that the the youth of today use technology such as the Internet more than any other method through which to communicate and socialize (Mishna, McLuckie, & Saini, 2009; Kaynay & Yelsma, 2000; Nie & Hillygus, 200) (cited in Scarabota et. al., 2012 : 5).

The term 'Internet surfing' comes after the creation of internet and is considered an addition of 'channel surfing' as in television viewers randomly change channel without any effort physically. Internet is use for variety of purpose to gather information, playing games, shopping, viewing photos and movies. Surfing the Internet can be addictive in nature because individuals receive short-term gratification every time they go online, making it very desirable to continue to go online to receive this gratification (Selfout, Branje, Delsing, Bogt & Meeus, 2009; Hall & Parsons, 2001) (Cited in *ibid*, 2012). Interpersonal interaction in social networking is carried out by the activities of texting, blogging-mail, bulletin board, posting (comments, status updates and videos). With the increasing use of Internet has resulted in a creation of World Wide Web (Giffords, 2009)(Cited in *Ibid*, 2012). From the early days of mainframe computers to the present, computers have been mostly used for interpersonal communication (Sproull & Kiesler, 1991, Cited in *Ibid*, 2012).

Interpersonal communication takes place by forming online communities. The belief of community has always been in human beings to share feelings, space and interpersonal relation. Human beings like to be in a group with whom they can share their feelings and intimacy (Bauman, 2001, cited in Scarabota et al, 2012). Community is a form of social organization based on small groups, like neighbours, small towns, or geographically limited spaces (Delanty, 2003; *Ibid*, 2012). In the early definitions geographical closeness was an essential component. But with the advancement in technology the perspective of geographical proximity has changed. There have been many attempts to define various communities developing on Internet. The definition of online communities as 'social aggregations that emerge from the Internet when enough people carry on those public discussions long enough, with sufficient human feeling, to form webs of personal relationships in cyberspace' (Rheingold, 1993 : 5, cited in Scarabota, 2012 : 250) is considered one of the most relevant to describe and understand online.

Interpersonal influence is one particular form of computer-mediated discourse which is highly persuasive. Searching of knowledge is the crux of online consumer decision making in buying the product (Darley, Blankson & Luethge,



2010) and specifically information is essential in high-involvement, high-risk consumption decisions (Beatty & Smith, 1987, cited in Scarabota, 2012).

Buyers frequently search information from the Internet that helps in diagnosing a problem or need, and enables a comparison between the brands (Beatty & Smith, 1987). Web searching has become very frequent which influence the consumer's decision in buying a product (e.g Grant, Clarke & Kryazis, 2007). Consumer behavior literature indicates that reference groups may alter consumers' choices in three different manners : through informational influence, normative acquiescence, and the influence on value expression (Bearden, Netemeyer & Teel, 1989; Wood, 2000) (cited in Scarabota, 2012 : 250).

A particular form of marketing communication is word of mouth which arise from consumers and is directed to other consumers.(Ditcher 1966).It is not formal, spoken, personal and non-commercial(the speaker did not gain any profit).It gives the information about possession ,usage or particular aspects of goods and services, companies and brands.

Focusing on the narrative strategies of bloggers who engaged in the dissemination of marketing messages through their blogs , the authors found that bloggers juggle promotional messages with the values they have developed for their blogs and their respective audiences. While this research adds much to our understanding of online WOM, it examines marketer initiated, not voluntary, mentions to brands and products which characterize most interpersonal influence (De Bruyn & Lilien, 2008, cited in Scarabota, 2012 : 251).

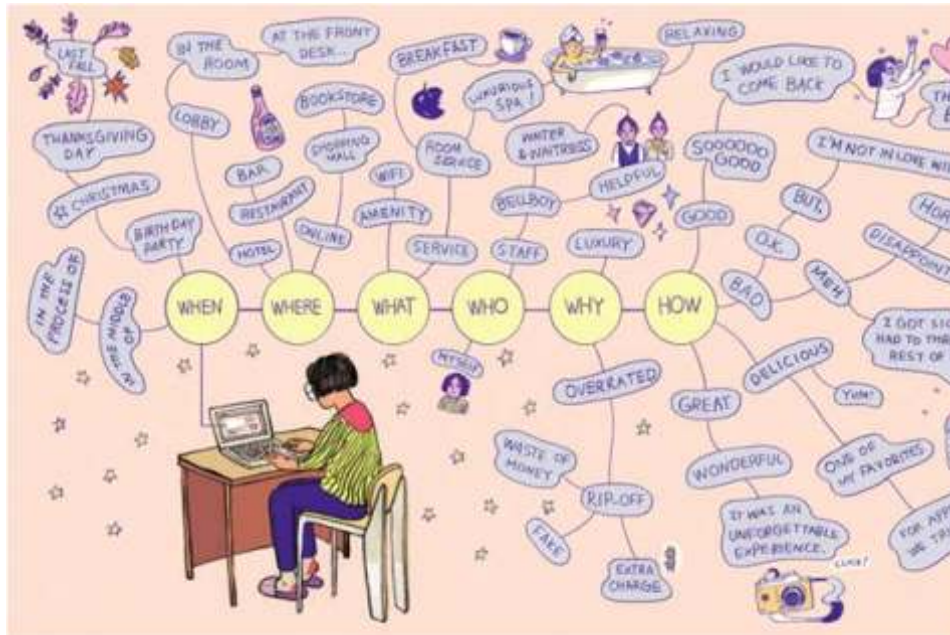
Interpersonal influence is one particular form of computer-mediated discourse characterized by persuasiveness, we are also sensitized to the principles of rhetorical analysis (Zachry, 2009), which focuses on the agentic, planned, and effectual strategies of persuasion as they are articulated by individuals in spoken or written text (cited in Scarabota, 2012 : 252).

Communication interpersonally in online communities depends upon various variables like when, where, what , who, why and how. This variable plays an essential role in effective interpersonal communication as they gives direction to communication. The purpose of these variables are as follows :

1. **When** : This variable refers to the period of time of conversation. It may be in the middle, process or last phase of some situation.
2. **Where** : It refers to the context in which the interaction takes place. It may be at hotel, restaurant,in the class room, library, seminar and so on.
3. **What** : It refers to the content of conversation. It may include service, amenity,breakfast and so on.

4. **Who :** It refers to the participants of communication and their age, social status, background, location, settings, gender, physical action and proximity (Widdowson, 2007). It is an essential variable of communication as the effective interaction rely very much on this attribute. It may include staff, friends, teachers, colleagues and so on.
5. **Why :** This variable refers to the purpose of communication. It may include include taking help, shopping, chatting, sharing and so on.
6. **How :** It refers to the effect of communication. It may be good, ok, bad, great wonderful and so on.

When different these variables of discourse interact with one another for appropriate interpersonal communication is described than it becomes complicated to understand yet human beings have a natural and innate ability to acquire them with ease and comfort as they are intrinsic part of daily routine. All these variables are depicted in the picture given below :



Source : Michael, E.2014. 'The art of the amateur online review'. Retrieved from <http://www.livemint.com/Consumer/NrV7417JAz7EDajAJ8NUDP/The-art-of-the-amateur-online-review.html> [accessed on 1 December, 2014]

## 5. Strategies used in Interpersonal Business Communication

Interpersonal business communication uses many tactics to persuade customers out of which advertisement plays the crucial role. Advertising is an

inevitable part of our modern capitalist consumer society whose outstanding feature is its competitive fight. . “...advertising is not some external curiosity which we examine, from which we are separate and superior, but something of which we are part, and which is part of us...” (Cook, 1996 : 182).

The use of rhetoric devices in advertisements helps in promotion of products. This method is operative, projected and influential method. Hence, in any interaction, when choose to engage rhetorically but unconsciously it leads to engagement in discourse one may choose to engage in rhetoric, but one always engages in discourse (Potter, 1996) (cited in Scaraboto, 2012). Rhetorical strategies associated with four types of interpersonal influence, including setting expectations, prescribing, claiming expertise, and celebrating acquiescence. These types of text recurrently produced by participants are representative of the three forms of persuasive appeal described in classic rhetorical analysis : logos, that is, appeals to logic and focuses on the argument itself; ethos, which are appeals made on the basis of character of the speaker; and pathos, based on appeals to the audience’s emotions (Amossy, 2005; Meyer, 1994; Scarabota, 2012 : 254).

Following are the particular types of interpersonal strategies :

- **Setting Expectations** : This strategy is applied when participants are concerned about making wrong choice based on information from outside.
- **Claiming expertise** : Consumers always prefer to get information about a product or brand before buying it. As they are not directly linked to the marketers so they consider personal experience as the most reliable of a product.
- **Prescribing** : It is another strategy which is derived from calming expertise. It is also important to observe that in online communities, self-presentation is built through discourse, participation, and other cues (e.g. a participant’s name and profile picture).
- **Celebrating acquiescence** : When consumers get information about the product they post it on the group to share the knowledge with their acquaintance (Scarabota, 2014).

## **6. Use of Metonymy in Online Marketing Advertisements**

‘Metonymy is viewed essentially as a Way of abstracting a relation between concepts, words and objects’ (Fatihi, 2014 : 189). It is basically used for representation by using sign which can be of words, concepts, and things. Ullmann Morris (1962) described semiotics based on three categories that is semantics, syntactic and pragmatics (cited in Fatihi, 2014).

According to Grice's maxims in advertisement use of figure of speech violates the maxim of quality. It becomes obvious in the language of advertising as in following examples (Fatihi, 2014 : 192)

**'Double your profit in 6 months flat 100% guaranteed'.**

**Click to know more**

It is a hyperbolic language as nothing is 100% guaranteed.

**'Call in the next 10 minutes....You get free shipping?'**

A trick is used in this advertisement language to persuade customer and get their response quickly.

Advertisement language is sometimes non synchronic with the literal meaning and figurative meaning. As depicted in the following example :

**'Would you mind to close the door'**

Most probably it will be interpreted as question but it can be an indirect speech act which is used for asking help

'According to speech act theory, correspondence between sentence meaning and utterance meaning in speech results in literal speech acts (Searle, 1975 : 60). So declarative sentences are seen to be assertions, interrogative sentences, questions and imperative sentence orders' (Fatihi, 2014).

## **6.1 Metonymy and Cohesion**

Halliday and Hasan (1976) gave cohesive devices to show the metonymic relations between the parts of sentence which gives texture to the semiotic approach occurrences in the form of ties, meaning in its actuality. It is formal theory of meaning in text, in that it is the study of meaning as created by a set of formal features in the text. Halliday and Hasan (1976) describe text as an any linguistic entity which can be in speech and writing of a single word or a sentence and extended length. There is a continuous process of interaction, negotiation, expectation and prediction that a formal definition of text misses.

## **6.2 Metonymy and Grammatical Cohesion**

Grammatical cohesion is the type of cohesion that includes reference, substitution and ellipsis.

## **6.3 Reference**

The reference can be categorized into two broad categories according to context and text. It basically includes exophoric and endophoric reference where former refers to the inside text whereas later refers to outside the context. (Ibid :

1976). Stallard (1993) and Nunberg (1995) gave a theory of metonymy used for referencing. They suggest that metonymy accounts for the phenomena of indirect reference or deferred reference. Examples of this indirect reference include :



In above example we notice that an indirect anaphoric reference in the use of pronoun 'we' and 'you' to refer to antecedent. This is a violation of a fundamental property of the pronoun 'he' and 'you' as these do not refer to antecedent explicitly. The solution to this 'textual tension' is provided by a metonymic interpretation of the whole exchange in which 'we' is actually a surface noun phrase (NP) standing for an underling deep NP, 'Ford' with which the pronoun 'we' naturally agrees. 'You' refers to consumers (Fatihi, 2014 : 229).

#### 6.4 Ellipsis

It belongs to a cohesive devices and it is defined as "the omission of part of a structure" (Goddard 1998) defines ellipsis as the omission of a part of the sentence which the writer thinks that the reader will understand. Advertisement language makes use of ellipsis for a number of purposes like ellipsis saves money and space, creates an effect of intimacy (Ibid, 2014).



"Nespresso. What else?"

This is the advertisement headline for coffee. Everybody may recognize that the person, who asks the question, is a waitress in a café. The Whole utterance may be “You’ll take Nespresso. What else would you like to drink?” It is clear to that everybody that ‘What else’ means that they can order something more. The intention to make short dynamic slogans leads to the tendency to use symbol of colon between two noun phrases.

## 7. Conclusion

Organizations are run by people and without interaction and communication, organizational existence would be very difficult. Therefore appropriate strategies should be used for effective business communication.

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## **SWOT Analysis of Floriculture with special reference to Himachal Pradesh**

**Praveen Singh\***

*Our society in various forms depends on the usage of flowers to perform our basic rituals. Floriculture is basically the art and knowledge of growing flowers to perfection. Due to changes in seasons, main horticulture products are registering low production and productivity trends, which further, reduce the revenue of the farmers. In this changing scenario, people of hilly areas especially Himachal Pradesh are shifting their cultivation pattern from Horticulture to Floriculture. Floriculture has immense potential for generating employment among small and marginal farmers. In continuation with this the agro-climatic conditions of Himachal Pradesh are best suited for the development of floriculture both to serve the internal off-season market and also for exports in the later stages. Year by year area production and productivity farmers are increasing in this segment. Thus, this paper tries to examine the scope of floriculture in Himachal Pradesh through SWOT analysis. The study reveals that there is immense scope of floriculture in the hilly states like Himachal Pradesh, but need is to provide the basic facilities and transportation with cold chain facilities and proper marketing and post harvest management. It also recommends few policy guidelines which will lead towards the*

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*sustainable and holistic development of floriculture as a means of sustainable livelihood and income generation for the farmers of Himachal Pradesh.*

**[Keywords :** Floriculture, Employment, Post harvest management, Productivity, Sustainable livelihood]

## **1. Introduction**

Our country has a long floriculture history and flower growing is an age old enterprise. What it has lacked; is, its commercialization. The growing demands of flowers in the domestic as well as the export market will require a concerted effort on the part of the government as well as the private entrepreneurs to develop floriculture on scientific lines. Paying attention to the input needs, better resource management and making various policies entrepreneur friendly would lead to a balanced growth of this particular industry.

Indian Floriculture Market is growing despite of no government regulations in the pricing and exports. Thus if the Floriculture market is regulated, it will grow at a faster pace than the present growth rate. The growers in India are very hard-working but don't take risk to invest in Floriculture Industry as the pricing is not regulated and they also doesn't have much income or saving to invest on this particular segment. High initial investment and high bank interest rates are the main reason for the reluctance on the part of Indian farmer to take on Floriculture industry. Many big companies are diversifying in the agriculture sector, thus Floriculture will be there best bet due to huge global market. Another issue is the marketing of flower industry. Marketing of the floricultural produce should be done.

The area under floriculture has been increasing year after year from 144 lakhs Hectares in 2006-07 to 183 lakhs hectares in 2009-10 at India level. Production trends of different years also shows an increasing rate of the production of different flowers in the country i.e. loose flowers production from 880 MT in 2006-07 to 1021 MT in 2009-10 and cut flowers from 37,175 lakhs flowers in 2006-07 to 66,671 lakhs flowers in the year 2009-10. Thus we can say that the floricultural industry is flourishing in the country at a high speed.

The state of Himachal Pradesh is blessed with many natural advantages which place it in an ideal position and environment to grow a wide variety of flowers. These unique advantages possessed by the state favours flower cultivation as a viable diversification option for encasing the existing extensive floriculture potentials. The area under floriculture in the state was 10 hectares during 1992-93, which increased to 812.904 hectares on 31st March 2011 and some decrease in the

area has been noticed in 2015-16 i.e. 719.05 hectares. Important flower crops presently being grown in the state are Chrysanthemum, Marigold, Carnation, Gladiolus, Lilium, Daffodil, Rose, Alstroemeria, Tulip, Gerbera, Seasonal, Flower Seeds, Potted Plants, And Other Flowers.

A proper understanding of production and marketing process is essential for the analysis of the floriculture industry from the view point of Strengths, Weakness, Opportunities and Threats along with originate ways and means in such a way as to increase resources use efficiency, production and income of the flower growers.

## 2. Area and Production of Different Flower Crops in Himachal Pradesh

Table-1: Districts Wise Area under Flower Crops in H.P. 2015-16 (Hectares)

S. No.	Districts	Gladiolus	Carnation	Marigold	Lilium	Alstroemeria	Rose	Gerbera	Chrysanthemum (Loose)	Chrysanthemum (Cut)	Seasonal Flower	Other Flower	Flower Seeds	Potted Plants	Total
1.	Bilaspur	0.00	3.60	0.00	0.30	0.00	0.17	0.11	0.00	0.00	0.00	0.00	0.00	0.00	4.18
2.	Chamba	0.95	1.00	10.56	1.00	0.02	3.50	0.02	4.00	0.65	13.37	3.15	0.00	2.30	40.52
3.	Hamirpur	1.20	1.16	2.81	0.00	0.00	0.10	0.02	0.00	0.00	0.00	0.00	0.00	0.00	5.29
4.	Kangra	2.90	2.50	43.63	4.10	0.00	11.70	2.90	0.00	3.43	21.20	15.20	0.00	10.24	117.80
5.	Kullu	3.80	2.70	7.00	3.60	0.00	1.50	0.00	5.00	0.00	4.00	1.40	0.00	1.00	30.00
6.	Kinnaur	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7.	L&S	1.50	0.00	0.60	2.00	0.00	0.00	0.00	0.00	0.00	0.50	0.00	0.00	0.40	5.00
8.	Mandi	2.00	6.70	2.50	0.62	0.00	0.10	0.04	0.03	0.04	0.00	0.00	0.00	0.00	12.03
9.	Shimla	0.59	2.91	6.00	0.15	0.00	0.40	0.00	1.00	16.05	3.50	2.00	0.00	3.50	36.10
10.	Sirmaur	36.21	8.15	90.39	1.50	0.00	13.60	0.00	174.13	53.57	0.00	0.00	0.00	0.00	377.55
11.	Solan	15.60	15.15	9.76	0.3	0.60	2.79	0.23	0.50	12.34	0.01	0.82	0.00	1.20	59.35
12.	Una	1.00	0.20	6.00	0.00	0.60	2.00	1.03	6.00	0.00	3.00	5.00	3.00	4.00	31.23
	Total	65.75	44.07	179.25	13.62	0.62	35.86	4.35	190.66	86.08	45.58	27.57	3.00	22.64	719.05

Source : Department of Horticulture, H.P. 2015-16.

Other flowers include Dahlia, Statice, Godetia, Tuberose, Amaryllis, Agapanthus, Nerene, Day Lily etc.

Table-1 shows that the area under production of different flowers. In 2015-16 the total area under floriculture in Himachal Pradesh stands at 719.050 hectares. After a deep look into the table-1, we can say that the area under different flowers crops in the state has been increasing and it has shown great source of inspiration for the flower growers in the country. Sirmaur district having the maximum area under floriculture i.e. 377.55 ha and out of this maximum area (174.13 ha) is comes under the Chrysanthemum (Loose) flowers. After Sirmaur, Second place is occupied by the Kangra District, which has 117.80 ha area under floriculture and Marigold (43.63 ha) is the flower which is preferred in this district.

**Table -2 : Area, Production and Productivity under different flower crops in Himachal Pradesh from 2000-2001 to 2015-2016**

Year		2000-01			2005-06		
Sr. No.	Flower Crops	A	P	Y	A	P	Y
1	Gladiolus	74.11	11,116,500	150000	114.69	17,203,500	150000
2	Carnation	9.49	7,117,500	750000	22.31	16,732,500	750000
3	Marigold *	36.09	451,125	12500	237.84	2,973,000	12500
4	Lilium	5.85	1,754,880	299979.49	5.54	1,662,000	300000
5	Daffodil	1.16	245,920	212000	1.07	226,840	212000
6	Rose*	4.12	12,360	3000	13.73	41,202	3000.873
7	Alsroemeria	--			--		
8	Tulip	1.02	637,500	625000	0.06	37,500	625000
9	Gerbera	--			--		
10	Seasonal Flowers#	6.7	670,000	100000	8.46	845,800	99976.359
11	Chrysanthemum	7.61	951,250	125000	46.14	5,767,250	124994.58
12	Chrysanthemum (2015-16 (Cut)	This classification of Chrysanthemum in cut flowers and loose flowers is implemented from the 2011 onwards in Himachal Pradesh.					
13	Chrysanthemum (2015-16(Loose)						
14	Flower seeds*	4.1	615	150	4.09	614	150.122
15	Potted Plants	0.18	9,000	50000	6.91	345,500	50000
16	Other Flowers^	3.22	321,500	99844.72	6.14	614,000	100000
	Total	153.64	2,28,36,410 + 4,51,740		466.98	4,34,76,092 + 29,73,614	

Year		2010-11			2015-16		
Sr. No.	Flower Crops	A	P	Y	A	P	Y
1	Gladiolus	177.604	34,632,780	195000	65.75	12,492,500	312.31
2	Carnation	73.76	71,916,000	975000	44.07	42,747,900	1,282.44
3	Marigold*	337.39	30,365,100	90000	179.25	15,774,000	2,366.10

4	Lilium	8.72	1,962,000	225000	13.62	2,996,400	299.64
5	Daffodil	3.52	1,056,000	300000	--	--	--
6	Rose*	14.1	10,575,000	750000	0.62	26,715,700	1,068.63
7	Alsroemeria	0.09	67,500	750000	35.86	461,900	9.24
8	Tulip	0.1	37,500	375000	--	--	--
9	Gerbera	2.02	2,424,000	1200000	4.35	5,220,000	208.80
10	Seasonal Flowers#	37.32	3,732,000	100000	45.58	4,558,000	--
11	Chrysanthemum	144.73	20,384,175	140842.776			
12	Chrysanthemum (2015-16(Cut))	This classification of Chrysanthemum in cut flowers and loose flowers is implemented from the 2011 onwards in Himachal Pradesh.			190.66	68,864,000	1,721.60
13	Chrysanthemum (2015-16(Loose))				86.08	7,626,400	1,525.28
14	Flower seeds*	1.22	183	150	3.00	450	4.50
15	Potted Plants	6.4	320,000	50000	22.64	1,132,000	452.80
16	Other Flowers^	5.93	593,000	100000	27.57	2,757,000	--
	Total	812.904			719.050	159,498,400 (Nos.) + 23,400,400 (Kg.)	9251.34

Source : Department of Horticulture, H.P. 2015-16.

\*The Estimated Production of marigold and Flower Seeds in Kgs; the rest are in Numbers/Stems.

#Seasonal Flowers (Godetia, Aster, Statice, Gypsophylla etc.)

^Other Flowers (Narcissus, Iris, Tuberosa, Amaryllis, Agapanthus, Nerene etc.)

Area- Hectares A-Area P-Production Y-Yield (Productivity)

In table-2 are, production and productivity of the different flowers in the Himachal Pradesh has been calculated in the case of cut and loose flowers for different time intervals viz. from 1993-94 to 2015-16. From the above table it has been seen that area and production of different flowers has shown the increasing trends. Marigold is a type of flower under which the maximum area has been increased from 1993-94 till 31st March 2011 from 3.50 hectares to 337.39 hectares. But in 2015-16 area under Chrysanthemum (Cut flowers) is more than any other flower crop i.e. 190.66 ha with the production of 68,864,000 in nos. And revenue of Rs. 1,721.60 lakhs. Nowadays new and hybrid flowers has been introduced in the state to increase the production of flower cultivation.

### 3. SWOT Analysis (Strengths, Weakness, Opportunities and Threats)

There are lots of factors which affects the low performance of commercialization of cut flowers i.e. production, marketing, infra-structural and

policy constraints. In case of production, growers reported the problem of lack of knowledge in latest techniques of production, untimely and inadequate supply of reliable plant material; non-availability of skilled labour and lack of availability of sufficient capital funds. On the marketing side, the main problem faced by the growers was the lack of technical knowhow regarding grading, pre-cooling and pulsing practices. The packaging material being insufficient and costly was reported to be another hindrance in marketing of flowers. The non-availability of refrigerated transportation, cold storages and auction centres were found to cause huge losses in the marketing process. Distribution of viable plant material, provision of efficient cool-chain system, education of farmers in respect of post production handling techniques, scaling up of the cooperative societies, development of domestic markets, liberal financial assistance, encouraging export marketing, strengthening extension & research and the coordinated actions of entrepreneurs, technical experts, grower and traders can make a long lasting impact on the floriculture industry of Himachal Pradesh.

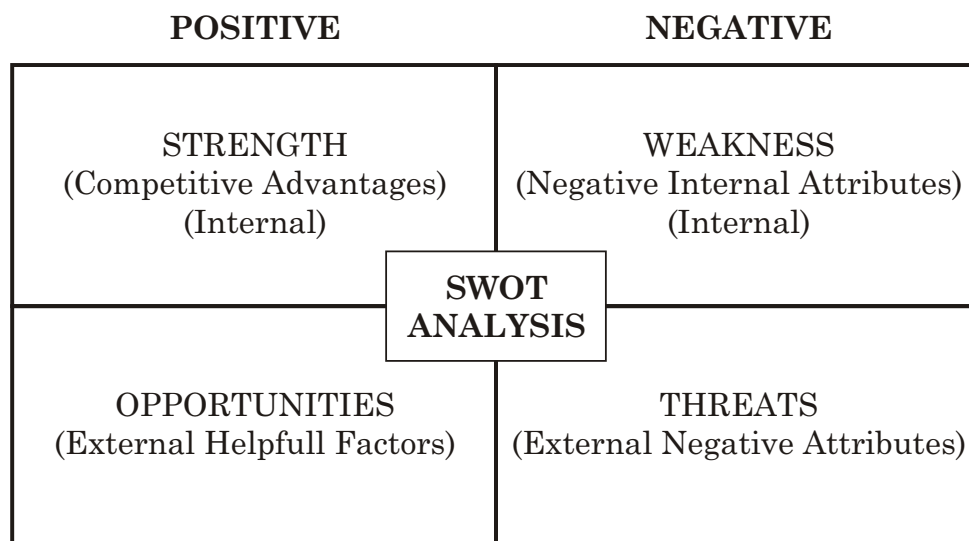
The lack of regulations on commission and other market charges renders the producers to be dependent on intermediaries and the trade continues on good faith and at the mercy of the middlemen. The marketing margins and costs especially of retailers do not seem to be commensurate with the services discharged by them. The price differential between international and domestic markets is stupendous. The poor domestic structure for flowers is affecting the domestic floriculture industry. The major bottlenecks encountered in the exports include :

- Insufficient and insufficient cold stores.
- Lack of sufficient air cargo space.
- High freight rates.
- High imports duties.
- Lack of quality and quantity of produce.
- Lack of proven methods for prolonging post-production life of cut-flowers.

Cut flowers being highly perishable need to be transported by quickest means and in proper condition and form. It was reported by the growers that at village level, the assembling centres do not have any facility of refrigerated storages. Almost all the farmers reported problem of transportation with cooling facilities. Due to lack of cool chain system, huge losses are borne by the producers which bring their share down in consumer's rupee. In the wholesale market, lack of auction centres, proper storage, packing, shops and stall facilities damages the quality of the produce to a large extent. Even at retail level, lack of proper storage results into huge losses. At production level, the provision of infra-structural

constituents of playhouse cultivation is not supplemented by timely technical guidance to the flower growers.

Government support and cooperation is the main underlying factor in boosting the floriculture industry. Though, recent policy changes has made many provisions to benefit the flower grower in many ways, yet lot needs to be done in simplifying the procedures and streamlining them in right perspectives. Lack of streamlined import/export policies, lending norms of nationalized banks and support price policy constitute the problem areas in this regard.



### 3.1 Strengths of Floriculture in Himachal Pradesh

The most important strengths of the flower industry in the Pradesh are as follows :

- Comparative advantages of the production of almost all kinds of floriculture crops—temperate to sub tropical, due to diverse agro-climatic conditions available in the state.
- Comparative advantage in the production of floriculture crops for off-season marketing due to cooler climate.
- Dependable and subsidized electrical power for running of floriculture operations.
- Fairly well developed institutional framework in the form of research, extension, credit, marketing, processing and communication infrastructure; and
- Nearness to the main distributing wholesale market at Delhi.

### 3.2 Weaknesses of Floriculture in Himachal Pradesh

- Small, scattered land holdings and sparsely located population.
- Lack of irrigation facilities due to scarce availability of water resources.
- Wide spread natural vagaries like drought, hail storms, frost etc.
- Serious gaps in the application of advanced floriculture technologies for improving quality and productivity.
- High pressure on land use for different purposes like cereal crop production, fodder production, etc. due to low per capita land availability.
- Difficulty in technology dissemination due to difficult terrain, hostile climate, poor communication facilities and sparsely located population.
- Lack of consuming markets within the state resulting in dependence upon distant markets of the country.
- High post harvest losses due to :
  - Lack of modern post harvest management system.
  - Very high temperature differentials in production areas and the consumer markets.
  - Perishable nature of flowers resulting in high post harvest losses during transportation.
  - Distant location of production areas from main roads.
  - High cost of marketing.
  - Lack of organized system of marketing.
  - Lack of bargaining power between individual growers due to small production levels.
  - Inadequate availability of market intelligence to the farmers resulting in imbalances in distribution of produce in different markets.
  - Lack of propaganda of the benefit of floriculture products of Himachal origin in the consuming markets.
  - Lack of reliable database both in respect of production and marketing.
  - Concentration on domestic markets resulting in lack of quality consciousness amongst the growers; and
  - Lack of scope for mechanization of the industry for timely execution of various operations and saving in Amour costs.



Despite these points, the performance of the State in the Indian and global floriculture market is miserable because of the following bottlenecks :

- Inadequate infrastructure.
- Lack of appropriate plant material.
- Lack of good production technology.
- Non-availability of basic inputs.
- Lack of suitable market surveys and relative information.
- Lack of sale promotion activities.
- Absence of quality control mechanism.
- Lack of coordination between government and floricultural industry.
- Absence of cold chain.
- Exorbitant air freight.
- Unorganized domestic market and lack of established marketing channels.
- High import duty on imported inputs.
- Unstreamlined export-import policy.
- Variety patenting.
- Lack of adequate trained personnel.
- Strict lending norms by banks and other financial institutes.

### **3.3 Opportunities of Floriculture in Himachal Pradesh**

- Although domestic market continues to be the main plank of floriculture industry of H. P., yet opportunities do exist for exploring market in the adjoining countries of Asian region and Middle East.
- The general increase in income levels and improvement in the standard of living of population in the country and increasing awareness about the use of floriculture has increased demand for flowers. This trend is likely to continue in the foreseeable future thereby expanding the market demands for flowers.
- Opportunities also exist for the value addition in the floriculture industry through adoption of improved post harvest management, packing and storage technologies for improving shelf life, reducing losses and increasing the marketing season/period in the year.

### 3-4 Threats of Floriculture in Himachal Pradesh

- Likely increases in the inter-state competition for marketing floriculture produce due to increasing interest in other hilly states.
- Likely changes in the policy of the central/state governments for reduction in subsidies.
- More attractive alternatives like cultivation of medicinal and aromatic plants.
- **Very high volatility in demand pattern :** There are only a few but dominant demand drivers (like marriage and festivals) in the flowers industry and these drivers have their sources among the retail segment. As against institutional buyers, retail segment creates more volatility in demand pattern. This volatility is countered by farmer-producers by creating a broad-based customer markets along with the export market—which may be difficult for medium & small farmers.
- **Highly Perishable Characteristics :** A very short shelf-life of flowers (especially traditional flowers) results in low scope for inventory management. Although the transportation requirement and storage requirement is not capital intensive unlike other perishable commodities, short shelf-life leads to high level of loss occasionally. As the risk-bearing capacity for middle and small farmers are less, this is another obstacle to consider.
- **High capital-intensive production :** This point is relevant for cut-flowers production where the capital requirement is very high. Although availability of institutional finance and subsidy from government reduces the promoter's margin substantially, still the high debt burden makes the entire proposition for average farmers very risky.

Strength	Weakness	Opportunity	Threats
Best Agro Climatic Conditions (Comparative advantages of growing flowers)	High cost of technology	The high production costs in developed countries provide opportunity as they rely largely on imports to meet their domestic demand.	Increasing rates of interest
Cheep Labour as compare with other states as well as with other countries	Lack of Coolers, Cold Storage, Cold Supply Chain and facilities of grading and packing in vicinity of growing areas	Government support	Tax changes

Diversity in production of flowers	Refrigerated transportation vans	Economics of Scale	Government regulations
Employment generation	limited germ-plasm availability	Increased urban affluence	Risk in terms of price fluctuations or price changes
Nutritional security to farmers	Lack of sale and export promotion activities	Change in life styles	growing competition and lower profitability
Establishment of National council of floriculture and state floriculture committees as policy formation bodies	High Air freight cost	Broadcasting of information to the farmers	Rising cost of raw materials
Crop insurance schemes	Poor transportation and airfreight capacity	Involvement of Horticulture and agriculture universities and their extension centre for spreading awareness & training for floricultural products.	Capital-intensive industry
Increase in the budget allocation for floriculture	Less area under cultivation	government intervention in the form of minimizing or fixing minimum commission charge	Lack of grower's cooperative societies.
	Area under floriculture is decreasing year by year in Himachal Pradesh	EXIM policies & trade policy	Un-organized Market
	Under developed Processing Industry	Floriculture policies and related support schemes & plan formulation	
	Unexploited market	Management and marketing skills	
	less invest in research and extension activities		

#### 4. Future Perspectives of Floriculture in Himachal Pradesh

Taking into consideration the existing scenario of strengths, weaknesses, opportunities and threats regarding this industry in the State, the following perspectives for the future development of floriculture in Himachal Pradesh are envisaged :

- Improving productivity of flowers in existing areas.
- Developing sizeable areas in the form of concentrated pocket under flowers; and
- Export orientation of the floriculture industry.

## **5. Suggestions and Some Steps required for Development of Floriculture in Himachal Pradesh**

Some critical areas can be hinted with high pay-off to improve the present situation :

- Concerted efforts have to be made in popularizing and disseminating the modern agro-techniques to the flower growers.
- A high priority must be accorded in strengthening the distribution of viable plant material and other critical inputs so as to ensure their timely availability.
- Adequate attention needs to be paid to raise trained man-power especially on operational and managerial aspects of flower growing in green-houses.
- Importation of production and post-production handling technology such as green-houses, pre-cooling, cold storage and refrigerated transport system.
- Some mechanism should be devised for immediate payments of scale proceeds to the growers.
- Establishment of cooperative cold storages at assembling centre and district level for temporary storage of cut flowers and planting material.
- Arrangement should be made to educate the farmers not only in improved production techniques but also in respect of improved packaging material, standard grading methods and transportation.
- Provision of efficient cool chain system right from the assembling centres till the produce reaches the ultimate hands of consumers.
- Development of domestic markets through their regulation, constructing auction halls and cold storage will impart strength and resilience not only to the export market but also to the domestic floriculture industry.
- Introduction of crop insurance scheme against natural calamities.
- The problem of air cargo space and high freight rates can be addressed through chartered aircrafts.
- There is a need to have a regularity body to inspect quality of flowers and classification of flowers to meet the international standards.
- Liberal financial assistance at nominal rates should be provided to the growers.
- Strengthening of extension component.

- Intensive location specific research is needed not only on production aspects but also on post-harvest physiology of cut flowers to prolong their vase life.
- Coordinated action of entrepreneurs, technical experts, growers and traders can make a long impact on floriculture industry in Himachal Pradesh.

Most of the flowers are grown under protected conditions in covered structure like green houses and poly-glass houses in European and other countries. Due to intense cold, high energy cost, production in these countries is limited during winter months (October to April). Thus they have to depend largely on import to meet their domestic demand as most of the festivals fall during this period when the demand of flowers is at its peak. Hence, the prospects are good for new entrants like Himachal Pradesh in this trade because of the following plus points :

- Climatic conditions are ideal during the winter months (October to April).
- Labour is cheap.
- Cost of inputs like water, electricity, fertilizer, pesticides, etc is less.
- India is situated in centrally in comparison to major flower consumption centres like Europe, Japan and Middle East countries.
- Floriculture has an annual growth potential of 25 to 30 per cent.
- Floriculture industry has 20 to 30 times more foreign exchange earning capability than any other agricultural industry.
- India is a treasure house of tropical and temperate plants, particularly orchids and roses.
- Wide choice of cut flower species and cultivars suitable for successfully growing in different climatic regions of the country.
- Capability of generating gainful employment for a large number of youth in rural and urban areas.
- Floricultural Industry of Himachal Pradesh is least capital intensive.
- Himachal Pradesh can offer reliable and quality products.
- Floriculture can create sound economic future of the economy.

## **6. Steps Required for Development of Floriculture Domestic Market**

- Encouraging farmers to undertake production and marketing of floriculture produce on co-operative basis.

- Encouraging organized auction centres in different intensive flower growing areas to safeguard interests of the growers
- Encouraging specific flower crops in intensive floriculture zones.
- Encouraging selective number of farmers to take up propagation and production of quality plantation.
- Strengthening research facilities for floriculture to impart crop and area specific technical knowledge.
- Creating more public awareness regarding use of floriculture produce through media and other agencies as well as more exposure of floriculture products during consumer exhibitions.
- Retailing of flower produce through super markets in addition to florist shops to encourage flower consumption especially in metropolitan cities.
- Promotion of interaction between growers and scientific institutions for effective lab to lance technology transfer.
- Planting material needs to be augmented by stepping up the application of technology of tissue culture.
- Technology has to be developed indigenously to make it easily accessible and to dispense with any imports.
- Research efforts are to be strengthened to produce varieties that are in demand in overseas markets and to increase the shelf-life.
- Domestic marketing has to be strengthened and facilitated by opening up, auction centres. Encouraging grower's cooperatives would help considerably.
- Infrastructure has to be created by way of cold chains, storage at airports, refrigerator transport facilities etc.
- Credit facilities particularly the rate of interest and the quantum of funds have to be investor-friendly. NABARD has to give utmost importance to the floriculture industry.
- Human resources are to be developed by imparting specialized knowledge through training programmes right from production through export marketing.
- Himachal Pradesh needs to strengthen her export efforts to tap markets such as USA, European countries and Japan.

- EXIM-policies have to be modified to exploit the full potential of floriculture industry. The effort should be to spread export culture and to create an enabling atmosphere. Growth in domestic consumption will help in boosting exports and provide greater employment opportunities and incomes.
- Information in respect of all facets of floriculture industry needs to be disseminated as widely as possible to encourage entrepreneurs to take advantage of the market opportunities.
- As a part of information dissemination, organizations such as National Horticulture Board (NHB) and Agricultural and Processed Food Products Export Development Authority (APEDA) should jointly produce video film covering all facets of industry for greater exports.
- Seminars need to be conducted in all the potential districts to encourage new investors to take to floriculture business.

## **7. Conclusion**

Himachal Pradesh is blessed by nature with tremendous biodiversity and extremely congenial climate for various kinds of Floricultural activities for improving the economy of this state. The major flower growing districts in the State are Sirmaur, Kangra, Mandi, Chamba, Shimla, Solan, Bilaspur and Kullu, where mainly gladiolus, marigold, chrysanthemums, rose, carnation, lilium, etc are cultivated. However, the State considers alstroemeria, limonium, zantedeschia, iris, strelitzia, tulips, gerbera, and orchid as potential crops. India is the second largest growers of flowers after China. With urbanization and increase in disposable income level, the demand for floriculture products has increased significantly. As a result, there has been an increasing demand for cut flowers like rose, gladiolus, carnation, gerbera, orchid, carnation, gerbera, lilium, etc. There is an equally good demand for the traditional flowers like jasmine, marigold, chrysanthemum, tuberose, etc. This has led to the transformation of floriculture sector from household activity to a commercial venture. It is one of the fastest growing segments of horticulture, having potential for providing enhanced returns to the farmers, besides providing employment opportunities to the unemployed youth. Therefore, the Government of India has to pay close attention for development of floriculture so that this new segment will offers tremendous potential for boosting exports of floriculture and floriculture products and the same are set to make a breakthrough in the near future.



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## **Teaching and Learning Strategies in Present Scenario**

**Rajive Kumar\***

*An attempt was made in this paper is to explain the innovative methods of teaching and learning and to suggest other useful teaching and learning strategies that can be attempted in imparting knowledge to the students. Basically, teaching and learning process is a two way communication that must have contentious interaction. Therefore, teacher always tries to use the best strategy to impart knowledge. In the 21<sup>st</sup> Century, the use of innovative approaches has taken place at large by teachers and students to learn more and more. The use of these innovative approaches in educational institutions has the potential not only to improve education, but also to enhance the involvement of students for maximum development. In this paper various new strategies of teaching and learning are explained in detail.*

**[Keywords :** Teaching and learning strategies, Innovative approaches, Role playing, Project based learning]

### **1. Introduction**

Teaching is a process of guiding and enabling an individual to learn new ideas and skills. Learners are different; therefore, they learn in different ways. That is

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why teachers should use a variety of methods to cater to different learners. These methods are referred to as teaching strategies. Teaching and learning process is concerned with the optimization of the understanding of the concept by the students. In this regard, teachers use various strategies in their day-to-day teaching. Sometimes they are fully aware of the strategies they are employing, sometimes not. Teachers need to know a variety of teaching strategies so that they can use them to address particular subjects and situations. Some strategies will work well with some students; others will not.

Effective teachers use an array of teaching strategies because there is no single, universal approach that suits all situations. Different strategies used in different combinations with different groups of students to improve their learning outcomes. Some teaching strategies are better suited to teaching certain skills and fields of knowledge than are others. Some strategies are better suited to certain student backgrounds, learning styles and abilities. Pedagogy, incorporating an array of teaching strategies that support intellectual engagement, connectedness to the wider world, supportive classroom environments and recognition of difference, should be implemented across all key learning, and subject areas.

## **2. Teaching and Learning Strategies**

Following teaching and learning strategies are relevant in present scenario :

### **2.1 Constructivist Teaching**

In this way of teaching, the individual constructs the knowledge itself. In this method, there is an interaction between pupil, teacher and task. It is done in cooperative and collaborative way with other students. In a constructivists' perspective, classrooms are places where individuals are actively engaged with others in attempting to understand and interpret phenomena for themselves, and where social interaction in groups is seen to provide the stimulus of differing perspectives on which individuals can reflect. The social nature of formal learning situations regards the classroom as the place that provides the mechanism to drive changes in students' mental structures. Thus, collaboration in classroom suggests that small and large group activities should be fostered in science classroom. And during these activities discussion should be encouraged.

### **2.2 Collaborative Learning**

Learning in the classroom is to be a social and dialogic activity. Social constructivists describe learning in classrooms as co-construction of knowledge.

Conversation with their classmates in a classroom forms a learning community. An essential part of a learning community is interaction among its members to share information and reach consensus decisions. Practical activities supported by group discussions form the core of constructivists' pedagogical practices. Through the interaction with peers students can develop their ideas about phenomena, reflect on the viability of their conceptions, and finally negotiate shared meanings to reformulate their ideas. During conversations students learn another person's insights, which is a benefit.

### **2.3 Inquiry Teaching**

Inquiry teaching is an investigative learning process that asks students to pose questions, problems, analyze data and develop conclusions or generalisations. This method encourages pupils or students to probe into a problem in order to find out why such problems exist and the solution to such problem. Inquiry method of teaching provides an opportunity for the students to identify and clarify a purpose for inquiry. In this approach, the students are not primarily asked to write a discursive essay or recall definitions but to resolve problem that will yield an answer. It increases intellectual ability of the pupils. It motivates pupils/students to learn. It helps to develop confidence in students and teachers. It teaches skills, values, appreciation, attitude and knowledge that will make students more thoughtful about their environment.

### **2.4 Discovery Teaching**

According to Ormrod, discovery teaching is “an approach to instruction through which students interact with their environment by exploring and manipulating objects, wrestling with questions and controversies, or performing experiments.” The idea is that students are more likely to remember concepts they discover on their own. Also, Discovery teaching has been described as process of allowing the student to take the leading role in his own learning experiences. The teacher becomes a facilitator and guide, making it possible for the learner to reach mutually-agreed upon goals. The teacher serves as a resource person to stimulate, motivate, clarify and explain. The student is an active participant who solves problems which he understands through student the process of structuring his own learning experiences. The teacher plays the role of resource person, as described above the environment includes both freedom and structure with freedom having the upper hand.

## **2.5 Role Playing**

Teaching through role play is a great way to make children step out of their comfort zone and develop their interpersonal skills. This is the method which involves playing the role of a reality. This method comes in handy, especially when you are teaching literature, history or current events. The role playing approach will help the student understand how the academic material will be relevant to his everyday tasks.

## **2.6 'Real-World' Teaching**

This type of teaching is the linkage between the lessons to real world. Infusing real world experiences into the instructions will make teaching moments fresh and enrich classroom learning. Relating and demonstrating through real life situations, will make the material easy to understand and easy to learn. It will spark their interest and get the children excited and involved. You can make use of smart apps for preschoolers to make these sessions all the more interesting.

## **2.7 Context-based Teaching**

Context enables us to learn from experience. By interpreting new information in the context of where and when it occurs and relating it to what we already know, we come to understand its relevance and meaning. In a classroom, the context is typically confined to a fixed space and limited time. Beyond the classroom, learning can come from an enriched context such as visiting a heritage site or museum, or being immersed in a good book. We have opportunities to create context, by interacting with our surroundings, holding conversations, making notes, and modifying nearby objects. We can also come to understand context by exploring the world around us, supported by guides and measuring instruments.

## **2.8 Brainstorming**

This approach is very important and useful to have and know the reflections of students on particular phenomena. Teachers make brainstorming sessions in the classrooms. These sessions are a great way to get the creative and logical arguments from the students. When we have multiple brains focusing on one single idea, we are sure to get numerous ideas and will also involve everyone into the discussion. These sessions will be a great platform for students to voice their thoughts without having to worry about right or wrong.



## **2.9 Excursion-based Teaching**

Learning in informal settings, such as visits to historical places, museums and clubs, can link educational content with issues that matter to learners in their lives. These connections work in both directions. Learning in schools and colleges can be enriched by experiences from everyday life; informal learning can be deepened by adding questions and knowledge from the classroom. An effective method is for a teacher to propose and discuss a question in the classroom, then for learners to explore that question on a museum visit or field trip, collecting photos or notes as evidence, then share their findings back in the class to produce individual or group answers. These crossover learning experiences exploit the strengths of both environments and provide learners with authentic and engaging opportunities for learning. Since learning occurs over a lifetime, drawing on experiences across multiple settings, the wider opportunity is to support learners in recording, linking, recalling and sharing their diverse learning events.

## **2.10 E-Learning**

E-learning is the expression broadly used to describe instructional content or learning experience delivered or enabled by electronic technologies. We can also define the use of internet, intranet/extranet, audio and videotape, satellite broadcast interactive TV and CD Rom, not only for content. In essence, e-learning is a computer based educational tool or system that enables you to learn anywhere and at any time. E-learning offers the ability to share material in all kinds of formats such as videos, slide shows, word documents and PDFs. Conducting webinars (live online classes) and communicating with professors via chat and message forums is also an option available to users. There is a plethora of different e-learning systems (otherwise known as Learning Management Systems, or LMSs for short) and methods, which allow for courses to be delivered. With the right tool, various processes can be automated such as the marking of tests or the creation of engaging content. E-learning provides the learners with the ability to fit learning around their lifestyles, effectively allowing even the busiest person to further a career and gain new qualifications. Some of the most important developments in education have happened since the launch of the internet. These days learners are well versed in the use of smart phones, text messaging and using the internet so participating in and running an online course has become a simple affair.

## **2.11 Embodied Learning**

Embodied learning involves self-awareness of the body interacting with a real or simulated world to support the learning process. When learning a new

sport, physical movement is an obvious part of the learning process. In embodied learning, the aim is that mind and body work together so that physical feedback and actions reinforce the learning process. Technology to aid this includes wearable sensors that gather personal physical and biological data, visual systems that track movement, and mobile devices that respond to actions such as tilting and motion. Being more aware of how one's body interacts with the world can also support the development of a mindful approach to learning and well-being.

### **2.12 Peer Teaching**

This is an approach in which students serve as teachers or coaches to other students in the same or different grade levels. The older or more advanced children can often teach other students. Peer teaching is frequently effective because learners use their own language patterns during their interactions. Peer teaching also develops the peer leader's self-confidence. The peer leader should understand his or her roles clearly. The peer leader should be well organized and prepared. Peer teaching can also be used to develop practical skills related to farm work, road safety, sports and first aid. Peer teaching is useful in managing situations because the peer teacher can assist by working with individual students in groups while the teacher is with another class.

### **2.13 Project-based Teaching**

This strategy is implicit in various others described here. PBT is a way to make learning meaningful and real. Instead of "learning" material out of textbooks, students work in teams to tackle real-world problems. Often, students will collaborate with peers across the world on global projects, forge meaningful relationships and build virtual communities of learners in the process. There are many advantages to PBT as a way to promote learning. It Provides the means to integrate skills in various disciplines in much the same way that problems in the real world need a multi-faceted approach to solving them. It Deals with real-world problems so students can make important connections between what they learn in school and its relevance to the world outside school.

### **2.14 Team Teaching**

Strategies like project based learning can work in isolated classrooms with a good teacher, but they are most effective when teachers of various interests and abilities work together as a team to deliver a multi-disciplinary program for the students. Team teaching is also beneficial because it makes teaching a less lonely

profession than it has traditionally been. By working closely with their peers, teachers themselves gain the benefits of cooperative learning. Students benefit from team teaching curricula, not hampered by a teacher's weakness in any given area because that might be a strength another teacher in the group possesses.

### 2.15 Internship

There is a growing "school-to-career" movement in schools everywhere. Such programs are aimed at improving student engagement and achievement by giving relevance to the curriculum. The newly emerging internship programs are designed to prepare students for the world outside school while exposing them to career choices. This approach is different from the older "vocational" internships which were simply designed to give students proficiency in one particular industry. Both approaches are legitimate and have been proven to improve student achievement in and outside school as well as college attendance rates. At the Met School in Rhode Island, "students spend two days per week at internships that they select based on their interests. Across four years, one student interned with an engineer, a judge, a choreographer, and a marine biologist".

### 3. Conclusion

A teacher's preference for a particular method or strategy of teaching will, in most cases, influence his choice hence, teachers who have developed some great likening for a particular method often hold on fanatically to it. For successful and effective teaching, there are some vital things that teacher need to know. This implies that, there are some vital principles that should be integrated in selecting a good method of teaching. All teaching methods are useful and effective if the teacher is a master of the subject matter thereby enhancing his effectiveness in the classroom. The teacher must be able to cope with such method effectively, thereby achieving the purpose.

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## **Open Educational Resources : Emerging Paths of Learning**

**Narendra Kumar\***

*Technology has contributed new way for global trends in teaching and learning process. There is a dramatic change in the attitude of students right. For these students, listening to the teacher is no longer enough. They demand a whole new level of engaging learning. From a pedagogical perspective, the key aspects of ICT-supported learning are that self-directed learning is emphasized. Such approaches are more likely to evolve in learning settings other than traditional forms of formal education, which still show few signs of abandoning the teacher-centered paradigm of education. Open Educational Resource has emerged as a concept with great potential to support educational transformation. In this paper, meaning, concept, sources and educational implications of Open Educational Resources is discussed.*

**[Keywords :** Technology, Open educational resources, Pedagogical perspective, ICT infrastructure]

### **1. Introduction**

Teaching geared to the goals of education covers a wide range of intended targets in the intellectual domains. Conceptual learning within the subject needs

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to be approached in a relevant manner, but also the teaching must not lose sight of the fact that the attitudes, communication abilities and personal attributes (such as creativity, initiative, safe working) need to be developed. Encouraging student involvement, a teaching approach that builds on prior constructs held by students, thus enhancing relevance in the eyes of students. Currently, Technology is an integral and important aspect of our lives. Technology has also contributed new way for global trends in teaching and learning process. There is a dramatic change in the schools as well as the students right from the primary level. Students are busy in communicating by their phones. These are not the same 21<sup>st</sup> century learners, like those we came to know at the beginning of the millennium. For these students, listening to the teacher is no longer enough. They demand a whole new level of engaging learning. Teachers and administrators need to rethink on the importance of technology in the classroom. All around the world, new kind of teaching and learning strategies are taking place toward the mainstream. These strategies are suited to provide the knowledge and skills that students will need to succeed in a new global scenario. There is a need for a shift of emphasis in the teaching of concepts. There is a need to think about the open educational resources as student centered teaching approach if the teaching is to be meaningful for students.

## **2. Open Educational Resources**

Open Educational Resources (OERs) are any type of educational materials that are in the public domain or introduced with an open license. The nature of these open materials means that anyone can legally and freely copy, use, adapt and re-share them. OER is a term that was first adopted at UNESCO'S 2002 forum on the impact of open courseware for higher education in developing countries funded by the hewlett education. OERs range from textbooks to curricula, syllabi, lecture notes, assignments, tests, projects, audio, video and animation. OER has emerged as a concept with great potential to support educational transformation. While its educational value lies in the idea of using resources as an integral method of communication of curriculum in educational courses (i.e. resource-based learning), its transformative power lies in the ease with which such resources, when digitized, can be shared via the Internet. Importantly, there is only one key differentiator between an OER and any other educational resource : its licence.

The concept of Open Educational Resources (OER) describes any educational resources (including curriculum maps, course materials, textbooks, streaming videos, multimedia applications, podcasts, and any other materials that have been

designed for use in teaching and learning) that are openly available for use by educators and students, without an accompanying need to pay royalties or licence fees. Open educational resources (OER) are freely accessible, openly licensed text, media, and other digital assets that are useful for teaching, learning, and assessing as well as for research purposes. It is the leading trend in distance education/open and distance learning domain as a consequence of the openness movement.

### **3. Sources of OER**

The availability of OER is ever expanding. Every week, new resources are being added to the global body of resources. A current problem arising out of this growth is that there is no single comprehensive listing of all OER. Some sources are described below :

#### **3.1 LORN**

LORN currently has seven member repositories contributing more than 2500 learning objects for download in a wide range of industries and subject areas, including business, community services, electro technology, horticulture, tourism, and hospitality. The focus is on TVET.

#### **3.2 Connexions**

A place to view and share educational material made of small knowledge chunks called modules that can be organized as courses, books, reports, etc. Anyone may view or contribute.

#### **3.3 Internet Archive Education**

This library contains hundreds of free courses, video lectures, and supplemental materials from universities in the United States and China. Many of these lectures are available for download.

#### **3.4 JORUM (JISC)**

JORUM is a free online repository service for teaching and support staff in UK Further and Higher Education Institutions, helping to build a community for the sharing, reuse and repurposing of learning and teaching materials.

#### **3.5 Lecture Fox**

Lecture fox is a free service, where users can find high-quality classes from universities all over the world. The site focuses on lectures from the faculties of



physics, chemistry, computer science and mathematics. In the category “faculty mix” you can find miscellaneous lectures from other departments like electrical engineering, biology, psychology, economics, history and philosophy.

### **3.6 MERLOT (Multimedia Educational Resources for Learning and Online Teaching)**

In this site, users can find peer reviewed online teaching and learning materials, and share advice and expertise about education with expert colleagues.

### **3.7 Open Course Ware Consortium**

The Open Course Ware Consortium is a collaboration of more than 200 higher education institutions and associated organizations from around the world creating a broad and deep body of open educational content using a shared model. Users can find course materials by browsing individual Open Course Ware sites or by searching across all courses.

### **3.8 SOFIA (Sharing of Free Intellectual Assets) Open Course Ware**

The goal of Sofia is to publish community college-level course content and make it freely accessible on the web to support teaching and learning. The focus is on exploring ways of supporting instruction and student learning using web-based resources.

### **3.9 Net Ease Open Course Ware Consortium**

Open Course Ware Consortium Net Ease is the 3rd largest portal site in China and has joined the OCW Consortium as a Sustaining Affiliate Member. They have translated hundreds of videos into Chinese, and are preparing to launch a platform for study groups.

### **3.10 CEC Learning Object Repository (India)**

Consortium for Educational Communication (CEC) is an inter-university centre on electronic media, established by the University Grants Commission (UGC). CEC’s Learning Object Repository (LOR) houses educational resources in different subjects such as Archaeology, Biology, Botany, Chemistry, Commerce, Computer Science, Economics, Education, English, Fine Arts etc.

### **3.11 National Programme on Technology Enhanced Learning (NPTEL)**

The main objective of NPTEL programme is to enhance the quality of engineering education in India by developing curriculum based video and web

courses. This is being carried out by seven premier institutions as a collaborative project.

### **3.12 Skills Needed to Use OER**

Institutions need to develop some skills in order to make most effective use of Open Educational Resources. This requires :

1. Passion about the concept of openness, without which any attempts at advocacy are unlikely to succeed.
2. Ability to engage audiences effectively during presentations.
3. Understanding of the pros and cons of different open licensing arrangements, combined with insight into how most current policy environments constrain use of OER
4. Sound knowledge of practical examples of use of OER to illustrate key points.
5. Up-to-date knowledge of the arguments for and against use of OER.
6. Capacity to engage in argument and respond to the questions that people will inevitably pose given the extent to which OER challenges many entrenched conceptual frameworks.
7. Expertise in advocacy and promotion of OER as a vehicle for improving the quality of learning and teaching in education.
8. Expertise in developing and explaining business models that justify, to institutions, individual educators, and other creators of educational content (including publishers), the use of open licensing.
9. Expertise in managing networks/consortia of people and institutions to work cooperatively on various teaching and learning improvement projects.
10. Communication and research skills to be able to share information about OER Implications for Teaching and Learning.

Educational resources developed in an open environment can be vetted and improved by a broad community of educators, resulting in materials that represent what the educational community sees as most valuable. By providing educators with new access to educational material, open resources have the potential to spur pedagogical innovation, introducing new alternatives for effective teaching.

- » OER have the potential to expose students and instructors to the long tail of content, most of which never finds its way into widespread educational use. Moreover, learning resources that can be modified and reused promote

collaboration and participation—two key elements of a Web 2.0 approach to teaching and learning.

- » OER can also lower the costs for students to obtain educational content. OER and online or hybrid learning are natural partners in efforts that take advantage of- and prompt-developments in educational technology that facilitate new media, new formats, and new means of distribution.
- » One of the more radical viewpoints is that the OER movement will lead to a future in which all of the components of an education will be available online for free and that learners will have the opportunity to construct a course of study—though it might not be called a “degree”—from the wide and growing pool of open content.
- » In particular, adult learners, students who work full time, and other nontraditional students stand to benefit from open resources because they are available for independent, self-directed study. Open resources are one way to address the rising costs of education, and they also have the potential to facilitate new styles of teaching and learning.
- » Educational systems and organizations that are serious about teaching and learning will need to ensure that spending on personnel and other related expenses reflects a sustained institutional or systemic effort to invest in creating more effective teaching and learning environments for their students.
- » This will entail investment in developing and improving curricula, ongoing programme and course design, planning of contact sessions with students, development and procurement of quality teaching and learning materials, design of effective assessment activities and so on. Many educational systems and institutions do not yet make such investments in a planned and deliberate way, but it is an essential part of their core function.
- » As educational systems and institutions make strategic decisions to increase their levels of investment in design and development of better educational programmes, the most cost-effective way to do this is to embrace open licensing environments.

#### **4. Conclusion**

The potential of OER includes bringing transparency to educational processes, facilitating collaborations between educators and students at different

institutions, and establishing a new economic model for procuring and publishing learning materials. Ultimately, a key to its success will be to demonstrate that, in the medium to long term, OER will help over-stretched educators to manage their work more effectively, rather than adding new work requirements to their job description. However, successful OER initiatives will be those that can work immediately and add educational value within the existing ICT infrastructure constraints of any participating institutions. Education is a social investment, and should be protected as such if it is truly to fulfill its potential in creating a more equal world. This makes it critical to find practical ways to build business models that will ensure the success of the online educational commons. At its most effective, creating and sharing OER is essentially about working together towards a common cause, whether this be within a single faculty or across a global network. Sharing materials that others can adapt and use recognizes the value inherent in team work and the improvements in thinking that will emerge from such collaboration. Conversely, if we wait for systemic policies to change before we start collaborating, then we have only ourselves to blame if the system's values are never shifted. As with all such communal processes, the initial results will be messy - and there will be many problems to solve, such as how to create appropriate curriculum frameworks for storing content, and mechanisms to help with assessing quality.

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## ***Reservation for Other Backward Classes and Scheduled Castes : A Judicial Approach***

***Geetika Garg\****

*The framers of the Constitution of India had tried to bring an equilibrium by providing for the provision of reservation to the weaker and backward classes of the society in the very Constitution of India. Scheduled caste includes such castes, races, tribes or parts of groups within these castes, races, or tribes, who have been socially termed as untouchables. They are legally freed but not yet liberated of socio-economic inequalities. The present paper is an attempt to analyze the provision of reservation to OBCs, SCs, and STs and the vision of the judiciary regarding the reservation.*

**[Keywords :** Preamble of the Constitution of India, Other Backward Classes, Scheduled Castes, Scheduled Tribes, Kalelkar Commission, Mandal Commission, Judiciary]

### **1. Introduction**

After independence, the framers of our Constitution were faced with a stupendous task of converting a traditional society, stratified into several social

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groups bound by the customs, usages, conventions into one unified group. They were convinced that besides protection from suppression and exploitation they also needed positive and active social help from the state for the amelioration of their miserable and pity lot. In the present context of affairs in regard to these unfortunate countrymen of ours who have not had these opportunities in the past, special attempts should be made, of course, in the educational and economic field and even in the political field to see that they have a proper place till they find their own legs to stand upon without the external aid.<sup>1</sup>

## **2. Meaning of Scheduled Castes And Other Backward Classes**

A caste can be and quite often is a Social class. It is solely acquired by birth and hence is acquired involuntarily. Caste is unchangeable and one cannot be allowed to change the same by adoption or marriage. Scheduled caste includes such castes, races, tribes or parts of groups within these castes, races, or tribes, who have been socially termed as untouchables. They are legally freed but not yet liberated of socio-economic inequalities. Their religion is either Hinduism or Sikhism. Persons professing any other religion are not scheduled caste men.<sup>2</sup>

Whether a given caste is a scheduled caste or not is exclusively answered by the order of the President however, the president order may be modified by Parliament by law.<sup>3</sup> The Constitution (Scheduled Castes) Order, 1950-State wise and the Constitution (Scheduled Castes) Union Territories Order, 1951-Territory wise enlist the castes, races or tribes which are regarded as Scheduled Castes. The lists of SCs for different States are different and so there is no caste which may be treated as SC throughout the country in all the states.

According to the 2011 census, the Scheduled Castes and Scheduled Tribes comprise about 16.6 percent and 8.6 percent, respectively, of India's population<sup>4</sup> The Constitution (Scheduled Castes) Order, 1950 lists 1,108 castes across 29 states in its First Schedule,<sup>5</sup> and the Constitution (Scheduled Tribes) Order, 1950 lists 744 tribes across 22 states in its First Schedule.<sup>6</sup>

Since independence, the Scheduled Castes and Scheduled Tribes were given Reservation status, guaranteeing political representation. The Constitution lays down the general principles of affirmative action for SCs and STs.

On the other hand the Other Backward Class (OBC) is a collective term used by the Government of India to classify castes which are socially and educationally disadvantaged. It is one of several official classifications of the population of India, along with Scheduled Castes and Scheduled Tribes (SCs and STs). The criterion of identification of OBCs is different from SCs criterion. The Kalelkar Commission in



1955 and Mandal Commission in 1980 were accordingly constituted under Article 340 of Constitution to identify these classes in the country. The Kalelkar Commission prepared a long list of 2,939 caste and Mandal Commission submitted a longer list of 3,743 castes. The Mandal Commission by its report of 1980 held that (besides Scheduled Castes and Scheduled Tribes who amount to 22.56% of the total population), the OBCs were found to comprise 52% of the country's population, a figure which had shrunk to 41% by 2006 when the National Sample Survey Organization took place.<sup>7</sup>

In the Indian Constitution, OBCs are described as “socially and educationally backward classes”, and the Government of India is enjoined to ensure their social and educational development. For example, the OBCs are entitled to 27% reservations in public sector employment and higher education. The list of OBCs maintained by the Indian Ministry of Social Justice and Empowerment is dynamic, with castes and communities being added or removed depending on social, educational and economic factors. RTI data showed in 2015 that in spite of these 27% reservations in jobs, only less than 12% OBCs are in these jobs (in some departments only 6.67% of OBCs were given employment under these 27% reservations). As of 2015, in educational institutes also funds meant for OBC student reservation policy are not utilised properly or are underutilised in case of upgrading infrastructure as well as violation of faculty recruitment according to OBC 27% reservation policy.<sup>8</sup>

In March 2015, Supreme Court in the case of Ram Singh and others v. UOI<sup>9</sup> scrapped Jat Reservations saying that Jats are not socially and economically backward in reference with National Commission for Backward Classes (NCBC) opinion. Supreme Court judgement quashed the proposed inclusion of Jats in Central list of OBCs on the basis that Jats are already given OBC status in 9 States. On 21 July 2015, Supreme Court rejected Centre's review plea for its verdict of quashing Jat reservation in OBCs.

As said earlier, the scheduled castes, according to Article 366(24) read with Article 341, are those castes, races or tribes, or parts thereof, as the President may notify. According to Article 341(1), the President may specify castes, races or tribes, or parts of groups within caste, races or tribes which shall be for the purpose of the Constitution be deemed to be scheduled castes in relation to that State. Thus, the classification of scheduled castes may vary with state and Union territory. As regards the states, the President issues the notification after consultation with the Governor of the state concerned. The purpose of this provision is to avoid disputes as to whether a particular caste should be specified as a scheduled caste or not. Only those castes can be characterized as scheduled castes which are notified in

the Presidential Order under Article 341. Under Article 341(2), however, Parliament may by law include or exclude from the list of Scheduled Castes occupied in a notification by the President any caste, race or tribe or part of or group within any caste, race or tribe. The Scheduled Castes Order 1950 stipulates that “no person who professes a religion different from the Hindu or the Sikh religion shall be deemed to be a member of Scheduled Castes”. This means that if a member of Scheduled Castes converts to another religion, he would cease to be a Scheduled Caste. The Supreme Court in *ABSK Sangh (Rly) V. Union of India*<sup>10</sup>, held that Article 341 makes it clear that a ‘Scheduled Caste’ need not be a ‘caste’ in the conventional sense and, therefore, may not be a caste within the meaning of Article 15(4) or 16(4). Scheduled Castes become such only if the President specifies any caste, race, tribe or parts or groups within castes, race or tribes for the purpose of the Constitution. So, a group or a section of a group, which need not be a caste and may even be a hotch-potch of many castes or tribes or even races, may still be a Scheduled Caste under Article 341.

It has been held by the Supreme Court in *Triloki Nath vs. state of Jammu & Kashmir*<sup>11</sup>, that the State has, no doubt, to ascertain whether a particular class of citizens is backward or not, having regard to acceptable criteria, it is not the final word on the question. It is a justiciable issue and may be canvassed if that decision is based on the irrelevant considerations.<sup>11</sup> The Supreme Court then finally held that in reservation of appointments for backward classes, determination of backward classes, could not be on the basis of community, caste, race or religion. The Supreme Court thus held that state policy of distribution of posts community-wise was hit by Articles 16(1) and (4). For the application of clause (4), two conditions must be satisfied : 127 (i) a class of citizens is socially and educationally backward; and (ii) the said class is not adequately represented in the service under the state.<sup>11</sup> Besides the Scheduled Castes and the Scheduled Tribes, the Constitution extended some protection to backward classes, as these classes have been neglected for long.

### **3. The Key Provisions of the Constitution**

In order to maintain social equilibrium in the society the framers of our constitution envisaged in the very the Preamble<sup>12</sup> of the Constitution of India, the resolution of PEOPLE OF INDIA to constitute India into a Sovereign, Socialist, Secular and Democratic Republic and to secure to all its citizens : Justice, social, economic and political; Liberty of thought, expression, belief, faith and worship; Equality of status and opportunity; and to promote among them all; Fraternity assuring the dignity of the individual and the unity and integrity of the Nation. The

word 'social justice' in the Preamble implies recognition of greater good to a larger number without deprivation of legal rights of anybody. The concept of equality, enshrined in the Preamble has also found expression as a fundamental right in Article 14 to 16.

The Article 14 of the Constitution is one of the fundamental rights of the Constitution of India. Article 14 of the Constitution<sup>13</sup> reads : "The state shall not deny to any person equality before the law or the equal protection of the laws within the territory of India". The guiding principle of the article is that all persons and things under similar circumstances shall be treated alike both in respect of privilege conferred and liabilities imposed.<sup>14</sup> Equality before the law 'means that amongst equal the law should be equal and equally administered and that like should be treated alike.'<sup>15</sup> Hence it forbids discrimination between persons who are substantially in similar circumstances or conditions. It does not forbid different treatment to the unequals. The law provides that like should be treated alike. The same or uniform treatment of unequals is as bad as unequal treatment of the equals.<sup>16</sup> As a matter of fact all persons are not alike or equal in all respects. Applications of the same laws uniformly to all of them will, therefore, be inconsistent with the principle of equality. To avoid that situation laws must distinguish between those who are equals and to whom they must apply and those who are different and to whom they should not apply. Article 14 forbids class legislation, but does not forbid classification which rests upon reasonable grounds of distinction. The principle of equality does not mean that every law must have universal application to all persons who are not by nature, attainment or circumstances in the same position. The varying needs of different classes of persons require different treatment.<sup>17</sup>

Recognizing the special needs of the society, the Constitution of India not only guarantees the equality before law but also enjoins the State to make special provisions of affirmative discrimination for the advancement of socially and educationally backward classes or for Scheduled Castes and Scheduled Tribes as given under Article 15(4) of the Constitution and also empowers the State to make provision for Reservation in appointments or posts in favour of any backward class citizens as given under Article 16(4) of the Constitution.

16(4) was itself provided in the Constitution which declared : "Nothing in this Article shall prevent the State from making any provision for the appointments and posts in favour of any backward class of citizens which in the opinion of the State is not adequately represented in the services under the State." However, as this provision applied only to services, the State faced legal action which it tried to introduce reservations for educational advancement. The well-known case of

Champakam Dorairajan v. the State of Madras<sup>18</sup> led to the incorporation of the following provision as Article 15(4). By the Constitution (First Amendment) Act, 1951 Art.15 (4) added to the Article 15 which provides that, “Nothing in this Article or in Clause (2) of Article 29 shall prevent the State from making any special provision for the advancement of any socially and educationally backward classes of citizen or for Scheduled Castes and the Scheduled Tribes.” These provisions are obviously of great significance. It is therefore worth noting that while for a long time it had been the view that Articles 15(4) and 16(4) are “exceptions” to Articles 15(1) and 16(1). According to this view, the claims of the backward classes could be projected only through exceptional Clauses and not outside them. But, in the case of State of Kerala v. N.M. Thomas,<sup>19</sup> the Supreme Court by majority rejected this notion of exception and said that the State was free to choose any “means” to achieve equality for those backward classes. It is clear that the Supreme Court has discarded the old way of thinking that Articles 15(4) and 16(4) are exceptions to the equality guaranteed and declared that these Articles are themselves aimed at achieving the very equality broadly proclaimed and guaranteed in Articles 14, 15(1) and 16(1).

By 77 th Constitutional amendment act 1995 in Article 16 of the constitution clause (4-A) was added. According to Clause (4-A) : Nothing in this article shall prevent the State from making provision for reservation in matters of promotion to any class or classes of posts in the services under the State in favour of the Scheduled Castes and the Scheduled Tribes, which in the opinion of the State are not adequately represented in the service of the State. However by 85th Constitutional amendment act 2001 the words “in matters of promotion to any class” were substituted by “in matters of promotion, with consequential seniority”. Further Clause (4-B) was inserted by 81st constitutional amendment act 2000 in Article 16 which says that : Nothing in this article shall prevent the State from considering any unfilled vacancies of a year which are reserved for being filled up in that year in accordance with any provision for reservation made under clause (4) or Clause (4- A) as a separate class of vacancies to be filled up in any succeeding year or years and such class of vacancies shall not be considered together with the vacancies of the year in which they are being filled up for determining the ceiling of fifty percent reservation on total number of vacancies of that year .

The Supreme Court held in the case of Indra Sawhney v. UOI<sup>20</sup> that “indeed, even without clause (4), it would have been permissible for the State to have evolved such a classification and made a provision for reservation of appointment/posts in their (Backward Classes) favour. Clause (4) merely puts the matter beyond any doubt in specific terms”.

Articles 38 and 46 of the Constitution of India<sup>21</sup> are Directive Principles of State Policy as distinguished from fundamental rights are justifiable. Article 38 runs as follows :

1. The State shall strive to promote the welfare of the people by securing and protecting as effectively as it may be a social order in which justice, social, economic and political, shall inform all the institutions of national life.
2. The State shall, in particular, strive to minimize the inequalities in income, and endeavor to eliminate inequalities in status, facilities and opportunities, not only amongst individuals but also amongst groups of people residing in different areas or engaged in different vocations.

Article 46 says that : The State shall promote with special care the educational and economic interests of the weaker sections of the people, and, in particular, of the Scheduled Castes and Scheduled Tribes, and shall protect them from social injustice and all forms of exploitation.

Thus, these articles also serves in the area of providing reservation for the backward and Scheduled Castes and Scheduled Tribes.

Under Articles 330, 332, 334, seats are reserved in both the Union and State legislatures for a period of ten years for the Scheduled Castes and Scheduled Tribes. The period of reservation, however, has been continually extended through a series of Amendments to the Constitution.

Article 335 States that , the claims of the members of the Scheduled Castes and Scheduled Tribes shall be taken into account, consistently with the maintenance of efficiency of administration, in the making of appointments to services and posts in connection with the affairs of the Union or of a State. It thus establishes the need for the efficiency of administration to be kept in mind in the context of affirmation. The implication that a policy of affirmative action led to an increase in railway accidents, for instance, was rejected by the Supreme Court.

Article 340 is related to the appointment of Commissions to report on the socioeconomic aspect of the life of Scheduled Castes, Scheduled Tribes and Other Backward Classes. Two commissions have so far been thus appointed, the First Backward Classes Commission under Kaka Kalelkar in 1953 and the Second Backward Classes Commission under B.P. Mandal in 1978. This second one is well-known with the name Mandal Commission.

Articles 341 and 342, provides for the preparation of the lists of Scheduled Castes and for the preparation of similar lists for the Scheduled Tribes respectively.

#### 4. Judicial Approach

According to justice Subba Rao, “Casteism has been projected into every walk of life-admissions to educational institutions, appointment to Government services, contracts, licences, elections and the formation of Ministry”.<sup>22</sup> The whole controversy regarding Government reservation policy revolves around as to who should be the real beneficiaries of the policy and extent to which the reservations can be stretched.

Reservation is mainly in the area of admissions in educational institutions, employment in government services and seats in the legislature. Regarding reservation of seats in the legislatures including union parliament, there is practically no dispute. Moreover this reservation is only for Scheduled Castes and Scheduled Tribes and originally this reservation was only for 15 years but it has been extended through amendments to the Constitution. Other Backward Classes (OBC) do not enjoy any reservation of seats in the legislature. But in the sphere of education and government services OBCs do enjoy reservation. In some States like Kerala, OBCs have become a dominant force in the bureaucracy. Thus the transience of backwardness has given rise to clash of interests both at the political and legal levels.

There have been several decisions of the Supreme Court since 1951, which tried to analyze the criteria to be adopted for making reservations for the backward classes. In the case of *State of Madras v. Smt. Champakam Dorairajan and Another*<sup>23</sup> the issue was discussed in detail by the Supreme Court. In the view of Judges, the classification made in the communal government order is opposed to the Constitution and constitutes a clear violation of the Fundamental Rights guaranteed to the citizen under Article 29(2). And there is no need to consider the effect of Article 14 or 15 on the specific Articles discussed above. The communal government order is therefore inconsistent with the provisions of Article 29(2) in part III of the Constitution and is void under Article 13. The appeals were dismissed with costs. This may be true that only two seats are reserved for Brahmins. But when we come to consider the seats reserved for the candidates of other communities, the petitioners are denied admission to any of them not on any ground other than the sole ground of their being Brahmins and not being members of the community for whom those reservation have been made. It was this positive attitude, which convinced the honourable judges to observe that part III is sacrosanct and Directive Principles of State Policy must conform to and run subsidiary to fundamental rights.

There is no doubt that fundamental rights as mentioned in part III of the Constitution are very important but at the same time one cannot neglect the value



of Directive Principles of State Policy which enshrine the aspirations of people of the country. As a result, any strict positive interpretation of fundamental rights vis-a-vis directive principles might result in the frustration of the philosophical foundations of both Part III and part IV of the Constitution. Instead if a liberal pragmatic rule of interpretation is applied to these parts that may yield fruitful results which unfortunately the honourable judges failed to adopt in this case. Although the method of interpretation of various Constitutional provisions, in this case, is not convincing but the result of the interpretation is quite convincing. Politicization of reservation is a dangerous sign for a society already fragmented on various grounds. The court took into consideration not only Constitutional provisions touching upon the issue of reservation but also considered socio-economic factors involved in the case.

In the case of *M.R. Balaji and Others v. The State of Mysore and Others*<sup>24</sup> the Supreme Court laid down several important points. It held that it was not necessary for the government to appoint a commission under Article 340 before passing an order under Article 15(4). This appointment and report of the Backward Classes Commission was only recommendatory. It was not a condition precedent for taking action under Article 15(4). It was further ruled that the executive can pass orders on reservation. It is not necessary for the legislature to make provision for reservation. The backwardness must be social and educational. Caste is one indicator, but its role cannot be exaggerated. Otherwise, it would perpetuate caste. Social backwardness is the result of poverty to a large extent. Occupations and place of habitation also determine backwardness. Classification between backward and more backward classes made by the government was held to be unconstitutional. According to this criterion, nearly 90 percent of the state population became backward. Reservation of 68 percent was also inconsistent with Article 15(4) as it was unreasonable. The interests of the weaker sections must be balanced with that of the society in general. It is a difficult task but in the guise of making special provision, practically all seats cannot be reserved. Reservation should be less than 50 percent. The Court concluded that the state government's order was a fraud on the Constitutional power conferred under Article 15(4). The court said that it was not its task to categorize the valid and invalid percentage. Article 15(4) gives that discretion to the state government.

The Court further held that there can not be classification within classification so as to confuse the entire concept of backwardness. Again the backwardness as given in Article 15(4) and 16(4) does not mean either socially or educationally rather it must be both social and educational backwardness so as to claim benefits of Article 15(4). This interpretation given by the honourable Apex



Court is very convincing and acts as a rider against the irrational attitude of politicians vis-à-vis reservations. Moreover, the Court's observation that caste is a relevant factor under Article 15(4) but it can't be the sole test for ascertaining whether a particular class is backward. Other factors like poverty, occupation, place of habitation are equally relevant. The Court rightly observed that Article 15(4) does not speak of "castes" but only speaks of "classes", and 'caste' and class is not synonymous. Since the impugned government order solely relied on 'caste' without regard to other relevant factors and that is sufficient to render the order invalid. Furthermore, the observations of learned judges with regard to irrational criterion adopted by the state government which rendered about 90% of the population as backward is inconsistent with Article 15(4) is highly appreciating. The court noted that Article 15(4) only enables the state to make special and not exclusive provision for the backward classes. The court's observation that national interest would suffer if qualified and competent students were excluded from admission in institutions of higher education, is an excellent analysis of an uncontrolled and irrational reservation policy.

R. Chitralkha and another V. State of Mysore and Others<sup>25</sup> The Government laid down that classification of socially and educationally backward classes should be made on the following basis : (1) economic condition, and (ii) occupation. Learned counsel does not attack the validity of the said order. According to Subba Rao J. : We do not intend to lay down any inflexible rule for the Government to follow. The laying down of criteria for ascertainment of social and educational backwardness of a class is a complex problem depending upon many circumstances which may vary from state to state and even from place to place in a State. But what we intend to emphasize is that under no circumstances a "class" can be equated to a "caste", though the caste of an individual or a group of individuals may be considered along with 138 other relevant factors in putting him in a particular class. We would also like to make it clear that if in a given situation caste is excluded in ascertaining a class within the meaning of Article 15(4) of the Constitution, it does not vitiate the classification if it satisfied other tests.<sup>25</sup> According to Mudholkar J. that it would not be in accordance either with clause (1) of the Article 15 or clause (2) of Article 29 to require the consideration of the castes of persons to be borne in mind for determining what are socially and educationally backward classes. It is true that clause (4) of Article 15 contains a non-obstinate clause with the result that power conferred by that clause can be exercised despite the provision of clause (1) of Article 15 and clause (2) of Article 29. But that does not justify the inference that castes have any relevance in determining what are socially and educationally backward communities. That the Constitution has used in clause (4) the

expression “classes” and not “castes”. The Supreme Court dismissed the appeal. The judgement asserted that caste was only a relevant circumstance and it could not be a dominant test in ascertaining the backwardness of a class of citizens. Backwardness could be ascertained without reference to caste. If the government does not take caste into consideration, its order will not be bad. In fact, the judgement of the Honourable Supreme Court on almost all points, in this case, is quite satisfactory. The court’s observation that provisions of Article 166 of the Constitution are only directory and not mandatory is very clear from the reading of the said Article. Since the government issued the impugned order to the effect mentioned there in, it does not contravene the requirements of Article 166. Secondly, the mere fact that selection by viva-voce could be abused, does not directly violate Article 14. It could be violative of that provision only when it is shown, in a particular case, that the method was actually misused by the authorities. Again the Court’s observation that classification of backwardness on the basis of economic conditions and occupation is not bad and does not offend Article 15(4), is well- 139 founded. The caste of a group may be relevant circumstance in ascertaining backwardness but can not be the sole criterion, is appreciable.

In *Pradeep Jain etc. vs. Union of India and Others*<sup>26</sup>, a group of writ petitions, the question, whether, consistently with the Constitutional values admissions to a medical college or any other institution of higher learning situated in a state can be confined to those who have domiciled within the state or who are resident within the state for a specified number of years or can any reservation in admissions be made for them so as to give them precedence over those who do not possess “domicile” or residential qualification within the State, irrespective of merit. This question has assumed considerable significance in the present day context, because we find that today the integrity of the nation is threatened by the divisive force of regionalism, linguism, communalism and regional linguistic. In the view of Court that so far as admissions to post-graduate courses, such as M.S., M.D. and the like are concerned, it would be eminently desirable not to provide for any reservation based on residence requirement within the state or on institutional preference. But having regard to broader considerations of equality of opportunity and institutional continuity in education which has its own importance and value, the Court directed that though residence requirement within the state shall not be a ground for reservation in admissions to post-graduate courses, a certain percentage of seats may in the present circumstances, be reserved on the basis of institutional preference in the sense that a student who has passed MBBS course from a medical college or university, may be given preference for admission to the

post-graduate course in the same medical or university but such reservation on the basis of institutional preference should not in any event exceed 50 percent of the total number of open seats available for admission to the post-graduate course.

In *R. Uma Devi v. The Principal, Kurnool Medical College, Kurnool and Others*<sup>27</sup>, where the petitioner was born in forward community was admitted to M.B.B.S. course under the open category, her marriage subsequently with a person belonging to backward community would change her social status and her admission to post-graduate class under reserved quota would not be cancelled on ground that she belonged to open category specially when there were no allegation that her marriage was a mock marriage. The Supreme Court rejected the stand taken by the respondents herein and accepted the contention of the petitioner that after marriage, she comes within the fold of her husband.

In *Dr. Sadhana Devi v. State of U.P.*<sup>28</sup> The Government of U.P. issued a circular dispensing with the requirement of minimum mark for the admission to Postgraduate course in Medicine for the Scheduled Castes and Scheduled Tribes candidates. The Supreme Court held : The importance of merit being the only criterion for admission to post-graduate medical courses viz. MD, MS and the like was also emphasized in *Dr. Pradeep Jain v. Union of India*. (1984) 3 SCC 654 : (AIR 1980 SC 1420). But this line of inquiry need not detain us here in this case because the case of the petitioners is not that there should be no reservation for the candidates belonging to the three special categories mentioned herein above at the post-graduate level. Their contention is that candidates belonging to the three special categories must be able to secure the minimum qualifying marks in the admission tests in order to gain admission to post-graduate medical courses. If they fail to secure even the minimum qualifying marks, then the seats reserved for them should not be allowed to go waste but should be made available to the candidates belonging to general category. This contention must be upheld. Otherwise, to borrow the language used in *Dr. Jagdish Saran case* (AIR 1980 SC 820), this will be a “national loss.”

In the case of *AIIMS. Student Union v. AIIMS*.<sup>29</sup> the rule regarding admission to Post-Graduate Course in AIIMS was based on the quota of Institutional reservation of 33 per cent coupled with 50 per cent reservation discipline-wise. This was held super reservation and hence it infringed the equality principle.

In *Ashok Thakur v. Union of India and others*<sup>30</sup> hailed as Mandal II, the Supreme Court’s constitution Bench has passed the way for social justice in higher education. Incipit to Article 14. The 93<sup>rd</sup> Constitutional Amendment Act, inserting Article 15(5), does not violate the basic structure of the Constitution so far as it relates to aided educational institutions. In the judgement of this case, the

Supreme Court rightly excluded creamy layer from the list of other backward classes. It also vehemently negated the policy of reservation regarding promotions.

Upon Employment probably, the first case where Constitutional provision for 'protective discrimination' for weaker sections, was tested on the touchstone of Fundamental Right of equality of treatment, is the one concerning 'equality of opportunity in employment'. This was *B. Venkitaramana v. State of Madras*<sup>31</sup> where the aggrieved party namely a Brahmin candidate for the post of Munsif approached the Court for he was alleged to have been discriminated, against by the Public Service Commission. The Supreme Court held that this discrimination was illegal and unconstitutional.

The Supreme Court gave a favourable verdict in the case of reservation of selection posts in the railway service in *Rangachari v. G.M Southern Railways*.<sup>32</sup> The Supreme Court held that the very term 'Backward Classes' included Scheduled castes and Scheduled Tribes.

In *T. Devadasan v. Union of India*,<sup>33</sup> where the Court invalidated the unreasonable 'carry forward rule' is another landmark judgement.

In *State of Karnataka v. K.B. Urushabendra Kumar*<sup>34</sup> the question is whether a person could claim appointment on the basis of the income of his adoptive family. The Tribunal took the view that since adoption was valid evidence as it was by a registered deed of the year 1979, there had been severance of relationship of respondent No. 1 with his natural family and consequently he stood uprooted from that family and transplanted in his adoptive family whose income alone could be taken into account. The Court observed that, when the factum of adoption and its legality remains unquestionable the law of the Hindus on the subject must necessarily have its consequences. Having gone to his new family, respondent No. 1 rightfully acquired their economic status. It is just a matter of fate that in his adopted family he has comparatively been worse off but it could be the other way had his adoptive family been affluent. The view of the Tribunal in these circumstances appears to us reasonable requiring no interference at our end.

In *S.R. Murthy v State of Karnataka*<sup>35</sup> the question is promotion in single promotional post, citing previous decisions the Supreme Court held that the application for the purpose, of promotion was not permissible.

In *R.K. Sabharwal v. State of Punjab*<sup>36</sup> the Constitution Bench of the Supreme Court considered the question of appointment and promotion and roster points vis-a-vis reservation and thereby held that, "When a percentage of reservation is fixed in respect of a particular cadre and the roster indicates the reserve points, it has to be taken that the posts shown at the reserve points are to

be filled from amongst the members of reserve categories and the candidates belonging to the general category are not entitled to be considered for the reserved posts. On the other hand the reserve category candidates can compete for the non-reserve posts and in the event of their appointment to the said posts; their number cannot be added and taken into consideration for working out the percentage of reservation...No general category candidate can be appointed against a slot in the roster which is reserved for the Backward Class. The fact that considerable number of members of a Backward Class have been appointed/promoted against general seats in the State Services may be a relevant factor for the State Government to review the question of continuing reservation for the said class but so long as the instructions/rules providing certain percentage of reservations for the Backward Classes are operative the same have to be followed. Despite any number of appointees/promotees belonging to the Backward Classes against the general category posts the given percentage has to be provided in addition.”

In *Jatinder Pal Singh v. State of Punjab*<sup>37</sup> the single post reservation was again challenged. Reversing the decision of the High Court, the Supreme Court reiterated its earlier stand that a single post could be reserved. The Supreme Court has categorically held in ‘Mandal case’ that a person, who belongs to a backward class and who becomes member of IAS, IPS or any other All, India Service, his children cannot avail the benefit of reservation.

In *State of Bihar v. Bal Mukund Sah*<sup>38</sup> the Supreme Court held that, appropriate Legislature or Governor can regulate the recruitment and conditions of service of persons appointed to public services and posts in connection with the affairs of the State concerned. Proviso to that Article permits the Governor of the State to fill up the gap, if there is no such statutory provision governing the aforesaid topics.

In *Ritesh R. Sah v. Dr. Y.L. Yamul*,<sup>39</sup> the question was whether a reserved category candidate who is entitled to be selected for admission in open competition on the basis of his/her own merit should be counted against the quota meant for the reserved category or if the candidate should be treated as a general candidate. The court reached the conclusion that when a candidate is admitted to an educational institution on his own merit, then such admission is not to be counted against the quota reserved for Scheduled Castes or any other reserved category. It was held so in the following words : “While a reserved category candidate entitled to admission on the basis of his merit will have the option of taking admission in the colleges where a specified number of seats have been kept reserved for reserved category

but while computing the percentage of reservation he will be deemed to have been admitted as an open category candidate and not as a reserved category candidate.”

In the case of *Jitendra Kumar Singh v. State of UP*<sup>40</sup>, the Supreme Court was considering the UP Public Services (Reservation for Scheduled Castes and Scheduled Tribes) Act, 1994 Act (“UP Act”) and government order dated March 25, 1994. The order stated : “If any person belonging to reserved categories is selected on the basis of merits in open competition along with general category candidates, then he will not be adjusted towards reserved category, that is, he shall be deemed to have been adjusted against the unreserved vacancies. It shall be immaterial that he has availed any facility or relaxation (like relaxation in age limit) available to reserved category.” The Supreme Court thereby stated that a bare perusal of the order implies that there is no express bar in the UP Act for SC/ST/OBC candidates being considered for posts under the general category. It was held that : “From the above it becomes quite apparent that the relaxation in age limit is merely to enable the reserved category candidate to compete with the general category candidate, all other things being equal. The State has not treated the relaxation in age and fee as relaxation in the standard for selection, based on the merit of the candidate in the selection test i.e. Main Written Test followed by Interview. Therefore, such relaxations cannot deprive a reserved category candidate of the right to be considered as a general category candidate on the basis of merit in the competitive examination. Sub-section (2) of Section 8 further provides that Government Orders in force on the commencement of the Act in respect of the concessions and relaxations including relaxation in upper age limit which are not inconsistent with the Act continue to be applicable till they are modified or revoked.” The court made it clear that : “With age relaxation and the fee concession, the reserved candidates are merely brought within the zone of consideration, so that they can participate in the open competition on merit.”

The Supreme Court in a recent decision *Suraj Bhan Meena v. State of Rajasthan*<sup>41</sup> has declared that such survey of population and factors relating to backwardness were required before such consequential seniority could be vested by the Government. Agreeing with the decision of the Rajasthan High Court that the Government of Rajasthan could not have granted “consequential seniority” to those belonging to the Scheduled Castes and Scheduled Tribes “without quantifying the figures of Scheduled Castes and Scheduled Tribes candidates to enable a decision to be arrived at that reservation was required in promotion and also to show that the State had to pass such orders for compelling reasons, such as, backwardness, inadequacy of representation”.



In the case of *Dr. N.T.R. University of Health Sciences v. Dubbasi Praveen Kumar*,<sup>42</sup> on 16 April 2014, the division of the Andhra Pradesh & Telangana high court held that, “There cannot be any dispute with the proposition that if a candidate is entitled to be admitted on the basis of his own merit then such admission should not be counted against the quota reserved for Scheduled Caste or Scheduled Tribe or any other reserved category since that will be against the constitutional mandate enshrined in Article 16(4).”

Moreover, in *UP Power Corporation Ltd v. Nitin Kumar*<sup>43</sup> (Special Appeal No. 310 of 2015, judgment dated 19. 05. 2015), the division bench of the Allahabad high court, headed by the then chief justice D.Y. Chandrachud, had held that an unreserved post or seat/general category seat is one in which every individual, irrespective of the category to which the person belongs, can compete in open merit. It was further held : “Where a candidate is meritorious enough to be placed within the zone of selected candidates independent of any claim of reservation and purely on the basis of the merit of the candidate, the candidate ought not to be relegated to a seat against the reserved category. The simple reason for this principle is that reservation is a process by which a certain number of posts or seats is carved out for stipulated categories such as OBC, Scheduled Castes and Scheduled Tribes. Unreserved seats do not constitute a reservation for candidates belonging to categories other than the reserved categories”.

The apex court in *UOI and others v. M. Selvakumar and others*<sup>44</sup> on 24 January 2017 said that “the horizontal reservation and relaxation for Physically Handicapped Category candidates for Civil Services Examination, is a matter of Governmental policy and the Government after considering the relevant materials have extended relaxation and concessions to the Physically Handicapped candidates belonging to the Reserved Category as well as General Category.”

By the case in *Deepa EV v. Union of India*,<sup>45</sup> the Supreme Court again clarify the law on the point that- whether reserved category candidates can claim seats in the general category on the basis of merit. In the case of *Deepa E.V.*, the appellant belonged to the OBC category and had availed age relaxation (as was granted to OBC category candidates). Since no candidate from the general category had secured the minimum cut-off score, the appellant filed a writ petition before the high court to be accommodated in the general category. The high court dismissed the petition. The Supreme Court affirmed this decision and held that : “The appellant, who has applied under OBC Category by availing age relaxation and also attending the interview under the ‘OBC Category’ cannot claim right to be appointed under the General Category.” The reason, as per the court, was “there is



an express bar for the candidates belonging to SC/ST/OBC who have availed relaxation for being considered for General Category candidates.” The court was reading the existing rules and proceedings of Department of Personnel and Training, which stated that : “When a relaxed standard is applied in selecting an SC/ST/OBC candidates, for example in the age-limit, experience, qualification, permitted number of chances in written examination, extended zone of consideration larger than what is provided for general category candidates, etc., the SC/ST/OBC candidates are to be counted against reserved vacancies. Such candidates would be deemed as unavailable for consideration against unreserved vacancies.”

On similar lines, on 11 September 2015, in the case of Gujarat Public Service Commission v. Parmar Nilesh Rajendrakumar,<sup>46</sup> the Gujarat high court had held that : “Considering the reservation policy applicable in the State of Gujarat contained in circular dated 29. 01. 2000 and 23.07.2004 and relevant statutory provisions i.e. Recruitment Rules, 1967, 2009 and 2010, it is held that all those candidates belonging to the reserved category if they avail the benefit of age relaxation, it is held to be relaxation in the standard, and therefore, are not entitled to their cases being considered for General Category vacancies and that their cases are required to be considered for the reserved category vacancies.”

The proposition developed by the courts in these two judgments is that when there is an existing policy regarding the express bar for those SC/ST/OBCs who have availed relaxation such as age-relaxation, in a selection process, such “reserved” category candidates won’t be entitled to seats in the general category, even on the basis of merit. However, in Deepa E.V., the court had also observed : “Be it noted, in the instant case, the appellant has not challenged the constitutional validity of the proceedings dated 1.7.1998 read with Rule 9 of the Export Inspection Agency (Recruitment) Rules, 1980...The appellant has only sought for a declaration that Exhibit P5 (proceedings dated 1.7.1998) is not binding on the appellant. No argument was canvassed challenging the constitutional validity of the proceedings before the learned Single Judge or before the Division Bench of the High Court.”

This observation of the Supreme Court is quite worthy in context of the correct position of the law on this issue. This is because if the constitutional validity of these proceedings had been challenged, they would have been struck down, as they are inconsistent with a number of decisions made by the Supreme Court and the high courts.

## 5. Conclusion

The Constitution therefore expressly provides that special provisions for the advancement of any socially and educationally backward classes of citizens or for the Scheduled Castes and the Scheduled Tribes shall not be considered as offending the equality principle. It is a reminder of the social and economic inequalities that interrupt our society and the conscious efforts needed to eradicate the menace. The Directive Principles of State Policy set out an agenda to strive to promote the welfare of the people by securing and protecting as effectively as it may a social order in which justice, social, economic and political, shall inform all the institutions of the national life.

The State's policy of preferential treatment towards the deprived sections of the society has long been in existence in India but it is yet to be realized in full. Therefore, while initiatives are needed to ensure its wider reach amongst the most deserving and weaker section of people on the one hand, simultaneously on the other hand, an expert scrutiny is also ardently required to prevent its use as a tool to serve partisan political interests, on the other.

From the evolution of judicial observations, it appears clear that : "The courts have largely followed the lead of the legislature and the executive and when they did intervene occasionally it was mainly to regulate and modify, rather than to innovate or redirect the policies." During a brief period of time the role of the Supreme Court in advancing preferential policies had been modest. But some judgments, such as *Indra Sawhney*, *Deepa E.V.*, may be heralding of enhanced judicial action in the years to come. What enhanced judicial action is in store for the future which cannot be predicted. But the issue of reservation has been highly politicized and consequently a judicial settlement of emerging issues will also be brought with political and social paradigms.

Special provisions may be made for the advancement of socially and educationally backward classes and for SCs and STs but benefits are not always required to be in the form of reservation. Reservation may be contained but to be provided as an exception to the general rule of equal opportunity. Since governments of the day are guided by political motives they did not intervene and look afresh into reservation policy. It is submitted that upliftment of backward classes is essential but quantum of reservation should be limited. Apart from reservations to weaker sections endeavour should be made to increase awareness, improvement of social environment and to provide additional educational facilities to the weaker sections which will go a long way to improve and uplift their lot. The Kothari Commission observed in its report that<sup>47</sup>:

“One of the important social objectives of education is to equalize opportunities enabling the backward and underprivileged classes and individuals to use education as a lever for the improvement of their conditions. Every society that values social justice and is anxious to improve the lot of talent must ensure equality of opportunity to all sections of society.”

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## **Globalization of Indian Agriculture : Challenges Ahead**

**Triveni Dutt\***

*Globalization is the process of merging of different countries and accomplishments through advanced foreign trade and foreign investment. Globalization also refers to increased possibilities for actions happenings between and among people in situations where latitudinal and longitudinal position seems unimportant. Although the globalization envisage free competition, high productivity using state of the art technology, but simultaneously it is driven by the lure of profit and the threat of competition in the market. Globalization is also being portrayed as the only solution for all type of problems related to world. This paper attempts to explore the challenges of Globalization of Indian agriculture. The challenges before Indian agriculture are immense. India is not where it should have been in the world market for agricultural products despite being one of the top producers. The country needs to put greater emphasis on cultivation of international varieties. Until India takes some steps in this direction, it will continue to produce more only to earn less. It has been shown that the rising cost of basic sustenance products like garments, footwear, cereals, edible oils, petrol and kerosene, medicines and health care items, decrease in farm output, decrease in purchasing power of poor are some of the alarming issues that have given rise to serious doubts about the benefits of globalization.*

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**[Keywords :** Globalization, Indian agriculture, WTO, Informal marketing]

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## 1. Introduction

Globalization means unification or integration of the domestic economy with the world economy through trade, capital and technology flows. It means reduction of trade barriers so as to permit free flow of goods across the world and creation of environment allowing free flow of technology, labour and capital among different countries of the world. Globalization is not a new phenomenon. The period 1870 to 1913 experienced a growing trend towards globalization, and overcharging since the late 1980s by gathering more momentum from the political and economic changes swept across the communist countries, the economic reforms in other countries, the latest multilateral trade agreement which seems to substantially liberalize international trade and investment and the technological and communication revolutions.

Globalization is the process of merging of different countries and accomplishments through advanced foreign trade and foreign investment. Globalization also refers to increased possibilities for actions happenings between and among people in situations where latitudinal and longitudinal position seems unimportant. Region in the sense of a traditional sense of a geographically identifiable location no longer constitutes the whole of social space in which human activity takes place. In the term, globalization refers to the broadening of new forms of non-regional social activity.

Globalization refers to a lay down of processes that increasingly make the parts of the world interdependently incorporated. It is a historical process, and the result is the human innovation and the technological progress. It refers to increasing integration of economies around the world, particularly through trade and financial flows. Many people view globalization in different ways. Some view it as a process that is beneficial and a key to future of world economic development and also certain and irreversible. Some people view it with enmity, even fear, believing that it increases inequality within and between the nations; it threatens employment and living standards of the people. Globalization offers wide-ranging opportunities for truly worldwide development but the fact is that it is not progressing evenly.

Globalization makes world as a small village. The competition has become large in every field. To develop the Indian economy the govt. makes new policy for agriculture sectors. Agriculture plays very important role in GDP in India. More than 60 percent peoples in India involved directly or indirectly in agriculture. For improve the agriculture sectors, the govt. makes new policy for agriculture.

Government gives some subsidies on the agriculture products like fertilizers, seeds, pesticides etc.

## **2. Impact of Globalization on Agriculture**

Agriculture is the life line of Indian economy. An efficient agricultural marketing system is a sine-qua-non for development of Indian agriculture. For efficient marketing of agriculture produce, the farmers need guidance regarding. What, when, where, how much & in what form to produce, and at what price to be sold.

Extension issue can be discussed in four major areas of marketing i.e. informal, regulated, cooperative and international, Informal marketing envisages issue of product planning, securing markets for farmers promoting group action, and disseminating market information. In the area of regulated marketing, major extension issue is training on marketing support, better storage facility and credit facility. Cooperative marketing emphasizes in strengthening the marketing information system, grading & standardization and processing. International marketing envisages the role of extension functionaries in disseminating information with respect to export parameters, export potential, export yards, on farm packaging., grading, sorting, post harvest losses etc.

The Success story of the Horticultural Producers Cooperative Marketing and Processing Society Limited (HOPCOMS) in Karnataka has become one of the models for the organized marketing. It provides solution to the problems of glut in the market, protects farmers from the clutches of the middlemen and helps in providing the remunerative prices for their produce and also, providing quality product to consumers at a reasonable price. Such type of cooperative/associations has to be established in different parts of the country.

In order to strengthen and to develop agricultural marketing extension, efforts in area of training and extension have to be made at policy, managerial and farm levels. Such type of cooperative/associations has to be established in different parts of the country. In order to strengthen and to develop agricultural marketing extension, efforts in area of training and extension have to be made at policy, managerial and farm levels.

With the globalization of agriculture major emphasis is laid on increasing the productivity, improving the quality of raw productivity, improving the quality of raw products, judicious utilization of production inputs, marketing of agriculture produces and their value addition. No doubt globalization has also frees the



countries from bilateral negotiated agreements here again industrially advanced countries stand to benefit more because of mechanization of agriculture and existence of large of very large farms. Globalization has to be achieved under certain agreements under UN system, particularly world Trade Organization. Some benefits that have accrued to India on these accounts like :

1. **No artificial protection** : India used to give subsidies to farmers which discouraged competition and limited the products.
2. **Competition** : The farmer has been exposed to international competition. Gradually farmers are now coming of age. Example - Having not found favour with Indian consumer, Australian apples are no longer flooding the Indian market on their own.
3. **Advantage** : Indian has advantage of favorable climate cheap labour. Marketing best use of it the Indian farmer has learnt to stand on his own.
4. **Mechanization** : Over the last few years tempo of mechanization is increasing. Modern tools, implement and machines will helps the Indian farmer complete successfully with their counter parts in advanced countries.
5. **Capital Investment** : The Indian farmer sector is now attracting from different parts of the world with this improvement in investment climate, Indian agriculture is bound to make more progress.

From globalization the Indian Farmer apply new techniques, embrace modernization and invest in the enterprise on a commercial scale. On administration and government side, need has been felt for a unified national market for farm products. This calls for development of will pnit infra structure. Indian scientists are also now more concerned with raising farm output. They are also in search of new techniques like biotechnology to make Indian farmer more competitive.

### 3. WTO and Agriculture Market

The WTO was established on 1 January 1995 after the conclusion of Uruguay round in place of GATT (General Agreement on Tariffs and Trade). India was a founder member of both the GATT in 1947 and the WTO in 1995.

International monitory fund (IMF), World Bank and WTO are three main international institutions, which work for the implementation of the policy of globalization. The prospects for agricultural exports would improved as a result of likely increase in the world prices of agricultural product. Globalization means the

process of making exposure to world countries of any product whether is agricultural or industrial so that it becomes competitive in the world market rules of WTO are to be adapted if one country wants to compete with other countries of the world. India has put lot of effort in agricultural production for exporting more goods but country is also facing certain uncertainties and constraints related to production, distribution, food security and price concerns. As results of globalization, India has lost its co petitioners in export market of major commodity like rice, wheat, edible oil etc. In matter of wheat till 1990s we were the marginal exporter in world marketed of about 100 million annually. But now we export 3 to 5 million annually. As a result of globalization the prices of wheat in the world market has decreased, but has two consequences : *firstly*, it will improve efficiency in the use of resources through the process of competition and *secondly*, the level of technology would improve because of foreign technology.

WTO focuses on multi-trade liberalization and also agricultural trade liberalization, to have improved market access for least developed countries. India's participation in WTO could be a meaningful exercise if India could expand its market for agriculture through international participation. Through the constructions of free trade zones for agricultural products, India can improve the quality of her agricultural exportables and can also become internationally competitive. Furthermore through agricultural exports India also can earn crucial "forex" which may relax the "forex" constraint for industry.

#### **4. Agricultural Policy of India and Globalization**

The major challenges for Indian agricultural trade policy are to understand the changing policy restrictions of the potential agricultural imports and organize the Indian agricultural trade to overcome the tariff and non-tariff barriers. Although food security concerns are not currently prominent in India in relation to global standard particularly decided by developed countries. As India moves towards export-oriented agriculture, it is essential that agricultural trade policies facilitate the process of integrating India agriculture in global economy.

National Agriculture Policy (NAP) that was announced in past year by GOI, covers a vast array of issues that are critical in respect to globalization. Besides, there is need to made an effort to identify some additional thrust areas that should be considered and dealt with to prepare the Indian Agriculture Sector in the face of challenges arising from globalization.

There are three sets of foundations must be accelerated in respect to agricultural growth-technology, policy and institution. These parameters must be correlated with policies of globalization for getting maximum benefits in Indian context. NAP identifies the several technological changes such as bio-technologies, remote sensing and information technologies, IPM technologies and environment technologies that will increase the productivity of various agro ecosystems prevailing in the country. These technologies must be globalize between developed countries researches and Indian agri-cultural researchers and made investment in order to improve the access of global agricultural informations by local scientists. Recently there is a need to efficient management of Geographic information system (GIS) and Global Positioning System (GPS) and Precision Farming Technologies (PFT) through appropriate policy instrument in context to globalization and welfare of farming community. Institutions must form an essential strategy for agricultural development and maintain law and order for efficient functioning of agricultural markets. It must be act as knowledge basket for strengthening the skill of small and marginal farmers in area of globalization. Indian policies must be organized parallel to the international agricultural policies with keeping the welfare of our farming community and to exploit the opportunities provided by globalization and to minimize the risk that it may bring along.

## **5. Indian Economic Policy toward Globalization**

Here we sum up the main policy measure initiated so far under the following headings :

### **5.1 Trade Policy and the Indian Economy**

The World Bank had advocated redesigning of the import policy so that is only one negative (restricted) list and imports of all items not explicitly on the restricted list are allowed of import tariffs on all goods, and freer entry to capital goods, intermediate goods, raw materials and consumer goods into the Indian economy, In line with these proposals, the 1992-97 export-import policy allowed the free import of all items including capital goods, except a negative list. The supplementary trade policy announced on August 13, 1991 de-channelized the import of 20 items. In addition, import duties on a wide range of commodities were drastically cut down. For example, the Budget reduced the import duty on a number of capital goods by 20 to 30 percentage points. Duties on a host of other commodities were also reduced. In fact, the maximum rate of duty on all goods was reduced from 1 to 10 percent to 85 percent except for a few items including

passenger luggage and alcoholic beverages. In addition to the phased reduction of impost duties, India as a member of World Trade Organization (WTO), has also committed itself to phasing out quantitative restrictions over a six year period beginning 1997. This period was further reduced following the ruling of the Disputes Settlement Body of the WTO against India on an appeal made by the USA.

The stock argument in favour of trade policy is that competition from imports would improve efficiency, quality and technology besides making international capital goods and inputs available our export industries (hence increasing their competitive strength in the international market)

## **5.2 Foreign Capital and the Indian Economy**

In a bid to attract foreign capital and integrate the Indian economy with the global economy, the Government of India has thrown open the doors to foreign investors. In 1991, the government announced a specified list of high technology and high-investment priority industries wherein automatic permission was granted for direct foreign investment upto 51 percent foreign equity. The industries in which automatic approval has been granted include a wide range of industrial activities in the capital goods and metallurgical industries, entertainment electronics, food processing, and the service sectors.

For instance, foreign companies have been allowed to use their trademarks in India and carry on any activity of a trading, commercial or industrial nature; repatriation of profits by foreign companies has been allowed; foreign companies wanting to borrow money or accept deposits are not now required to obtain permission from the Reserve Bank; foreign companies can now deal in immovable property in India; 100 percent foreign equity participation has been allowed for setting up power plants in the country NRI investment upto 100 percent has been allowed in export houses, trading houses, star trading houses, hospitals, EOUs, sick industries, hotels etc.; reputed Foreign Institutional Investors (FIIs) have been allowed to invest in Indian capital market subject to registration with the Securities and Exchange Board of India and approval of RBI; foreign direct investment under the automatic route has been permitted upto 100 percent for all manufacturing activities in Special Economic Zones (SEZs); 100 percent foreign 100 percent foreign direct investment has been allowed in pharma sector, airports, hotel and tourism industry, township development, courier services and Mass Rapid Transport System (MRTS) etc.

### 5-3 Globalization of Indian Business

India's economic integration with the rest of the world was very limited because of the restrictive economic policies followed until 1991. Indian firms confined themselves, by and large, to home market. Foreign investment by Indian firms was very insignificant. With the new economic policy ushered in 1991, there has, however been a change. Globalization has in fact become a buzz-word with Indian firms now and many are expanding their overseas business by different strategies.

Although India has several handicaps, there are also a number of favorable factor for globalization of Indian business such as :.

1. **Human resources** : A part from the low cost of labour, there are several other aspects of human resources of India's favour. India has one of the largest pool of scientific and technical manpower. The number of management graduates is also surging. It is widely recognized that given the right environment, India scientists and technical personal can do excellently. Similarly, although the labour productivity in India is generally low, given the right environment it will be good, while several countries are facing labour shortage and may face diminishing labour supply, India presents the opposite picture. Cheap labour has particular attraction for several industries.
2. **Wide Base** : India has a very broad resource and industrial base which can support a variety of businesses.
3. **Growing Entrepreneurship** : Many of the established industries are planning to go international in a big way. Added to this is the considerable growth of new and dynamic entrepreneurs who could make a significant contribution to the globalization of Indian business.
4. **Growing Domestic Market** : The growing domestic market enables the Indian companies to consolidate their position and to gain more strength to make into the foreign market or to expand their foreign business.
5. **Niche Markets** : The growing population and disposable income and the resultant expanding internal market provide enormous business opportunities.
6. **Transnationalization of World Economy** : Transnationalization of the World economy, i.e. the integration of the national economics into a single world economy as evinced by the growing interdependence and

globalization of markets is an external factor encouraging globalization of India business.

7. **NRI :** The large number of non-resident Indians who are resourceful in terms of capital, skill, experience, exposure, ideas etc. is an asset which can contribute to the globalization of Indian business. The contribution of the overseas Chinese to the recent impressive industrial development of China may be noted here.
8. **Economic Liberalization :** The economic liberalization in India is an encouraging factor of globalization. The delicensing of industries, removal of restrictions on growth, opening up of industries earlier reserved for the public sector, import liberalizations, liberalization of policy towards capital and technology etc., could encourage globalization of Indian business. Further, liberalization in other countries increases the foreign business opportunities for Indian business.
9. **Competition :** The growing competition, both from within the country and abroad, provokes many Indian companies to look to foreign markets seriously to improve their competitive position and to increase the business.

## 6. Conclusion

Globalization and India's participation in WTO and international trade is bound to be new reality. Globalization will help in better resource utilization for improving productivity and efficiency. Competitions will faster component management and better governance of agricultural and allied sectors. Agriculture in India will enter a new era for which we need to prepare ourselves well to meet the challenges, overcome various obstacles and achieve the goal of successful vibrant India.

The rising cost of basic sustenance products like garments, footwear, cereals, edible oils, petrol and kerosene, medicines and health care items, decrease in farm output, decrease in purchasing power of poor are some of the alarming issues that have given rise to serious doubts about the benefits of globalization.

The increasing wide gap between the poor and the rich is a major cause of concern as will attribute to the increase in crime rates, lawlessness, anti-national activities, terrorism, abduction, black mailing etc. The globalization process, that enables investment of foreign money, may turn out to be a serious 'debt rap' in future as was experienced in Indonesia, Brazil, Korea and some other countries.

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## **Social Responsibility : The Obligation of TV Advertising in India**

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*In the last few decades, advertising has gained considerable importance as a powerful medium of communication, not only in developed countries but also in developing countries like India. Even though the emphasis has been on commercial relevance social advertising has begun to play a role in the context of the developing socio-economic ethos and norms in the country. It has been emphasized that advertisements are not only effective sales promoters, but they encourage and dissociate supplemental images as well, leading fashions and change patterns of daily life. However, it must be emphasized that Advertising has social role and social responsibility. The present paper aims to analyze the issue of social responsibility of TV Advertising in India. This paper underlines the need for censorship of TV serials, other programmes and advertisements. It is unavoidable and necessary. Besides the self-regulatory codes for the channels, there should be statutory codes.*

[**Keywords :** TV Advertising, Social responsibility, Regulatory bodies, DTH]

### **1. Introduction**

A television advertisement (variously called a television commercial, commercial or ad in American English, and known in British English as an advert)

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is a span of television programming produced and paid for by an organization, which conveys a message, typically to market a product or service. Advertising revenue provides a significant portion of the funding for most privately owned television networks. The vast majority of television advertisements today consist of brief advertising spots, ranging in length from a few seconds to several minutes (as well as program-length infomercial). Advertisements of this sort have been used to promote a wide variety of goods, services and ideas since the beginning of television. TV ad is also called a commercial because the company which advertises its product pays money to generate business through the advertisement.

Television advertising in India has become one of the fastest growing markets in the Asia Pacific regions of the globe. Since the Indian television is on a threshold of a major technological change, with new distribution technologies like digital cable, DTH (Direct-to-home) and IPTV (Internet Protocol television), television on advertising is surely going to take on a new role. Because of the increased interactivity in content and niche programming styles catering to very specific target groups, advertising on television too is going to be more focused and will definitely draw more eyeballs. Moreover, today, TV enabled mobile handsets are gaining popularity in India. This might change the nature of TV advertising. Bharti, Vodafone and Reliance will provide their channels on mobile handsets. Times Now, a 24 hours news and current affair channel from the Times Group was first launched on Reliance mobiles and then on the regular TV sets. Reality formats are popular amongst television and they lay emphasis on audience interaction. SMS voting and in-programme advertising has become a key ingredient in most of these shows. This too gives new scope of advertising. Because of the increased audience fragmentation, both the advertisers and the broadcasters are constantly on their toes.

Television advertising revenue bounced back in 2014 led by the Indian general elections and the improved macro economic outlook due to a stable government at the centre. The total TV advertising market is estimated to have grown at 14 per cent in 2014 to Rs. 155 billion. Going forward, TV advertising in India is expected to grow at a CAGR of 19 per cent to reach Rs. 299 billion by 2019.

The Broadcast Audience Research Council (BARC) India released the much awaited All India data on October 23, 2015, which includes rural India, a first in the country. With the release of the All India data, BARC India has expanded its reach to 153.5 million TV households, representing All India and all modes of signal. Of this 77.5 million are urban TV households and 76 million are rural TV households. BARC India will now be reporting Megacities, 10-75 lakh towns, less

than 10 lakh urban areas and rural. The BARC India survey shows that lesser time is spent on TV in rural areas. Two in five rural audiences fall in the NCCS AB category, rural India gives younger audiences in the age group of 15-40 years. Last but not the least, with rural India's 'Early to bed and Early to rise' philosophy, the conventional definition of prime time for channels may change.

## **2. Aim of the Paper**

Being a highly powerful audio-visual media of communication, TV has added new dimension in advertising. The psychological appeal of sight and sound with the comfort of home-viewing, television has found immediate widespread acceptance. The present paper aims to analyze the issue of social responsibility of TV Advertising in India. The data used for this paper is secondary in nature.

## **3. TV Advertising and Social Responsibility in India**

Previously free of formal restrictions, advertising is now a heavily regulated by laws, but it also is tempered by ethical responsibility and the canons of good taste. You can act unethically without breaking any laws, but the community may impose its own informal sanctions for such violations. Most advertisers claim today to maintain high ethical standards and socially responsible advertising practices, but the sins of the past haunt them. Still, the pressures to make a strong and innovative impression are so intense that the temptation to strain limits of good taste and even morality often becomes too strong to resist. Ethical considerations tend to be an afterthought in the planning of most advertising campaigns.

Media house are provided with a long, coded list of the do's and the don'ts. Ethics guides the media to be objective, fair and accurate while presenting news, views and opinion. The houses are expected to collect the items from authentic sources and should be verified. Incitement of crimes, communal passions likely to cause discord, or that of slanderous/libelous nature should be avoided. Sensationalization of news items and provocative headlines are strictly prohibited. Privacy to be given due respect and while reporting of crimes, identities of victims are not to be disclosed.

Monitoring the media's portrayal of women and finding strategies to challenge gender stereotyping in the media have been long standing concerns of gender and media activists throughout the world. A vicious circle might be at work here. Gender imbalances in societies are reflected and reinforced in internal organization of the media as well as in the editorial content of the media. These gender imbalances are reflected in the media editorial content both by 'their

absence, i.e., stories that are not covered, and by their presence, i.e. particular stories that are covered.’

Apart from appearing in a limited number of roles, women are often simply missing in the media content. They are may be much less likely to be featured in news stories and less likely to be interviewed and asked for an opinion than men. Certain categories of women may receive even less attention in the media, such as elderly women, and women from ethnicities and religious groups in minority, working class women, and women with different sexual orientations. The representation of women in the media is, therefore, predominantly insignificant. All in all, women are being either absent or very stereotypically re-presented as objects of desire and/or objects of a gaze.

The lack of gender sensitivity in the media is evidenced in the failure to eliminate gender-based stereotyping. Generally, the media do not provide a balanced portrayal of women’s diverse lives and their contributions to society in a changing world, often reinforcing stereotyped images of women and their roles in society. It is a common practice additionally to assess the professional success of a woman through questions and claims about her related to being a good mother and a wife. This is exactly the type of writing in the media that undermines the efforts of activists, who aim to establish gender equality in all areas of society.

TV shows, ads, music videos and magazines carry a responsibility towards their audience. Younger audience in particular, since they are the ones who can be influenced easier than the others. It is so, because young people still don’t have the world solidly under their feet. Their personalities, however developed, are still not strong enough to resist certain pressures. The prevailing portrayal of women in media has the following characteristics :

- » Positive images of women have a narrow scope and are based on new stereotypes of women’s success—a pop star, a beauty queen and a sport’s woman with an outstanding result.
- » There is an absence of the image of an active, assertive working woman, of a successful businesswoman, or a positive image of a woman politician.
- » Average women are nearly always portrayed as victims of poverty, social injustice, domestic violence and organized crime.
- » Misogyny in the form of rude jokes, mockery or open verbal aggression have become an accepted way of a systematic backlash against women activists working for women’s political empowerment or individual (freedom of abortion, freedom of sexual orientation) human rights.

A common notion in feminist media and development studies has been that constant under-representation of women and women’s issues in the media or

portraying them in a negative and stereotype manner work as a barrier to women's participation, empowerment and development.

The Joshi Committee (1985)<sup>1</sup> was of the view that Doordarshan was a faceless media with cheap promotion, entertainment and sadly neglected the diversities of Indian cultural tradition. But at the same time several satellite entertainment channels through the soaps depict and project to audience various Indian cultures, the way it celebrates the festivals of different religious groups. It not only postulates on the plurality and diversity but also unify the Indians as one single secular nation. For instance, can one forget the way Gujarati culture has been portrayed by '*Kyonki saas bhi kabhi bahu thi*' (a popular Hindi soap opera on Indian Television)? The medium also provides a platform to the folk media to reach out to larger section which otherwise would be unknown to them, like the Bhangra of Punjab, Chhou and Baul of Bengal, Lavni and Tamashaa of Maharashtra that forms the content of many TV shows. Television not only just entertains but it as well conveys socially constructive messages even through soaps. The '*Balika vadhu*' and '*Na...ana is des lado*' (popular soap operas on Indian Television) of Colors can be seen as initiatives taken to eradicate ill- rituals that preach girls to be considered curse for a family. It is true in many interiors of Rajasthan where conditions may improve as a result of these shows. Almost all the serials project feminism, the power of women and to be not considered as a mere counterpart of male.<sup>2</sup>

Moving from children to women, critics and feminists for a long time now have been voicing their opinion against the way women are portrayed in ads. Although, critics are worried about the stereotypical portrayal of women in ads<sup>3</sup>, they are particularly troubled about the undue focus on them as sex objects.<sup>4</sup> Some researchers are of the opinion that the way women are portrayed in ads, is a challenge to the established standards of decency and is essentially pornographic in nature.<sup>5</sup> Examining the impact of television on the psychology of the viewer, Richins<sup>6</sup>, in a study found that the ads which target young women lead them to compare their own attractiveness with the idealized images in the ads, resulting in dissatisfaction with their own attractiveness. A study with almost similar findings was conducted by Fay and Price<sup>7</sup>. It dealt with slimming, dieting and body control advertisements directed at women. The study found that it was normal for adolescent girls and young women to compare their bodies with media images. The study concluded that to a greater extent than non-sufferers, anorexics were influenced and their self-image diminished, by advertising images.

Now-a-days sponsored serials dominate all other programmes on television in India. These serials are mostly family dramas full of sex, romance, emotions and violence depicting pre-marital and extra-marital relations a common thing in

Indian society. These serials are eroding traditional Indian values, which have kept family intact in India. The serials are full of advertisements. Most of the advertisements are accused for sexploitation, that is, women being shown as sex symbols. Thus, there have been concerns regarding the portrayal of women in the media. The P.C. Joshi committee recommended ways in which women should be portrayed. It held that the government must at the earliest formulate clear-cut guidelines regarding the positive portrayal of women on television. However, the recommendations are not being followed in TV serials, other programmes and advertisements. Despite these clear-cut guidelines, the study shows that there is no attempt to project the changing relationships and expectations even among the most protected of Indian women on television.

Joshi Committee recommended a system of regularly monitoring how women are portrayed on television. It stated that there should be a weekly programme in which the audience as well as critics and commentators from newspapers and women's organizations analyze and evaluate programmes. The evaluation must focus specifically on how women are portrayed. There is a need to implement their recommendations seriously. Indian television needs to develop a commitment not only to women's development but also to promoting an egalitarian ethos and a changing image of Indian society. Given the present state of affairs, the type of contents and symbols used in serials, the control of government and of commercial interests over the medium, this seems rather unrealistic right now.

On the contrary, not only women are being portrayed in stereotypical manner, but marital rape, obsessive love, strained relationships, excess domestic discord, extra-marital affairs, mistresses, blackmail, revenge, murder, rebellion, high-pitched emotions, horror, fear, tears, love-making, tangled naked limbs, erogenous zones, sizzling dances, bare skin and passionate kissing etc. are all being shown in steamy music videos, film promos, Hollywood and Bollywood films, foreign serials as well as *desi* serials based on family dramas. Curiously enough, all this is happening in the presence of a law that bars television channels from airing any kind of offensive or adult material that is not suitable for universal viewing.

According to Jaspal Singh and Namrata Sandhu<sup>8</sup>, the portrayal of women in TV commercials is a matter of great concern. The stereotypical portrayal of women in TV commercials (servile to men, dependent, limited decision-making authority etc.) wounds the integrity of women. However, the most disturbing of these issues is the portrayal of women as sex objects. Scantily clad women can be seen in many TV commercials irrespective of their relation with the product advertised. Some critics<sup>9</sup> categorize these TV commercials as pornographic in nature. Nudity in advertising falls in this category of pornography, even if suggestively so. These



sexually explicit ads, employed for a myriad of products, negatively portray women solely in terms of one narrow and stereotypically presented aspect of their gender roles : as sex objects. This has encouraged crime and violence against women.

Further, it can also be said that TV commercials abuse society by negatively influencing human behavior. Their adverse consequences are pervasive and can be seen in the form of degradation of women, shaping of negative sexual attitudes, consumer discontent, loss of confidence, purchase of goods against the will and better judgment of consumers and degradation of relationships in families. The conclusions of past research : advertisements promote materialism,<sup>10</sup> exploit women,<sup>11</sup> coerce viewers to buy unwanted products<sup>12</sup> and mislead viewers<sup>13</sup> were found to be valid in the Indian context too, and thus reinforced. However, while strengthening the findings of previous research, the current research further builds upon them and provides evidence on how TV commercials influence, manipulate and modify the behavior of individuals. A cue is thereby provided to the administrators to act firmly and timely check the unethical advertising practices by business and corporate houses.

Shabarni Basu<sup>14</sup> holds that on one hand TV reports instantly, at the same time, in competition, reports events that can cause disaster. The instant coverage of 26/11 by the Times Now hardly could have mattered to the general audience, if delayed. But it sure aided the terrorists to evaluate their plan of actions with the details. Channels like 24 Ghanta and Kolkata TV (satellite like 24 hours TV channel) through its discussions provoke political turmoil. Again the world of glamour and glitterati projected out by the various shows instill a sense of deprivation in the mind of the weaker section. The over commercialization and business oriented attitude of the medium deviates from its responsibilities to a great degree.

#### **4. Conclusion**

Advertising should not undermine other institutions such as the state, the family, and the value system. Thus, advertising to children is thought to weaken parental authority and to develop consumeristic attitudes at an age where more important values should be impressed on the young. Larger and evolving questions about societal welfare and personal happiness are also involved. As a 'mirror of society', does advertising reflect and magnify developments in ideologies and lifestyles through new symbols and habits detrimental to these goals ? Is it even part of a plot to create a 'culture of consumption' in developing countries essential for the capitalistic countries ? This is very relevant question to which social scientists must address. The call of the hour is to ensure that business and



corporate houses build moral and ethical considerations into their public communication. They must make sure that their actions remain pro social and ‘humanistic’. Towards this end, they must balance their bottom line and welfare of public at large. The present study underlines the need for censorship of TV serials, other programmes and advertisements. It is unavoidable and necessary. Besides the self-regulatory codes for the channels, there should be statutory codes. We need a Code of Conduct from an independent Regulatory Authority specific to Television.

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## ***The Vedanta Philosophy : The Essence of Life***

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*The word Vedanta literally means the end of the vedas—the Vedas being the scriptures of the Hindus. The Vedanta Philosophy, as it is generally called in the present day, really comprises all the various sects that now exist in the India. There have been various interpretations, and to my mind they have been progressive, beginning with the Dualistic or Dvaita and ending with the non-dualistic or Advaita. The present paper is an attempt to analyze the Vedanta Philosophy. It has been shown that Vedantists call the Jivan-Mukti, the living freedom.*

**[Keywords :** Philosophy, Dualistic, Scripture, Commendation]

The term Vedanta means in Sanskrit the “conclusion” (anta) of the Vedas, the earliest sacred literature of India. It applies to the Upanishads, which were elaborations of the Vedas, and to the school that arose out of the study (mimamsa) of the Upanishads. Some times in the west by the vedas are meant only the hymns and ritual of the vedas. But at present time these parts have almost gone out of use, and usually by the word vedas in Indian the Vedanta is meant. All our commendations, when they want to quote a passage from the scriptures, as a rule quote from the vedanta., Which has another technical name with the

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commentators the 'SRUTIS' (which is heard) now, all the books known by the name of the vedanta were not entirely written after the ritualistic portions of the vedas. For instance, one of them—The Isha Upanishad—forms the fourth chapter of the 'yajur Veda', That being the oldest part of the vedas. There are other 'Upanishads' (one hundred & eight in number) which form portions of the Brahmanas or ritualistic writing; and the rest of the Upanishads are independent, not comprised in any of the Brahmanas or other parts of the vedas but there is no reason to suppose that they were entirely independent of other parts for as we well know, many of these have been lost entirely, and many of the Brahmanas have become extinct so, it is quite possible that the independent Upanishads belonged to some Brahmanas which in course of time fell into disuse, while the Upanishads remained. These Upanishads are also called 'forest Book of Aranyakas.'

The Vedants, then, practically forms the scriptures of the Hindus, and all systems of Philosophy that are orthodox have to take it as their foundation, even the Buddhists and Jains, when it suits their purpose, will quote a passage from the Vedanta as authority, all Schools of Philosophy in India, although they claim to have been based upon the Vedas, took different names for their systems. The last one, the system of 'Vyasa' took its stand upon the doctrines of the Vedas more than the previous systems did, and made an attempt to harmonise the preceding philosophies, such as the 'sankhya' and 'nyaya', with the doctrines of the vedanta, so it is especially called the Vedants Philosophy; and the Sutras or aphorisms of Vyasa are, in modern India the basis of the Vedanta Philosophy; In general there are three sorts of commentators (various such as the Bhashya, Tika-Tippani, Chumi etc. in India now; and from their interpretations have arisen three systems of philosophy and sects.

One is the Dualistic or Dvaita. Second is the qualified non-dualistic or 'Visishtadvaita' and a third is non-dualistic or advaita of course the dualistic and the qualified non-dualistic include the largest number of the Indian people. The non-dualistic are comparatively few in numbers. But these different Vedanta systems have one common psychology, and that is the psychology of the 'sankhya system'.

All the Vedantists agree on three points. They believe in God, in the vedas as revealed, and in cycles. We have already considered the Vedas. The belief about cycles is as follows. All matter throughout the universe is the outcome of one primal matter called A'Kasa and all force, whether gravitation, attraction or repulsion, or life is the outcome of one primal force called 'prana'. Prana acting on A'kasa is creating or projecting the universe.

We will now take up the beliefs about mind Soul and God. According to the universally accepted Sankhya psychology, in perception in the case of vision, for instance—there are first of all, the instruments or Karanas of vision—the eyes behind the instruments the eyes is the organ of vision or indriya, The optic nerve and its center -which is not the external instrument, but without which the eyes will not see. More still is needed for perception the mind or manas must come and attach itself to the organ. And besides this, The sensation must be carried to the intellect or Buddhi—the determinative, reactive state of the mind.

According to the Sankhya Philosophy, The reactive state of the mind called 'Buddhi' or intellect is the outcome, the change, or a certain manifestation of the mahat or Cosmic mind. The vedantist rejects the sankhyas ideas of the soul (Purusha) and Nature (Prakriti) They claim that between them there is a huge gulf to be bridged over one the on hand the Sankhya system comes to natures; and then at once it has to jump over to the other side and come to the soul which is entirely separate from nature. Vedantists said that there are three existence in the universe —God Soul and Nature. Nature and soul are, as it were, the body of God and in the sense it may be said that good and the whole universe are one. According to some of the Adventists and some of the dualists, the whole of this universe is evolved from God and according to the Adventist proper, the followers of Sankaracharya, The whole universe in the apparent evolution of God. God is the material cause of this universe but not really, only apparently.

The state of manifestation is individuality and the light in the state is what we call knowledge. To use, therefore, this term knowledge for the light of the Absolute is not practice, as the absolute state transcends not practice, as the absolute state transcends relative knowledge. Just as a piece of gold can be changed in to all sorts of coins., So with this. The state can be broken up into all sorts of knowledge. It is the state of super-consciousness, and includes both consciousness and unconsciousness. The man who attains that state has all that we call knowledge. When he wants to realize that consciousness of knowledge he has to go a step lower. Knowledge is lower state. It is only in 'Maya' that we can have real knowledge.

In Nutshell, Vedantists call the Jivan-Mukti, the living freedom. If a man is deluded by a mirage for some time, but one day. The mirage disappears if it comes back the next day or at some future time, he will not be deluded again Before the mirage first broke the man could not distinguish between the reality and the deception. But when it has broken as long as he has organs and eyes to work with, he will have to see the image but will no more be deluded. That fine distinction

between actual world and the mirage, he has caught and the latter cannot delude him any more. So when the vedantist has realized his own nature the whole world has vanished for him. It will come back again, but never more the same world of misery. The prison of 'misery' has become changed into 'sat', chit, 'Aananda'—Existence Absolute, Knowledge Absolute; Bliss Absolute and the attainment of this is the goal of the Vedanta Philosophy.

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## **The Path to Quality Teaching in Higher Education**

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*This paper aims to provide the framework that emphasis continuous improvement in qualitative teaching learning process and other means for improving systems in higher education. This paper provides insight for both, the theoretical and practical back ground of quality education. The analysis of the term 'quality' leads the reader to the proper thinking. A number of important aspects such as motivation, students' participation, potential use of balanced score card, modern information technology, implementation of Total Quality Management, role of teachers, role of teachers' training, role of educational leadership, new methodologies and strategies are focused in this paper for fruitful quality enhancement in higher education. Not only the important major aspects are findings of this paper, but it also discusses about the hurdles and obstacles which affect the quality of higher education. This paper contains some logical suggestions to avoid the difficulties in enhancing quality in higher education. It also fulfills the need for systematic feasible insight and thinking for enhancing quality in higher education.*

[**Keywords :** Quality, Quality teaching, Higher education, Motivation, Total quality management, Teacher education]

### **1. Introduction**

'Quality' is a silence—slippery idea. Everyone desires to provide quality education. Without knowing the correct sense of quality'.

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As governments in most parts of the world have considered their agenda for higher education over the last two decades, issues of quality assurance and quality enhancement have been a major focus of attention. According to the source of World Bank (1995) many governments have decided that traditional academic controls are inadequate to today's challenges and more explicit assurances about quality are needed. Wright (QAE 15-01-1996) states that colleges and universities should try to build up their quality in a certain area of importance that promotes their well-being. Hence this work considers the core process of education, namely teaching and learning. For achieving quality, continuous improvements, constant awareness and attempts must be necessary for better qualitative education. But correct sense of quality is required for contemporary system of higher education.

## 2. Concept of Quality and Quality Teaching

There are various well known definitions of quality, like :

- Quality as “confirmation to requirement”.
- Quality as “fitness for use”.
- Quality as “a predictable degree of uniformity and dependability as low cost and suited to the market”. “Quality needs dynamic nature, dynamic idea and emotional and moral force”.

According to William A. Foster, “Quality is never an accident, it is always the result of high intention, sincere effort, intelligent direction and skillful execution; it represents the wise choice of many alternatives”. So the degree of conformance to a standard was too narrow and inadequate old definition.

Seeing the various defined concepts of quality we can say that quality consists of meeting stated needs, requirements and standards; and quality is achieved by the prevention of work that does not meet standards, not by the detection of failure, but by continuously improving the process of teaching learning, the service or the product. Education and training are fundamental to the quality organization. New vision of learning suggested the characteristics of successful learners as knowledgeable, self determined, strategic and empathetic thinkers. Applying research, new guidelines to the major content areas stress thinking. The development of a country depends on its education system. The academic level of persons plays an important role in strengthening the social, economical technological and intellectual growth of a nation. Thus, higher education is responsible for producing learned citizens with good skills to perform in various fields.

Now, let us clarify the concept of quality teaching, which has become an issue of importance as the landscape of higher education has been facing



continuous changes. The student body has considerably expanded and diversified, both socially and geographically. New students call for new teaching methods. Modern technologies have entered the classroom, thus modifying the nature of the interactions between students and professors. The governments, the students and their families, the employers, the funds providers increasingly demand value for their money and desire efficiency through teaching.

As regards quality teaching, lacks of clear definitions and to some extent can't be disconnected from debates on quality or quality culture in higher education that remain controversial terms. Some scholars regard quality primarily as an outcome, others as a property. Some consider teaching as the never ending process of reduction of defects and so quality teaching can never be totally grasped and appraised. In fact, conceptions of quality teaching happen to be stakeholder relative, i.e., students, teachers or evaluation agencies do not share the definition of what is "good" teaching or "good" teachers is.

Ways of taking meaning from text, discourse, numbers or experience are made explicit. Thus, we can say that quality teaching recognizes and builds on students' prior experiences and knowledge. New information is linked to student experiences. Student diversity is utilized effectively as a pedagogical resource. Quality teaching stresses on effective instructions that promote excellence and student learning outcomes through best-practices; teaching practices based on high standards of instruction and student engagement; ability to effectively support students' learning and on two components, i. e., good teaching and effective (successful) teaching.

### **3. Important Aspects for Quality Enhancement in Higher Education**

#### **3.1 Motivation**

Motivation—external and internal is a key to quality enhancement in higher education. Without motivation, there is no change, no learning and no actions. The real fact is that without motivation there are no results. According to Bergson in creative evolution, "To exist is to change, to change is to mature and to mature is to go creating oneself endlessly". So learners should be motivated in their vision, mission to transform their dreams in reality. They should be constant focus on a particular college goal. Teachers must build a college climate that encourages performance. They should find out motivational factors and should put it into the practice.

### **3-2 Student's Participation for Quality Enhancement**

The involvement of students in quality process is the most needed to achieve effectiveness in quality education. Students' participation in establishment of correct eternal values in their personal life is necessary to provide quality education. According to Kura! it is necessary to identify values on the part of the universities and institutions of higher education. Swami Vivekanand's "We hear", "Be Good" and "Be Good" taught all over the world. But talking will not help to achieve the goal, morality or other things. But organizations should do needful treatment and requirements related to this.

### **3-3 The Potential Use of the Balanced Scorecard in Higher Education**

In order to be successful, the scorecard also needs to be rooted in employees' internal commitment (Norreklit, 2000) and this requires the involvement of staff (Simons, 1995) in the development of performance management decisions. Balanced scorecard for a faculty is also significant for quality enhancement in higher education. The mission of the faculty is to create a supportive climate in which the individual contribution of students and staff are valued. The process of continual improvement, to be a faculty, which is respected both nationally and internationally and in which excellence becomes the norm,

### **3-4 Modern Information Technology**

It is also an effective tool for quality enhancement in higher education. The recent development in information technology have accelerated the process of global integration. The human society had already seen transitions in the past. From tribal to agrarian society and the other from agrarian to industrial society, but the third transformation has began in nineties with extensive use of information based communication which accelerated growth and development of Intimation Technology. The on going convergence of communication technologies, integrating computation, telecommunication and broad casting is rapidly changing the whole array of process and requirements of the society.

### **3-5 Implementation of TQM in Higher Education**

In this competitive world, higher education institutions face the challenge of providing quality education. Hence, they have started to believe in preparing the students for a future of dynamic change, with relevant knowledge and life long skills. In this context the principles of TQM fit well. The TQM frame work should

be built upon a set of core values and concepts. A set of fundamental core values follow :

- Leadership and quality culture.
- Continuous improvement and innovation in educational process.
- Students participation and development.
- These core values are the backbone of quality elements.

Each quality has particular points and they are inter-related educational processes. But investigator thinks that being a time-limit. It is not possible to discuss the quality circles in detail.

### **3.6 Role of Teachers in Higher Education**

Teachers have to play the most crucial role for their students' all round development, like a sculptor who can mould the clay with his hands and achieve any desirable shape. They are the most important part of the qualitative education. They are guiding light to lead the students towards their goal, spiritually, mentally, logically, psychologically etc. No doubt without teachers students' life is like a radarless ship. Even though the success of teachers is reflected in the performance of their students. Thus the significance of students' is no less than teachers. The purpose of higher education should be, to develop employable skills and to sow the seeds in the students' mind & soul.

### **3.7 Importance of Teacher Education**

The most important means for improving the quality of education is improvement in teaching learning process. Teachers are the heart of the education system : Electronic media can attract the students for learning activities but they can not take the whole place of teacher. Teaching & learning makes the institutions. It is the teacher who makes it. Teachers preparations, performances and accountability for educational task should be top priority. So the role of responsibilities of Teachers in building modern society is the most important aspect. "A lamp cannot light another lamp unless it is burning".

Teaching learning process in education involves interaction between the teacher and the taught resulting in the achievement of the desired competencies. So it is the responsibility of teacher training colleges to develop all the competencies in student teachers. But there is less scope for college teachers training in colleges & universities. No doubt they have occasionally short faculty

development programmes even though they are not sufficient for producing responsible, insightful and dedicated teachers.

### **3.8 Role of Educational Leadership in Qualitative Higher Education**

Strong educational leadership is required in higher education, who will provide enthusiasm and direction to the instructional program.

- Positive leadership toward overall planning, including budget, thinking strategies.
- Creating and communicating a vision of the future.
- Aware of own strengths, weakness and motivations.
- Achieving new different ideas and opportunities to learn.
- Encourages experimentation and tries innovative ways of working.
- Leading to effective study and reading writing process.
- To make best use of diverse talents, technology and resources to deliver results.
- Insight for evaluating teaching & learning process.

### **3.9 New Methodologies for better Quality Enhancement in Higher Education**

A lot of researches have been done for the improvement of admission, pupils' interest, in the subject; accommodation which affects in teaching learning in the class-room, evaluation of students' capacity, various methods of teaching into the classroom, self-learning systems etc. should be learnt by the teachers and institutional management. It will create more and more innovative airy environment in education which will be able to lead qualitative enhancement in higher education.

Now we have to study the hurdles (obstacles) which affect the maintaining quality in higher education. Obstacles in teaching, learning and achieving qualitative education in higher education are :

- I. Most learners spend less time in college and college library than in front of a television set. Certain messages affect the learners span of attention and areas of academic interest.
2. Learning experiences can no longer confined to the four walls of the class-room. More textual matter and attempt of lecturing by teacher are monotones and tiresome attempts for the students.

3. Learning achievement is equally important both in cognitive and non-cognitive areas. In colleges & universities socio-emotional and ethical life of the learners need to be strengthened along with intellectual life.
4. Violence, drugs and sex these elements prevent the healthy social as well as educational values environment.
5. There is lack of motivation in new generation : Today, students of higher education hardly accept what are offered by the college or a university. They are not properly motivated towards the goal and aims of life.
6. E-learning, computerized LCD learning, OnLine learning & Internet learning all these modern media of teaching-learning don't solve the real life problems fruitfulness of knowledge.
7. In the rural areas colleges have not sufficient accommodations efficient manpower to handle all the electronic-media fruitfully.
8. There is already a gap in interaction among the information technological use and among students' which puzzles the students' thinking process too.
9. Students can not utilize library books, journals, magazines etc. so the reading; writing and logical thinking affect in qualitative learning.
10. Students are not properly encouraged for self learning, self evaluating matters so sometimes we find that they follow the ill-manners for their success.
11. Lack of educational leadership; Lack of infrastructure and lack of orientation training of teachers are also hurdles of higher-education.
12. Display of the performance of the teachers. Mostly the institutions follow lecture method but only lecture method does not yield expected results, especially in those subjects where practical trainings are imparted. So we find frustration in the youth. In this way a number of hurdles are in the path of achieving quality in higher education.

#### **4. Some Suggestions to Avoid the Obstacles for Enhancing Quality Assurance in Higher Education**

Some suggestions to avoid the obstacles for enhancing quality assurance in higher education are as follows :

- Motivate and guide the students towards their goals and building their characters in a morality.

- Apply a dynamic methods and approaches in the teaching learning process.
- Learners should be strengthened socially, emotionally, ethically and intellectually by providing well organized various technics and opportunities to the students.
- Healthy knowledge environment and habits should be provided by the teachers & management by producing themselves in a modal role.
- Lead the student to the library. Not only modern information of Technology is useful in solving the real life. Reading, thinking, writing and variety of knowledge over different fields provide them efficiency which lead them for total quality management (TQM)
- Most of the college and university teachers are simple M. A, M. Sc., M.Com. or any master degree holders. They also require teachers training full time. So that they can work fruitfully in the class room and outside the class-room purposefully.
- For modern use of IT, all the teachers must be able to handle the tools efficiently, then they will be able to interact with the students. In colleges most of the teachers are not trained so the IT tools become useless.
- Students should be encouraged for self learning, self evaluation and self improvement. It is the most useful for enhancing the quality in higher education.
- Strong leadership should be provided by principals, by teachers and the members of the management.
- Creative and innovating researches should be done by the teachers, collective project works should be followed, seminars and workshop must be well planned organization. All these pious treatment creates alive knowledge environment, which lead the students quality enhancement in the contemporary system of higher education.

## 5. Conclusion

Many other options are possible, particularly quality enhancement in the higher education. This is not only the work of a one hand or one mind. It is the collective effort which increase the quality in higher education. The teachers, the members of managements, the participation of students', the participation of

educationalist, the participation of experts of information technology, infrastructure all these elements should be collectively involved in the process of enhancing qualitative higher education.

It must be emphasized that high quality teaching and learning is central to raising standards in educational institutions and to addressing underachievement. Literacy and numeracy are at the heart of the curriculum. Committed and enthusiastic teachers use a broad range of teaching strategies, which they adapt to meet the needs of their pupils, and relevant assessment to inform teaching and learning and the early identification of underachievement. Teachers, as committed professionals, continually reflect on their own practice and to share best practice, with a view to improving their practice and the outcomes achieved by their pupils. These key factors need to be supported by a culture of high expectations, engagement with parents and the community and the effective use of data to promote improvement.

This collaborative task is not impossible. A number of nations of the world have performed experimental researches and achieve the goal of qualitative systems of Higher Education India is also hopeful because our nation is not behind applying new strategy, in use of IT and experimental research. So investigator hope for better results by avoiding hurdles in qualitative education in Higher Education.

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## ***Deciphering Caste System in Indian Society***

***Partap Kumar\****

*The Indian society is characterized by the caste system, agrarian class structure, urbanization, multiplicity of religions, a variety of regional cultures, joint family system (with increasing trend towards nuclear families in urban setting), spiritual outlook and superstition, and resistance to change in tradition. An endeavor has been made in this paper to reflect on the nature of caste hierarchy in pre-modern India. The origin of caste system in India is attributed to the functional division of labor. The population was divided into classes on the basis of functions or occupations of particular families and groups. However, in course of time, these divisions between various sections of the society became very rigid. The four Varnas (implying colour) of India developed out of very early Aryan class divisions. The stratification grew more rigid when a situation arose with a dominant “fair” minority striving to maintain its purity and its supremacy over a darker minority. Tribal class divisions hardened and the dark-skinned aboriginal found a place only in the basement of Aryan social structure. Even in the earliest hymns we read of ksatra, the nobility and the vis, the ordinary tribesmen. But the four classes - Brahmana, Kshatriya, Vaishya and Sudra were crystallizing throughout the Rig Vedic period. The varnas are then divided into specialized sub-castes called jatis. Each jati is composed of a group deriving its livelihood primarily from a specific occupation. People are born into a certain caste and*

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*become members. They then acquire the appropriate occupation according to their jati. Maintaining this hereditary occupational specialization and hierarchical ranking of occupations is said to be done through an elaborate ritual system regulating the nature of social interactions between the jatis. This led to loyalty towards one's caste which is known as casteism. This system continues even today. However, in modern society, there is no place for a rigid caste system that hinders adaptability or that restricts a member of the civilized society to choose a particular profession. No one should be forced to adopt or remain in a particular profession for any reason.*

**[Keywords :** Four Varnas, Caste, Hierarchy, Traditional occupations]

## 1. Introduction

An attempt is made to provide the theoretical and logical explanation regarding the emergence of caste hierarchies in pre-modern India. The study utilizes the contributions of earlier theorists in attempting to critically analyze their views based on logical analysis and deduction. The caste system forms the significant basis of pre-modern Indian social structure. Early writers conceived the caste system of pre-modern India as something unique to India. An attempt is made to question this application of theory of uniqueness in the case of India.

We discern from classical Indian sociological discourse that there existed significant differences between the nature of social stratification in pre-modern India and other regions of the world. This is generally referred to as the theory of uniqueness pertaining to Indian caste system. However, the hierarchies found in the Indian caste system suggest that social stratification, as found in pre-modern India, was not totally dissimilar from the social stratification found in other parts of the world.

Defining the word “caste” itself is harder than thought to be. Risley defines it as “a collection of families or groups of families bearing a common name; claiming a common descent from a mythical ancestor, human or divine; professing to follow the same hereditary calling; and regarded by those who are competent to give an opinion as forming a single homogeneous community” (Hutton, 47). It can also be defined as an endogamous and hereditary subdivision of an ethnic unit occupying a position of superior or inferior rank of social esteem in comparison with other such subdivisions (Velassery, 2). Caste name is generally associated with a specific occupation and, as mentioned before, is a closed stratification, which makes it endogamous (Hutton, 47).

The Indian caste system is a classification of people into four hierarchically ranked castes called varnas. They are classified according to occupation and

determine access to wealth, power, and privilege. Leadership positions in society are monopolized by a few dominant castes (Pintane). The two upper castes are ritually considered as superior to the lower castes (Smith, 43).

There are, however, varying “degrees” of Brahmins, such as Kanya-Kubja, Tamil, Tanjore, and others who are part of numerous villages (Pintane). These sub-castes, called jatis, are very specifically endogamous, so that a Brahmin is not only restricted to marrying another Brahmin, but to marrying a woman of the same subdivision of Brahmins (Hutton, 47).

Each jati is composed of a group deriving its livelihood primarily from a specific occupation. People are born into a certain caste and become members. They then acquire the appropriate occupation according to their jati. Separation of these Brahmins from others is one of several indications of social status, which include material goods, social power or influence, and social skills (Pintane). In modern India, economic competition and education are predominate, and the Brahmins occupy this position in both aspects (Sekhon, 44). Vedic texts from the Hindu religion, which have been compiled, legitimized, and interpreted by the Brahmins, provide the rationale for the hierarchical classification and the rituals governing social behavior. There were, and still are, rules that are laid down concerning appropriate occupational pursuit, appropriate behavior within and between castes, as well as rules related to marriage.

A Kshatriya is characterized by physical and martial strength (Smith, 48). These qualities determined his relations with others : “the Kshatriya is charged with the protection of the higher Brahmin class with rule over (and unrestricted exploitation of) the lower Vaishyas” (Smith, 48-49).

The Vaishyas were considered and expected to be weak in comparison to their rulers, and were infinitely exploitable and regenerative. These oppressions however, were usually not boycotted because this was presented as a natural state of affairs in the social realm (Smith, 49).

At the very bottom are those considered the “untouchables”. These individuals performed occupations that were considered unclean and polluting, such as scavenging and skinning dead animals and are considered outcastes. The Hindu law books insisted that there were only four varnas and never a fifth, which was used as a reason to not accept the tribal people of India (Velassery, 8). They were also forbidden to enter the streets in which the houses of the upper castes were situated, and there were many customs and laws that kept them beyond the villages and towns. Since they were rated outside the caste system, they were destined to only in the outskirts of the village and were never an integral part of

village community. Their services, however, were still essential to the health of the community and therefore still had to be part of the system in order to serve the upper castes (Velassery, 8).

## 2. Caste in India

In studies of pre-modern Indian society, the term 'caste' has often replaced by the term 'class' as found in other societies of the world. Sometimes both the terms are used to imply similar connotations. However, there are certain differences between the two terms. 'Class' has more economic connotations rather than social meanings, and 'caste' has more social meanings rather than economic connotations. Nevertheless, caste may have economic origins.

However, there may be two different classes in a single caste. Caste is very much deeply rooted in Indian social and historical tradition. Even among modernized or religious converts, one can see the existence of castes. For instance, among the Christians of Goa there are significant caste differences.

Even among the Muslims one can discern the prevalence of caste system. Also, at times, different castes belong to different social classes. The elite castes like Brahmanas and Kayasthas may be considered as belonging to upper class, while the backwards castes may be considered as belonging to lower classes. Thus, it is possible to use both caste and class to mean the same thing although there are obvious differences between the two.

Caste includes three elements : repulsion, hierarchy, and hereditary specialization. According to Velassery, "a society is characterized by such a system if it is divided into a large number of hereditarily specialized groups, which are hierarchically superposed and mutually opposed. It does not tolerate the principle of rising in the status of groups' mixture and of changing occupation" (2).

There are many rules in the Indian caste system which caste members must adhere to in order to avoid being shunned from their caste members or, according to Hinduism, being born less fortunate in their next life. The two most important characteristics of the Indian caste system have to do with endogamy and occupational restriction. Every member of a caste or sub-caste is required to marry within their own caste.

Any violation of this results in excommunication from one's family and caste. When it comes to occupation, every caste is associated with a particular one to which its members are required to follow. Another characteristic is that every caste imposes restrictions on its members with regards to diet and has its own laws which govern the food habit of the members.

### 3. General Characteristics of Caste

The caste is characterized by its following features :

1. **Endogamy and heredity** : A person born in a caste remains in it for life; dies in it, and his children also remain in it. This provides caste system with rigidity in structure. A caste has divisions, based on endogamy within a sub-group and is called sub-castes.
2. **Social and religious hierarchy** : In the system of social stratification different 'castes' are assigned superiority or inferiority over others. Brahmins are considered to be at the top of this subordination order. Then came Kshatriyas, then Vaishya and finally in the lowest position the Sudras.
3. **Hereditary occupations** : Every caste claims monopoly over some occupation and tries to restrict entry of others in their field. But now the case is changing with technological advancement. Many new occupations are there in which people from all castes are engaged. But in historical perspective influence of occupation on the development of caste cannot be denied. Many groups were named after the occupation they held, e.g. teli (oilman), chamars (leather workers), lohars (blacksmiths), etc.
4. **Taboos** : Another element of caste is the complex of taboos by which the superior castes try to preserve their ceremonial purity and all in general try to avoid occurrence of evils, believed to exist in every person.
5. **Untouchability** : Beyond the four classes, came the "untouchables", "out-castes", or what later came to be designated "depressed classes" and "Scheduled Castes". By the times of Gupta Empire, chandalas had become so strictly outside the social that they were forced to strike a wooden clapper on entering the town. The lot of the untouchables has been a cruel and shameful blot on our cultural heritage.

### 4. Disadvantages of Caste

Caste as a closed system of social stratification, has following disadvantages :

- 1 **Social inequality** : The caste system is responsible for the social inequality or social gap. The high caste people expect the low-caste people to view them with honor. The high caste people do not give equal treatment to low-caste people.
2. **Dignity of manual labour** : The dignity of manual labor is yet to be fully recognized in the minds of certain classes of people. The higher caste people are still averse to perform tasks that involve manual labour.

3. **Prevent labour mobility** : Caste system prevents labor mobility. It restricts the flow of labour from one profession to another according to their economic needs. The wages remain unequal in different professions.
4. **Restricted supply of labour** : Since, the people remain stick to their hereditary profession, the supplies of labour do not increase with the increase in demand.
5. **Hinders large-scale production** : The caste system is based on concept of growth of self-reliant independent workers. The growth of large-scale production becomes difficult.
6. **Negative effect on economic activities** : The economic activities of the people are negatively affected because of the caste prejudices.
7. **Low competition** : The economic force of competition does not work properly because of the restrictions of caste-based system.

## 5. Movements against Caste

There were many movements and governmental actions that took place pre- and post-independence in order to overcome and attempt to eliminate the inequalities and injustices associated with the caste system. During the national movement, Gandhi began using the term “Harijans” (God’s people) to refer to the untouchables in order to encourage a shift towards positive attitude towards the lower castes. Many lower caste members, however, found the term to be patronizing.

The Census of India had started by the British in the late 19<sup>th</sup> century, and in 1935, the British Government of India came up with a list of 400 groups considered untouchable, as well as many tribal groups, that would be accorded special privileges in order to overcome deprivation and discrimination. Those groups included on this list came to be termed Scheduled Castes and Scheduled Tribes.

In the 1970s, however, many leaders of castes considered untouchable started calling themselves “Dalits”. The anti-caste Dalit movement began with Jyotirao Phule in the mid-19<sup>th</sup> century, and he started a movement for education and the upliftment of women, Shudra’s, and Dalits, and the movement spread to many parts of India. He also worked to abolish the idea of “untouchability”, which meant getting rid of restrictions on entry into temples, and finding a place for Dalits within Hinduism.



After 1910, however, Dalit leaders started focusing on distancing themselves from Hinduism and began to advocate for a separate electorate for the Dalits. But Gandhi, who was one of the leaders of the Indian National Congress, tried to instead encourage the incorporation of Dalits as part of reformed Hinduism.

Another prominent movement was the Dalit movement under B. R. Ambedkar, which began between the 1920s and 1930s. He campaigned for greater rights for Dalits in British India, and even after independence. Both Ambedkar and Gandhi were advocates for the abolishment of the caste system, but they disagreed on the means to go about it. Gandhi believed “untouchability to be a moral issue that could be abolished through goodwill and change of heart among the upper-caste Hindus”.

Ambedkar, however, believed that “the subordination of Dalits was primarily economic and political, and could only be overcome by changing the social structure through legal, political, and educational means”.

Ambedkar did receive constitutional guarantees after independence that reserved a certain percentage of seats in elections for Dalits, but by the mid-1950s, Ambedkar was not satisfied by the rate of implementation of the measures. He therefore resigned from government and began to recruit Dalits to seek rights.

In 1956, Ambedkar encouraged around six million Dalits to convert to Buddhism “as a means of escaping the social stigma of untouchability within the Hindu caste system”. During the 1970s, the Dalit Panthers movement sprouted up among the younger generation of Dalits along with other social movements in India, and their movement expressed their anger and frustration at the failure of implementation regarding policies that would eliminate acts of violence against Dalits by upper-caste Hindus in many parts of urban and rural India.

There are three main categories of people that have been identified as eligible for preferential policies that reserve seats in legislatures, in government jobs, in public sector enterprises, and in state-supervised educational institutions, in terms of their population proportion in their area.

They have also been promised special programs (such as health care legal assistance, allotment of land, scholarships, loans, and grants) and are legally protected against discrimination (such as debt, forced labor, and untouchability).

The first group is the Scheduled Castes (SCs), which includes communities who are considered to be untouchables (Daniel). The second are the Scheduled Tribes (STs). This category includes in it those communities who did not accept the

caste system and preferred to reside deep in the jungles, forests, and mountains of India, away from the main population. The Scheduled Tribes are also called Adivasi, meaning aboriginals (Daniel).

The third is the Other Backward Classes (OBCs), which includes in it castes who belong to the Shudra Varna, former untouchables who converted from Hinduism to other religions, and nomads and tribes who made a living from criminal acts (Daniel). They are considered to be affected by “backwardness” based on social and economic disadvantages. It is not clear, however, what criterion identifies OBCs and there is an ongoing disagreement over whether to assign people this status on the basis of caste or on economic criteria.

The problem with this is that caste and economic status have been largely correlated in the past, and even now, caste-based prejudice and discrimination hinder economic advancement for the lower castes.

In the 1960s, the reservation system for SCs and STs began, but the individual states were the ones that were to determine which would be identified as OBCs. Many southern states identified economically disadvantaged castes as OBCs, but there has been considerable opposition to implementing these policies in other Indian states.

The Central Government appointed a commission headed by B.P. Mandal to look into the issue, and by 1978, the Mandal Commission report was completed. It was concluded that caste was the main contributing factor to social and economic backwardness. Many seats in state institutions were reserved for the three groups. The Commission recommended that 27 percent of seats be reserved for OBCs, in addition to 15 percent for SCs and 7 percent for STs.

Unfortunately, the government did not implement these policies in fear of large scale opposition from the people, but in 1990, the Janata Dal government “attempted partial implementation of recommendations leading to widespread unrest and opposition from middle and upper caste youths, intellectuals, and elites”.

## **6. Caste in Modern India**

Relationships between castes have become more relaxed today. There is more food sharing between castes and a lot more eating done at local restaurants where caste distinctions are less likely to be made. One of the biggest changes that took place in India was occupational pursuits among men (and women later on).

It seems that, in the former times, caste system gave scope for specialization and distributed the work in way that promoted professional skill and expertise. It helped the various art and industries to flourish. Even a least talented person had the opportunity earn his living. This is the reason that most men in earlier times did not veer away from their caste-linked occupations, such as blacksmithing and pottery making. Many have now taken up newer occupations that do not relate to their caste, such as government jobs, teaching, retail and services, and machine repair. Wealth and power in the village is now less associated with caste than before, and landownership has become more diversified. Also, the idea that purity and pollution is caused by the lower castes has diminished a good amount. It has, however, only somewhat diminished in the public, whereas behind closed doors and on ceremonial occasions, purification rituals related to caste status are still observed.

Endogamy is still enforced among families, but not as strict as before. A women's status is still significantly tied to the status of the male, but education and awareness of equalization for women has widely spread throughout India. In rural areas, movement out of caste specializing occupations and access to resources is still difficult and slow for the lower castes, but in urban areas, caste is now a less significant part of daily life.

Although discrimination on the basis of caste has been outlawed in India, caste has become a means for competing for access to resources and power in modern India, such as educational opportunities, new occupations, and improvement in life chances. This trend is connected to India's preferential policies and the implementation of these policies.

Implementation has been very uneven in the midst of debates and controversies over the preferential policies, but they have still had a very significant impact on many sections among the lower castes and classes. There has been an increase in representation of SCs, STs, and OBCs in elected offices and they have acquired strong local support.

They have also become an important element in electoral politics and have gone on to form strong political parties in various regions. People from these disadvantaged groups have largely made their way into government jobs as well as all levels of educational institutions.

Unfortunately, however, only a relatively small proportion of the lower castes have benefitted from these preferential policies. Even though there is an

increasing acceptance of lower-caste individuals, there is also more overt hostility and violence expressed against the lower castes and classes in many parts of India.

For example, in parts of Bihar, which is a state in eastern India, upper-caste landowners formed a private army in 1994 called the Ranvir Sena to “protect” themselves from the lower castes. Although this was outlawed, the Ranvir Sena had carried out 20 massacres of Dalits by early 1999.

Hostility is also expressed by the many people who support the removal of reserved government jobs and in institutions for technical education, particularly on the part of many from the traditionally higher castes who are economically disadvantaged. Individual achievements, merit, as well as economic position are also still significantly affected by caste.

## 7. Conclusion

The Indian caste system has played a significant role in shaping the occupations and roles as well as values of Indian society. Religion has been the constant push towards this stratification system for centuries, beginning with the Aryans and continuing down a long road of unfortunate discrimination, segregation, violence, and inequality.

Hinduism was the backbone of the purity-pollution complex, and it was the religion that influenced the daily lives and beliefs of the Indian people. Even after sixty-three years of independence, Indians continue to be in the grip of caste consciousness. Historically, India has been surviving as a nation for millennia with closed groups divided by caste, creed and language. Work was divided and each had his allotted task since birth, and heredity of occupation was a rule that played a big role in the economics of urban and rural life.

Mobility of occupation or caste was restricted, and an individual leaving the occupation of his ancestors in order to follow his or her own path was rarely witnessed. It can be seen that caste continues to play an important role in the dynamic of social and political interactions within India. However, the relationship between caste and hereditary occupations has become less significant now, and there are fewer restrictions on social interaction among castes, especially in urban areas.

The present Indian society is moving from its closed systems towards a state of change and progression marked by the assertion of the human spirit irrespective of castes and creeds.

Numerous movements challenging the injustices associated with the caste system have encouraged individuals in India to be more civil towards other caste members. Many of the lower castes have gained a lot from the partial elimination of the caste system, and India should be applauded for its constant effort to eradicate this system of stratification from its culture. It is, however, important to look at the importance of how caste status has affected the quality of life and social mobility in India today.

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## **Life Skill Education in Higher Education : A Framework**

**Rachna Pathak\***

*To cherish high ideals, to reach greater heights in life, to come out with flying colours, to attain the desired goals, even after facing mighty obstacles, is the ambition of every youth. The ambition is really wonderful, marvelous, a-sign of real youth, without which life is meaning less, useless and monotonous. This is possible only through Life Skills. We need life skills education by which character is formed, sense of mind is increased, the intellect is expanded and one can stand on one's own feet. We can bring the nation together by educating importance of life skills to our youth. Education is only manifestation of perfection already within a persons. It requires awakening. An attempt has been made to provide a framework for life skill education (LSE) in higher education. It has been stressed that LSE needs to be considered as an important component, especially in Indian higher education system.*

**[Keywords :** Life skill education, Higher education, Youth, Enhancing capabilities, Enlarging choices]

### **1. Introduction**

Education needs to address not only the human resource need of the society, but also the development needs and aspirations of the individuals, their ability to

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think and reason, build up self-respect, as well as respect for others, think ahead and plan their future. It looks in particular on recent trends emphasizing education concerning life skills, psycho-social abilities that help people think, feel, act and interact as individuals and as participating members of society and on how life skill education through a recognized educational framework can be a bridge between basic functions and capabilities.

In this emerging scenario of knowledge based society of 21st Century, higher education in India is facing huge crises in terms of creating skilled and knowledgeable human resources to meet the forthcoming challenges of the changing world. As it has been recognized and accepted that 'knowledge' and 'skill' play a crucial role to Uplift competency level of Indian students at global work place, the 'skill building' process must be given greater attention by the institutions in higher education. As National Knowledge Report (2006) has stated that "the skill set of the vast population of India is far low by international standard" this indicates urgent intervention to overcome it as early as possible to start with life skill Education (LSE) will be the first step to improve skill based foundation of Indian students. To impart Life Skill Education (LSE) the model and indicator developed by World Health Organization (1999) can be utilized.

The role of any educational institute is to prepare the students for life itself, by imparting not only knowledge but also the courage to face the world beyond the classroom (Viegas, 2010). In a static society, the main function of the education system could be to transmit knowledge to new generation. But in a dynamic society, the educational system should not only transmit the knowledge, but also help in preparing the youths to face the challenges of the future. The World Health Organization (WHO) 1993 defined life skills as, "The abilities for adaptive and positive behaviour that enable individuals to deal effectively with demands and challenges of everyday life." WHO identified the core set of life skills that include problem solving, decision-making, goal setting, critical thinking, communication skills, self awareness, assertiveness and skills for coping with stress.

## **2. The Objective of Education and The Dakar Framework**

The objective of education for all must be geared toward enhancing capabilities and enlarging choices and developing agencies by building different dimensions of well-being by building self-image and self worth, which in turn help individual to be less vulnerable to the variations within a given context. Educational contents, must therefore be reviewed to remove the stereotypes and age old norms that persist. Every aspect of education must then work towards

fighting all types of poverty, including reducing vulnerability by building potential and increasing agency and well being of individuals and societies.

In order to reach the objectives of education to enhance individual freedom and development in mind we need to establish what elements education have to consist of. During the World Education Forum (Dakar, Senegal, 2000), the global education community took the clear position that education geared to tapping each individual's talents and potential, and developing learners' personalities in order to improve their lives and transform societies needs to emphasize the acquisition of skills, by specifically including the acquisition of "life skills" in two of its six goals, the resulting Dakar Framework for Action stresses the need for not only psychomotor or practical skills, but also those psycho-social abilities—life skills—that will enable us to learn and use knowledge, to develop reasoning and analytical strengths, to manage emotions and to live with and relate to others.

The Dakar Framework (Dakar, 2000) for Action states that all young people and adults have "the human right to benefit from an education that will meet their basic learning needs in the best and fullest sense of the term, an education that includes learning to know, to do to live together and to be". based on the four pillars of education in the report to UNESO of the International Commission on Education for the Twenty-first Century (UNESCO, 1996). This report stresses the importance of enhancing inner capacities in order to meet the challenges of education. It offers a conceptual basis for a life skill approach to education that not only reinforces the definition of life skill as psycho-social abilities, but also proposes education framework for the essential combination of psycho-social life skill (learning to know, to be and to live together) with practical, psycho-motor skills (learning to do) Whereas life skills education influences capabilities of Sen's Capabilities Approach, the four pillars of education can be used as a frame work for the list of Central Human Capabilities proposed by Nussbaum (Life; Bodily Health; Bodily Integrity; Senses, Imagination and Thought; Emotions; Practical Reasons; Affiliation; Other Species; Play; Control over One's; Environment).

### **3. Learning to Know : Developing Reasoning**

This pillar refers to the Central Human Functional Capability of "Practical Reason" according to Nussbaum. It relates to cognitive life skills, such as critical thinking (analyzing different sources of information, interpreting motivations), problem solving and decision-making skills (collecting information, evaluation consequences, defining alternatives, choosing a solution.

1. **Learning to Know** : Learning to know refers to both the acquisition of knowledge as well as the use of the knowledge.
2. **Learning to Be** : It relates to self-management life skills related to self awareness, self esteem and self confidence (building an identity, valuing oneself, setting goals, building dreams, etc.) and coping skills (skills for managing feelings and stress).
3. **Learning of Live Together** : This aspect also implies feeling concerned by other's welfare and feeling an affiliation link to a group, a category, a society and a culture.
4. **Learning to Do** : Refers to psychomotor skill and represents an achievement linked to "refined" functionings ("Bodily Integrity" and "Control of One's Environment").

We can not ignore the core set of life skills developed by WHO (1998) Education in higher education :

1. **Critical Thinking** : It leads and increases the ability of the student to think critically and analytically in their day to day learning.
2. **Creative Thinking** : Creative Thinking helps in decisions making, innovation and problem solving in day to day life.
3. **Decision Making** : Right decision at the right time determines the future of an individual.
4. **Problem Solving** : Problem solving skill helps the students in terms of decision making process and to acquire the ability to solve personal and professional problems encountered in their day to day life.
5. **Effective Communication** : Effective communication skill helps in building team work,strengthening strong communication process, minimizing mis-communication all these are an important factors in terms of qualitative production and service at work place.
6. **Effective interpersonal relationship** : It has been found through research that effective interpersonal relationship has greater value than any other monetary gain at work place.
7. **Self Awareness** : In career planning self awareness is needed to make students aware about their own strengths and weaknesses.
8. **Empathy** : In the correct era when whole world is considered as a global village. the students who wish to be a part of the global village must have empathic approach/skill rather than sympathetic approach.

9. **Coping with Stress :** Practical demonstration of stress coping techniques should be equipped by the students at higher education through Life Skill Education.
10. **Coping with Emotions :** Emotional stability is an important factor, which is usually challenged by the demanding work place in day to day life.

#### **4. Life Skill Education in Higher Education**

Life skills have been defined by the World Health Organization (WHO) as “abilities for adaptive and positive behaviour that enable individuals to deal effectively with the demands and challenges of everyday life”. They actually signify the psycho-social skills that resolve around valued behaviour and include reflective skills like problem-solving, critical thinking. These also include personal skills like self-awareness and interpersonal skills like keeping effective communication, maintaining healthy relationship with others. Practice of life skills can bring qualities like self-esteem, sociability and tolerance, action competencies to the contemporary secondary school students and can generate enough capabilities among them to have the freedom to decide what to do in a special situation. Health and livelihood education can balance life skills education and vice versa.

The life skills approach is an interactive educational style that focuses on more than just information. To have an impact on behaviour, information-based approaches need to be combined with attitudinal and interpersonal skills, known as ‘life skills’ that should aid to improve the changing of behaviour. In life skills, facilitators are responsible for mentoring academic skills development, personal development and employment skills. The life skills programme includes study skills development as well as personal skills development. The length of the programme depends on how many themes the academic department believes will make an impact on their students. The numbers of students that attend life skills programmes also depend on how many first-year students there are per course.

UGC has initiated Life Skills Training for Students in Higher Education in many universities. The programme is designed to help college students to enhance their life skills and develop capacity in facing challenges in their academic and career life. The objectives of this training are further to : bring awareness on social realities and challenges in current education system; building capacity to face problems and challenges related academic endeavours; impart knowledge on life skills, study skills, and personality development; instill on importance of life skills in effective study approach; enhance and enrich values of ten core life skills among participants and develop their personality and leadership qualities.

Draft of National Education Policy 2016, prepared by Ministry of Human Resource Development has also emphasized that in addition to technical skills, skill development programmes in school and higher education system should give equal priority to developing Life Skills not only for gainful employment but also to develop entrepreneurial skills.

## 5. Conclusion

Life skill education is an emerged area, which is getting worldwide reorganization and utilized while working with youth and students. The concept of Life skills have been incorporated to the curriculum of many developed and developing countries of present world at different levels of their educational systems and the authority concerned are trying to implement those in large scale. Life skill education has demonstrated positive and constructive changes among the students especially in the area of higher education. Life skill education needs to be considered as an important component, especially in Indian higher education system. As the students are going to face global work demands and have educated in Indian context, life skill education will help them to understand in a better way and will develop the overall personality of the students, which is the upmost and important objective of the education mentioned by M. K. Gandhi. It is worth mentioning in context of life skill education, that students should be afforded the opportunity to evaluate the programme after completion in order to improve the programme. The programme should be constantly improved to meet the needs of students.

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## ***Role of RTI in Good Governance : A Study of RTI Act 2005***

***Daleep Kumar\****

*The Right to Information Act, 2005 is a landmark piece of legislation. After nearly a decade of hectic lobbying, the efforts of civil society for entrenching the Right to Information in India were finally rewarded on June 15, 2005 with the President's assent to the Right to Information Act 2005. The greater challenge now is the actual implementation of the act. It is a major step towards more accountable and transparent government. Each member of the community has an interest in disseminating and receiving information, opinions and arguments concerning top government and political matters that affect the people. Good governance is the need of the hour. Access to information is a tool to ensure the elements of good governance. Enactment of RTI Act, 2005 is a path breaking way for good governance. Presenting the elements of good governance and its genesis, the paper introduces the journey of RTI Act and provisions of section 4 in ensuring good governance.*

**[Keywords : RTI, Good governance, Democracy, Transparency]**

### **1. Introduction**

The original root of the word "Information" is the Latin word "Intormore" which means to fashion, shape or create, to give, form to Information is an idea that

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has been given form, such as the spoken or written word. It is a means of representing an image or thought so that it can be communicated from one mind to another rather than worrying about all the information afloat in that world, we want to know its having ideas and learning to deal with issues that is important not accumulating lots and lots of data. The act specifies that citizens have a right to request any information taker copies of documents, inspect documents, works and records, take certified samples of materials of work, obtain information in form of printouts, diskettes, floppies, tapes, video cassettes or iii any other electronic mode or through printouts.

India, one of the world's largest countries, has made tremendous strides in its economic and social development in the past two decades. India currently stands .at the threshold of a unique opportunity regarding governance and public management reforms. There is another face of Indian economy and governance. Another area of concern is corruption, which is lagging us as a nation. India is one of the corrupt countries in the world. India ranked 95 out of 183 countries with 3.1 score in the corruption perception index. India's neighbor countries like Sri Lanka, Bhutan have better score. In last few years so many seams have disclosed like 2G Spectrum seam, common wealth game scam, Bombay Aadarsh housing society scam, Karnataka's mire scam and many more. What is the reason behind all this? On one side India is going to become a big economy and proving its competency in the area of technology, defense and other areas but on the other hand it is not improving the quality of life of common people. The reason behind this corruption and irresponsiveness is secrecy and inaccessibility. Most of these problems have been common to most of the third world countries.

## **2. Concept of Good Governance**

The concept of good governance has been coined by the World Bank in 1989 with reference to the development administration o Sub Sahara nations, the World Bank in his document mentioned four key dimensions of governance : (i) public sector management (ii) accountability (iii) legal framework for) development and (iv) information and transparency. According to document improving governance would begin with an assessment of the institutional environment, which determines the parliament profile of the country high when all other factors are absent and low when they are present Thus, good governance focuses on accountability, rule of law, openness and transparency. The World Bank's concern for good governance has been linked to the problem of sound development in the third world countries. The World Bank had identified some parameters of good governance. These are :



1. Legitimacy of the political system which can be best achieved through regular elections and political accountability. This implies limited and democratic government.
2. Freedom of association and participation by various socio-economic, religious, cultural and professional groups in the process of governance.
3. An established legal Framework based on the rule of law and independence of judiciary to protect human rights, secure social justice guard against exploitation and abuse of power.
4. Bureaucratic accountability including transparency in administration.
5. Freedom of information and expression required for formulation of public policies, decision making, monitoring and evaluation of government performance.
6. A sound administrative system leading to efficiency and effectiveness. This in turn means value for money cost effectiveness.
7. Cooperation between the government and civil society organizations.

The above mentioned parameters of good governance might be summed up as limited government, legitimate government, political and bureaucratic accountability, freedom of associations and people's participation in process of governance, freedom of information and expression, transparency, rule of law and checking abuse of power.

The concept of good governance requires accountability and people's participation. To bring these elements the need to have a law to allow access to government files, records and reports to the public had been popular demand for many years in India. The RTI Act was passed by parliament in 2005 but it was not easily coming to the common people in India. A lot of efforts and activities had preceded the enactment of the Act. These initiatives were launched by individuals, group of enlightened citizens and civil society organizations leading to a strong nationwide movement for right.

### **3. Importance of the Right to Information Act**

Since power tends to corrupt and absolute power corrupts absolutely there is an inherent danger that the vast power available to the executive may be used not for public good but for gain or for corrupt motive selfish and unscrupulous politicians can always benefit from uninformed people. It is therefore, essential that the people since they are the real masters in democracy must have as much information about government operations as possible.

Information is the resource which empowers people to act more meaningfully as electors as well as elect representatives of the people. If people are well informed democracy is bound to be prosperous and vibrant. People will be well informed if information or knowledge is freely available. Information is oxygen for any democratic society. Information is a national wealth, the government and public officers are none-else than, the trustees of this national resource. Such a resource must be equitably accessible and distributed to sub-serve the common good. It is moral, legal and constitutional obligation of the government to furnish information.

Hence, we can say that, the Right to Information Act if propagated properly for educating the masses can indeed benefit the citizen to a great extent. It is evident that, it is necessary that the general awareness regarding the act should be promoted as people are not much aware of the provisions of this act. The government has not taken enough significant steps in this regard, but the role played by NGOs and people organizations is of significant importance.

There are many hurdles in the implementation of Right to Information Act. The major challenges in the implementation of the Right to Information Act are : *first*, an important challenge is for the commissions as adjudicators to build an image of strong, independent and open institutions that teach out to the common people to deliver prompt justice, some litigants expect the commissions to resolve disputes unrelated to information supply. *Second*, common man has not been informed of his new power under Right to Information Act. Much efforts energy has to be committed by the government to create public awareness in towns and villages about the Right to Information Act.

*Third*, An effectively transparent information regime demands a transformation in the mind-set of the bureaucracy which realizes that opening up official bureaus to fresh air will not reduce its authority, but strengthen its own role in a vibrant democracy. *Fourth*, At the time of introducing the Act, it was visualized that at time the revelation of information in actual practice is likely to conflict with other public interest including efficient operators of the government, optimum use of limited fiscal resources and preservation of confidentiality of sensitive information.

#### **4. Journey for Right to Information Act**

The right to information campaign in India began in the early 90's in Rajasthan. It all began with a former IAS officer Aruna Roy who brought in her experience as a former government officer in favors of the villagers. It began with

Mazdoor Kisan Shakti Sangathan (MKSS) movement to bring in transparency in village accounts via the demand for minimum wages in rural India. MKSS demand official information recorded in government files. The movement spread over India and it led to the genesis of a broader discourse on the right to information in India. In 1993, a draft RTI law was proposed by the Consumer Education and Research Council (CECR) Ahmedabad. In 1996 a draft model law was presented by P.B. Sawant head of press council of India but none of these drafts were seriously considered by the governments. National Campaign people's Right to Information (NCPRI) in the late 90's become a broad based platform for this purpose. Since 1997 a silent revolution was sweeping across the whole country. In one state after another governments were granting citizens the rights to demand information, inspect government works and take copies of tenders.

In 1997 H.D. Shourie committee was set up by central government and given the mandate to prepare draft legislation on freedom of information. The report of Shourie committee and draft law were published but was never introduced in parliament. The Shourie draft, in an extremely diluted form was the basis for freedom of information bill 2000 which eventually become law under the Freedom of Information Act, 2002. The Act was severally criticized for permitting too many exemptions. A date for the bill coming into force was never notified and it never comes into effective force.

In 2004 general elections brought the SPA led by the congress to power. The leader of the congress, Sonia Gandhi appointed national advisory council to guide as a post making body for the government. Among the members of this council were Aruna Roy and John Dreze who were involved in the effective campaign for effective RTI law. The council took up the task of drafting the bill at its very first meeting. They involved the NCPRI and the Common Wealth Human Rights Initiative (CHRI) in the activity. The first draft for RTI bill was presented to parliament on 22 December 2004. After intense debate, more than a hundred amendments to the draft bill were, made between December 2004 and 15 June 2005, when bill finally passed. The Act came into effect on 13 October 2005.

The Act has imposed a duty on the public authority that it shall maintain its records which shall be fully catalogued and indexed in the manner or form which facilitates the right to information, The word 'catalogue' means complete alphabetical or otherwise ordered list of items, which is often kept with a description of each and index means alphabetical list of subjects at the beginning or at the end of the record. Another duty on public authority is that it shall ensure that all records which are to be stored in the computer are so computerized that it can easily be produced by the computer. It shall equip with its offices with

computers and maintain a complete catalogue and index of the record in the computer as well. Such computerization work is to be completed with reasonable time. The Act has made it mandatory for each public authority to publish within 120 days from the enactment of the Act, all the particulars specified in clause (b) (I) to (17) sub section I of sec.4. Section 4 has a provision to provide information about 'the particulars of the organization, functions and duties. It is expected the organization would provide first prime information about their organization that they have. The Act made it mandatory to publish the power and duties of its officers and employees.' That means the power and duties of all its employees and officers that they have in their department from top to bottom. The Act has made it compulsory to publish the procedure and channels of supervision used in decision making process. Channels of accountability must be mentioned as per RTI Act provisions. According to the provision of, the Act all rules, regulations, instructions, manuals and records held and used by its employees have to be published. All that should be published separately because there is no facility to choose one or two things in it.

Every public authority holds some records and manuals. They follow some rules and regulations for discharging their duties. So, it is mandatory that they publish the rules and regulations of their department as well as the records and manuals that they have kept for discharging their duties. This section also contemplates that it shall be a constant endeavor of every public authority to take step in accordance with the provisions of the Act to provide as much information suo-moto to the public at regular intervals through various means of communication. The Act requires that every public authority should publish all relevant facts while formulating important policies or announcing the decisions which affect the public. This clause has put a mandatory duty on every public authority in this regard. The policy must be such which is important and effect the public in general. The compliance of this clause is not subject to availability of resources; therefore it must be complied with.

## **5. Suggestions to make the Right to Information Act Successful**

Education and training in the art and science of records keeping Right to Information can be successful only if the government at all levels maintains information seriously. Not only this, the creation of awareness is integral to social and economic development of the possibility for the power of communication of liberates the minds and potential of people to critical awareness is real in every field linked to human development.

The constitutional and administrative role of the public services is to assist the duly constituted governments of whatever political colour in formulating and implementing policies of the government and in administering the public services under the central government in the most effective and efficient manner within the framework of the Indian constitution.

Employees in the public services should not seek to frustrate or undermine the policies, decisions and actions taken in the public interest by a duly constituted government by declining or obtaining from action which flows from ministerial decision or statutory obligation.

Consistent with accountability to the superior officers and the ministers in accordance with constitutional provisions employees in the public services should be accessible to the people and practice accountability to them in terms of quality of service.

Employees in the public services should be consistent equitable and honest in their treatment of the members of the public, with particular care for the weaker section of society and should not ever be or appear to be unfair or discriminatory decisions in pursuit of discretionary powers should be justifiable on the basis of non auditory and objective criteria.

We cannot leave the fate of our policies and programmes in which we spend thousands of crores of rupees each year to the care of the bureaucracy alone. The active participation of the people and of people's elected representatives is a must for the success of all our developmental endeavours.

The purpose of public relations is not only to supply information but also to encourage on understanding and cooperation between the citizens and the public servants, the objective of public relations should be to increase prestige and goodwill and to protect the life of the organization by safeguarding it against unwarranted attacks as well as to remove the genuine complaints and grievances of the people.

## **6. Conclusion**

A government in a democratic set up as the servant of we the people is perform all the duties assigned to it under the constitution. The decisions of executive branch of any government are taken in the closed room and may be without consulting the affected parties this it is a matter of great concern that the so called servants of we. The people should given people sovereignty back in their hands. True democracy cannot exist unless all citizens have right to participate in the affairs of the policy of the country. Information is the soul of every government,

its governance desires public participation in governance. It is meaningless for citizens to participate in governance without having information in respect of which they are called upon to express their views.

Thus we can say that the crux lies in section 4, which makes obligatory on the part of various public agencies to not only maintain the records in a set format but also update it on a regular basis. It is believed that if a department has not maintained its information according to section 4 of the Act, it will not be possible for them to provide the information to the information providers. It provides a path to responsiveness accountability, transparency, openness and people's participation which are the major indicators of good governance. It is only possible when RTI Act has been executed in true form and with a positive spirit.

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## **Food Grain Market and Government Intervention : A Case Study of UP**

**Sudhir Kumar\***

*With the inception of green revolution, productivity and consequently production has increased substantially and country witnessed the position from a food deficit to a food surplus one, in recent years government had again to import food grains. This changing landscape of food demand and supply supplement the motivation to look into the policies concerning public distribution system. This paper attempts to analyze the food grain market and government intervention with particular reference to Uttar Pradesh. It has been concluded that the gain accruing to the society (producers' and consumers' of rice and wheat) is at the cost of rising fiscal burden. Rice and wheat figures prominently in the food grain basket of the people. One would therefore expect that the gain to people, particularly the poor ones, would offset the impact of higher fiscal outlay.*

[**Keywords :** Food grain market, Government intervention, Monthly per capita consumption expenditure, Household consumption expenditure]

### **1. Introduction**

Uttar Pradesh is the largest food grain producing state in India, producing about 22% of country's total food grain production. In 1997-98, contribution of

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Uttar Pradesh was 41.8 million tones in the national food grain production of 194.1 million tones. By the end of year 2010, food grain production in the state is expected to be at the level of 70.2 million tons in the total projected national food grain production of 300 million tones.

However the state is also characterized by widespread poverty and extreme dependence on agriculture. It is rich in natural resources (land and water) but has a high population density and declining soil fertility. It is the third poorest state of India with a per capita income of Rs 10817 in 2003-04 ([sampark.chd.nic.in](http://sampark.chd.nic.in)) The rural poverty rate is 21.5% representing a total of 28.3 million people or 15% of all poor in India. In year 2003-04 about 80 percent of the people in UP live in the rural areas; and 66% are dependent on agriculture for their livelihood. Agriculture accounts around 40 per cent of GSDP [[planning.up.nic.in](http://planning.up.nic.in)]. According to the agriculture statistics 2010, the state has a geographical area 24.2 million hectares and out of this 16.8 million hectares area is actually cultivated and 3.98 million hectare area was un-irrigated.

Uttar Pradesh is largest producer of wheat in the country contributing about 36% of the all India total wheat production whereas, U.P. is second largest producer of rice in contributing about 15 % to the national production. The area under these crops is predominantly less than the contribution in terms of production. In Uttar Pradesh 2.6% of holdings is of more than four hectare size and account for more than 19% of the total area while about 75.6% of the holdings accounting for 34.1 percent of the total area which clearly reflects severe inequities in ownership of land holdings. The state has about 16 million tons of surplus food grains after meeting its requirements.

## **2. Methodology and Data Sources**

Using NSSO 55<sup>th</sup> round and NSSO 60<sup>th</sup> round consumer expenditure data, district wise production data from CMIE, district wise procurement data from FCI and Directorates of Economic and Statistics of Uttar Pradesh and district wise population data from Census 2001. OLS regression method is used to ascertain the impact of extended procurement regime on the local mandi prices of rice and wheat and volume of procurement.

Simple arithmetic calculation is done to calculate the change in fiscal outlay and change in the consumers' welfare measured in terms of increase/decrease in their food expenditure by keeping the quality and quantity of rice and wheat consumed by them intact. Change in producers' income is accounted as the welfare gain by the producers.

### 3. Results Discussion at State Level

#### 3.1 NSSO 55<sup>th</sup> Round Uttar Pradesh

The NSSO household level data from the 55<sup>th</sup> round, on consumption expenditures for wheat and rice has been analyzed for all the villages and then summed up for the whole state. The NSSO collects data, not only on food expenditures, but also on quantities purchased, so that the survey has been used to measure prices (unit values), and to examine how they vary across space and time. Price changes have efficiency effects, on the allocation of resources, and equity effects, on the distribution of real income across different households.

The NSSO data on household consumption expenditure provides information on the consumption patterns of a wide range of goods thus we have the Monthly Per capita Consumption Expenditure (MPCE) and the individual quantities consumed and the expenditure incurred for all commodities consumed by a household. The data also reveals information on the household characteristics of the sample such as household type, social group, nature of land possessed (e.g. whether owned or leased), income (Sources) and so on. This information has been taken into consideration for further analysis on the impact the proposed policy could have on the market prices of rice and wheat.

A preliminary analysis of the data revealed information on the percentage of households consuming Rice/Wheat bought from the PDS or from other sources; share of Rice/Wheat and the average unit value the households spent for rice/wheat.

**Table-1 : Unit Values and Percentage Consuming Rice and Wheat from different Sources, Uttar Pradesh, NSS 55<sup>th</sup> Round, 1999-2000.**

Item	Source	% of households	Unit Value (Rs/Kg)
Rice	PDS	7.75	5.95
	Other	90.93	9.42
Wheat	PDS	7.33	4.82
	Other	96.16	6.64

**Source :** Calculation of Figures is based on NSS 55<sup>th</sup> round, 1999-2000. These all are simply un-weighted Means. Percentage consuming and share are in the percentage; unit values in 1999-2000 are in the rupees per kilogram

Expenditure has been divided by the quantity consumed to arrive at the unit values of Rice and Wheat. The following table provides a glimpse of the consumption pattern of rice and wheat in 1999-2000 from the two sources namely the public distribution system and other sources apart from PDS. It is evident from

the table-1 that, the share of households purchasing rice and wheat from the PDS is abysmally low, below 10% though the difference in magnitude of unit value of both rice and wheat between PDS and other sources is substantial. This implies that, greater accessibility of the households to PDS ensures low consumer expenditure.

### 3.2 NSSO 60<sup>th</sup> Round Uttar Pradesh

In 60th round the major change identified in Uttar Pradesh is the percentage share of households purchasing rice and wheat from PDS falls significantly. It tells a story of decreasing penetration of PDS system. This could be attributed to either falling popularity of the system or inefficiency in terms of reach and food grains availability to the consumer on time. One interesting observation here is the prices of both wheat and rice made available through the PDS system have decreased compared to 1999 in 2005. On the other hand prices of wheat and rice available under non PDS system have risen by a slight margin (see Table-2).

**Table-2 : Unit Values and Percentage Consuming Rice and Wheat from different Sources, Uttar Pradesh, NSS 60<sup>th</sup> round, 2004-05**

Item	Source	% of households	Unit Value (Rs/kg)
Rice	PDS	1.4	5.25
	Other	98.6	10.06
Wheat	PDS	1.5	4.08
	Other	98.5	6.83

**Source :** Calculation of Figures is based on NSS 60<sup>th</sup> round, 2004-05. These all are simply un-weighted Means. Percentage consuming and share are in the percentage; unit values in 2004 are in the rupees per kilogram

## 4. Results

The present paper tries to find out the impact of government intervention as fiscal implication of extension of MSP in terms of required budgetary support and gain/loss to consumers' and producers. Consumers' gains or losses are calculated in terms of change in total consumption expenditure on wheat and rice on account of change in local market prices of wheat and rice as a result of extended MSP. Consumption from market (home grown wheat and rice consumed is clubbed with market purchased wheat and rice) and PDS are also taken into account. Producers' gains or losses are accounted in terms of their total receipts by selling their produce (wheat and rice). Change in receipt of producer from wheat and rice sold to market and procurement agencies is calculated separately and added up to calculate net receipt of producers'.

## 5. Concluding Remarks

Although, with the inception of green revolution productivity and consequently production increased substantially and country become from a food deficit to a food surplus one, in recent years government had again to import food grains. This changing landscape of food demand and supply supplement the motivation to look into the policies concerning public distribution system (PDS).

To encourage production the government announces a minimum support price (MSP) for a number of crops. These prices are enforced by purchases at MSP by the Food Corporation of India (FCI) of whatever quantity is offered. These operations however, are carried out only in selected states and mandies. As a consequence food grain prices in other regions and markets may fall below the MSP. Also procurement of food grains in only selected places involves additional transport to distribute the grain in the Public Distribution System (PDS). It has been suggested that procurement operations should be extended to all states.

Analysis of extended MSP system in year 2004-05 also shows similar pattern as exhibited by period 1999-00. From this analysis it is apparent that producers are gaining substantially in both the states for both rice and wheat during both the analysis period for Uttar Pradesh. Gains to the consumers' are however, ambiguous. Proportion of wheat and rice in the consumer food grain basket would determine the gain/loss of consumer in true sense.

Bringing more districts under MSP by opening up procurement centre in remote areas provide an alternate option to the farmers for selling their produce to the procurement agencies at a pre-determined price. This can ultimately reduce the vulnerability of farmers to the volatility of prices i.e protecting them against the down side risk. This is all the more necessary with the rising input cost of cultivation. Diminishing risk for food grains due to EMSP system would influence farmers cropping decision in a way. It induces farmers to plant crops having low risk factor involved in resource poor regions.

From the analysis it is seen that the gain accruing to the society (Producers' and consumers' of rice and wheat) is at the cost of rising fiscal burden. It is still an open ended question by this analysis that whether the rise in fiscal burden is compensated by the aggregate gain to the societies or not. Rice and wheat figures prominently in the food grain basket of the people. One would therefore expect that the gain to people, particularly the poor ones, would offset the impact of higher fiscal outlay.

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***An Analytical Study of Food Grains  
Production in Uttar Pradesh  
(With Special Reference to Impact of Green  
Revolution)***

**V. K. Gautam\***

*In the pre-green revolution period in U.P., area under cultivation was the most significant factor followed by fertilizer use and irrigation. The degree of significance of the factors has been changed during green revolution period. During green revolution period in U.P., the most significant factor is fertilizer use, followed by irrigation. Here area under cultivation is the least significant factor. This is also true for the whole time period also. This paper is an analytical study of food grains production in Uttar Pradesh, with special reference to impact of green revolution. The study has inferred that chemical fertilizers play an important role in any scheme for boosting agricultural production. Balanced and integrated use of fertilizers is the key to increasing crop productivity. Keeping in view of vast potential, the state has major role to play in ushering agriculture sector led economic growth of the country.*

**[Keywords :** Agricultural sector, Food grains production, Production trends in food grains, Green revolution]

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## 1. Introduction

In a broad sense, agriculture encompasses the cultivation of the soil, growing and harvesting crops, animal husbandry, dairying, horticulture and pisciculture. Modern agriculture is technology intensive and requires specialized knowledge and continuous use of chemical fertilizers, insecticides and pesticides, soil engineering and testing, analysis of farm products and nutritional needs of farm animals.

In India, agricultural sector employs nearly two-thirds of India's workforce and contribute nearly one-fourth of the country's GDP, remains the most important sector of the economy. It ensures food security for the country and produces several raw materials for industries.

The land, a traditional input, is inelastic in supply, so the augmenting of agricultural production is possible only by increasing the productivity of land available. Further Ricardian indestructive-powers of the soil is not uniform and are over exploited by repeated cropping. Therefore, the strategy to increase the agricultural production is to use the modern inputs in the areas where irrigation facility is assured. The use of chemical fertilizers and availability of assured irrigation are complementary of each other and have high positive impact on the productivity of agriculture.

Since in India these two key inputs are available with surety over limited area of north west India, comprising Punjab, Haryana & U. P., the present study is therefore, undertaken to explore the economic feasibility of irrigation and fertilizers in U. P. with a view to examine their impact on food grains production and also to analyze the production trends in food grains in U. P. because it is economically and politically most important state of India.

Uttar Pradesh is the largest state of India in terms of population and second largest in area. The reporting area of the state is 24.2 million ha. With cultivable area 16.68 million ha. The cropping intensity in the state is 153 percent. Farming community is dominated by small & marginal farmers with average size of holding only 0.83 ha. per farmer. The state accounts for 11% of India's net sown area and contributes more than 41.1 million tones of food grains which is about 20% of total food grain production of the country.

## 2. Objectives of Study

The present study has been undertaken to achieve the following objectives :

1. To examine the impact of fertilizers on food grain production in U. P.



2. To examine the impact of irrigation on food grain production in U. P.
3. To examine the impact of area under cultivation in U. P on food grains production.

### **3. Assumptions**

Following are the assumption of the present study-

1. In the present study three variables namely fertilizers, irrigation and area under cultivation have been taken for their impact on agricultural output, other variables have been left over.
2. The soil fertility, HYV seeds and other factors which may affect agricultural production have been assumed is constant.

The total time period of this study is of fifty years, i.e. from 1951 to 2000. This period has been analyzed in three parts i.e. pre HYV period (1951-1966); HYV period (1967-2000) and total time period (1951-2000).

### **4. Research Methodology**

For obtaining the results, simple regression analysis as well as multiple regression analysis have been made. There are three independent variables, viz. (i) fertilizer use for food grains, (ii) irrigated area under food grains and (iii) area under cultivation for food grains. Whereas dependent variables are foodgrain production and productivity.

First of all to find out more accurate results natural log has been taken for all values of indepent variables. Then to find the relationship between different variables, coefficient of determination ( $R^2$ ) has been computed, which tells us about the effect of the independent variables (X) on the dependent variables (Y). It shows how much percent of the variation in Y is explained by the variation in X. Value of  $\lambda$  has been computed by  $Y = a + \lambda T$ , where T is time. Value of  $\lambda$  tells that what is the degree of change in dependent variable, due to some change in independent variable.

These two ( $R^2$ ,  $\lambda$ ) have been computed for these variables :

1. Area under cultivation for food grains (in Million Hectares) in U.P., Punjab has been taken as independent variable and food grains production (in million tonnes) has been taken as dependent variable.
2. Area under irrigation (in 000 hectares) for food grains in U.P., has been taken as independent variable and corresponding food grains production (in million tonnes) has been taken as dependent variable.

3. Percentage coverage of irrigation in U.P., as independent variable and yield of food grains as dependent variable.
4. Fertilizer use for food grains (in 000 tonnes) in U.P., has been taken as independent variable and corresponding food grains production (in million tonnes) has been taken as dependent variable.
5. Fertilizer use for food grains in per ha. kgm as independent variable and food grain production as dependent variable.
6. Area under cultivation for food grains, irrigated area under food grains and fertilizer consumption for food grains (in 000 tonnes) have been taken as independent variable and food grains production has been taken as dependent variable.

Therefore  $R^2$  and  $t$  have been computed for above all, for pre HYV period (1951-1966), HYV period (1967-2000) and for total time period (1951-2000). Value of 't' statistics have been computed to know whether the values are significant or not. Then analysis of results have been made and at last conclusions have been drawn.

## 5. Analysis of Data

The data depicted in Appendix show great variation. When we take a view, we clearly found that food grains production increased from 11.61 million tons T to 13.3 million tons in U.P. in pre HYV era. This increase is marked with fluctuations at times. During the period of green revolution it has risen from 12.45 Mn Tons in 1967 to 45.65 million tons in 2000. Thus it is clear that food grains production has increased more rapidly during HYV era.

- The productivity has increased in UP during pre-green revolution period from 614 kg / Hec to 739 kg/hect and during green revolution period it has risen from 642 kg/hect in 1967 to 2188 kg/hect in 2000.
- In U.P. area under cultivation for food grains was just 15.86 million hectares in 1951 and risen to 18.02 million hectares in pre-green revolution. But during green revolution period it has increased from 18.50 million hectares in 1967 to 20.86 million hectares.
- Irrigated area in U.P. was 4072 thousand hectare in 1951 which rose up to 5064 thousand hectare in 1966 and upto 14170 thousand hectares in 2000.
- % coverage of irrigation for food grains was 25.67 in 1951 for U.P. which rose upto 28.09% in the pre-green revolution period and from 30.98% to 64.90% during green revolution period.

- Use of fertilizers was just 5.1 thousands tons in U.P. which rose upto 98.1 thousand tons in the pre-green revolution period. During green revolution period use of fertilizers increased from 141.7 thousand tons to 3275.9 thousand tons.
- In food grains production, use of fertilizers per hectare kgs was risen from 0.31 per hectare kgs in 1951 to 4.28 per has kgs in 1966. During green revolution period it has increased from 6.18 per hec kgs to 123.53 per hec kgs.

## 6. Results and Interpretation

As said earlier this study has been divided in three parts, i.e. pre green revolution period, during green revolution Period and total time period, so the results are also concerned with these three categories separately.

But first of all it is necessary that abbreviations which are being used in the following tables should be cleared for interpretations :

- $R^2$  : Coefficient of Determination  
: Percentage change in Dependent Variable  
 $t^*$  : Value of 't' test, significant at 'o' percent level of significance.  
FGY : Yield of food grains.  
FGP : Production of food grains  
AUC : Area Under Cultivation  
PCIR : Percentage Coverage of Irrigation  
FPHK : Fertilizer Use Per Hectare Kilogram  
IRRA : Irrigated Area  
FERT : Total Fertilizer Use.

**Table-1 : Results of Uttar Pradesh for Pre HYV Period (1951-66)**

S.No.	Dependent Variable	Independent Variable	$R^2$		$t^*$
1.	FGP	AUC	.519	.721	3.890
2.	FGP	IRRA	.029	.159	0.601
3.	FGY	IRRA	.089	.299	1.172
4.	FGP	FERT	.174	.417	1.715
5.	FGY	FERT	.264	.514	2.242
6.	FGP	FPHK	.090	.315	1.242
7.	FGY	FPHK	.163	.407	1.651

The table on preceding page shows the results of Uttar Pradesh in the Pre Green Revolution period that is from 1951 to 1966. It is clear from the table that the value of  $r$  for FGP and AUC is  $\cdot721$ , which implies that 10 percent increase in Area Under Cultivation leads to 7.21 percent increase in food grains production. Value of  $R^2$  for FGP and AUC is  $\cdot519$ . It means that 51.9 percent of the total variation in the food grains production in Uttar Pradesh has been explained by the variation in AUC in Pre Green Revolution period. This indicates that there is positive relationship between Area Under Cultivation and food grains production.

Value of  $r$  for IRRA and FGP is  $\cdot159$  and IRRA and FGY is  $\cdot299$ . It means that if irrigated area has been increased by 10 percent then food grains production has risen just 1.59 percent and food grains productivity has risen just 2.99 percent in the pre HYV period in U.P.

Value of  $R^2$  for IRRA and FGP is  $\cdot025$  and IRRA and FGY is  $\cdot089$ . It shows that just 2.5 percent of the total variation in food grains production in Uttar Pradesh has been explained by the variation in irrigated area in the pre green revolution period. In this period 8.9 percent of the total variation in the food grains yield in U.P. has been explained by the variation in irrigated area. It shows that in the pre green revolution period in Uttar Pradesh area under cultivation was more significant factor than irrigated area.

In this table it is clear that value of  $r$  for FERT and FGP is  $\cdot417$  and for FERT and FGY is  $\cdot514$ . It means that 10 percent increase in fertilizer use leads to 41.7 percent increase in food grains production and 51.4 percent increase in food grains productivity in U.P. in the pre HYV period. Here value of  $R^2$  is  $\cdot174$  for FERT and FGP and  $\cdot264$  for FERT and FGY. It means that 17.4 percent of the total variation in food grains production is explained by the variation in fertilizer use and 26.4 percent of the total variation is explained by the variation in food grains yield in U.P. in the pre green revolution period.

Here value of  $r$  for EPHK and FGP is  $\cdot315$  and for FPHK and FGY is  $\cdot407$ . It leads to the interpretation that in the pre green revolution period in U.P. 10 percent increase in fertilizer use per hectare leads to 31.5 percent increase in food grains production and 40.7 percent increase in food grains productivity. Here value of  $R^2$  for FPHK and FGP is  $\cdot090$  and EPHK and FGY is  $\cdot163$ . It means that in this period 9 percent of the total variation in food grains production was explained by the variation in fertilizer use per hectare kilogram and 16.3 percent of the total variation was explained by the variation in food grains productivity.

Thus it is very clear that in the pre green revolution period in Uttar Pradesh the most significant factor was area under cultivation followed by the fertilizer use and irrigation.

Table-2 : Results of Uttar Pradesh for HYV Period (1967-2000)

S.No.	Dependent Variable	Independent Variable	R <sup>2</sup>		t*
1.	FGP	AUC	.026	.161	.925
2.	FGP	IRRA	.933	.966	21.104
3.	FGY	IRRA	.913	.956	18.347
4.	FGP	FERT	.960	.981	28.731
5.	FGY	FERT	.942	.970	22.722
6.	FGP	FPHK	.956	.978	26.474
7.	FGY	FPHK	.934	.966	21.274

The above table shows the results of Uttar Pradesh for during HYV period that is from 1967 to 2000. Here it is clear that if area under cultivation is increased by 10 percent then there is just 1.61 percent increase in food grains production. Just 2.6 percent of total variation in food grains productions is explained by the variation in area under cultivation.

If irrigated area is increased by 10 percent then food grains productions increases up to 9.66 percent and food grains productivity increases up to 9.56 percent, which shows the strong relationship this period in Uttar Pradesh 93.3 percent of the total variation in food grains production is explained by the variation in irrigated area and 91.3 percent of the total variation in food grains yield has been explained by the variation in IRRA.

In this period 10 percent increase in FERT leads to 9.81 percent increase in FGP and 9.70 percent increase in FGY. 96.0 percent of the total variation in FGP has been explained by the variation in FERT and 94.2 percent of the total variation in FGY has been explained by the variation in FERT.

Here if FPHK is increased by 10 percent than there is 9.78 percent increase in FGP and 9.66 percent increase in FGY, 95.6 percent of total variation in FGP has been explained by the variation in FPKK and 93.4 percent of the total variation in FGY has been explained by the variation in FPHK.

Therefore in Uttar Pradesh in the during HYV period the most significant factor is fertilizer use followed by irrigation and AUC is the least significant factor.

Table-3 on next page shows the results of Uttar Pradesh when total time period that I from 1951 to 2000 is considered. In U.P. in this period when the relationship of AUC and FGP is seen, then we find that if AUC is increased by 10 percent then there is just 5.25 percent increase in FGP. Just 27.5 percent of the total variation in FGP is explained by the variation in AUC.

Table-3 : Results of U.P. for Total Time Period (1951-2000)

S.No.	Dependent Variable	Independent Variable	R <sup>2</sup>		t*
1.	FGP	AUC	.0275	.525	4.272
2.	FGP	IRRA	.942	.971	28.026
3.	FGY	IRRA	.938	.969	27.047
4.	FGP	FERT	.975	.988	43.57
5.	FGY	FERT	.962	.981	34.641
6.	FGP	FPHK	.971	.986	40.255
7.	FGY	FPHK	.958	.979	33.196

10 percent increase in IRRA leads to 9.73 percent increase in FGP and 9.69 percent increase in FGY, 94.2 percent of the total variation in FGP is explained by the variation in IRRA and 93% percent of the total variation in FGY is explained by the variation in IRRA.

In the total time period in U.P., if FERT is increased by 10 percent then there is 9.88 percent rise in FGP and 9.81 percent rise in FGY. 97.5 percent of the total variation in FGP is explained by the variation in FERT and 96.2 percent of the total variation in FGY is explained by the variation in FGY.

Here if FPHK is increased by 10 percent then there is 9.86 percent increase in FGP and 9.79 percent increase in FGY. Thus 97.1 percent of the total variation in FGP is explained by the variation in FPHK and 95.8 percent of the total variation in FGY is explained by the variation in fertilizer per hectare kilogram.

Therefore, results shows that in the total time period in U.P. fertilizer is the most significant factor, followed by irrigation and area under cultivation.

## 7. Conclusions

In the pre-green revolution period in U.P., area under cultivation was the most significant factor followed by fertilizer use and irrigation. The degree of significance of the factors has been changed during green revolution period. During green revolution period in U.P., the most significant factor is fertilizer use, followed by irrigation. Here area under cultivation is the least significant factor. This is also true for the whole time period also.

Effect of these variables on food grain production and productivity is more during green revolution period as compared to pre green revolution period. These three factors have positive effect on production as well as on productivity rather than they are independent or simultaneously. It is clear from the value of 't' test

that all three factors have positive relationship with food grain production and productivity in all three categories i.e. pre HYV period during HYV period and total the period but degree of affect is different.

Attitude of farmers towards the use of fertilizers and irrigation has been changed at a rapid rate during the green revolution period. To sum up, the ongoing study it can be inferred that chemical fertilizers play an important role in any scheme for boosting agricultural production. Balanced and integrated use of fertilizers is the key to increasing crop productivity. Keeping in view of vast potential, the state has major role to play in ushering agriculture sector led economic growth of the country.

## Appendix

**Table-4 : food grains Production, Yield of food grains, Area under Cultivation & Irrigation, % coverage of Irrigation, Fertilizers use and Fertilizer use under food grains (1951-2000)**

Year	food grains Production (in million tons)	Yield of foodgrains in kg/hect	Area under cultivation foodgrains (in million hect)	Irrigated area (in 000 hect)	% coverage of irrigation of total cultivable area	Fertilizers use for foodgrains in (000 tonnes 5%)	Fertilizer use under foodgrains per hect k gram
1951	11.61	614	15.86	4072	25.67	5.1	0.31
1952	10.79	584	15.53	4316	27.78	6.0	0.34
1953	12.38	636	15.78	4316	27.33	8.3	0.39
1954	12.38	628	16.56	4549	27.45	12.9	0.43
1955	13.09	660	16.65	4385	26.32	18.2	0.68
1956	11.88	600	16.65	4164	25.00	20.8	1.62
1957	12.41	622	16.77	3786	22.56	28.4	1.51
1958	11.23	567	16.47	4106	24.91	36.7	1.77
1959	13.39	680	17.17	4067	23.67	44.1	1.87
1960	13.18	702	17.12	4369	25.51	42.5	1.21
1961	14.50	786	17.45	4192	24.01	35.7	1.31
1962	14.07	765	18.39	3949	21.46	35.1	1.38
1963	13.51	738	18.31	4509	24.62	50.4	2.21
1964	11.81	646	18.28	4599	25.14	76.5	3.32
1965	15.28	835	18.31	4549	24.84	56.2	2.43
1966	13.31	739	18.02	5064	28.09	98.1	4.28
1967	12.45	642	18.50	5733	30.98	141.7	6.18
1968	16.77	871	19.30	5080	26.32	278.2	12.42
1969	16.29	840	19.39	6094	31.41	338.6	14.74



1970	17.54	903	19.42	6342	32.65	459.3	20.01
1971	19.48	998	19.63	6814	34.75	410.3	18.35
1972	17.69	914	19.35	6775	35.00	478.0	20.90
1973	18.15	938	19.35	6932	35.90	518.8	22.67
1974	15.72	812	19.18	6725	35.00	465.8	20.30
1975	16.45	874	18.83	7357	38.80	410.8	17.80
1976	19.12	1026	18.98	7465	38.80	487.1	21.10
1977	19.09	1018	19.09	7893	40.90	729.4	36.91
1978	20.82	1093	19.04	7905	41.00	859.8	37.19
1979	23.07	1165	19.80	8381	41.80	1058.4	45.62
1980	16.42	833	19.70	9020	42.00	1150.6	43.38
1981	24.52	1355	20.47	9158	44.40	1269.6	49.43
1982	24.28	1347	20.21	9103	47.00	1432.9	52.27
1983	26.48	1464	20.02	9600	47.60	1642.9	58.34
1984	29.18	1586	20.54	9711	46.90	1612.9	66.32
1985	29.89	1632	20.51	10142	46.90	1972.3	65.11
1986	31.31	1718	20.71	10252	49.20	1771.7	79.83
1987	29.99	1650	20.40	10653	49.20	1817.0	85.88
1988	26.68	1626	19.63	10849	54.90	1816.0	60.21
1989	35.30	1958	20.40	11034	53.80	2135.5	87.44
1990	33.97	1647	20.63	11278	54.80	2091.6	85.63
1991	35.67	1739	20.51	11456	56.00	2240.1	88.74
1992	35.28	1768	19.95	11753	56.00	2249.6	93.16
1993	36.18	1775	20.38	12381	58.80	2180.7	99.27
1994	37.20	1835	11.25	12793	62.80	2292.2	88.75
1995	38.71	1921	20.15	13167	64.10	2480.8	96.58
1996	38.37	1886	20.34	13117	64.30	2605.6	101.99
1997	42.69	2083	20.50	13262	65.00	2768.2	108.39
1998	41.59	2029	20.50	13386	64.70	3030.0	117.49
1999	40.15	1957	20.52	13810	66.50	3167.6	119.86
2000	45.65	2188	20.86	14170	64.90	3275.9	123.53

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