

STATE LEVEL SEMINAR  
ON  
RECENT ADVANCES IN LIFE  
SCIENCES

4<sup>th</sup> & 5<sup>th</sup> February 2015

Organised by

Savitribai Phule Pune University, Pune  
and

Department of Zoology

Bharatiya Jain Sanghatana's

Arts, Science & Commerce College, Wagholi, Pune.

ID NO. PU/PN/ASC/113/1995

Ph. 020-27051276 Mob. 9820127612

Web: www.bjscollege.org Email: bjscollege@rediffmail.com

## Study on behavioral aspects of Crow Pheasant (*Centropus sinensis*)

Ms. Ambika B. Shinde

Department of Zoology BJS's ASC College, Wagholi, Pune

E.mail ID: shinde.ambika24@gmail.com

### Abstract

The present study deals with the behavioural aspects of a crow pheasant (*Centropus sinensis*). The study bird is a terrestrial bird found in Asia region which is of least concern (LC) according to the International union for conservation of nature (IUCN) nomenclature. The study is based simply on observation in which five behavior are described. These behaviours are maintenance, locomotion, digestive, sexual and vocalization. The unique features of crow pheasant are discussed in comparison to other birds like Koel (cuckoo) and counter part of its family.

### Introduction

Birds are one of the most beautiful and attractive creatures on this earth. All over world, there are approximately 9743 species of birds. These birds play a vital role in maintaining the ecosystem. They play an important role in agriculture field. The distinguishing feature is the presence of feathers on their body, which makes them different from the other class of vertebrates. Pune district encompasses a large area with varied habitats. University of Pune campus (UoP) abounds in varieties of resident birds around the year and migratory visitors. In UoP, 2 types of residential birds can be seen. One type of birds, which live above the ground. And other few birds, which live or spend most of their time on the ground. On the ground normally larger size of bird crow pheasant (*Centropus sinensis*) that belongs to Cuckoo family is commonly sighted bird. The shy, elusive and solitary nature and booming call of this bird is very striking and conspicuously eye catching. In life sciences we look for patterns of behaviour and sequences of movements sufficiently similar from one occasion to the next. Bird behaviour can be studied from many angles. Bird behavior is governed & controlled by "instincts". These instincts are related to feeding, foraging, care of the exterior of the body, overcoming rivalries. (Excerpts from Mr. S. Rangaswami's Home study course in Ornithology, 2004). However, all these activities can be improved by experience and learning. Keeping all these in background the project dealing with the study of behaviour of bird *Centropus sinensis* was initiated.

**Description of Crow Pheasant:** - The study bird crow pheasant belongs to family Cuculidae. Stephen first identified it in 1815. This bird is called by different names in different countries, namely Asia. It is commonly called as Greater coucal or Crow Pheasant. In India it is called as "Mahoka" in North India and in Maharashtra it is known as "Bharadwaj" and also known as "Kumbhaar kawala". It is found in Bangladesh, Bhutan, Cambodia, China, India, Indonesia, Malaysia, Myanmar, Nepal, Pakistan, Philippines, Singapore, Sri Lanka, Thailand and Vietnam. In India it is distributed all over. International union for conservation of nature (IUCN) Red list of threatened species has categorized *Centropus sinensis* under LC i.e. least concern as assessed in 2004 by Ekstrom and Butchart.

### Materials and methods:

Field study was carried out in the campus of Pune University. The total area of the campus is 6, 50,000 square meters. Digital camera (Canon) of 4x zoom with 7.1 mega pixel, binocular (8m) and notepad and pen. Whole day was utilized for studying the behaviour. Hourly observations were done with intervals. Notes in codes were entered in the note pad. The notes were later decoded in details. A survey of whole university campus was done for one week at the start of the study, and presence of study bird and the area was located and marked.

### Results

The study bird showed the preference for dense forest area near the study sites. The flora consisted of mainly *Leucena leucocephala*, *Dalbergia melonoxylon* most abundantly found in UoP campus, and *Ficus benghalensis* trees. The crow pheasant shared its niche with other reptilians, avian



and mammalian fauna. Several behavior were reported which are comfort/maintenance, locomotion, ingestive, sexual, & vocalizations.

1) **Comfort/maintenance behavior:** -The crow pheasant show **preening behaviour** in which it used its bill to straighten the feathers on its breast, neck, tail, and wings. It was observed to remove dirt & parasites by its bill. This act was performed while sitting with eyes open. Other maintenance behaviour observed is **Sun bathing**. During this behaviour crow pheasant was seen sitting on the branch of a tree in the sun light with both the wings spread out horizontal to the branch. Extensive preening always followed the sun bathing.

2) **Locomotion:** - Crow pheasant show **walking behaviour** which is a primary mode of locomotion in which it moved at leisurely pace. It shows **Running behaviour** which was observed to move at a speed similar to or slower than the human adult run. It generally runs to escape a perceived threat. And also shows **flying behaviour**. Crow pheasant flight was observed to be slow, clumsy and at low elevation. They were observed to browse lower branches of tree. It was observed to hop from branch to branch to the top of trees, if it flew for long distance. Then gliding downwards before to disappear in dense bushes.

3) **Ingestive behaviour:** Crow pheasant seems to be opportunistic omnivores. Their diet was observed to include caterpillars, bird's eggs etc. it was seen eating Indian wheat bread (roti). *Centropus sinensis* was observed to search for food while walking, looking down at the ground or by extending its neck to and fro and looking right and left.

4) **Sexual behaviour:** *Centropus sinensis* showed **Mounting behavior** during which the male spreads its wings and climbs on to the back of the seated female observed on branch of a tree. It is reported in the paper published by (Lichtenberg and Hallager 2006) that, during this behaviour actual transfer of sperm takes place, which requires only a few seconds. This behaviour was observed in *Centropus sinensis* during rainy season.

5) **Vocalizations:** -Two types of vocalizations could be discerned of crow pheasant.

a) "**Coop-coop**": Crow pheasant produces deep resonating sound like "coop-coop", minimum three times and maximum 19 to 20 times at a stretch. Sound was produced at various tempos and heard many times. It gave out this sound in a typical posture, with head and neck bent towards the chest. This call was often uttered in duet, one followed by the other. "Coop-coop" sound can be heard in many variations. Sometimes sound produced was at high pitch and sometimes at low pitch.

b) "**Clock-Clock**": This type of call was produced by crow pheasant in three situations, before flying after finding the food as if, communicating with its pair and inviting him/her for the food and when pair comes close to each other.

### Discussion

Behaviour includes all those processes by which the animal reacts to the external world and the internal state of its body while so reacting. Birds depend to a great extent on innate behaviour. They respond automatically to specific visual and auditory stimuli from the environment and other drives from within, which are physiological like the urge to feed, to mate and reproduce. The bird's behaviour in all these activities is of a stereotyped nature. Over all description of the study bird is, length-19 inches. Sexes are alike. Wing chestnut in colour, the remainder of plumage black glossed with green, steel-blue and purple. Iris crimson bill and legs are black. Eyes are deep red in colour. The bill is deep rather curved; the wings are short and rounded; tail long broad and graduated; the feathers of the head, neck and breast are harsh and coarse; the hind toes have a long straight claw. The pattern of the foot is, Zygodactyl.



Crow pheasant

*Centropus sinensis* shares its niche with Aves- Jungle crow (*Corvus macrorhynchos*), common crow (*Corvus splendens*), Koel (*Eudynamis scolopacea*). Crow Pheasant also shares its niche with Reptiles- Cobra snake, garden lizard *Calotes* and also with Mongooses (*Helogale parvula*) and Dogs (*Canis lupus familiaris*). But no interactions were observed.

For the birds to define its territory to other birds, or while selecting the mate, communication is necessary. A communication among the birds can take place by two ways; sound and sight. Many birds use song and visual displays to establish a territory and to attract a bird. The Crow Pheasant has been found communicating with its own species by sound. "Clock- Clock" kind of call was heard whenever the study bird was foraging, which may probably be passing the message that it has found the food.

A bird song is also a conspicuous sound that is used early in the breeding season to attract a mate; sometimes song also expresses their inner joy. Our study bird was observed and heard to produce two different kinds of calls. Crow pheasant is an early riser it starts calling just before dawn about 5:00 to 5:30 am. It produces a deep resonant call in various tempos. During its breeding season its "coop-coop" call could be heard for maximum about 19 to 20 times. Crow pheasant produces "coop-coop" three to four times when the bird is in joyous mood or in a relaxed mood when no threat perceived. This sound is often uttered in duet one followed by the other and both the pair produces sound "coop-coop" which is in fast tempo.

The most distinguishing character of the birds is "feathers". They use their feather for various purposes such as for flying to escape from its predator, or to locate its prey and also to attract mate. So the feather care and its maintenance is a most important activity in the life of birds. These activities are bathing, drying, oiling, preening, sunning, and dusting. Out of these crow pheasant has shown preening and sun bathing behaviour. While studying the various types of flying encountered in birds two important points are taken into consideration. (Rangaswami 2004) the ratio of wings length to its breadth and the ratio of body weight to wing surface- the surface loading ratio. Crow pheasant showed gliding kind of flight. It is the simplest one because it involves less expenditure of energy. Crow pheasant hops from branch to branch and reaches to the top of tree for flying at longer distance. Its flight is slow and clumsy and it flies at low elevation. During flight it never produces calls.

Availability of food in plenty is required in case of birds because they are warm blooded and have high metabolic rate. Crow pheasant was observed eating caterpillars, piece of Indian wheat bread (roti), bird's egg and snail. Thus it can be considered omnivorous. It normally feeds on soft caterpillars. Hairy caterpillars are often rejected by most other types of birds, which find the hairs to be irritating and distasteful.

The breeding season signifies a distinct phase in bird's life. The breeding cycle of a bird involves several stages like establishment of a territory, courting and acquiring a mate, mating nest building, egg laying, incubation and care of the young. Breeding season for crow pheasant was observed from February to September. Both sexes seemed similar in size. Generally breeding takes place in rainy season. Nest is built in bushes. The study bird uses green leaves, twigs to build the nest. It lays egg in clutch of 3 to 5 (Ali and Ripley 1987). Mounting behaviour was observed which lasted for about 15



seconds. As the crow pheasant is non-parasitic species, both parents incubate the eggs and care for the young. (Ali and Ripley 1987).

#### References

1. Monga, S. (2003). Birds of Mumbai. India Book House.
2. Goel, P., Goel, S., Mahabal, A., Nalavade, S., Sondi, A., Sondhi, S., Tambe, S. (2006). Birds of Pune. Kalpavriksh.
3. Rangaswami S, (2004). Home study course in Ornithology, vol 1 and 2. 4<sup>th</sup> edition. Rishy Valley Education Centre.
4. Lichtenberg, E. & Hallager, S. (2006). A description of commonly observed behaviours for the kori bustard (*Ardeotis kori*). Japan Ethological Society and Springer.
5. Ali, S. & Ripley, S.D. (1987). Hand of the Birds of India and Pakistan, Compact Edition Oxford University Press, Bombay.
6. Niko, T. (1970). Animal Behaviour, Time Inc. in the United States.
7. Links; <http://www.iucnredlist.org/>.

\*\*\*\*\*

82  
**BJS**  
Bharatiya Jain Sanghatana



STATE LEVEL SEMINAR  
ON

**RECENT ADVANCES IN LIFE  
SCIENCES**

4<sup>th</sup> & 5<sup>th</sup> February 2015

Organised by

Savitribai Phule Pune University, Pune  
and

**Department of Zoology**

**Bharatiya Jain Sanghatana's**

Arts, Science & Commerce College, Wagholi, Pune.

ID NO. PU/PN/ASC/113/1995

Ph. 020-27050276. Mo. 9820027627

Web: [www.bjscollege.org](http://www.bjscollege.org) Email: [bjs@bjscollege.org](mailto:bjs@bjscollege.org)



## Effect of certain plants on sugar cataract in organ culture

M.V. Deshmukh<sup>1</sup>, Dr. K. M. Kodam<sup>2</sup>, Dr. V.S. Ghole<sup>3</sup>

<sup>1</sup> BJS's Arts, Science & Commerce College, Wagholi, Pune, <sup>2</sup> Biochemistry Division, Department of Chemistry, SPPU, Pune, <sup>3</sup> National Institute of Virology, Pashan Pune.

### Abstract

In the world about 17 million people are blind because of cataract. The eye lenses transparency is affected by high concentrations of various sugars. The diabetic patients under 60 have three to four times more prevalence of cataractogenesis than that in normal populations. The lens clarity depends on a micro-architecture of fibres, soluble proteins, a lens capsule and epithelium. Ageing is main factor of cataract formation but the important cause of cataractogenesis is diabetes. The high glucose levels in blood causes accumulation of glucose in eye lenses and may cause tissue damage and osmotic changes by aldose reductase mediated polyol pathway. Certain plant extracts may inhibit Aldose reductase production, prevent sorbitol accumulation in the lenses and may be helpful for minimizing lens opacity. AR inhibiting activity of *Aegle marmelos*, *Dolicandron falcata* and *Vinca rosea* were studied with their effects against sugar-induced lens opacity in vitro. The aqueous extracts of these plants showed potential inhibitory activity of AR. Incubation of goat lenses with high concentrations of glucose (100mM) led to the loss of lens transparency because of decreased soluble proteins and increased protein carbonyls. Plant extracts (100ppm) addition to the cultured medium preserved transparency and decrease in soluble protein. These results showed that these plants protect the lens against diabetes induced cataract.

\*\*\*\*\*

2011-15



33

ISBN : 978-93-84916-59-6



STATE LEVEL SEMINAR  
ON

**RECENT ADVANCES IN LIFE  
SCIENCES**

4<sup>th</sup> & 5<sup>th</sup> February 2015

Organised by

Savitribai Phule Pune University, Pune  
and

**Department of Zoology**  
**Bharatiya Jain Sanghatana's**

Arts, Science & Commerce College, Wagholi, Pune.

ID NO. PU/PN/ASC/113/1995

Ph. 020-27050276, Mob. 9422032481

Web : [www.bjcollege.org.in](http://www.bjcollege.org.in), Email : [bjc\\_college@yahoo.co.in](mailto:bjc_college@yahoo.co.in)





**Madhuri Deshmukh**  
Co-ordinator  
From Organizers desk

It gives me an immense pleasure to welcome all the participants at the state level seminar on "Recent Advances in Life Sciences". I am sure this conference would provide a platform for students and researchers to exchange information among eminent resource persons, scientists and academicians from far and wide. This would also pave way for taking effective steps to speed up scientific research.

This seminar will provide a platform to researchers to present their research work. It will also help researchers to update themselves with advance trends in Life sciences and sustainable development.

I would like to thank all the members for accepting the invitation to join the team and look forward for their help and cooperation in making this journal a success. I also thank the team which has helped us in making Recent Advances in Life Sciences preceding a possibility.

I am confident and hope that the seminar will be fruitful and will initiate good research output.

I once again extend my hearty welcome to all the participants. I also wish an empowering and enlightening experience for all associated with the seminar.

**Insect pests of Potato crop in the North West Pune District (Maharashtra)**

Mr. V.K.Deshmukh<sup>1</sup>, Mrs. M. V. Deshmukh<sup>2</sup>,

<sup>1</sup>Associate Professor in Zoology,  
Annasaheb Awate Arts, Commerce & Hutatma Babu Genu Science College,  
Manchar, Dist-Pune.

Email: [Videsh12@gmail.com](mailto:Videsh12@gmail.com) Mob.9850685046

<sup>2</sup>Assistant Professor in Zoology, B.J.S. College, Wagholi, Pune.  
Email: [madhurdes10@gmail.com](mailto:madhurdes10@gmail.com) Mob. 9850555766

**ABSTRACT:**

Satgaon Pathar (seven villages) is a part of Ambegaon Tahashil in the Dist- Pune (Maharashtra). More than 5000 farmers<sup>1</sup> of this region are taking this crop during the Kharip season only. The potatoes are mainly cultivated for the commercial purposes; especially for potato chips. The major purchasers are ITC Foods Limited, PepsiCo Holdings Private Limited and Parle. We conducted a survey to find out the insect pests of this crop from plantation to post harvesting. We found some serious insect pests in some localities. The major pests we observed in the Kharip season were – several types of beetles, leaf hoppers, army worms, cutworms, aphids, white grubs, earwigs, and wire worms. In some farms we found the army worms, cut worms and the white grubs caused serious damages to the potato plants and underground potatoes. To protect the crop from the attack of the insect pests, the farmers are applying the insecticides continuously; in such farms we could not see any bee, the most important pollinator insects. There is need to give scientific information about the insect pest control, such as the importance of Integrated Pest Management to protect the environmental balance and protection of useful insect species.

Key words: *Potato, Satgaon Pathar, white grub, army worm, insect pests, cut worms.*

**Introduction:**

Potato (*Solanum tuberosum* L.) ranks as the world's fourth most important food crop after maize, wheat and rice. It is grown in more than 100 countries in world. The edible portion of potato is its tuber which is morphologically an underground stem. Potatoes are consumed by over one billion people world; half of them are in the developing countries alone. Europe and Asia alone accounted for 82% of total potato production in the world. In developing countries, Asia accounts for 83.8% of the 151.24 million tones of potatoes produced. The three largest producers in Asia are China (69.2 million tons), India (23.3 million tons) and Turkey (4.9 million tons). China and India ranked first and third largest potato producing countries in the world. It is one of the main commercial crops grown in India. Potato is cultivated in 23 States in India. Uttar Pradesh ranks first in the crop yield in India, with production of 435.45 lakh tons during 2011-12. Potato (*Solanum tuberosum*) is one of the most important food crops of the world. Potato is a crop which has always been the poor man's friend. Potato is being cultivated in India for last more than 300 years. For vegetable purpose, it has become one of the most popular crops in the country. Originally the potato was restricted to the regions of cooler climates, but new varieties have come out that will grow in almost any part of the world. In Ambegaon (Satgaon Pathar, Manchar, Bhavadi, Pargaon Tarphe Khed, Thugaon, Kurvandi etc.), Khed and Junnar Tahashil the climatic conditions are ideal for the potato crop and in most parts of the Tahashil this crop is taken throughout the year.

Satgaon Pathar (a group of seven villages- Kurvandi, Kolharwadi, Thugaon, Bhavadi, Karegaon, Peth and Pargaon) is the part of the taluka where Kharip potato crop is mainly taken. Around 90 per cent of the cultivable land (roughly 8600 acres) in Satgaon Pathar is covered by the potato crop during Kharip season. More than 4000 farmers are potato growers and the varieties selected are mainly- Atlantic and FL 1533. During 2011-12 about Rs. 70 crores were invested in this crop. The varieties grown are only for potato chips and multinationals like *Pepsi Co, ITC food Ltd.* and *Parle* are the major buyers. Though there is a huge investment in the potato crop during Kharip, the farmers are not sure about the yield for all the times because the crops is affected by late blight (karpa) and armyworms (and



some other pests and parasites of the potato) causing serious losses to the investors. To aware the farmers about the pests and parasites of the potato crop of their interest, we conducted survey of the pest and parasites of the crop during Kharip season.

The potato crop is mainly damaged (at various stages of its growth and after harvesting) by viruses, bacteria, fungi, nematodes, several types of insects, mites and mice. Common pests, parasites and diseases causing agents are listed in the table, below:

Potato crop is attacked by a number of insects pests, nematodes and diseases. Some of them are very severe in nature and can reduce the yield significantly unless proper control measures are adopted.

Some of these such as aphids, cutworms, white grubs, Epilachna beetles, defoliating caterpillars, tuber moth and mites are great enemies of the crop and cause 10-20% loss.

#### Materials and methods:

**Area under study:** For Kharip crop of potato- Satgaon Pathar (Seven villages)

**Survey:** Since plantation till harvest of the crop.

**Photography:** Camera- 36 X Optical zoom wide Full HD 12.1 Mega pxl.

**Collection and photographs of the Sample:** plant material- leaves, stems, flowers, roots and affected potatoes.

We conducted survey and communicated with the farmers in and around the Satgaon Pathar of Ambegaon Taluka. We collected information about the total area under potato crop, varieties chosen, collection of seed, methods and season of the plantation, manuring, pest control methods employed, harvesting, storage and marketing. We also discussed with the farmers, (Ashok Bajare, Mr. Tamboli, Mr. P.B. Kale and Mr. Kailas Erande,.) who are investing lakhs of rupees for the crop every year. After plantation we visited the farms from various villages to record the pests, parasites on the crop, in the soil, on the underground potatoes and on the harvested potatoes.

We visited the farms from seven villages during various periods (early in the morning, at noon and late evening) of the day and randomly after a gap of a week.

**Observations:** Several insect pests were observed on the potato crop from the seedling stage up to harvesting. The most harmful are as below:

#### 1. Aphids

In some seasons, aphids pose serious limitations in the successful cultivation of potatoes. These are small insects either pale yellow or dark in colour. Both nymphs and adults damage the plant by sucking the cell sap from the leaves, tender shoots and stem. The leaves of attacked plant become yellowish and curved. If the population is very high, the affected plant may die. Besides this, the aphid secretes honey dew on leaves on which black mould develops. This interferes in the photosynthesis. The winged aphids also transmit serious viral diseases in this crop.

#### 2. Leaf hoppers

Leaf hoppers are tiny insects having slender bodies usually tapering posteriorly and rest in a position ready for jumping. When disturbed, they leap often several feet. Several species of leaf hoppers cause damage to potato crop by sucking sap from the leaves. The infested leaves turn pale, and die. Some of them are also responsible for transmitting the mycoplasma diseases.

#### 3. Cutworms

The damage is caused by the caterpillars. They cut the stems or leaves of potato plants just above ground level and thus affect their growth, vigour and yield. They also feed ' on tubers by boring and nibbling into them and affecting their market value. In badly infested fields, as high as about 40% tubers are damaged by this pest. The full grown caterpillars are about 5 cm long. During day time they remain hiding in the soil and in the night they come out to damage the crop.

#### 4. Epilachna beetle and blister beetles:

These beetles are important leaf eating pests of potato. Sometimes they become one of the most important limiting factors in successful cultivation of potatoes in many parts of the country. A severe infestation may cause up to 15% loss in yield. Epilachna beetles are small insects of yellowish brown or dark brown colour. They occur both in the hills as well as plains.

A female beetle lays about 300 cigar shaped eggs in clusters of 10-50 on the under surfaces of potato leaves. Eggs hatch in about 4 days in to small yellow grubs covered with hairy spines. These grubs start feeding on the foliage. They scrap away the chlorophyll from the leaves leaving only veins.

**5. Potato tuber moth**

Potato tuber moth is an important pest of potato in the country. Though the infestation generally starts in the field, it does not usually become serious in most places; but it causes heavy damage to the potatoes in stores in the plains. Sometimes the entire stores of potato have been reported to be lost due to attack of this pest.

The tuber moth is a small insect of dull grey colour having dark brown or black marking on the wings. The pest is active throughout the year in the plains. The caterpillar of this pest feed inside the tuber pulp. The tunnels made by the caterpillars are filled by the excreta. Such tubers generally become unfit for human consumption and seed purposes.

**6. White grub**

The white grubs are the larvae of cockchafer beetles. They are usually present in all types of soils throughout the year in hilly areas to a depth of. 10 cm to 1 cm. The grubs are fleshy white or light grey in colour with curved bodies. They damage the plant by feeding on the underground portion viz. root, stems and tubers. The grub in early stage feed on the roots with the result the plants-dry up. Later on when tubers are developed, the grubs cut holes in the tubers. The market value of such tubers is very much reduced.

**RESULTS AND DISCUSSIONS:**

As the farmers are growing the potato crop commercially they take care of their crop at various stages of growing period. Being Kharip season there is no need to irrigate the crop. The crop is manured properly and pesticides applied periodically. In some farms the whole crop was severely damaged by the attack by the armyworms, cutworms keeping only veins of the leaves behind, naturally the yield were very poor with small sized and abnormal potatoes. Wherever the potatoes were exposed due to rain, were found bored by the army worms. During early period of growth insects such as aphids, leaf hoppers, grasshoppers, larvae of several insects, a variety of beetles were recorded. The aphids, leaf hoppers generally seen in the morning and late in the evening. The fully grown larvae were seen on the ground, taking shelter of the litter. A variety of weevils, beetles, wireworms were seen in the early period of the season (July). In some farms the stems were seen collapsed due to attack of stem borers, and other insects. In certain parts where the humidity was more mould was seen on the crop and on the ground. Some farms exhibited the crop with curly, withered, yellow leaves. In some farms the inflorescences was also severely affected by the aphids, leaf hoppers and beetles.

We recorded following pests, parasites of the potato in the area under study. These records are not uniform throughout, but variable. The variations might be due to the farms, farmers, i.e. how they are maintaining their crop?

Insects	Aphids, beetles, crickets, dragon flies, earwigs, grasshoppers, Blister beetles, Leaf hoppers, army worms, cut worms, white grubs, weevils, moths.
---------	--

Table: 1 – Recorded Insect Pests of potato crop

Most of the farms we inspected were quite healthy and with satisfactory yield. This was due to ideal climatic conditions, adequate fertilizers, and use of pesticides to control the pests. This proves the commercial approach of the farmers. The very good flowering was there we could not see any pollinating insect such as bees. There were no earthworms in the soil. This is the indication of the killing of these otherwise useful organisms; this is due to the toxic pesticides. Occurrence of the white grubs is the serious problem in some regions; it is due to the application of uncomposed cow dung.

Though the crop is commercially grown the farmers should get proper guidance about farming, integrated pest management, biological control of pests, harms of pesticides to the environment, importance of biopesticides and Biofertilizers and modern methods of harvesting, storage and marketing.



**ACKNOWLEDGEMENT:**

We are thankful to the farmers in Satgaon Pathar who allowed us to visit their farms and for providing essential information.

**REFERENCES:**

1. Andersson, B. and Stromberg, A. 2001. What has happened to potato late blight? *Vaxtskyddsnotiser*.65:23-26
2. Anonymous. 1983. Annual Scientific Report. Pp.93-95. Central Potato Research Institute, Shimla.
3. Ditt, B.L.1979. Bacterial and fungal Diseases of Potato, ICAR, New Delhi, 196pp.
4. Ganguli, A. and Pau, D.K. 1953. Wart disease of potatoes in India. *Sci. Cult.* 18:605-606
5. Jones, F.G.W. 1961. The potato root eelworm, *Heterodera rostochiensis* woll. In India. *Current Sc.* 30: 187.
6. Nachmias, A. 1994. Assessing progenies of potato for resistance to early blight. *Potato Res.* 37:237-269
7. Singh, N. and Singh, H. 1981. Irrigation, a cultural practice to control common scab of potato. *J. Indian Potato Assoc.* 8:35-36
8. Skeen, G. 2000. Chemical control of potato early blight (*Alternaria solani*), by using the new fungicide Skeemet 21.5 W.P. *Revissta de Protection Vegetal.* 15:77-80

Plate - 1



Fig: 1- Potato farm



Fig: 2: Crop inflorescence



Fig: 3 - Armyworms/cutworms and damaged leaves



Fig: 4 - Damaged potato by armyworm or cutworm

Plate: 2

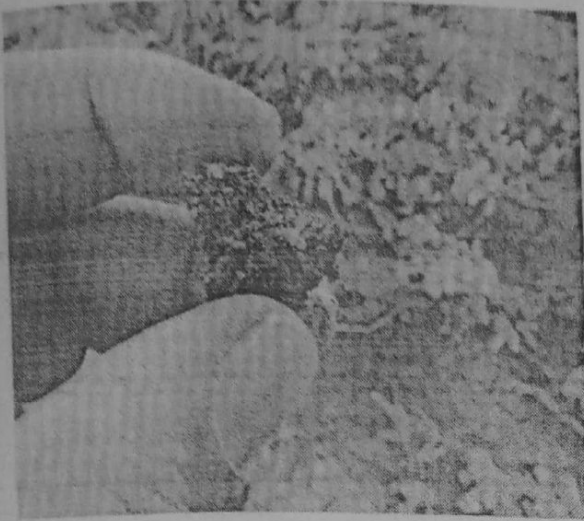


Fig: 5 - Aphid

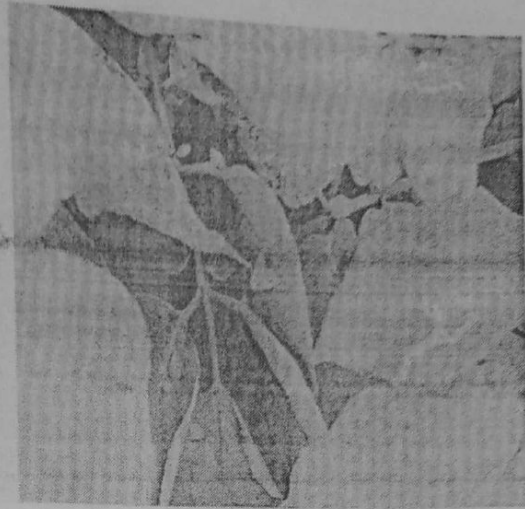


Fig: 6 - Moth and Leaf miner

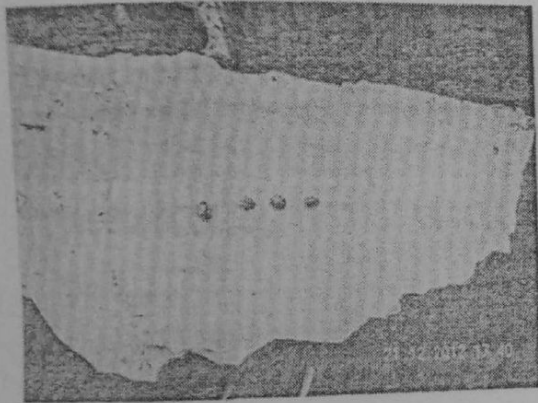


Fig: 7- Beetles

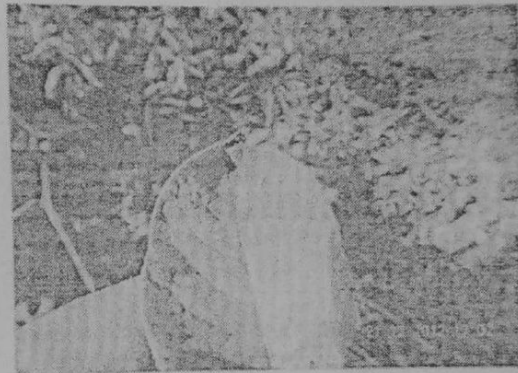


Fig: 8 - Leaf hopper

Plate - 3



Fig: 9 - Wire worm

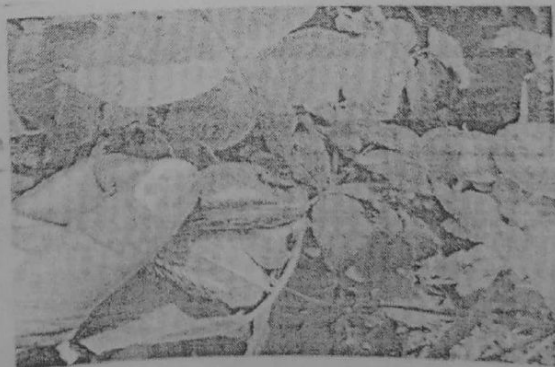


Fig: 10 - Blister beetle



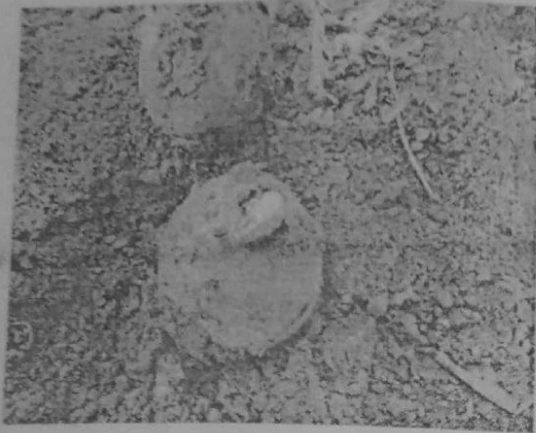


Fig: 11 - White grub



Fig: 12- Potato damaged by mice

\*\*\*\*\*

४६

35

डॉ. भूषण गोविंद फडतरे  
इतिहास विभाग प्रमुख,  
भारतीय जैन संघटनेचे  
कला, विज्ञान व वाणिज्य महाविद्यालय,  
वाघोली, पुणे - ४१२ २०७.  
फोन. नं. ९४२३२३७७३०.  
Email - bhushan.phadtare12@gmail.com

## कॅपिटॉल बाँब स्फोट खटला

### प्रस्तावना

भारतीय स्वातंत्र्यलढ्यात शेवटचे परिणामकारक आंदोलन म्हणजे छोडो भारत आंदोलन होय. या आंदोलनात पुणे जिल्हा अग्रेसर होता. आंदोलनाच्या प्रारंभीच नारायण दामाडेंच्या बलिदानापासून विविध महाविद्यालयातील विद्यार्थ्यांनी प्रेरणा घेऊन आंदोलनास चांगली गती दिलेली होती. आंदोलनाची तीव्रता कमी करण्यासाठी तत्कालीन पुणे जिल्ह्याचे जिल्हाधिकारी मि.टी.ई. स्ट्रीटफील्ड यांना कफ्यू ऑर्डर काढण्याशिवाय गत्यांतर राहिले नव्हते. असे असले तरी भूमिगत लोकांनी दिलेला लढा हा महत्त्वाचा ठरला आहे. त्याचे नेतृत्व शिरूभाऊ लिमये यांनी केलेले आहे. पुण्यातील भूमिगत आंदोलनाच्या दृष्टीने कॅपिटॉल बाँबस्फोट व खटला, देहूरोड डेपो बाँब केस प्रकरण, काँग्रेस गुप्त रेडिओ केंद्र व महाराष्ट्र कट खटला या घटना महत्त्वाच्या आहेत. या घटनांपैकी कॅपिटॉल बाँबस्फोटाने पुणे शहरच नव्हेतर महाराष्ट्रातील ब्रिटिश सरकारला चांगलाच हदरा बसलेला होता.

### कॅपिटॉल व वेस्टएंड चित्रपटगृहाची निवड:

ब्रिटिशांच्या दडपशाहिला धडा शिवण्यासाठी विद्यार्थ्यांनी बाँब तयार करून त्याचा वापर केलेला होता. त्याची क्षमता जरी कमी प्रमाणात असली तरी विद्यार्थ्यांनी केलेले धाडस हे भूमिगत आंदोलनाच्या दृष्टीने महत्त्वाचे होते.<sup>१</sup>

छोडो भारत आंदोलनकाळात राष्ट्रीय गीत व झेंडावंदनाचे कार्यक्रम नित्याचेच होत होते. त्याचाच भाग म्हणून भूमिगत लोकांनी येथील चित्रपट गृहात राष्ट्रगीत वाजविले पाहिजे अशा अशयाचे पत्रक चित्रपटगृह मालकांना पाठविली होती. काही चित्रपटगृहात शेवटी *गॉड सेव द किंग्ज* गीत वाजवून युनियन जॅक फडविला जात होता.<sup>२</sup> पुण्यातील अनेक चित्रपटगृह मालकांनी भूमिगत लोकांच्या पत्रकास पाठिंबा दिला. परंतु कॅम्प मधील कॅपिटॉल, वेस्टएंड व एम्पायर या चित्रपट गृहांच्या मालकांनी मात्र



वरील पत्रकास पाठिंबा दिला नाही. त्यामुळे या चित्रपटगृहात स्फोट करण्याचे नियोजन भूमिगत लोकांनी केले.

कॅपिटॉल चित्रपटगृहासाठी बाबूराव चव्हाण, बापू साळवी, दत्ता जोशी तर व वेस्टएंड चित्रपट गृहासाठी स्फोट हरिभाऊ लिमये, शंकर कुलकर्णी, रामसिंग परदेशी यांची निवड करण्यात आलेली होती. वरील दोन्ही चित्रपट गृहात स्फोट करण्यासाठी २६ जानेवारी १९४३ हा दिवस निवडला होता. परंतु या दिवशी पोलिस यंत्रणा अधिक असल्याने तत्पूर्वीच स्फोट केला पाहिजे यादृष्टीने बाबूराव चव्हाण व बापू साळवी हे दोघेही चित्रपट गृहाची पहाणी करून आलेले होते. २४ जानेवारी रोजी गॅरी कपूरचा नवीन चित्रपट प्रदर्शित होणार होता. त्या दिवशी ब्रिटिश सैन्याची संख्या देखील जास्त असणार होती.

चित्रपट गृहातील पहिल्या काही खुर्च्यांचा रांगा ह्या ब्रिटिश अधिकारी व लष्करासाठी राखीव ठेवलेल्या होत्या. त्यामुळे या ठिकाणी स्फोट केला तर भारतीय सैनिकांना काहीही होणार नाही. पुढे निश्चित केलेल्या योजनेनुसार २४ जानेवारीच्या रात्री नऊ ते साडेनऊ वाजता कॅपिटॉलमध्ये स्फोट झाला. त्यामध्ये एक ब्रिटिश अधिकारी मृत्यू तर १२ सैनिक जखमी झाले. वेस्टएंड मधील बाँब कचरा असलेल्या बादलीत ठेवला होता. तेथे धूर निघत असल्याचे पाहून पाठीमागील रांगेत बसलेल्या विल्यम रॉबसन यांनी तत्काळ तो बाँब घेऊन पाण्याच्या बादलीत टाकून निकामा केला. त्यामुळे तेथे स्फोट झाला नाही.<sup>३</sup>

या दोन्ही ठिकाणच्या स्फोटासाठी देहूरोड मधील ऑर्डनन्स डेपोतील हॅंड ग्रेनेडचा वापर केलेला नव्हता. परंतु सरकारी कागदपत्रात मात्र हॅंड ग्रेनेड ३६ या प्रकारातील होता असा उल्लेख आहे. अशाच हॅंडग्रेनेडचा वापर अहमदनगर मधील सरोष चित्रपटगृहात देखील झालेला होता. पुण्यात स्वतः तयार केलेल्या टाईम बाँबचा वापर केलेला होता. असे टाईम बाँब तयार करण्यासाठी वापरलेले तंत्रज्ञान हे आंदोलनाच्या दृष्टीने महत्त्वाचे होते. बाँब तयार करण्याचे कार्य प्रथम सदाशिव पेठेतील निळूभाऊ लिमये यांच्या घरी नंतर ते प्रभात रोडवरील माधव पाटील राहत यांच्या दुर्गाकुटीर या इमारतीमध्ये सुरू झाले. पोटॅशियम क्लोराईट, गंधक व पिठी साखर यांचे मिश्रण करून बाँबचा प्रयोग करत असताना निळूभाऊ लिमये व बापू डोंगरे यांना भाजले होते. पुढे निळूभाऊ लिमयेची जागा बाबूराव चव्हाण व बापू साळवी यांनी घेतली होती. पोटॅशियम क्लोराईट, गंधक व पिठी साखर यांचे मिश्रण करून वॉच बॉक्स मध्ये ठेवून त्यामध्ये डिटोनेटर ठेवून बाहेर रेबीन किंवा अन्य अशा कपड्याने घट्ट बांधून ठेवणे. असा बाँब छोट्या कागदी बॉक्स मध्ये ठेवून त्याला लहानसे छिद्र पाडून तेथे ऑसिड असलेली बाटली उलटी

ठेवणे त्या बाटलीच्या तोंडावर जे बटर पेपर लावले होते त्यावरून वेळेचे नियोजन केले होते. बाटलीच्या तोंडावर लावलेल्या बटर पेपरचा एक थर असेल तर तो पेटून डिटोनेटर पेटण्यास तीन मिनिट लागत होते. वरील दोन्ही ठिकाणी टाईम बाँब वापरलेले होते त्यामधील बाटलीच्या तोंडावर बटर पेपरचे तीन थर दिलेले होते. त्यामुळे बाँबचा वेळ नऊ किंवा दहा मिनिटे असा होऊन त्याच वेळी स्फोट झाला. दोन्ही ठिकाणी स्फोट करण्यासाठी सायकलवरून जात असताना लाल देवळाजवळ अंधारात बाँबच्यावर ऑसिड ठेवलेली बाटली उलटी केलेली होती.<sup>१</sup> त्यामुळे असा धोकादायक बाँब हातातील पिशवीमध्ये घेऊन जाऊन तेथील खुर्चीखाली ठेवून पलायन होणे एवढे धाडशी कार्य केले असल्याचे कॉर्पोरल बाँबस्फोट खटल्यातील सहभागी आलेले हरिभाऊ लिमये आपल्या मुलाखतीमधून सांगतात.

कॅपिटॉल बाँब स्फोटाने ब्रिटिश सरकारला चांगलाच हदरा बसलेला होता. स्फोटाची चौकशी करण्यासाठी मि. रोच या अधिकाऱ्याची नेमणूक झाली त्याने पुण्यातील धरपकडीचे सत्र सुरू केले. पण या स्फोटासंदर्भात निश्चित असा कोणताही पुरावा पोलिसांना मिळत नसल्याने शेवटी सरकारला या स्फोटाची माहिती देणाऱ्यास पाच हजार रुपयांचे बक्षिस जाहीर करावे लागले होते.<sup>२</sup> या स्फोटापूर्वी अहमदनगर शहरातील सरोष चित्रपट गृहात देखील २५ डिसेंबर १९४२ रोजी रात्री ११.०० वाजता स्फोट झालेला होता.

स्फोटानंतर बाबूराव चव्हाण व शंकर कुलकर्णी हे भूमिगत होऊन मुंबईस तर बापू साळवी हे नाशिकला गेले. मुंबईतील ब्रेबॉर्न स्टेडियममधील क्रिकेटची मॅच पाहून बाहेर पडत असतानाच बाबूराव चव्हाण यांना पकडले. तेवढ्यात कुलकर्णींनी बाबूरावांचे नाव घेताच त्यांनाही पकडले (२० मार्च १९४३). त्यांच्याकडून पुण्यातील स्फोटाची चौकशी करून दुसऱ्याच दिवशी पुण्यात रामसिंह परदेशी यांना पकडण्यात पोलिसांना यश मिळाले. पुढे दोनच दिवसात दत्ता जोशींना नागनाथ पाराजवळील नाना आगाशे यांच्या क्लासमध्ये पकडले. पुढे हरिभाऊ लिमये, बापू साळवी, बापू डोंगरेंनाही पकडले. अशा पद्धतीने स्फोटातील मुख्य आरोपींना पकडून येरवडा कारागृहात अंडर ट्रायलमध्ये ठेवले.<sup>३</sup>

कॅपिटॉल बाँब स्फोट खटल्यास प्रारंभ

वरील सर्वांवर केस खटला सुरू झाला तोच कॅपिटॉल बाँब स्फोटला होय. या केस खटल्यात आरोपी नं.१ बाबूराव विठोबा चव्हाण, आरोपी नं.२ बापू उर्फ प्रभाकर शिवराम साळवी, आरोपी नं.३ शंकर त्रिंबक कुलकर्णी, आरोपी नं.४ रामसिंग रतनसिंग परदेशी असे चार मुख्य आरोपी होते. तर हरिभाऊ लिमये, दत्ता जोशी, यशवंत डोंगरे व भालचंद्र वायाळ यांना माफीचे साक्षीदार केले. १९ जुलै



१९४३ रोजी वरील पाच मुख्य आरोपींवरील खटला येरवडा तरुंगात सब-डिव्हिजनल मॅजिस्ट्रेट रा. सा. फुले यांच्या पुढे सुरू झाला. कॅपिटॉल चित्रपटगृहात प्रत्यक्ष चित्रपट पाहण्यास उपस्थित असणाऱ्या डी कॉस्टा या स्त्रीची साक्ष झाली. "एक हिंदी इसम आमच्या शेजारच्या खुर्चीवर येऊन बसला. सिनेमाचा खेळ सुरू झाल्यावर तो सिनेमागृहाच्या बाहेर गेला व काही वेळाने पुनः पहिल्या जागी येऊन बसला. तो बसला असता त्याचे लक्ष सारखे दरवाजाकडे होते. पुनः तो आपल्या जागेवरून उठला आणि माझ्या खुर्ची जवळून दरवाजा बाहेर गेला. इतक्यात मला माझ्या शेजारी बसलेल्या मि. स्मिथ यांच्या पतीकडे जाळ दिसला व लगेच स्फोट ऐकू आला." अशी साक्ष झाली. त्यानंतर स्फोटात जखमी झालेल्या ट्रूपर स्मिथ, भालचंद्र वायाळ, शं. रा. बापट, ब. वि. ठवळे यांच्या साक्षी झाल्या. कॉस्टा व ट्रूपर स्मिथ यांची साक्ष ब्रिटिश सरकारला जेवढी महत्त्वाची होती तेवढीच भालचंद्र वायाळ यांची साक्ष महत्त्वाची होती. भालचंद्र वायाळ यांना पोलिसांनी माफीचे साक्षीदार केले होते. शिरुभाऊ लिमये यांच्या विरुद्ध या माफीच्या साक्षीदाराची साक्ष घेऊन महाराष्ट्र कटाचा खटला यशस्वी करून दाखविण्याचा प्रयत्न पोलीस करत होते पण प्रत्यक्ष भालचंद्र वायाळ यांनी 'मी शिरुभाऊंना एक कार्यकर्ता म्हणून ओळखतो, पण ते मला ओळखतात की नाही हे मला माहीत नाही.' अशी साक्ष दिली. त्यामुळे खालच्याच कोर्टात शिरुभाऊ लिमये निर्दोष असल्याचे घोषित झाले. या केस खटल्यातील बाबूराव चव्हाण, बापू साळवी, शंकर कुलकर्णी व रामसिंग परदेशी या चार आरोपींवर इ.पि.को कलम ३०२, ३२६, १२० ब व स्फोटक द्रव्य कायदा व भारत संरक्षण कायद्याखाली आरोप ठेवून केस सेशन कोर्टात केस पाठविण्यात आली. हरिभाऊ लिमये व दत्ता जोशी यांच्यावरील कॅपिटॉल बाँबस्फोट संदर्भातील गुन्हा माफ करून माफीचे साक्षीदार केले. गुन्हा माफ केल्याने आपनास पाहिजे तशी या दोघांकडून साक्ष घेण्याचा पोलीस प्रयत्न करत होते. त्यासाठी काहीवेळा पोलिसांनी दमबाजी देखील केलेली होती. हे पुढे हरिभाऊ लिमयेंच्या साक्षीतून दिसून येते. ३० डिसेंबर १९४३ रोजी माफीचे पाहिले साक्षीदार हरिभाऊ लिमये यांची पुढीलप्रमाणे साक्ष झाली -

'माझ्यावर कोणतेही अटक वॉरंट नसताना सी. आय. डी. पोलिसांनी पकडून लष्कर हद्दीतील पोलीस स्टेशनमध्ये रात्रभर ठेवले. दुसऱ्या दिवशीपासून ते आठ दिवस सिव्हिल लाईन पोलीस स्टेशनमध्ये ठेवले. तेथील सी. आय. डी. पोलिसांनी मारहाण करून आम्हाला जबरदस्तीने खोटा जबाब देण्यास सांगितले. परंतु आता खरा जबाब देत आहे. चार आरोपींपैकी माझ्या कोणीही ओळखीचे नाही. साळवी व जोशी हे कॅपिटॉलमध्ये गेलेले माहीत नाही. मी व शंकर कुलकर्णी वेस्टएंडमध्ये गेलो नव्हतो.

साळवी हे मला कधीच भेटले नाहीत आमच्या घरात ते कधीच झोपले नाही.<sup>१६</sup> या नंतर दुसरे माफीचे साक्षीदार दत्ता जोशी यांची पुढीलप्रमाणे साक्ष झाली. 'मला २४ मार्चला अटक करण्यात आली. यापूर्वी दिलेले जबाब सर्व खोटे आहेत. आरोपी साळवी हे माझ्याबरोबर कॅपिटॉल मध्ये बाँब ठेवण्यास आले होते हे खोटे आहे. कोर्टापुढे असलेली पत्र्याची पेटी मी साळवी जवळ केव्हाच पाहिली नव्हती. कोणताही आरोपी माझ्या परिचयाचा नाही. आम्ही सांगतो तसा जबाब द्या, नाहीतर तुम्हाला मारहाण करू किंवा फाशी देऊ, असा पोलिसांनी दम दिला होता.

२४ तारखेच्या रात्री कॅन्टोमेंट पोलीस स्टेशनमध्ये झालेल्या मारहाणीत रक्ताच्या गुळण्या झालेल्या होत्या. त्यामुळे ते सांगतील तशी मी खालच्या कोर्टात साक्ष दिली. परंतु ती सर्व खोटी आहे.<sup>१७</sup> या जवानीनंतर मला पोलिसांच्या ताब्यात देऊ नये, अशी कोर्टाला विनंती केल्यामुळे पुढे त्यांना येरवडा मध्यवर्ती कारागृहात ठेवले. या दोन्ही जवानी साक्षीमुळे ही केस सरकारवरच उलटली. मि. रोच यांची कोर्टात साक्ष चालू असताना चिगोपंत दिवेकर यांनी 'ऑगस्ट क्रांतीचा विजय असो' अशी घोषणा देत त्यांच्या पाठीवर चाकूचा हल्ला (८.१.१०४४) केला.<sup>१८</sup> परंतु ते वाचले. दिवेकर यांना अटक होऊन सहा वर्षे सक्तमजुरीची शिक्षा झाली.

माफीचे साक्षीदार हरिभाऊ लिमये यांनी श्री. गो. हिंगे व वि. र. धामणीकर यांच्या दुकानातून सायकली भाड्याने आणलेल्या होत्या. वरील दोघांच्या साक्षीतून हरिभाऊंना ओळखतो हे स्पष्ट झाले होते.

बी. एच. हॉस्पिटल मध्ये नोकरीस असणारे मि. जॉन डेव्हिडसन यांची साक्ष झाली. त्यांनी सांगितले की, 'रक्ताने ओले झालेले कपडे पोलिसांकडे दिले. सध्या जे कपडे आहेत ते मीच दिलेले आहेत.' उलट तपासणीत सांगितले की, 'हे कपडे कोणत्या सैनिकाचे आहेत हे मला माहीत नाहीत तसेच हे कपडे २४ तारखेला मेलेल्या सैनिकाने घालताना पाहिले नव्हते.'

माफीचे तिसरे साक्षीदार बापूसाहेब डोंगरे होय. पोलिसांच्या दबावामुळेच खालच्या कोर्टात खोटी साक्ष दिली असे डोंगरेंनी सांगून आपणास दुर्गाकुटीर बांगला माहीत नाही. मी सात डेटोनेटर्स आणून आरोपी नं. १ जवळ दिलेले नाहीत असे सांगितले. या साक्षीवरून पुन्हा पोलिसांचे पितळ उघडे पडले. सी.आय.डी. खात्याचे सब इन्स्पेक्टर मि. वा. ल्यू रणभिसे व पोलिस अधिकारी श्री. पेंडसे यांनी मात्र आपल्या जवानी साक्षीत नमूद केले की, 'या माफीच्या साक्षीदारांना आम्ही केव्हाच मारहाण केलेली नव्हती.'<sup>१९</sup>

दि. १७.२.१९४४ रोजी बाबूराव चव्हाण यांनी आपल्या जवानीत कोर्टाच्या प्रश्नांना उत्तर देताना सांगितले की, "मी काँग्रेसचा सभासद नाही व त्या चळवळीशी माझा संबंध नाही आरोपी नं. २ व ३ यांची माझी ओळख नाही अटक होईपर्यंत मी माझ्या घरातच राहत होतो 'दुर्गाकुटीर' व राष्ट्रसेवादलाची जागा मला माहीत नाही. साक्षीदार डोंगरे माझ्या माहितीचा नाही डेटानेंटर्स ही काय वस्तू असते हे मला माहीत नाही. तसेच माफीचे साक्षीदार हरि लिमये यांची माझी ओळख नाही. ते कोठे राहतात हे मला ठाऊक नाही. ज्वालाग्राही द्रव्याचे मिश्रण व टाईम बाँब या पैकी मी काहीच तयार केले नाही तसे करण्याचे मला काही कारण नव्हते." आरोपी नं. २ व साक्षीदार जोशी यांची माझी ओळख नाही. त्यांना मी २४ जानेवारी १९४३ रोजी कॅपिटॉल चित्रपट गृहाकडे जाण्यास सांगितले नाही व टाईम बाँबची पेटी देतो असेही सांगितले नाही. साक्षीदार लिमये, जोशी, डोंगरे यांनी सांगितलेले व आरोपी नं. ४ चा कबुली जबाब हे सर्व खोटे आहे. पोलिसांच्या मारहाणीमुळे व धमकीमुळे त्यांनी तसे सांगितले असेल. १७ एप्रिल रोजी झालेल्या आयडेंटिफिकेशन परेडच्या वेळी ट्रूमर स्मिथ यांनी आरोपी नं. २ ला प्रथम ओळखले नाही. नंतर ओळखले तीच गोष्ट मिसेस कॉस्टाबाईच्या बाबतीत झाली माझा या गुन्ह्याशी काही संबंध नाही.

यानंतर आरोपी नं. २ बापू ऊर्फ प्रभाकर शिवराम साळवी यांनी आपल्या जवानीत असे सांगितले की, "या कोर्टात माझ्या विरुद्ध आलेले सर्व पुरावे खोटे आहेत. परेडच्या वेळी मि. रोच यांनी खून केल्यामुळेच डी. कॉस्टाबाईना मला ओळखून काढता आले. माझा या गुन्ह्याशी काही संबंध नाही."

आरोपीनंतर नं. ३ शंकर त्रिंबक कुलकर्णी यांची जवानी साक्ष, "या कोर्टात माझ्या विरुद्ध आलेला सर्व पुरावा खोटा आहे. आरोपी नं. १ व २ यांच्याबरोबर किंवा इतर कोणाबरोबर 'दुर्गाकुटीर' बंगल्यात राहत नव्हतो आरोपीशी पूर्वीची माझी ओळख नाही दुर्गा कुटीरमधील स्फोटक द्रव्याच्या साठ्याची मला माहिती नाही. हरि लिमये यांच्या घरी हँडग्रेनेड्स व रसायण आणली आणि टाईम बाँब वगैरे तयारी करण्यास मी मदत केली असे जे सांगण्यात आले ते सर्व खोटे आहे. भोपटकर हे नाव मी धारण केले नव्हते. मी पोलिस लॉकअपमध्ये असता मला रणपिसे, पेंडसे व अंबिके या तीन पोलिस अधिकाऱ्यांनी मारहाण केली. टाईम बाँबची पेटी वेस्टएंड चित्रपटगृहात मी ठेवली नाही. पंचासमक्ष मी पोलिसांना ट्रंकेतून खाकी रंगाची हातरुमाल काढून दिला नाही. तसेच मी पोलिसांना कोणतेही दुकान दाखविले नाही. लिमये, जोशी, डोंगरे यांचे माझ्याशी वैर नाही. त्यांनी माझ्या विरुद्ध साक्ष दिली याचे



कारण पोलिसांनी केलेली मारहाण हेही असू शकते, मला तुरुंगात गेले ११ महिने डांबून ठेवण्यात आले आहे."

आरोपी नं. ४ रामसिंग रतनसिंग परदेशी यांनी आपल्या जबाबत असे सांगितले की, "पुण्याच्या अॅड. सिटी, मॅजिस्ट्रेटपुढे ९.४.१९४३ रोजी मी जो कबुली जबाब दिला तो खोटा आहे. अटक केल्यानंतर ५-६ दिवसांनी पोलिसांनी मारहाण केली, पोलिसांनी माझ्या कडून जबरदस्तीने कबुली जबाब घेतला. त्यावर माझी सहीही जबरदस्तीनेच घेण्यात आली, मी काँग्रेसचा, समासद नाही व चळवळीत कधीही सहभाग घेतला नाही."

वरील सर्व मुख्य आरोपींच्या जवानीनंतर सरकारी वकील रावसाहेब गुप्ते यांचे भाषण झाले. त्यांनी कॅपिटॉल व वेस्टएंड चित्रपटगृहातील स्फोटात दोन किंवा त्याहून अधिक लोकांचा त्या मध्ये सहभाग असल्याचे सांगितले. त्यानंतर आरोपींचे मुख्य वकील के. एफ. नरिमन यांचे भाषण झाले. त्यांनी प्रथम आरोपींवर लादलेले आरोप कसे चुकीचे आहेत हे सांगितले उदा. शंकर त्रिंबक कुलकर्णी यांच्या पेटीतील कापडावर एस. टी. के. अशी आय अक्षरे लिहिलेली होती. म्हणून त्यांना तत्काळ अटक झाली होती. आरोपींपैकी कोणीही लष्करी स्फोटाच्या संदर्भात शास्त्रज्ञ नव्हता किंवा विज्ञान शास्त्रेचे विद्यार्थी नव्हते. त्यामुळे त्यांच्यावर बाँब तयार करण्याचा जो गुन्हा लादला होता त्याला प्रत्यक्ष कोणताही पुरावा नव्हता. शेवटी सरकारी साक्षीदारांनी दिलेल्या साक्षी कशा चुकीच्या आहेत हे सांगितले. कॅपिटॉल चित्रपट गृहात कॉस्टा या स्त्रीने अंधारात साळवींना ओळखणे व पुढे अनेक दिवसांनी ओळख परेड झाली त्यावेळी त्याच माणसाला ओळखणे हे शक्य नाही. मि. स्मिथ यांच्या पायात असणारा धातूचा तुकडा तीन चार दिवसानंतर काढला. तोपर्यंत त्यांना तो तुकडा कसा जाणवला नाही. स्फोटात कॉस्टा यांच्या झगा जळाला. तो पुराव्यासाठी सादर केला. परंतु त्यावर जळल्यासारखी कोणतीही ही खूण दिसत नाही.<sup>१२</sup> या वरून वरील सरकारी साक्षीदारांनी दिलेल्या साक्षी ह्या द्विधा अवस्थेतील असल्याचे स्पष्ट दिसत आहे. शेवटी एम. एस. पाटील या न्यायधिकांनी योग्य पुराव्याअभावी बाबूराव चव्हाण, प्रभाकर साळवी, शंकर कुलकर्णी व रामसिंग परदेशी या मुख्य आरोपींची कॅपिटॉल बाँब स्फोट खटल्यात निर्दोष असल्याचे जाहीर केले.<sup>१३</sup> परंतु बाबूराव चव्हाण, प्रभाकर साळवी, शंकर कुलकर्णी हे तिघेही महाराष्ट्र कटाच्या खटल्यातील आरोपी होते. तर रामसिंग परदेशी व माफीचे साक्षीदार हरिभाऊ लिमचे, दत्ता जोशी व बापूसाहेब डोंगरे हे कोर्टातून बाहेर पडताच पुन्हा भारत संरक्षण कायद्याखाली अटक केली. पुढे ते एक वर्षभर कच्चे कैदी म्हणून चेरवडा तुरुंगातच होते.

## महाराष्ट्र कट खटला

महाराष्ट्रातील विविध ठिकाणी लोकांनी दळणवळणाची साधने, सरकारी कार्यालयाची (मामलेदार कार्यालय, पोस्ट ऑफिस, रेल्वे कार्यालय, चावडी) मीडतोड, जाळपोळ केलेली होती. युद्धात अडथळा आणणे, स्फोटक द्रव्य सोबत ठेवणे अशा कृत्याच्या आरोपाखाली ४० तरुणांवर खटला भरण्यात आलेला होत. तोच महाराष्ट्र कट खटला होय. या खटल्यात जे ४० आरोपी निवडलेले होते. त्यामध्ये मुख्य आरोपी म्हणून शिरुभाऊ लिमयेचे नाव घेतलेले होते. ४० पैकी ७ आरोपी सरकारला फरारी म्हणून घोषित करावे लागले होते. या खटल्यातील मुख्य ३३ आरोपींची नावे पुढील प्रमाणे -

१.शिरुभाऊ लिमये २.वसंत विठ्ठल परांजपे ३.वसंत बापूराव आळेकर ४.चिंतामणी वासुदेव गुप्ते ५.मल्हार रामचंद्र कुलकर्णी ६.अच्युत शंकर आपटे ७.माधव पंढरीनाथ पाटील ८.बाबूराव विठोबा चव्हाण ९.शंकर त्रिंबक कुलकर्णी १०.भालचंद्र वायाळ ११.प्रभाकर ऊर्फ बापूसाहेब साळवी १२.नारायण गणेश गोरे १३.माधव पुरुषोत्तम लिमये १४.दिगंबर शांताराम कडू १५.वसंत वामन बापट १६.नरहर महादेव तुंगार ऊर्फ बळवंत बिडकर १७.अनंत वासुदेव ऊर्फ अण्णासाहेब सहस्रबुद्धे १८.माधव गजानन बुद्धिसागर १९.विनायक महादेव ओक २०.वसंत विनायक नगरकर २१.गोविंद मोरेश्वर करमरकर २२.रामचंद्र विठ्ठल तेलंग २३.पुंजा बापूजी कडू २४.गोविंदलाल नाथलाल पारेख २५.रामचंद्र पंढरीनाथ वडके २६.सदाशिव शंकर बागाईतकर २७. विष्णु महादेव फणसे २८.श्रीपाद रघुनाथ जोशी २९.शांतीलाल पानाचंद शहा ३०.वामन गोविंद ऊर्फ लालजी कुलकर्णी ३१.गणतप रामचंद्र तेलंग ३२.श्रीकृष्ण बिबलकर ऊर्फ केसकर ३३.गणेश काशीनाथ जोशी इत्यादी.

फरारी म्हणून घोषित केलेले - १.वसंत सरवटे २.जी. एस. ऊर्फ बाळ गोखले ३.पाठक पेंटर ४.विठ्ठल पटवर्धन ऊर्फ वासू भट ५.पी. डी. अभ्यंकर ६.कांतीलाल पारेख ७.अनंतराव मेमाणे इत्यादी. या कट खटल्याच्या प्राथमिक सुनावणीकरिता खेडचे रेसिडेंट मॅजिस्ट्रेट एस. जी. देशपांडे यांची मॅजिस्ट्रेट म्हणून नेमणूक झालेली होती.

अशा पद्धतीने पकडलेल्या ३३ लोकांवर महाराष्ट्र कट खटला सुरू करण्याचा विचार पोलीस करत होते. या खटल्याशी कॅपिटॉल बाँब स्फोट खटल्याची सांगड घातलेली होती. त्यामूळे कॅपिटॉल बाँब स्फोट खटल्यातील आरोपींना जास्तीत जास्त कडक शिक्षा देऊन महाराष्ट्र कट खटला यशस्वी करण्यास पोलीस इच्छुक होते. माफीच्या आरोपींकडून आपल्याला पहिजे तशी जवानी साक्ष घेण्यासाठी

पोलीसांनी प्रयत्न केले होते. परंतु प्रत्यक्ष न्यायालयात कवृती जबाब देताना आगीचीला आम्ही ओळखत नाही असेच सर्वांनी नमूद केले होते. त्यामुळे महाराष्ट्र कट खटल्याचे प्रमुख शिस्त्राऊ लिमये यांना तर निर्दोष सोडलेच पण पुढे अनेकजण निर्दोष सुटल्याने महाराष्ट्र कट खटला केवळ नावानुरताच चर्चित होता.

संदर्भ आणि टिपा

१. Mumbai Archives, Home Department (special) File No. 1110- (6)

(13) I- 1942, Daily Report-Poona Dist.From 10.8.1942-28.1.1943.

२. हरिभाऊ लिमये, कारागृहातील पथिक, पुणे, १९८७, पृ. ६ (येथून पुढे या ग्रंथाचा उल्लेख कारागृहातील पथिक असा केला आहे.)

3. Mumbai Archives, Home Department (special), File No. 1110

(92) 1943- Report of explosion at the Capital Cinema, Poona.

४. मुलाखत, हरिभाऊ वामन लिमये, पुणे, दि. ७ ऑक्टोबर २०१०.

५. कारागृहातील पथिक, पृ. १९.

६. किता.

७. कारागृहातील पथिक, पृ. ६९.

८. पूर्वोक्त, हरिभाऊ वामन लिमये.

९. दैनिक केसरी, पुणे, ३ डिसेंबर १९४३, पृ. ४.

10. Mumbai Archives, Home Department (special) File No. 1110- (6)

(13) I- 1942, Daily Report-Poona Dist.From 1.3.1943-24.2.1943.

११. दैनिक केसरी, पुणे, १७ डिसेंबर १९४३, पृ. ३.

१२. दैनिक केसरी, पुणे, २५ फेब्रुवारी १९४४, पृ. ४.

१३. दैनिक केसरी, पुणे, ३ मार्च १९४४, पृ. २.





ज्ञान-विज्ञान विमुक्तये



# NATIONAL CONFERENCE

on  
“Historiography and Methodology  
of  
Local History”

29<sup>th</sup> & 30<sup>th</sup> September, 2014  
Sponsored by U. G. C. New Delhi

**PROCEEDINGS**

Organized by

Department of History and A. I. H. C. & A.

S.S.P. MANDAL'S

**CHANDMAL TARACHAND BORA COLLEGE**

NAAC Re-accredited 'A' grade

SHIRUR, DIST. PUNE - 412210 (MS.) INDIA

E-mail : [ctborainfo68@gmail.com](mailto:ctborainfo68@gmail.com)

Website : [www.ctboracollege.edu.in](http://www.ctboracollege.edu.in)



शस्त्र हाती घेऊन राज्य उलथून पाडण्याचा प्रयत्न करणारे वासुदेव बळवंत फडके हे आद्य क्रांतीकारक म्हणून ओळखले जातात ते पुढील काळात चाफेकर बंधू, स्वातंत्र्यवीर सावरकर यांच्या सारख्या क्रांतीकारी देशभक्तांचे स्फुर्तीस्थान बनले. फडक्यांच्या लढतीने भारून गेलेल्या बंकीमचंद्र चट्टोपाध्याय सारख्या अखिल दर्जाच्या प्रतिभावंताने फडक्यांच्या बंडापासून प्रेरणा घेऊन आनंदमठ कांदबरी लिहली. बंकीमचंद्र १८७९ मध्ये इंग्रज सरकारची नोकरी करत होते. उघड उघड फडक्यांच्या बंडा संबंधी गौरवपर लिहीणे त्यांना शक्य नव्हते म्हणून १७६८ ते १७६९ सालातल्या दुष्काळाच्या पार्श्वभूमीवर बंगालमध्ये सन्यासांनी केलेल्या बंडाचा विषय त्यांनी निवडला पण आनंद मठ लिहतांना बंकीमबाबु समोर होते वासुदेव बळवंताचे बंड.

वासुदेव बळवंताच्या आधी इंग्रज राजवटीला सशस्त्र प्रतिकार इतर प्रांताप्रमाणे महाराष्ट्रातही झाला होता पण इंग्रजी विद्या घेतलेल्या इंग्रज सरकारची नोकरी करत असलेल्या तरुणांने इंग्रजांचे राज्य बुडविण्याचा केलेला प्रयत्न अभूतपूर्व होता इंग्रज राजवटी विरुद्ध इंग्रजी विद्या घेतलेल्यांच्या मनात असंतोष घुमसत होता या असंतोषाला वाट करून देऊन राज्यकर्ते व प्रजाजन यांच्यामध्ये एखादा दुवा असण्याची गरज अँल्यट्युम व्ह्युम या निवृत्त सनदी अधिकाऱ्याला वाटत होती, लोकांच्या मनातील दुःख, भय आशा, आकांक्षा जेथे बोलवून दाखवता येतील असे एखादी व्यासपीठ नसेल तर असंतुष्ट माणसे शस्त्र हाती घेऊन १८५७ च्या उठावाच्या वेळी जशी इंग्रज राजवटी विरुद्ध लढली तशी पुन्हा निकराने लढतील अशी व्ह्युम साहेबांना तीव्रतेने वाटू लागले, असे त्यांचे चरित्रकार विल्यम एडबर्न यांनी वासुदेव बळवंत फडक्यांच्या बंडाचा निःसंदिग्ध उल्लेख करून व्ह्युम साहेबांनी काँग्रेसची स्थापना करण्याचे कसे नेटाने प्रयत्न केले आहे हे स्पष्ट केले.

#### सारांश -

महाराष्ट्रातील आद्य क्रांतीकारक वासुदेव बळवंत फडके यांनी भारतीय स्वातंत्र्य आंदोलनातील सशस्त्र क्रांतीकारी गटाला एक महत्वपूर्ण प्रेरणा देवून स्वतंत्र आंदोलनातील क्रांतीकारी गट आपल्या जीवची पर्वा न करता ब्रिटीश साम्राज्य विरोधात शक्तीचा वापर करण्यास तयार झाला.

## दामोदर हरी चापेकर यांचे न्यायालयातील अप्रकाशित पत्र

डॉ. भूषण गोविंद फडतरे, इतिहास विभाग प्रमुख, भारतीय जैन संघटनेचे कला, विज्ञान व वाणिज्य महाविद्यालय, वाघोली, पुणे.

१९ व्या शतकाच्या उत्तरार्धात क्रांतीकारी चळवळीतील महत्वाची घटना म्हणजे चापेकरबंधूनी केलेला मि.रँडचा वध, पुण्यातील रेल्वे स्टेशनचा परिसर, रविवार पेठ, भाजी आळी, लोणार आळी, कसबा पेठ व शुक्रवार पेठ इत्यादी परिसरात प्लेगची साथ वेगाने पसरली होती. ही साथ ओटोक्यात आणण्यासाठी साताऱ्यातील उपजिल्हाधिकारी डब्ल्यू.सी.रँडची नेमणूक केली, मि.रँडने लष्कराच्या मदतीने प्लेगची साथ आटोक्यात आणण्यासाठी प्रयत्न सुरू केले. भारत मंत्री लॉर्ड जॉर्ज हॅमिल्टनने आदेश काढला की, 'साध्या उपायांनी जनता ऐकत नसेल आणि सरकारी उपाय योजनांना दाद देत नसेल तर आता जबरदस्ती करा, पण रोग आटोक्यात आणा.' अनेकांना मारहाण तर केलीच पण महिलांशीही गैरवर्तन केले. पंडिता रमाबाईंच्या आश्रमातील एका महिलेने अशा गैरवर्तनामुळेच आत्महत्या केलेली होती हे वृत्त पुढे पंडिता रमाबाईंनीच ज्ञानप्रकाशमध्ये व्यक्त केलेले होते.

'पुण्यात सध्या चालू असलेला धुमाकूळ' असा अग्रलेख लोकमान्य टिळकांनी केसरीत लिहिला. या अग्रलेखात ते नमूद करतात की, 'साथीच्या रोगांमुळे यंदा पुण्यास शिमगा आठ दहा दिवस आधीच सुरू झाला आहे. '१२ जून १८९७ रोजी पुण्यातील लकडी पुलाजवळील विठ्ठल मंदिरात लोकमान्य टिळकांच्या अध्यक्षतेखाली सभा भरली. शिवराम महादेव परांजपे यांचे सरकारच्या जुलमी राजवटीबद्दल तर प्रा.श्रीधर गणेश जिन्सीवाले यांचे 'स्वदेश व स्वधर्म' या विषयावर भाषण केले तर दुसऱ्या दिवशी प्रा. चिंतामण गंगाधर भानू यांनी अफजलखानाच्या वधाविषयी भाषण केले. ही तिन्ही भाषणे पुण्यातील क्रांतीकारकांना प्रेरणा देणारी ठरली. सभेच्या अध्यक्षस्थानी असलेल्या टिळकांनी अफजलखानाचा वध हा छत्रपती शिवाजी महाराजांनी केला, तो न्याय्यच



मराठी  
भाषाभ्यासक्रम  
विशेषांक

साहित्य, कला, संशोधन व परिवर्तनवादी पुरोगामी  
विचाराशी बांधिलकी ठेवणारे त्रैमासिक

# अक्षरगाथा

वर्ष : पाचवे । अंक : दुसरा-तिसरा ।  
जुलै-ऑक्टोबर २०१४ । नांदेड

संपादक

डॉ. मा. मा. जाधव

□

संपादन सहाय

डॉ. बाबुराव खंदारे

डॉ. माधव जाधव

□

प्रकाशक

अर्चना माधवराव जाधव

बळीवंश प्रकाशन,

'बळीवंश', नृसिंह पॅलेसच्या मागे,  
नरहरनगर, नांदेड - ४३१ ६०५.

□

मुद्रित तपासणी

दत्ता डांगे, ९८९००९९५४१

□

मुद्रक

मुद्रा ऑफसेट प्रिंटर्स अॅन्ड प्रोसेसर्स

शारदा टॉकीजवळ, एम.जी. रोड, नांदेड-०३.

□

मुखपृष्ठ,

अक्षरमांडणी व सजावट

विजयकुमार चित्तरवाड

९४२१९८७८०९

साहित्य व वर्गणी पाठविण्याचा पत्ता

प्रा.डॉ. मा. मा. जाधव

'बळीवंश', नृसिंह पॅलेसच्या मागे, नरहरनगर,

नांदेड - ४३१ ६०५. भ्र. ९४२२८७४३३६.

e-mail : akshargatha@gmail.com

□

वार्षिक वर्गणी : ₹ २००/- त्रैवार्षिक वर्गणी : ₹ ५००/-

आजीव व्यक्ती : ₹ २०००/- संस्था : ₹ २५००/-

या अंकाचे मूल्य : ₹ १००/-

- वार्षिक वर्गणी केवळ मनीऑर्डर/डी.डी./ रोखीने भरावी.  
त्रैवार्षिक व आजीव वर्गणी मनीऑर्डर/डी.डी./धनादेश/धनाकर्ष  
'अक्षरगाथा' या नावाने पाठवावा.
- मनीऑर्डरने वर्गणी पाठवताना संदेशच्या ठिकाणी काळजीपूर्वक  
पूर्ण पत्ता, पीन कोड, संपर्क क्रमांकासह (फोन/भ्रमणध्वनी) लिहावा.

□

वर्गणीदार असेही होता येते

भारतीय स्टेट बँक (S.B.I.) यशवंतनगर, नांदेड शाखेच्या

'अक्षरगाथा' खाते नं. 32204333102 वर

IFC Code SBI No 001922 MICR Code 431002093

वर्गणी रक्कम + ₹ ३० (शाखा विनिमय फीस) भरून रकमेच्या चालानची झेरॉक्स  
प्रत व आपला पत्ता आमचे पत्त्यावर पाठवून देऊन आपणास वर्गणीदार होता येते.

महाराष्ट्र राज्य साहित्य आणि संस्कृती मंडळाने या  
नियतकालिकाच्या प्रकाशनार्थ अनुदान दिले असले तरी, या  
नियतकालिकातील लेखकांच्या विचारांशी मंडळ व शासन सहमत  
असेलच असे नाही.



1/1/8/13

96

‘मराठी भाषाभ्यासक्रम’  
विशेषांक

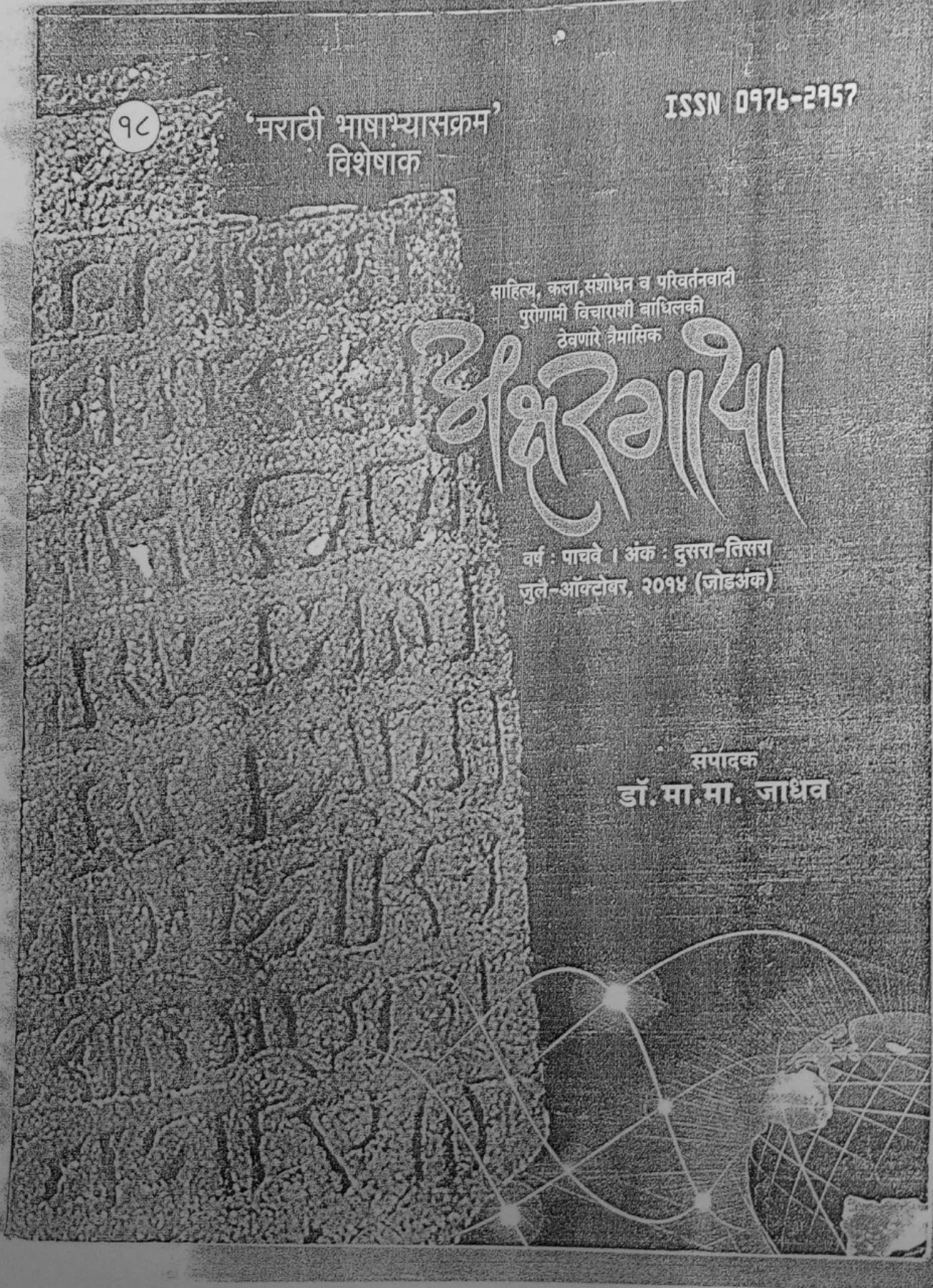
ISSN 0976-2957

साहित्य, कला, संशोधन व परिवर्तनवादी  
पुरोगामी विचाराशी बांधिलकी  
देवणारे त्रैमासिक

# ईश्वरवाणी

वर्ष : पाचवे । अंक : दुसरा-तिसरा  
जुलै-ऑक्टोबर, २०१४ (जोडअंक)

संपादक  
डॉ. मा. मा. जाधव





मराठी  
भाषाभ्यासक्रम  
विशेषांक

## पदवी व पदव्युत्तर स्तरावरील मराठीचा अभ्यासक्रम-एक विचार

प्रा.डॉ. जगदीश आवटे

भारतीय जैन संघटनेचे कला,  
विज्ञान, वाणिज्य  
महाविद्यालयात मराठीचे  
प्राध्यापक. संत तुकोबाचे  
अभंग, मराठी जैन कथांचा  
अभ्यास या विषयावर संशोधन,  
विविध नियतकालिकांतून  
शोधनिबंध लेखन.

मराठीचे ज्येष्ठ अभ्यासक, माजी कुलगुरू आणि अखिल भारतीय मराठी साहित्य संमेलनाचे माजी अध्यक्ष डॉ. नागनाथ कोत्तापळे यांच्या अध्यक्षतेखाली महाराष्ट्र सरकारने एक भाषा सल्लागार समिती नियुक्त केली होती. महाराष्ट्र राज्याच्या पुढील २५ वर्षांसाठीच्या मराठी भाषाविषयक धोरणाचा मसुदा तयार करण्या' ची जबाबदारी या समितीवर सोपविण्यात आली होती. या समितीने नोव्हेंबर २०१४ मध्ये आपला यासंदर्भातला मसुदा राज्य सरकारला सादर केला. या मसुद्याच्या माध्यमातून डॉ. कोत्तापळे समितीने अनेक महत्त्वाच्या शिफारशी केल्या आहेत. यातील काही शिफारशी पुढीलप्रमाणे - राज्यातील सर्व अमराठी माध्यमांच्या शाळांमधून दहावी परीक्षेपर्यंत मराठी भाषा सक्तीची करावी. प्रत्येक विद्यापीठात 'मराठी भाषाभ्यास आणि भाषाविज्ञान' असा स्वतंत्र विभाग स्थापन करावा. स्वतंत्र मराठी भाषा विद्यापीठ स्थापन केले जावे. येत्या पाच वर्षांमध्ये उच्च शिक्षणातील वैद्यकीय, कृषी, विधी, अभियांत्रिकी, औषधनिर्माण, वास्तुरचनाशास्त्र वगैरे सर्व विषयांचे शिक्षण मराठीतून देण्याची व्यवस्था करावी.

वरीलपैकी शेवटची शिफारस ही गांधीयाने समजून घेण्याची गरज आहे. कारण ही शिफारस केवळ कविकल्पना ठरेल. की काय, अशी शंका येण्यासारखीच सध्याची स्थिती आहे. किंबहुना अशी शिफारस करणे किंवा अपेक्षा बाळगणे हेच मुळी हास्यास्पद ठरण्याची शक्यता अधिक आहे. त्याचे कारण म्हणजे आज मराठी भाषेबाबत,

५०१, बी, विशालदीप रेसिडेन्सी,  
चंदननगर, पुणे- ४११०१४.  
फोन- ९४०३१३६३६२.



मराठी भाषेच्या उपयोजनाबाबत वेगाने वाढत असलेला न्यूनगंड! (संबंध महाराष्ट्रातील मराठी माध्यमाच्या शाळा बंद पडत आहेत किंवा या शाळांतील विद्यार्थी संख्या कमी होत आहे आणि याच्या व्यस्त प्रमाणात इंग्रजी माध्यमाच्या शाळा अगदी खेडोपाडीसुद्धा सुरू होत आहेत. मराठी शिकवणाऱ्या शिक्षकांचीच नव्हे तर गावाकडील शेतमजुरांची व शहरातील रिक्षावाल्यांची, हातावर पोट असणाऱ्या छोट्या व्यावसायिकांची मुलेसुद्धा मोठ्या ऐटीत इंग्रजी माध्यमातून शिकू लागली आहेत. अर्थात इंग्रजी माध्यमातून शिकून त्यांचे कोटकल्याण होणार आहे, असे नव्हे.)

मराठीतून ज्ञाननिर्मिती करू शकणारे, तांत्रिक विषयांचे ज्ञान मराठीत आणणारे सक्षम मनुष्यबळ आपल्याकडे आहे का, हा खरा प्रश्न आहे. असे मनुष्यबळ तयार करण्याची आपल्याकडे काही ना काही व्यवस्था तरी आहे का, हाही प्रश्न आहे. जगातील सर्व ज्ञानशाखांतील उच्च शिक्षण येत्या पाच-सात वर्षांत मराठीतून देण्यासाठी, त्या बेताने मनुष्यबळ घडविण्यासाठी आपले सध्याचे पदवी व पदव्युत्तर स्तरावरील मराठीचे अभ्यासक्रम सक्षम व समर्थ आहेत काय, याची तपशिलातून जाऊन चिकित्सा करणे नितांत गरजेचे आहे. यासंदर्भातील काही निरीक्षणे खालीलप्रमाणे-

१) महाराष्ट्रातील सर्व विद्यापीठांमधून आणि संलग्न महाविद्यालयातून प्रामुख्याने मराठी साहित्याचाच अभ्यास होतो. मराठी भाषेच्या भाषा म्हणून अभ्यासाला, भाषेच्या भाषिक उपयोजनाला मुळात अभ्यासक्रमातच फार कमी स्थान आहे. (महाराष्ट्राबाहेर मराठीचे ज्या ज्या ठिकाणी अध्ययन-अध्यापन चालते त्या त्या ठिकाणीसुद्धा अशीच स्थिती आहे.)

२) साधारणतः दर तीन वर्षांनी अभ्यासक्रम बदलावा/ सुधारित करावा, अशी तरतूद महाराष्ट्र

विद्यापीठ कायद्यामध्ये आहे. मात्र काही ना काही कारणांमुळे हे बदल/ सुधारणा लांबणीवर पडतात. यातील चिंताजनक बाब म्हणजे अभ्यासक्रम फक्त बदलले जातात. त्यात कालबद्ध, कालोचित सुधारणा आढळत नाही.

३) अभ्यासक्रम ठरविणारी अभ्यासमंडळे दर पाच वर्षांनी बदलली/ निवडली जातात. या अभ्यासमंडळातील प्रतिनिधींच्या परिपक्वतेनुसार, एकूणच वकूबानुसार अभ्यासक्रमांची रचना होते. (प्रतिनिधी निवडणुकीतील राजकारणाचा, अभ्यासमंडळातील गटबाजीचा, प्रतिनिधींच्या विशिष्ट वैचारिक बांधिलकीचा प्रभाव अभ्यासक्रमाच्या निवडीवर पडतो.)

४) इयत्ता १० वीनंतर उच्च गुणवत्ताधारक विद्यार्थी भरपूर, मोठ्या पगारांच्या अपेक्षेने विज्ञान वा तत्सम शाखांकडे वळतात. त्यामुळे पदवीसाठी कला शाखेकडे येणाऱ्या विद्यार्थ्यांची संख्यात्मक टक्केवारी अधिक असली तरी गुणात्मक टक्केवारी सुमार आहे.

५) हल्ली इ. ११ वी व १२ वीतून किमान कौशल्यावर आधारित (एमसीव्हीसी) प्रशिक्षण घेतलेले विद्यार्थीसुद्धा स्वयंरोजगाराकडे न वळता पदवी मिळवण्याच्या हेतूने कला शाखेकडे येतात.

६) कला शाखेमध्ये प्रवेश घेतलेले विद्यार्थी विविध निकषांनुसार पदवी स्तरावरील आपला विशेष अभ्यासाचा (स्पेशल) विषय निवडतात. ह्या विषयनिवडीमध्ये विद्यार्थ्यांच्या आवडीपेक्षा प्राध्यापकाच्या पोटापाण्याचा मुद्दाच अधिक प्रभावी ठरतो. (एखाद्या विषयाला विशिष्ट विद्यार्थीसंख्या नसेल तर संबंधित प्राध्यापक अतिरिक्त ठरून नोकरी धोक्यात येण्याची शक्यता असते.)

७) एखाद्या विषयासाठी विद्यार्थ्यांनी प्रवेश घेतला तरी वर्गातील उपस्थितीचे प्रमाण हे विविध कारणांमुळे अतिशय चिंताजनक असल्याचे दिसून येते.



८) या सर्व अडथळ्यांवर मात करित जर विद्यार्थी खरोखरच वर्गात नियमित बसू लागला तर अशा विद्यार्थ्यांला आपण असे कोणते जगावेगळे ज्ञानामृत देतो की ज्यामुळे तो उद्याच्या जगात टिकू शकेल? (मराठी विषयातील पदव्युत्तर पदवी उच्च श्रेणीमध्ये मिळवून, सेट व नेट या पात्रता परीक्षा उत्तीर्ण होऊन, एम.फिल. तसेच पीएच.डी. पदवी धारण केलेल्या) दे. 'सकाळ'च्या दि. २१ सप्टेंबर २०१४ च्या 'सप्तरंग' पुरवणीतील उत्तम कांबळे यांच्या 'मोठ्या पदव्या, छोट्या नोकऱ्या' या लेखातील याबाबतची उदाहरणे पुरेशी बोलकी आहेत.)

मराठीतून ज्ञान देण्यासाठी अत्यंत गांभीर्याने आणि तातडीने मराठीच्या सध्याच्या अभ्यासक्रमाचा चेहरामोहरा बदलणे अतिशय निकडीचे आहे. तातडीने एवढ्याचसाठी, कारण आता सुरुवात केली तर येत्या दोन-पाच वर्षांत त्यावर पुरेसे विचारमंथन होऊन निश्चित, ठोस स्वरूपाचा आराखडा आकाराला येईल. मराठीच्या पदवी व पदव्युत्तर स्तरावरील अभ्यासक्रमाबाबत खालील मुद्दे विचारात घ्यावेत-

१) महाराष्ट्रातील सर्व विद्यापीठांच्या व संलग्न महाविद्यालयांच्या पदवी व पदव्युत्तर स्तरावरील अभ्यासक्रमात एकवाक्यता व एकसमानता आणावी. त्यासाठी महाराष्ट्र विद्यापीठ कायद्यात आवश्यक ती दुरुस्ती करण्यात यावी.

२) परीक्षापद्धतीमध्ये योग्य ते बदल करावेत. वर्षातून एकदा किंवा दोनदा परीक्षांचे कर्मकांड करण्याऐवजी प्रात्यक्षिक ज्ञानावर, शोधनिबंधलेखनावर भर द्यावा. विद्यार्थ्यांकडून प्रकल्प करवून घ्यावेत. अभ्यासक्रमातील मुद्द्यांवर आधारित अशा केवळ विद्यार्थ्यांच्याच चर्चासत्रांचे आयोजन करावे. ओपन बुक टेस्ट पद्धतीचा वापर करावा. सध्या परीक्षाविषयक कारभाराचा केंद्रबिंदू विद्यापीठ हा आहे. त्याऐवजी महाविद्यालय स्तरावर परीक्षाविषयक आयोजनाचे स्वातंत्र्य द्यावे. मूल्यमापनाची सर्वस्वी जबाबदारी

संबंधित प्राध्यापकावर सोपवावी.

३) मराठीचा अभ्यासक्रम दर तीन वर्षांनी न बदलता दर पाच वर्षांनी बदलावा.

४) इ. १० वी व इ. १२ वीच्या धर्तीनुसार संपूर्ण राज्य स्तरावर एकच एक अभ्यासक्रम निर्मिती मंडळ असावे.

५) पदवी स्तरावर एखाद्या विषयाचा किंवा मराठी विषयाचा विशेष स्तरावर अभ्यास करित असताना इतर विषयांचे किंवा सक्तीच्या इंग्रजी विषयाचे ओझे नसावे.

६) मराठीच्या पदवी स्तरावरील अभ्यासक्रमासाठी केवळ साहित्यकृतीवर भर न देता संपादित साहित्यावर भर द्यावा किंवा संपादित साहित्याचे प्रमाण वाढवावे. उदा. विशिष्ट लेखकाचा कथासंग्रह, कवितासंग्रह, चरित्र, आत्मचरित्र नेमण्यापेक्षा विशिष्ट विषयावरील, आशयावरील साहित्याचे संपादन करावे. (उदा. शेतकऱ्यांची दुःखे मांडणाऱ्या कविता, सुशिक्षित बेरोजगारांच्या व्यथा मांडणाऱ्या कथा वगैरे.)

७) पदव्युत्तर स्तरावर मात्र विशिष्ट साहित्यकृतीचा, विशिष्ट साहित्यकारांच्या समग्र साहित्याचा अभ्यासक्रम नेमण्यात यावा. तसेच पदव्युत्तर स्तरावर भारतीय व बिगरभारतीय (पाश्चात्य व पौराणिक) अनुवादित साहित्याचा समावेश करावा.

८) सध्या पदवी स्तरावरील मराठीच्या अभ्यासक्रमांमध्ये आधुनिक साहित्य, प्राचीन साहित्य, आधुनिक मराठी वाङ्मयाचा इतिहास, प्राचीन मराठी वाङ्मयाचा इतिहास, मराठीचा भाषिक अभ्यास आणि व्यावहारिक मराठी या घटकांचा समावेश आहे. यापैकी व्यावहारिक मराठीचा अभ्यासक्रम ५० टक्क्यांपर्यंत वाढवावा. यामध्ये अर्जलेखन, पत्रलेखन, निबंध-लेखन, टिप्पणीलेखन, इतिवृत्तलेखन, सूचनालेखन, माहितीपत्रकलेखन, जाहिरातलेखन, जाहीर निवेदनलेखन, निविदालेखन,

घोषवाक्यलेखन, घोषणापत्रक-लेखन, मुलाखतलेखन, सारांशलेखन, संवादलेखन, म्हणीवरून गोष्टलेखन, मुद्यावरून गोष्टलेखन, कल्पनाविस्तार, एखाद्या चित्राचे वर्णन करणे/ लेखन, मुद्रितशोधन या मुद्यांचा समावेश करावा.

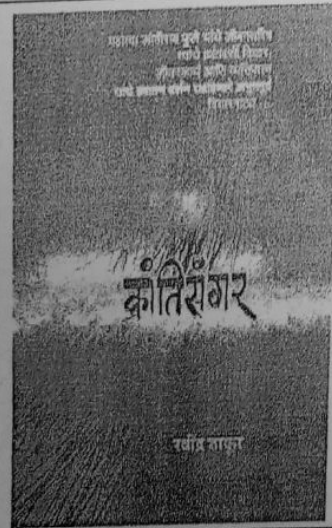
पदवी स्तरापर्यंत विद्यार्थ्यांला कथाकथन, सूत्रसंचालन, वक्तृत्व, वादविवाद वगैरे कौशल्यांचे शिक्षण द्यावे. प्रत्यक्ष मुलाखत घेणे, स्मरणिका संपादन, नियतकालिक संपादन, परिसरातील लोकसाहित्याचे संपादन, टोपणनावाने साहित्यिकांचा परिचय, ज्ञानपीठ विजेत्या साहित्यिकांचा परिचय, नोबेल व साहित्य अकादमी पुरस्कार विजेत्या साहित्यिकांचा परिचय, शब्दकोडी तयार करणे; यासारख्या प्रकल्पांचा, प्रात्यक्षिक कार्याचा समावेश करावा. वरील सर्व घटकांची पदवी स्तरावरील तीन वर्षांच्या अभ्यासक्रमात विभागणी करावी.

सध्या महाराष्ट्रातील कोणत्याही विद्यापीठाच्या अभ्यासमंडळे, अधिसभा, व्यवस्थापन परिषद वगैरे अधिकारमंडळावरील सदस्य हे

विद्यापीठावरील वर्चस्व राखण्यात, हितसंबंध जोपासण्यात, व्यग्र आहेत. आपल्या पगारात वाढ व्हावी, आपला एपीआय सुधारवा या एकमेव हेतूने आयोजित केल्या जाणाऱ्या राष्ट्रीय, राज्य, विद्यापीठस्तरीय चर्चा (?) सत्रांना ऊत आला आहे. दरवर्षी केवळ १५ ऑगस्ट व २६ जानेवारी ह्या राष्ट्रीय सणांनाच वेळेवर कॉलेजमध्ये येणारे परंतु आपल्या वाट्याची लेक्चर्स न घेणारे कितीतरी प्राचार्य ह्या महाराष्ट्रात; ह्या देशात आहेत. ह्या परिच्छेदातील विधाने खोटी असती तर आज देशातील कितीतरी विद्यापीठे जगातील नामवंत विद्यापीठांच्या यादीत झळकली असती.

देशाचाच नव्हे तर जगाचा संवेदनशील, सहृदयी, सुजाण नागरिक घडवण्यासाठी साहित्याचा अभ्यासक्रम तितकाच दमदार, कसदार असणे अत्यावश्यक आहे. सुरुवात मराठीच्या अभ्यासक्रमापासून झाले तर किमान महाराष्ट्रात तरी ज्ञानक्रांती होईल, हे नक्की.

- प्रा. डॉ. जगदीश आवटे



## संग्राह्य वाचनीय ग्रंथ

महात्मा ज्योतीराव फुले - एकोणिसाव्या शतकातील क्रांतिकारक विचाराचे कृतिशील समाजसुधारक, भारतीय सामाजिक क्रांतीचे जनक शूद्रातिशूद्रांना हजारो वर्षांपासूनच्या दास्यत्वातून मुक्त करणे. हे त्यांनी आपल्या जीवनाचे ध्येय मानले. त्यासाठी त्यांनी वाणी - लेखणीचा वापर केला, कृती केली. मतलबी ब्राह्मणी धर्मसिद्धांतावर सडेतोड टीका करणारे म. फुले मानवतावादी विचारवंत होत.

म. फुले अनेकांच्या लेखनाचा विषय झाले. रवींद्र ठाकूरानी त्यांच्यावर नाटक लिहिले. 'क्रातिसगर' हे महात्मा ज्योतीराव फुले यांचे जीवनचरित्र, त्यांचे क्रांतिकारी विचार, जीवनकार्य आणि व्यक्तिमत्त्व यांचे एकात्म दर्शन घडविणारे अभूतपूर्व विचारनाट्य होय.

क्रातिसगर (नाटक) - रवींद्र ठाकूर, बळीवंश प्रकाशन, नांदेड-०५ अ. - ०१४२२८७४३३६, पृष्ठे १६, ₹.१००/-





# Maharashtra State Commerce Association

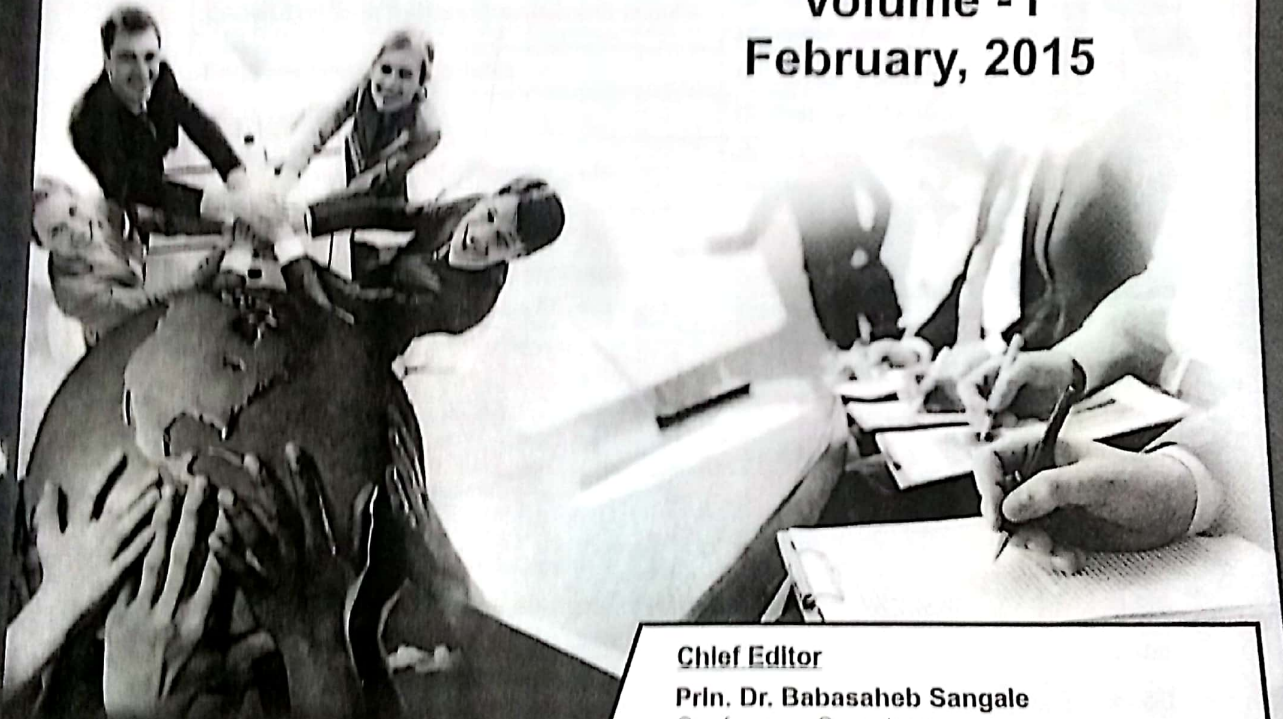


Commerce & Management  
In 21st Century

## Research 63 Publication

(ISBN No: 978-93-84916-60-2)

Volume - I  
February, 2015



**Chief Editor**

**Prin. Dr. Babasaheb Sangale**  
Conference Secretary,  
26th Maharashtra State Commerce Conference

Published by

**Maharashtra State Commerce Association**

Reg. No. पु.नं.सं. F/558 - 23/4/1985 सो. नं. क्र. मं. 612 - 20/3/1985



**Prin. Dr. Babasaheb Sangale**  
**Bharatiya Jain Sanghatana's**  
Arts, Science & Commerce College, Wagholi, Pune - 412207



## Legal Environment in Lottery Business

**Prof. Landge Balwant Bhimrao**

Head, Dept. of Commerce,

B.J.S. Arts, Science and Commerce College Wagholi, Pune-412207

Email- [bblandge@gmail.com](mailto:bblandge@gmail.com) Mob. No. -9423348264

**Prin.Dr. B. R. Sangale,**

Principal, B.J.S. Arts, Science and Commerce College, Wagholi,  
Pune - 412207,

[bjs\\_college@yahoo.co.in](mailto:bjs_college@yahoo.co.in) Mob.-9422032481

### ABSTRACT

While the debate about what gambling is legal and what isn't continues among gambling experts, in India courts, and between States and the Central government, one thing is for certain – Indians love to gamble. Although a good percentage is wagered legally on horse racing and lottery, a large amount is wagered on cricket and other sports via illegal and "technically illegal" channels. The central Act permits only state-organised lotteries to be run in the country. Many state governments including Maharashtra run lotteries for raking in extra revenue. However, lotteries are banned in some states. There are a number of instances where one state has banned lotteries run by another as they compete with each other for a share in the lottery market.

**Key words:** Lottery, Legal Gambling, Lottery market, Revenue.

### **Introduction**

Betting in India, whether it be lottery, rummy, poker, horse racing or other forms of sports betting is a controversial subject. The central government of India does have an official stance on gambling, which is that according to laws where the central government has jurisdiction, it finds gambling to be illegal. Gambling is loosely defined as any game of chance, however, the Supreme Court has found that activities like Rummy and Horse Racing are games of skill, and therefore, not considered 'gambling' by the National law. Some also argue that poker and other activities are games of skill; however, an official stance has not yet been determined.

The largest caveat here is that where the activity remains within the borders of a give state. According to Entry No. 34 of List II of the 7<sup>th</sup> Schedule of the Indian Constitution, The individual States have the full right and legitimate authority to make laws with respect to gambling and betting. Furthermore, entry No. 62 confers authority to the States to tax gambling and betting events or activities. Thirteen states have legalized lottery, while the States of Goa and Sikkim have legalized and regulated other forms of gambling.

The finance ministry list includes 17 lotteries run in traditional format and 241 online ones. Maharashtra's ten and Bhutan's seven traditional lotteries figure in the list. Among the online ones are Goa's 168 and Sikkim's 63 lotteries. The government resolution (GR) featuring the list of these lotteries is available on Maharashtra government's website

### **Objective**

- To know the Indian legal environment in Lottery Business.
- To know the Lottery Business in Various States of India.

### **Research Methodology**

This study based on secondary data. The data has been collected from various published sources books, journal & websites etc.

### **Maharashtra State**

The State of Maharashtra is moderately friendly to betting. Horse betting and lottery are the only forms of legalized betting within the State. Online Gambling is addressed in the State of Maharashtra with the Bombay Wager Act which specifies that it is illegal within the State; however, the authority of the State to make such declarations with regard to online activity has been questioned. Most laws within the State regarding betting focus on running gaming houses

It was reported in 2008 that Ladbrokes pushed to become a licensed operate a form of legalized online horse betting within the State, but their efforts fell flat.

Under The Lotteries (Regulation) Act of 1998 that allows only State governments to print or authorize lottery sales, Maharashtra authorizes Playwin to operate within the State. Some smaller cities and districts such as Buldana have tried to run their own lotteries, but the State government has taken legal action against them.

The game of Matka, which is similar to lottery, originated within the State of Maharashtra

### **Andhra Pradesh**

Under the Andhra Pradesh Gaming Act of 1974, most forms of gambling are illegal within the State. However, horse racing, rummy and state run lottery is allowed within Andhra Pradesh. There does remain quite a bit of illegal gambling activity. If you search the news, you will find the State come up in several cases of arrest and/or fines, but the fines tend to be small and typically only repeat offenders of those who run gambling houses receive more serious punishment.

### **Goa**

Goa and Sikkim are well known gambling destinations within India. Goa in particular allows land based casinos and casino boats to operate off its shores which have many table games not allowed on the mainland. There are 7 land based casinos and several casino boats in Goa as of October 2011. Gambling within the region is governed largely under the Goa, Daman and Diu Public Gambling Act of 1976 which states:



26[13A. *Authorised Game.*— (1) *Notwithstanding anything contained in this Act, the Government may authorised any game of electronic amusement/slot machines in Five Star Hotels 27{and such table games and gaming on board in vessels offshore as may be notified} subject to such conditions, including payment of such recurring and non-recurring fees, as may be prescribed.*

### **Karnataka**

Karnataka used to allow Playwin to operate within the State, but like most States it maintained a ban on single digit lotteries as well as lotteries that draw more than once a week. However, Playwin is no longer allowed to operate within the State.

The State of Karnataka was involved in the landmark case *MJ Shivani v. State of Karnataka* (1995) where the Supreme Court found that Rummy was not gambling, but a game of skill.

The government of Karnataka has recently become unfriendly to gambling in general, trying to ban or severely limit lotteries, horse racing and other betting activities as early as 2007.

Horse racing was legalized in the 1970's in Karnataka and its popularity rose quite rapidly since. Even though recent efforts to limit and even get rid of horse race betting in the State have been pursued, the activity remains legal within Karnataka.

### **Sikkim**

Sikkim is the first state to attempt to legalize and license online gambling. It began accepting applications to license online gambling. One stipulation is that the servers reside within the State of Sikkim. The license would include many forms of betting, including betting on cricket, football, rugby, etc.

Playwin is the most popular lottery game in India which is run by the government of Sikkim.

### **Tamil Nadu**

Gambling has long been a part of the local culture within Tamil Nadu, where cock fighting is a famous pastime. The event usually consists of 3, 20 minute rounds where male chickens (cocks) fight. It is a brutal sport which is very much illegal according to local law. Laws that address the sport are related to both gambling but also animal cruelty.

Other games which are very popular within Tamil Nadu are Rummy and Teen Patti, both of which are very traditional games of India.

Tamil was in the news over its regulation of prize schemes prohibiting companies from giving away prizes as a promotion for the sale of their product. Pepsi Co. was prohibited from operating a recent promotion within Tamil Nadu under the Tamil Nadu Prize Schme Act (1979).

Tamil Nadu also hosts two race tracks, Madras Racecourse (Guindy Racecourse) and Ooty Racecourse.

Madras is the oldest racecourse in India, built in 1777. It has an interesting history with some turbulence during the first 100 years. The club was restored in 1887 and has seen racing



events throughout the 20<sup>th</sup> century till present day. Race season at Madras is between November and March. Major event: Hyderabad Race Club Cup.

The Ooty Racecourse is said to be the most beautiful in India. It is a highland track at an elevation of roughly 2.3 km above sea level. The Main event at Ooty is known as The Nilgiri Gold Cup Race.

### **Uttar Pradesh**

Uttar Pradesh has the largest population among all Indian States. Cricket betting is known to be quite popular even though it is not legal. Illegal betting rings are quite common in Uttar Pradesh. Many argue that legalizing gambling would be the best way to deal with the issue. The government of Uttar Pradesh has expressed some interest in bringing legalized casinos to the State. One proposal back in 2005 was to open a Casino near the TajMahal, but nothing has come of it as of now.

### **West Bengal**

Gambling is not legal in West Bengal, however, like many States within India, it remains quite popular. Cricket and Football are the primary betting interests in West Bengal.

### **Conclusion**

The Constitution of India explicitly gives states the right to legislate and make policies related to "gambling and betting". It is quite clear in the Seventh Schedule Entry 34 List II that states could legalize gambling should they choose to do so. As stated before, thirteen states have created laws and regulations allowing lottery within their States, including Goa and Maharashtra. Playwin is the primary provider of lottery services authorized by individual States. Players are allowed to make bets at physical locations within Goa and Maharashtra. Many players also play within India at the Playwin website. The legality of which is subject to the laws of the state with which you reside.

### **Reference**

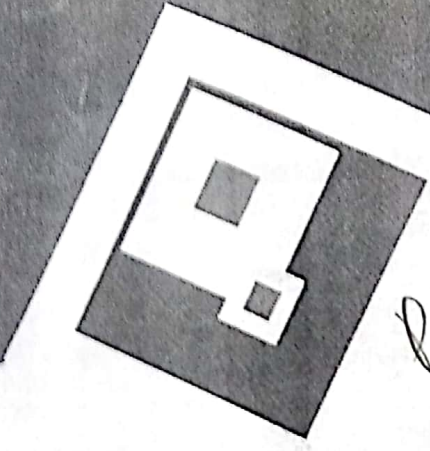
1. Lottery NasibaPalikade- P. H. Jain
2. [finmin.nic.in](http://finmin.nic.in)
3. [www.lottery.maharashtra.gov.in](http://www.lottery.maharashtra.gov.in)
4. [www.goastatelotteries.gov.in](http://www.goastatelotteries.gov.in)
5. [www.sikkimlotteries.com](http://www.sikkimlotteries.com)
6. [www.finance.maharashtra.gov.in](http://www.finance.maharashtra.gov.in)
7. [en.wikipedia.org/wiki/Lottery](http://en.wikipedia.org/wiki/Lottery)
8. [www.apfinance.gov.in](http://www.apfinance.gov.in)
9. [www.tn.gov.in/department/9](http://www.tn.gov.in/department/9)
10. [finance.kerala.gov.in](http://finance.kerala.gov.in)
11. [www.wbfin.nic.in/](http://www.wbfin.nic.in/)
12. [finance.up.nic.in](http://finance.up.nic.in)
13. [www.finance.kar.nic.in](http://www.finance.kar.nic.in)

\*\*\*\*\*





**Maharashtra State  
Commerce Association**  
Commerce & Management  
in 21st Century



PK

**Research  
Publication**

60

(ISBN No: 978-93-84916-60-2)

**Volume - II**  
**February, 2015**



**Chief Editor**

**Prin. Dr. Babasaheb Sangale**  
Conference Secretary,  
26th Maharashtra State Commerce Conference

Published by

**Maharashtra State Commerce Association**

Reg. No. मु.नं.नो. F/556 - 23/4/1985 सो. नं. क्र. महा. 612 - 20/3/1985



Prin. Dr. Babasaheb Sangale

**Bharatiya Jain Sanghatana's**  
Arts, Science & Commerce College, Wagholi, Pune - 412207



## Lottery Business – A Case Study of Maharashtra State Lottery

Prof. Landge Balwant Bhimrao

Head, Dept. of Commerce, B.J.S. Arts, Science and Commerce College,  
Wagholi, Pune-412207, Email- bblandge@gmail.com Mob. No. – 9028579800

### **ABSTRACT:**

A lottery is a form of gambling which involves the drawing of lots for a prize. Lotteries are outlawed by some governments, while others endorse it to the extent of organizing a national or state lottery. It is common to find some degree of regulation of lottery by governments. The lottery business is a promising one, involving billions of rupees and employing countless people. There are many lottery games that take place in India, all of which are run by state government organisations under the rules and regulations of the federal government. State governments such as those of Maharashtra, Punjab, Goa and Sikkim, run their own lottery departments and conduct lucky draws daily or weekly. The Maharashtra State run lottery is totally trustworthy and provides an opportunity to the citizens to win a large prize amount from a very small investment and fulfill their dreams. The revenue generated from the lottery sales also helps the State to improve the infrastructure, provide health and education facilities, enhance the status of women and child welfare, for agriculture sector etc.

**Key words:** Lottery Business, Revenue generation, Infrastructure Development.

### **Introduction**

Lottery Trade in India is legislated under Lotteries Act, 1998. Only Federal and State Governments are authorized to operate Lottery Business and usually operated through its private agencies under the sole distributor arrangement. Instant Lotteries are prohibited by Legislation. Though the estimates of the total lottery market size in India vary quite widely, the current market size of the Indian lottery market is estimated at around Rs. 50,000 Crores. Some States have banned the sale of lottery tickets in their respective states. The Supreme Court of India has observed that a State Government cannot ban lotteries organized by other State Governments if it operates its own lotteries. The lotteries in India are not permitted to have more than one draw in a week. Further, the number of bumper draws of a lottery is required to be not more than six in a calendar year.

Currently, the lottery market in India is dominated by passive ticket lottery market, although eight online lottery companies are currently operative in India. Kerala State Lotteries, established in 1967, under the lottery department by the Government of Kerala was the first of its kind in India. The Lottery department was successful and has grown throughout the state of Kerala by contributing to the needful and became the role model for other states for starting their own lotteries.



The lottery business is a promising one, involving billions of rupees and employing countless people. Though individual opinions regarding lottery is biased, a study states that most of the people acceptable it. Lottery is a form of gambling where payment has to be made for entry into the game. The games themselves are of various types such as tombola . The simplest games make use of the scratch card that contains a set of characters. In every game, the only deciding factor is luck.

Globally, lotteries are seen as an effective way of raising money for charity and other benefaction schemes. Some forms of lottery or the other is practiced in every region of the globe. Lotteries allow funding of various social projects. The Govt. education receives the benefit of the lottery scheme.

The future prospects of the industry look bright, with the business promising an almost assured return. However, problems persist that needs adequate correction mechanisms.

- **Illegal status:** In many regions around the world lotteries are not in the realm of law. In India, the illegal lottery business is set at INR 7200 crores, a whopping \$1.3 billion. Worldwide, the amount may run into exorbitant figures. Regulatory mechanisms require stricter stance, but the problem is not restricted to lottery alone.
- **Problem gambling:** This is a challenge even in the states where gambling is well regulated. The risk of addiction to gambling activities threatens to stall regulation approaches in other states. A mechanism needs to be put in place where early identification and adequate mitigation are provided. The problem is magnified when we throw into the basket the picture of underage gambling. As many as 66% of gamblers accept placing the first bets while still being at school.
- **Ensuring fairness of the game:** The simplest game is a lottery that involves a scratch ticket. For such games to sustain, it is essential to ensure that the drawing of lots is non influential.

### Objectives:

1. To study the overall online lottery business in India
2. To study the lottery business in Maharashtra state.

### Research Methodology:

This study based on secondary data. The data has been collected from various published sources books, journal & websites etc.

### Legal Gambling in India

Betting on games of chance is legal only in two places in India—Sikkim and Goa. While Sikkim has one casino called the Sikkim Casino in Royal Plaza Hotel, Goa has seven brick-and-mortar casinos and five cruise ship casinos offering a wide range of slots and table games.

Betting on the online lottery, known as Playwin, is also legalized and regulated in India. The only other form of betting that is heavily regulated in India is the horse betting industry.

All this simply illustrates that gambling in India has a long way to go. Although the government of Sikkim attempted to issue licenses to online gambling companies in Sikkim, it did not work out, as a result of which gamblers in India do not have any Indian online betting site with its servers and offices based on Indian soil. However, some offshore online casinos service the Indian market.

### **Indian Online Lottery**

Betting on the online lottery is considered illegal in several Indian states while it is perfectly legal in some states. This is because states have the power to either legalize or criminalize online betting activities within their jurisdiction. Fortunately for Indian bettors, online lottery is perfectly legal in Sikkim, which operates playwin.com, an online lottery game that enjoys a great deal of popularity in all Indian states that permit online betting.

Indian players who want to bet on this lottery must be more than 18 years of age and should reside in Sikkim, Maharashtra, Arunachal Pradesh, Goa, and West Bengal.

### **Legal Online Lottery India**

Although India is not exactly a gambling friendly country, the people of India are fond of gambling and lottery is defined as being a legal activity. In fact, around half the bets placed in India on a wide range of games of chance and sporting activities are believed to be illegal, but are not. Many prominent citizens of India are in favor of further legalizing and regulating the gambling industry in India.

### **Maharashtra State Lottery**

Maharashtra State Lottery has been in existence from 12th April 1969. The Finance Department of the State initiated the lottery to prevent cheating of the common people by miscreants through illegal gambling schemes like Matka. The State run lottery is totally trustworthy and provides an opportunity to the citizens to win a large prize amount from a very small investment and fulfill their dreams. The revenue generated from the lottery sales also helps the State to improve the infrastructure, provide health and education facilities, enhance the status of women and child welfare, for agriculture sector etc. Simultaneously many unemployed persons are engaged in sale of lottery tickets and provide them with full time or part time employment.

Alarmed over proliferation of illegal lotteries in the Maharashtra, the state finance ministry has issued a list of 258 legal lotteries, whose results will be declared time to time. It has decided to regularly issue of list of official lotteries. Due to sale of illegal lotteries government is not only losing revenue but the credibility of the lottery department is also at stake.

The official lotteries are registered with deputy commissioner (lottery tax) and have paid tax to the government. The ministry has warned strict action against promoters and distributors of illegal lotteries under Sections 14 (1), 17 and 18 of Maharashtra Tax on



Lotteries Act, 2006. A case would also be registered under central government's Lotteries Regulations Act, 1998.

The central Act permits only state-organised lotteries to be run in the country. Many state governments including Maharashtra run lotteries for raking in extra revenue. However, lotteries are banned in some states. There are a number of instances where one state has banned lotteries run by another as they compete with each other for a share in the lottery market.

The finance ministry list includes 17 lotteries run in traditional format and 241 online ones. Maharashtra's ten and Bhutan's seven traditional lotteries figure in the list. Among the online ones are Goa's 168 and Sikkim's 63 lotteries. The government resolution (GR) featuring the list of these lotteries is available on Maharashtra government's website.

### Achievements so far

Maharashtra State Lottery has produced many happy winners and more than 2327 persons have become Lakhpatists in last 5 years.

The prize money has helped them to invest in their business or agriculture activities, buy a vehicle or a tractor or to purchase house or for the education of their children. Each draw is conducted publicly before a panel of Judges. The draw is done either by an electric machine or by selecting numbers from drums. The draws are completely transparent and trustworthy. In the transition of 42 years, Maharashtra State Lottery proved its motto 'Reputed and Trustworthy'.

### Weekly Lottery Schedule

Maharashtra government conducts a draw on all the week days except on Sunday and the three national holidays. From the month of October there shall be total 10 draws every week. This includes 6 weekly draws and 4 Mini Lottery.

### List of Maharashtra Rajya Lottery

The results of Lottery tickets declare after few days or at the end of the week for weekly lotto or **monthly basis lottery**. Akshaya Weekly

Akshaya (Weekly)

Pushkaraj (Weekly)

Sagarlaxmi (Weekly)

Dassera Bumper Lottery

Maharashtralaxmi (Weekly)

Vaibhavlaxmi (Weekly)

Maharashtra Bhushan

Aakarshak Pushkaraj (Monthly)

Akshaya (Weekly)



### Conclusion

The future of the lottery business can be expected to be driven by the regions where it has not been regulated yet. The Maharashtra illegal gambling industry amounts to over a billion rupees. Bringing these institutions under the jurisdictions of the state can provide a much needed boost to the respective state exchequers.

### References-

1. Lottery Nasiba Palikade- P. H. Jain
2. [www.lottery.maharashtra.gov.in](http://www.lottery.maharashtra.gov.in)
3. [www.goastatelotteries.gov.in](http://www.goastatelotteries.gov.in)
4. [www.sikkimlotteries.com](http://www.sikkimlotteries.com)
5. [www.finance.maharashtra.gov.in](http://www.finance.maharashtra.gov.in)
6. [en.wikipedia.org/wiki/Lottery](http://en.wikipedia.org/wiki/Lottery)
7. [www.lotterymexico.com](http://www.lotterymexico.com)
8. [www.finmin.nic.in](http://www.finmin.nic.in)



50 years of dedicated service

Anekant Education Society's,

# JAYSINGPUR COLLEGE, JAYSINGPUR

Tal. Shirol, Dist. Kolhapur.  
UGC SPONSORED

## TWO DAY NATIONAL CONFERENCE

ON

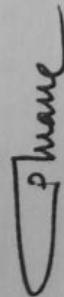
### Business Entrepreneurship : Issues And Challenges

30<sup>th</sup> & 31<sup>st</sup> January 2015

# Certificate

This is to certify that Dr. / Prof. / Mr. / Mrs./Miss. Ashok V. Giri of MES garware College of Commerce, Pune. has participated as a delegate in the UGC Sponsored National Conference on **BUSINESS ENTREPRENEURSHIP :**

**ISSUES AND CHALLENGES** on 30<sup>th</sup> & 31<sup>st</sup> January 2015 organized by the Faculty of Commerce, Jaysingpur College, Jaysingpur. He / She has presented a paper entitled, Entrepreneurial Innovation in Globalizing World.



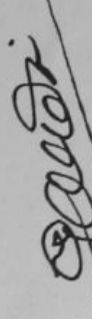
Dr. P. T. Mane

Organising Secretary



Dr. N. L. Kadam

Coordinator

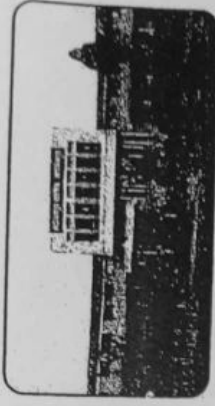


Dr. M. M. Gandhi

Principal

03 MS

1





## Entrepreneurial Innovation in Globalizing World

*Capt. Dr. Ashok V. Giri*  
*Assistant Professor,*  
*MES Garware College of Commerce,*  
*M.Phil & Ph.D Research Guide Savitribai Phule Pune University*  
*Pune - 411004. (Maharashtra, India)*  
*Email ID:- [capt.drashokgiri@gmail.com](mailto:capt.drashokgiri@gmail.com)*  
*Mobile no. +919822296596*

### Abstract

No entrepreneur or enterprise, however successful and big, can continue to hold a place of leadership unless it recognizes that modern business operates in a world of galloping change which creates new problems, risk and opportunities and for which they have to mobilize the enterprise's resources before changes make their impact felt. To do successfully, the entrepreneur and enterprise should know where this firm is going and how the firm will get there. This in turn requires a clear definition of the company's business which will enable it to continually adopt operations to the realities of the market place, the very corner stone of survival and growth" Innovation is defined as adding something new to an existing product or process. The key words are adding and existing. The product or process has already been created from scratch and has worked reasonably well. When it is changed so that it works better or fulfils a different need, then there is innovation on what already exists. Innovation is the successful exploitation of new ideas.

According to Deucker F. Peter Entrepreneurship is neither a science nor an act. It is a practice. But as in all practices. Medicine or engineering for instance knowledge in entrepreneurship is a means to an end. It is not a 'Flash of genius' but purposeful tasks that can be organized in to systematic work. Entrepreneurs are the real heroes of economic life. They are the ones who have shown that genius is sweat and toil and sacrifice and that natural resource gain value only by the ingenuity and labour of man for their knowledge of failure, they forge success. In accepting risk, they achieve security for all. In embracing change, they ensure social and economic stability

Etymologically, the term entrepreneur has been derived from the French word 'Entreprendre' which connotes "Undertaker".

**Keywords:** entrepreneur, globalization, entrepreneurship development, multidimensional aspects, industrialization.

### Introduction

According to Francis A. Walker, the true entrepreneur is one who is endowed with more than average capacities in the task of organizing and co-organizing the various other factors of production. He should be a pioneer, captain of Industry. The supply of such entrepreneurship is however quite limited and enterprise in general consists of several grades of organizational skill and capability. The more efficient entrepreneur receives a surplus reward over and above the managerial wages and this sum constitutes trade profit ascribed to superior talent.

The above definitions specified by different thinkers stress only selected aspects of entrepreneurship. In modern times an attempt is made to generate a comprehensive definition that tries to highlight all facts and aspects of entrepreneurial activity. These multidimensional aspects may be stated as follows.

Higgins stated that Entrepreneurship is meant the function of seeing investment and production opportunities, organizing an enterprise to undertake a new production process, raising capital, hiring labour, arranging for a supply of raw materials and finding site and combining these factors of production into a going concern, introducing new techniques and commodities, discovering new sources of natural resources and selecting top managers for day-to-day operation of the enterprise.

An entrepreneur is a person who adds value to a particular niche or market sector by providing innovative products or services that are in demand. Innovative entrepreneurship can be defined as the effective combination of labour, capital and property utilized to create innovative products in keeping with the changing demands of the market. A good entrepreneur accepts all responsibilities and accountability pertaining to his/her venture's performance and risks. A dynamic entrepreneur gets into top gear the moment he/she identifies demand for a particular product or service in the market. They get all resources together and invest time, creativity and enterprise to innovate and achieve their goal. In the process, they may take quite a bit of financial, personal and professional risk. Innovative entrepreneurship requires entrepreneurs to

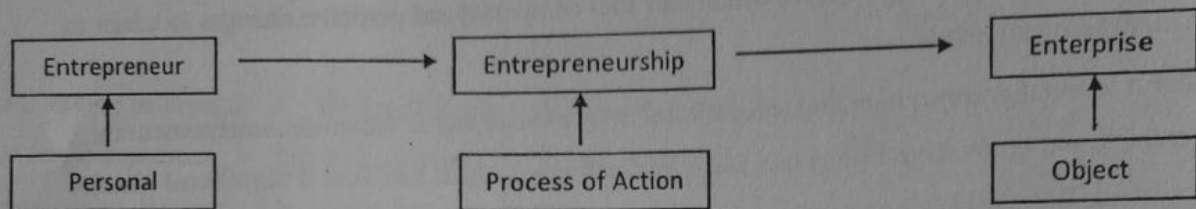


be equipped with various qualities such as capacity to build an effective team, strong leadership, management ability and a strong drive and leaning towards innovation and creativity. In order to ensure success of any venture, it is important to see that innovation and entrepreneurship complement each other in the most effective manner. A dynamic framework of integrative interaction must be put firmly in place which can fuel competent and positive changes to adapt to the changing societal needs.

Whether it is social entrepreneurship, educational entrepreneurship or business entrepreneurship, to be creative and innovative brings in a lease of fresh input which can fuel a significant change in the system. The world is constantly changing, so are the needs and requirements of people. It is the responsibility of every business, organization and individual to keep pace with the societal demands and needs and provide dynamic solutions. The importance of innovative entrepreneurship is recognized by many companies today. Not only new ventures but also existing corporate invests time and money training their employees and management in particular on effectively utilizing the power of dynamic innovation. This is in fact, one of the most important pre-requisites for sustained survival of companies in today's competitive business environment. Innovation entrepreneurship requires entrepreneurs to be strong and creative. Good entrepreneurs will not think twice about taking calculated risks and they are trained to see every situation from a different perspective. They are non conformists who do not depend on any pre determined organizational structure. They believe in breaking traditional rules and constantly bringing in innovative thinking into practice. They focus on initiating value added products, system or ideas much beyond the traditional idea of adapting to changes that are linear. Innovative entrepreneurship is also about being skilled at identifying problem areas and provides immediate solutions to remove any hindrance towards fruition of their vision. Dynamic entrepreneurs also believe in investing money and effort in a potent R&D stream. They keep their customers interested, guessing and curious with a constant release of improved and new products.

Innovation and entrepreneurship therefore cannot be viewed separately in the context of any business, whether small, medium or large. A strong and sustained presence amidst stiff global competition is possible only through development focused innovation.

Entrepreneurship refers to a process of action an entrepreneur undertakes to establish the enterprise.



The entrepreneurs, in the modern sense, are the self starters and doers of a business, who have organized and built their own enterprise or enterprises. In common parlance, almost anyone who starts an enterprise, industry, and shop is called an entrepreneur.

#### Characteristics of an entrepreneur

1. A successful exhibits certain typical qualities. Some of these are given below: An entrepreneur is a risk taker. In fact, several experts have contributed entire profits to risk taking. For e.g., according to Howtey, profits are rewards for risk taking which is what an entrepreneur does.
2. An entrepreneur is a highly motivated person. He does not sit complaining about banks, government officials, bribes, difficulties, etc. he is a committed person determined to achieve success in his business.
3. An entrepreneur is an efficient organizer, effective coordinator and a successful manger. He brings together all factors of production, combines them and co-ordinates them for production and business.
4. An entrepreneur is a risk taker. In fact, several experts have contributed entire profits to risk taking. For e.g., according to Howtey, profits are rewards for risk taking which is what an entrepreneur does.
5. An entrepreneur is an ambitious person. Great entrepreneurs like Tata, Birla, Ford, Rockefeller were ambitious to build business empire. It does not mean that they were unscrupulous and were obsessed with a greed for money. It only shows that they envision what they propose to achieve and go on to achieve it with full force.



6. An entrepreneur is a discoverer, inventor and innovator. Entrepreneurs are dynamic and original. According to Schumpeter, an entrepreneur is constantly discovering new projects, new markets, new uses for his products, new sources of raw material and new organizations of production. An entrepreneur goes out of the beaten path and charts new course.

Globalization refers to the multiplicity of linkages and interconnections between the states and societies, which make up the present world system. It describes the process by which events and activities in one part of the world can have significant consequences for individuals and communities in quite distant part of the global. The phenomenon of globalization is simply characterized as a worldwide economy, the process of technological revolution, freedom of capital movements and relocation.

From the social and macroeconomic perspective it is held that the economic development of any action is a direct function of the number of high quality innovators and entrepreneurs it supplies. This in turn is dependent upon the desire for new and better products that society demand and accepts.

Following liberalization and global competition, wealth creation is assuming paramount importance. As a result the concept of entrepreneurship is receiving close attention.

#### **Economic Development and the role of Entrepreneurship**

21<sup>st</sup> century is the century of Entrepreneurship and every individual can be an agent for innovation and change, various examples in the present day times indicate where a country has growth in spite of scarcity of inputs i.e. Japan.

Realizing the effective role of entrepreneurship in the process of industrialization India made planned efforts to develop entrepreneurship Indian Govt. wanted to develop achieve balanced regional development, dispersal of economic power and provide better employment opportunities.

Industrial development of any economy is utmost essential as it accelerates the rate of Economic growth; it creates a larger and more favourable market for agriculture and industrial products and tends to break up the relatively stagnant and traditional type of agriculture. It also makes available to the masses a far range of consumer and industrial goods.

The need of industrialization also lies in the fact that at all levels of production process, other than the final demand level, industrial investment have more forward and backward linkages with various industries.

Gunnar Myrdal, while describing the relationship of industrialization and economic development, writes that the manufacturing industries represent, in a sense, a higher stage of production in advanced countries. The development of Mfg. industry has been concomitant in these countries with spectacular economic progress and rise in the level of living; not least in the under-developed countries, the productivity in industry tends to be considerably greater than in traditional agricultural pursuits. Economic development through industrialization is sought, therefore, "not only as a means of bringing about a shift in power within the under developed nations".

### **Growth of Entrepreneurship in India**

A sound understanding of the entrepreneurship development in India must evolve itself within the context to the economic development of India. The India society is divided into religious and regional sections. Therefore caste groups were rigidly separated from each other on functional basis, a feature which perpetuated the practice of following the family occupation leaving little scope for mobility between one occupation and another. There was a clearly divided workforce based mainly upon castes.

The beginning of the modern factory in Indian can be traced to the second half of the 19<sup>th</sup> century. Before 1850 there were some story attempts of setting up factories in India. These were the pioneering efforts, mostly by the Europeans and they got success because of political privileges and control over organized money market.

By the middle of the 19<sup>th</sup> century India had a fairly developed business community i.e. Hindu Jain Muslim and Vaishyas. In Oct. 1905, the Swadeshi Company was launched and this movement definitely had a positive contribution to make in including Indian investment in Industrial activities. During the First World War many industries established i.e. Steel, Paper etc. After the independence, the Govt. of India supported industrialization to providing financial and infrastructure support system to industrial revolution started. Special community like cheltis Kumatis, Syrian Christian, Hindu, Jain, Marwari and Muslim community developed their own.

### **Process/stages of entrepreneurship development**



The promotion of entrepreneurship in a society can be set to follow a three-phase or stage process. These are the stimulatory phase, the support phase and the sustaining phase. In the last and sustaining phase entrepreneurs are helped in overcoming 'teething problems' in their business and are helped in carrying forward the growth of their business. In this phase support is provided for full capacity utilization, expansion, diversification, modernization and full development of the potential business. In this phase, support is also given to sick industries and those facing difficulties in expanding. In this phase, facilities like quality testing, quality promotion, industrial assets, etc. are also provided to the entrepreneurs.

In the stimulatory phase, on the one side infrastructural facilities, database and publicity for the promotion of entrepreneurship is undertaken, while on the other active steps are taken to stimulate the development of an entrepreneurial class in society. These include locating, selecting and motivating potential entrepreneurs; creating an awareness in them and arousing their interest in entrepreneurship by 'achievement motivation training'; giving them knowledge about business and its various management aspects; and finally helping potential entrepreneurs to prepare viable projects. In the second 'support phase', the entrepreneurs are provided with practical guidance and support for the establishment of the business provision of finance, purchase of raw material, plant and machinery, procurement of land and setting up of a factory and other related matters. Simultaneously, they are also supported with facilities like tax relief, subsidy support and similar facilities.

It should be borne in mind that adequate emphasis must be placed on all these phases for the harmonious development of entrepreneurship in the country. It should also be noted that these stages are not water-tight compartments and there should be an harmonious mix of all these activities.

#### **Factors of entrepreneurship development**

The emergence, growth and development of entrepreneurship depend upon a number of micro and macro level factors.

At the macro level, the creation of an entrepreneurial class depends upon the creation of an environment that fosters private initiative, business innovation and free enterprise. Such an environment can be treated by ensuring an appropriate economic, industrial fiscal, monetary, foreign trade and foreign exchange policies. The present economic policy of market-friendly

approach; fiscal policy of low deposits, taxes and tariffs; industrial policy of delicensing; more reliance on private sector and encouragement of foreign collaboration; monetary policy of lowering and freeing of inter states and ensuring adequate availability of credit and finance; foreign trade policy of liberalization and globalization with the integration of domestic economy into the world of economy; and exchange policy of convertibility of rupee and liberal exchange state mechanism – all these are bound to stimulating the growth of an entrepreneurship in India.

### **Impact of Globalization on Trade, Commerce and industries: - Challenges and Opportunities**

Globalization offers opportunities on the one side and challenges on the other side. It has offered opportunities in the area of investment, industrial growth, technology and competition and on the other hand it has created threats in the area of small scale industries, traditional industries and competition.

**Globalization and investment:** Our economy is interacting with the rest of the world with the growth of globalization and economic liberalization i.e. The opening of the capital markets offers opportunities for us to increase our investment beyond the rate of domestic saving. India should take full advantage of these opportunities of an increasingly globalized Economy. In India from 1992 to 2005 Rs. 3, 25,000 crores are invested in the Form of Foreign direct investment.

Direct Foreign Investment may be made through the acquisition of an existing entity or the establishment of a new enterprise.

Mergers and Acquisitions (M and A) M and A are very important market entry as well as growth strategy. It may be used to acquire new technology. It may also help in reducing cost and reducing competition. One great advantage of M and A is that it provides instant access to markets and distribution net work.

### **Globalization and industrial growth**

Globalization creates opportunities if it is genuinely free, and India's labour intensive product can find markets abroad that will help to get new jobs in our country. Globalization has created more employment, boosted industrial production and promoted exports. The information technology is one of the areas of industrial growth. The IT industry's basic input is skilled man power and India has the largest pool of skilled and semi skilled works force that will help to relieve poverty also.



## Conclusion

Opportunities for global entrepreneur have been increasing day by day under the changing environment. Whether an entrepreneur is currently a global entrepreneur or dream of becoming one embracing the Authentic Entrepreneur traits has many advantages. He should remove the traditional entrepreneurial stigmas and allow himself more room for growth. So if the entrepreneur is ready to step forward and declare that he/she desire to live a meaningful and wealthy life, then it is time to make himself move. The entrepreneur has to shift the perspective and become an Authentic global entrepreneur. The making of such authentic global entrepreneur would reward the individuals themselves, the firms the industry the economy and the society as a whole.

Fortunately even in India, we now have many role models who have created business empires that only compete but also operate globally. There is famous saying, "Any one can count the seed in an apple, but only God can count the number of apples in a seed". The seed of entrepreneurship is already placed in India. Only God knows, how many more uncountable heroes and entrepreneurs will emerge in the future scenario. Though one things is clear they are going to be much more than what we see today.

Fortunately there are numerous right paths for entrepreneur to create wealth. Provided these paths are journised well.

## References

1. Peter Drucker, "Innovation and Entrepreneurship", 1985, Elsevier Ltd., UK, pp 69-75.
2. John Bessant, Joe Tidd, "Innovation and Entrepreneurship", 2011, John Wiley & Sons Ltd., pp 15-23.
3. Adam Szirmai, Wim Naudé, Micheline Goedhuys, "Entrepreneurship, Innovation, and Economic Development", Oxford Press, 2011, pp 147-155.
4. Kjell Skogen, Jarle Sjøvoll, "Creativity and Innovation", 2010, AIT, pp 210-215.
5. Michael J. C. Martin, "Managing Innovation and Entrepreneurship", John Wiley & Sons Ltd., pp 67-73.
6. Lans, T., Hulsink, W., Baert, H. & Mulder, M. (2008). Entrepreneurship education and training in a small business context: Insights from the competence-based approach. *Journal of Enterprising Culture*, 16 (4), 363-383.

- 17
7. Majumdar, S. (2008). Modelling growth strategy in small entrepreneurial business organizations. *The Journal of Entrepreneurship*, 17 (2), 157-168.
  8. Shane, S. (2003). *A general theory of entrepreneurship: The individual-opportunity nexus*.
  9. Lans, T., Hulsink, W., Baert, H. & Mulder, M. (2008). Entrepreneurship education and training in a small business context: Insights from the competence-based approach. *Journal of Enterprising Culture*, 16 (4), 363-383.



Snehavardhan Research Institute Pune, India  
and  
Arya Samaj, Bangkok, Thailand

has jointly organised International  
Interdisciplinary Conference on

**Aspects of Folk-Culture in Literature  
at National and International Level**

देशविदेशातील लोकसंस्कृतीचे साहित्यातील दर्शन

**Certificate**

This is to certify that डॉ. जगदीश आवटे has  
Participated and Presented the Research Paper on  
'बहुभाषिक जैन साहित्याचे पैलू'  
in International Interdisciplinary Conference on  
25th & 26th November 2015 at Bangkok, Thailand.

*Mr. S. P. Singh*

**Mr. S. P. Singh**  
President,  
Arya Samaj, Bangkok,  
Thailand.

**Dr. Snehal Tawre**  
Director,  
Snehavardhan Research Institute,  
Pune, India.

International Interdisciplinary Conference  
Aspects of Folk-Culture in Literature  
at National and International Level

देशविदेशातील लोकसंस्कृतीचे  
साहित्यातील दर्शन



श्री गुरुभ्यो नमः

8/7/6



## बहुभाषिक जैन साहित्याचे पैलू

(मध्ययुगीन कालखंडासंदर्भात)

- डॉ. जगदीश आवटे

कोट्यवधी वर्षांपूर्वी अवकाशात सातत्याने विविध घडामोडी घडत होत्या. या घडामोडींतून पृथ्वीची निर्मिती झाली. लाखो वर्षांपूर्वी आपल्या पृथ्वीवर अत्यंत सूक्ष्म अशा सजीवाचा जन्म झाला. या सजीवाचा जन्म होण्यासाठी सुद्धा विशिष्ट प्रकारच्या घडामोडीच कारण ठरल्या. पृथ्वीवर अस्तित्वात आलेल्या या पहिल्या सजीवापासूनच आजची, सध्याची सर्व सजीवसृष्टी उत्क्रांत झाली असल्याचे वैज्ञानिक सत्य साऱ्या जगाने स्वीकारले आले. आजचा मानवसमाज हे पृथ्वीवरील सजीवसृष्टीतील सर्वात सुंदर, अधिक परिपूर्ण असे अपत्य आहे. मात्र ह्या अपत्याची जडणघडण होण्यासाठी कित्येक वर्षे खर्ची पडली. अगदी सुरुवातीला गुहेत राहणारा मानवप्राणी सुरक्षिततेच्या गरजेपोटी टोळ्यां-टोळ्यांनी राहू लागला. अन्न पाण्याच्या गरजेपोटी त्याने नदीकिनारी, पाण्याच्या ठिकाणी वस्ती केली. काळाच्या ओघात त्याला अग्नीचा शोध लागला. अग्नीमुळे त्याला अन्न शिजवून खाणे शक्य झाले. आपले श्रम हलके करण्यासाठी मानवाने चाकाचा शोध लावला. शेतातून धान्य पिकवण्याचे तंत्र गवसल्यामुळे मानवाचे जीवन आणखी सुखी झाले. काहीशी उस्तं मिळू लागलेल्या या मानवी समाजाला, आपल्या सामूहिक जीवनाला काही एक शिस्त असावी, असे वाटू लागले. ही शिस्त लावण्याच्या गरजेपोटी मानवी समाजाने विविध संस्थांची निर्मिती केली. विवाहसंस्था, कुटुंबसंस्था, राज्यसंस्था, धर्मसंस्था ह्या त्या प्रमुख संस्था आहेत.

धर्म किंवा धर्मसंस्था म्हणजे तरी काय ? तर वैयक्तिक व सामूहिक जगण्याविषयीचे नीतिनियम. सध्याच्या जगात ख्रिश्चन, मुस्लिम, हिंदू, बौद्ध, जैन, शीख, ज्यू, बहाई, पारशी या धर्मांचे लोक राहतात. या धर्मांच्या संस्थापकांनी अखिल मानवजातीच्या सुखी व समाधानी जीवनासाठी काही नीतिनियम ठरवले. नंतरच्या काळात त्या त्या धर्मातील अनुयायांनी कालानुरूप आणखी काही नीतितत्त्वांची भर टाकली. पुढे काळाच्या, परिस्थितीच्या गरजेनुसार ही नीतितत्त्वे लेखनबद्ध झाली. ह्या नीतिनियमांना, नीतितत्त्वांना ग्रंथरूप लाभले. ग्रंथरूपातील ह्या नीतिनियमांना वाट पुसत पुसतच पुढील काळात विविधांगी स्वरूपाची साहित्यनिर्मिती होऊ लागली. जगातील सर्वच साहित्य वर उल्लेख केलेल्या विविध धर्मांच्या,

धर्मतत्त्वांच्या प्रेरणेतून अस्तित्वात आल्याचे दिसते. जैन धर्माचे साहित्यसुद्धा याला अपवाद नाही.

जैन धर्म हा भारतीय भूमीत उदयाला आलेला प्राचीन धर्म आहे. जैन मतानुसार जैन धर्मांमध्ये चोवीस मार्गदर्शक म्हणजेच तीर्थंकर होऊन गेले. ऋषभनाथ हे पहिले तीर्थंकर मानले जातात. सुमारे अडीच हजार वर्षांपूर्वी ऋषभनाथांपासून जैन धर्माचा प्रारंभ झाला, असे मानले जाते. त्यानंतर बावीस तीर्थंकर झाले. भगवान महावीर हे चोविसावे तीर्थंकर. भगवान महावीरांचा जन्म ख्रिस्तपूर्व ५९९ साली १३ मार्च रोजी म्हणजेच चैत्र शुद्ध त्रयोदशी रोजी झाला, असे मानले जाते. भगवान महावीरांनी जैन धर्माला नवी चेतना दिली, नवी प्रेरणा दिली. भगवान महावीरांनी जैन धर्माला खळाळते, सळसळते रूप प्राप्त करून दिले. अगोदरच्या तेवीस तीर्थकरांनी ठरवून दिलेल्या नीतिनियमांना ग्रंथरूप प्राप्त करून दिले. भगवान महावीरांच्या अनुयायांनी पूर्वसूरींच्या ज्ञानाला ग्रंथरूप दिले. या ग्रंथरूपालाच आगम साहित्य असे म्हटले जाते.

जैन आगम साहित्य हे जैन संस्कृती आणि इतिहास यांचा आधारस्तंभ आहे. या साहित्यात जैन मुनींचे आचार, विचार, भिक्षाग्रहण, व्रत, नियम, सिद्धांत, परमतखंडन, स्वमतप्रतिपादन इ. विषयांचे विवेचन केले आहे. प्रसंगानुरूप त्यासाठी कथा, चरित्र, उपमा, रूपक, दृष्टांत यांचाही वापर केला आहे. जैन आगम साहित्य हे जैन धर्मरूपी वृक्षाचे मूळ आहे. या आगमज्ञानाशिवाय जैन धर्माचे सांगोपांग ज्ञान होऊ शकणार नाही, आणि म्हणूनच आगम साहित्याला जैन साहित्यामध्ये महत्त्वाचे आणि मानाचे स्थान आहे.

जैन धर्माची दृष्टी विश्वव्यापी व अनेकान्तात्मक आहे. या धर्माने निर्माण केलेले साहित्य विविधांगी स्वरूपाचे आहे. हे साहित्य केवळ पारमार्थिक किंवा धार्मिक नसून लौकिक व व्यावहारिक बाबींनी नटलेले आहे. साहित्याचे असे एकही क्षेत्र नाही की ज्या क्षेत्रांत किंवा प्रकारांत जैन साहित्य निर्माण झालेले नाही. विविध विषयांनी परिपूर्ण असलेल्या या जैन साहित्यात न्याय, दर्शन, योग, आचार, पुराण, इतिहास, कथा, नीतिशास्त्र, व्याकरण, भूगोल, ज्योतिष, गणित, आयुर्वेद, प्राणिविद्या, वनस्पतिविद्या, कृषिविद्या, वास्तुकला, मूर्तिकला, चित्रकला, संगीत इ. विषयांचा समावेश आहे. जैन साहित्याने गाथा, श्लोक, सूत्र तसेच इतर तत्कालीन लेखन प्रकारांचा अंगीकार केलेला आहे.



साहित्यनिर्मितीसाठी जैन धर्माने एखाद्या विशिष्ट भाषेचा आग्रह कधीच धरलेला नाही. कोणत्याही एका विशिष्ट प्रदेशातील भाषेचा किंवा विशिष्ट मानवसमूहाच्या भाषेचा स्वीकार करून त्याव्यतिरिक्त इतर समाजाला ज्ञानदानापासून वंचित ठेवणे, हा मार्ग जैन साहित्याने कधीच स्वीकारला नाही. याउलट ज्ञानाची सर्व क्षेत्रे सर्वांना खुली ठेवण्याचे आदर्श धोरण जैन साहित्याने स्वीकारले. जनसामान्यांच्या बोली भाषेलाच आपल्या संदेशाचे माध्यम बनविले. परिणामी यातूनच काही भाषांची जडणघडण आणि विकास झाला. परंतु याहीपेक्षा सर्वात महत्त्वाचे म्हणजे संस्कृत, प्राकृत, मागधी, अर्धमागधी, शौरसेनी, महाराष्ट्री, गुजराती, राजस्थानी, हिंदी, तमिळी, तेलुगू, कानडी वगैरे भारताच्या विविध प्रदेशात बोलल्या जाणाऱ्या व पूर्वी बोलल्या जात असलेल्या भाषांमधून जैन साहित्याची विपुल प्रमाणात निर्मिती झाली. अशाप्रकारे जैन साहित्याची परंपरा ही प्राचीन असल्याचे दिसून येते. या साहित्याने आदर्श जीवनमूल्ये, आदर्श तत्त्वज्ञान जगासमोर ठेवले. त्याचा प्रभाव भारतीय तत्त्वज्ञ, विचारवंत, संत, महंत यांच्यावर पडला. याच प्रभावातून देशाची सांस्कृतिक परंपरा अधिक श्रेष्ठ आणि संपन्न होण्यास मदत झाली. म्हणूनच केवळ भारतीय साहित्यातच नव्हे तर भारतीय संस्कृतीत जैन साहित्याला मोलाचे स्थान आहे. जैन साहित्य म्हणजे जैन आचार, विचार, तत्त्वे यांचे प्रतिबिंब असलेले साहित्य. अशा या जैन साहित्याचे विविध भारतीय भाषांतील योगदान, पैलू खालीलप्रमाणे -

१. हिंदी जैन साहित्य :- हिंदी साहित्याचा प्रारंभकाल हा इ.स. ११८४ पासून १३५० पर्यंत असल्याचे मानले जाते. शालिभद्रसूरीच्या 'भरतेश्वर बाहुबली रास' (इ.स. ११८४) या ग्रंथापासून हिंदी साहित्याचा प्रारंभ झाल्याचे मानले जाते. यानंतर प्रामुख्याने 'चंदनबाला-रास', 'जीवदया-रास', 'स्थूलिभद्र-रास', 'नेमिनाथ-रास' वगैरे ग्रंथांची रचना झाल्याचे दिसते. या सर्व ग्रंथांचे कर्ते जैन मुनी असल्याचे सांगितले जाते. हिंदी जैन साहित्याचे विभाजन चार भागात केले जाते, ते असे - सैद्धांतिक ग्रंथ, पुराण चरित्रादी ग्रंथ, पूजा-पाठविषयक ग्रंथ आणि भजन-पद्यविषयक ग्रंथ. तत्कालीन भक्तिकालाच्या प्रभावामुळे हिंदी जैन साहित्यामध्ये पूजा-पाठविषयक ग्रंथांचे प्राधान्य जास्त प्रमाणात दिसून येते. हिंदी जैन साहित्यात आध्यात्मिक ग्रंथरचना करणारे कवी देखील अनेक आहेत. या आध्यात्मिक कवींमध्ये छीहल, पं. रुपचंद, पं. बनारसीदास, दयानतराय, भूदरदास, हेमराज या प्रमुख कवींच्या समावेश होतो.

श्वेतांबर पंथीयांच्या हिंदी जैन साहित्यामध्ये कथाग्रंथांची संख्या अधिक आहे तर दिगंबरपंथीयांच्या हिंदी जैन साहित्यामध्ये कथाग्रंथांबरोबरच सैद्धांतिक ग्रंथही मोठ्या संख्येने आढळतात. हिंदी जैन साहित्याचा प्रसार गुजरात व उत्तर भारतात मोठ्या प्रमाणावर झाला. अशाप्रकारे हिंदी जैन साहित्य समृद्ध करण्यामध्ये विविध जैन साहित्यिकांनी महत्त्वपूर्ण योगदान दिले आहे.

२. तेलुगू जैन साहित्य :- विशाल व विस्तृत अशा तेलुगू साहित्यात जैन साहित्याचे प्रमाण कमी आहे. दक्षिण भारतात जैन धर्माचा प्रवेश आणि प्रसार हा साधारणपणे नवव्या-दहाव्या शतकाच्या सुमारास झाला असल्याचे विद्वानांचे मत आहे. दक्षिण भारतातील तमिळ व कन्नड भाषेतील साहित्य हे जैन धर्माने प्रभावित झाल्याचे आढळते. परंतु तेलुगू जैन साहित्य मात्र अगदी त्रोटक प्रमाणात असून त्याची कारणे ऐतिहासिक स्वरूपाची आहेत. सुमारे ११ व्या शतकाच्या मध्यभागात आंध्र प्रदेशात हिंदू धर्माच्या समर्थनासाठी मोठे आंदोलन झाले आणि त्यामुळेच तेथील जैन धर्माचे आणि पर्यायाने जैन साहित्याचे पतन झाले. परंतु असे असले तरी तत्कालीन हिंदू धर्मीय साहित्यिकांच्या लेखनशैलीवर जैन लेखनशैलीची छाप आढळून येते.
३. तमिळ जैन साहित्य :- उपलब्ध ऐतिहासिक साधनावरून उत्तर हिंदुस्थानात पडलेल्या मोठ्या दुष्काळाच्यावेळी अंतिम श्रुतकेवली भद्रबाहू हे आपला शिष्य चंद्रगुप्त मौर्य व मुनिसंघासह दक्षिण भारतात आले आणि दक्षिण भारतात जैन धर्माचा प्रसार केला. तमिळ भाषेत जैन आचार्यांनी अनेक महत्त्वाच्या ग्रंथांची रचना करून ठेवली. यापैकी काही महत्त्वाच्या ग्रंथांची महिती पुढीलप्रमाणे - १) तोलकाप्पियम - हा एक व्याकरणग्रंथ असून यामध्ये सामाजिक चालीरीतींचे दर्शनही घडते. २) कुरल - हा एक नीती ग्रंथ असून आचार्य कुंदकुंद उर्फ एलाचार्य यांनी हा ग्रंथ रचला असल्याचे मानले जाते. या संपूर्ण ग्रंथामध्ये अहिंसा या सर्वोच्च तत्त्वाची स्तुती करण्यात आली आहे. ३) चिंतामणी - या ग्रंथाची रचना तिरुतक्क देव यांनी केली असून यामध्ये जैन धर्मातील प्रमुख सिद्धांतांचे वर्णन आले आहे. ४) चूलामणी - या ग्रंथांची रचना जैन कवी ताला मोलित्तेवर यांनी केली असून जिनसेन यांनी रचलेल्या महापुराणातील एका कथेच्या आधारे या ग्रंथाची रचना करण्यात आली आहे. ५) नेमिनाथम् - हा तमिळ व्याकरणग्रंथ असून याची रचना गुणवर पंडिताने मलयपूर येथे केली आहे. मलयपूर

येथे नेमिनाथाचे मंदिर असल्यामुळे या ग्रंथाला नेमिनाथम् हे नाव दिले असावे. या व्यतिरिक्त तमिळ भाषेत इतर अनेक जैन साहित्यविषयक ग्रंथ असून तमिळ प्रदेशातील चालीरुढी, परंपरा, सामाजिकता आणि संस्कृती तसेच तमिळ प्रदेशाचा इतिहास समजावून घेण्यासाठी तमिळ जैन साहित्याचे योगदान खूपच मोलाचे आहे.

४. कन्नड जैन साहित्य - कन्नड जैन साहित्याचा प्रारंभ साधारणपणे नवव्या शतकात झाला आहे. अनेक कन्नड जैन कवींनी महाकाव्याबरोबरच खंडकाव्यांचीही रचना केली आहे. इसवी सनाचे दहावे शतक हे कन्नड जैन साहित्याचे सुवर्णयुग मानले जाते. महान कन्नड जैन की पंप हे जैन धर्माचे उपासक होते. त्यांचा जन्म इ.स. ९०२ मध्ये झाला. आदिपुराण व विक्रमार्जुनविजय या दोन महाकाव्यांची रचना त्यांनी इ.स. ९४१ मध्ये पूर्ण केली. आदिपुराणात त्यांनी प्रथम तीर्थंकर ऋषभदेव व त्यांचे पुत्र भरत आणि बाहुबली यांची कथा वर्णन केली आहे. कन्नड साहित्यातील दुसरे महान कवी पोन्न यांनी 'शांतिपुराण' या प्रसिद्ध महाकाव्याची निर्मिती केली. सोळावे तीर्थंकर शांतिनाथ यांनी चक्रवर्ती पद प्राप्त करण्यासाठी केलेल्या दिग्विजयाचे आणि नंतर मोक्षलक्ष्मीच्या प्राप्तीसाठी केलेल्या तपश्चर्येचे वर्णन या काव्यात केले आहे. याशिवाय 'जिनाक्षरमाला' नावाच्या स्तोत्र ग्रंथाची रचनासुद्धा कवी पोन्न याने केली आहे. इतिहासकारांच्यामते इ.स. ९५० हा कवी पोन्न यांचा काळ मानला जातो. आणखी एक कन्नड जैन महाकवी रन्न यांनी इ. ९३३ मध्ये 'अजितपुराण' हे काव्य लिहिले. दुसरे तीर्थंकर अजितनाथ व दुसरा चक्रवर्ती सगर यांची कथा या ग्रंथात वर्णन केली आहे. या ग्रंथाचे महत्त्व जाणून त्यावेळच्या राणी अत्तिमब्बे यांनी या ग्रंथाच्या एक हजार प्रती ताडपत्रावर लिहून घेऊन त्यांचे वितरण केले. यानंतरच्या काळातही अनेक कन्नड जैन कवींनी जैन साहित्याचे दालन समृद्ध केले. मराठी वळणाचे पहिले वाक्य, 'श्री चामुंडराये करवियले । श्री गंगराजसुत्ताले करवियेले' हे श्रवणबेळगोळ येथे आढळते. हे श्रवणबेळगोळ ठिकाण कर्नाटक राज्यात आहे.

५. संस्कृत जैन साहित्य - आचार्य समंतभद्र हे पहिले जैन संस्कृत कवी असून इ.स. च्या दुसऱ्या शतकात त्यांनी जैन संस्कृत काव्याचा श्रीगणेशा केला. त्यानंतर आचार्य वीरनंदी यांनी चंद्रप्रभचरित या महाकाव्याची रचना इ.स. च्या दहाव्या शतकात केली. मधल्या काळात अनेक जैन कवींनी संस्कृत भाषेतून विविध प्रकारच्या काव्यरचना



केल्या आहेत. महाकवी महासेन यांनी प्रदुम्नचरित या महाकाव्याची रचना इ.स. १७४ च्या सुमारास केली. महाकवी असग यांनी वर्धमानचरितम् हा ग्रंथ रचला असून त्यात भगवान महावीरांचे जीवन वर्णिले आहे. जैन संस्कृत काव्यनिर्मितीची ही परंपरा अठराव्या शतकांपर्यंत चालत आल्याचे आढळते. जैन संस्कृत काव्यामधून वर्णाश्रम धर्मांला विरोध दिसून येतो. जैन आचार्यांनी संस्कृत भाषेमध्ये विपुल अशी कथासाहित्य निर्मितीसुद्धा केली आहे. कथारत्नाकर (रचनाकार हेमविजयगणी), व्रतकथाकोश (रचनाकार श्रुतसागर), अघटकुमारकथा (रचनाकार जिनकीर्ती), कथाकोश (रचनाकार हरिषेण) या तसेच इतर काही कथाकाव्यांनी जैन संस्कृत कथासाहित्य समृद्ध झाले आहे.

६. मराठी जैन साहित्य - मराठी वळणाचे पहिले वाक्य सध्याच्या कर्नाटकातील श्रवणबेळगोळ येथील इ.स. १८३ मधील शिलालेखात आढळते. 'श्री चामुंडराय करवियले । श्री गंगराजसुत्ताले करवियले' हे ते वाक्य होय. यातील चामुंडराय व गंगराय हे दोघेही जैन होते. या संदर्भात रा. चिं. ढेरे म्हणतात - "खरे म्हणजे जैनांनी मराठी माध्यमातून आपले विचार पेरावे अथवा हृदय ओतावे, हे नवलाईचे नाही. कारण मराठीच्या जन्मापूर्वीपासूनच जैनांचा महाराष्ट्राशी आणि मराठीशी जिव्हाळ्याचा संबंध आहे. महाराष्ट्रापासून दूर असलेल्या श्रवणबेळगोळला गगनस्पर्शी गोमटेश्वराच्या चरणांशी मराठीच्या जयन्तीचे अभिलेख जैनांनीच कोरले." परंतु असे असले तरी मराठी जैन साहित्य पंधराव्या शतकापूर्वी जास्त प्रमाणात उपलब्ध असल्याचे दिसून येत नाही. याचे कारण सांगताना डॉ. यू. म. पठाण म्हणतात - "भागवत संप्रदायाने स्वीकारलेल्या मराठीचा प्रभाव तत्कालीन सर्वसाधारण जनतेवर पडलेला होता. जे मराठी जैन लेखक होते त्यांच्यावरही या संप्रदायाचा प्रभाव सहजासहजी पडला आणि या सर्व गोष्टींचे पर्यवसान मराठी जैन साहित्य कमी प्रमाणात उपलब्ध होण्यावर झाला." परंतु असे असले तरी पंधराव्या शतकापासून पुढे मात्र मराठी जैन साहित्याची सरिता प्रवाहित झालेली दिसते.

मराठी जैन साहित्याच्या उपलब्ध इतिहासात ब्रम्हगुणदास हा पहिला मराठी जैन ग्रंथकार मानला जातो. याचा कालखंड इ.स. १४५१ ते १४६४ पर्यंत असल्याचे संशोधकांचे मत आहे. ब्रम्हगुणदासाचे 'श्रेणिक चरित्र' अतिशय प्रसिद्ध आहे. या ग्रंथाच्या मोठेपणाविषयी

डॉ. सुभाषचंद्र अक्कोळे म्हणतात - "ब्रम्हगुणदासाची ही रचना अस्सल मराठी वाटते. तत्कालीन मराठीतील कित्येक शब्द तसेच वाक्प्रचार या ग्रंथात सहजपणे उपयोगात आणले आहेत. इ.स. १४५० च्या सुमारास आचार्य गुणकीर्ती यांनी 'धर्मामृत' हा महत्त्वाचा ग्रंथ लिहिला. हा ग्रंथ म्हणजे जैन धर्मियांच्या आदर्श आचार-विचारांचा एक वस्तुपाठच आहे. गुणकीर्ती यांनी 'फाग' नावाचा गुजराती काव्यप्रकार मराठीत आणला. इ.स. च्या सोळाव्या शतकात पं. सूरिजन यांनी 'परमहंस कथा' नावाचे चंपूकाव्य रचले. याच शतकात गुणनंदी या मराठी जैन कवीने 'जसोधरपुराण' हा ग्रंथ रचला. सतराव्या शतकात अभयकीर्ती यांनी 'अनंतव्रत कथा' हा ग्रंथ रचला. वीरदास यांनी 'सुदर्शनचरित्र' हा काव्यग्रंथ रचला. याच शतकात दामापंडित, चिमनापंडित, भानकीर्ती, ब्रम्हपुण्यसागर तसेच इतर अनेक जैन कवींनी मराठी साहित्य समृद्ध केले. अठराव्या शतकाच्या सुरुवातीला देवेंद्रकीर्ती यांनी लिहिलेला 'कालिकापुराण' हा ग्रंथ मध्ययुगीन जैन समाजाच्या स्थित्यंतराचा इतिहास मानला जातो. या ग्रंथाविषयी डॉ. सुभाषचंद्र अक्कोळे म्हणतात - "तत्कालीन धार्मिक, सामाजिक, राजकीय इतिहास समजून घेण्यास कालिकापुराण हे एक महत्त्वाचे साधन आहे. मुसलमान राज्यकर्त्यांनी दक्षिणदेश जिंकला आणि इकडील धर्म बुडविला. याचा परिणाम जैन समाजावर कोणता झाला हे या पुराणात चांगलेच दिसून येते."

अर्वाचीन मराठी वाङ्मयाची सुरुवात ही इ.स. १८०० पासून झाल्याचे ढोबळमानाने मानले जाते. परंतु मराठी जैन साहित्यावर मात्र इ.स. १८५० पर्यंत प्राचीन साहित्याचीच छाया दिसून येते. इ.स. १४५० ते इ.स. १८५० मधील सुमारे ४०० वर्षांच्या कालखंडात जवळजवळ पन्नासपेक्षा जास्त जैन साहित्यिक होऊन गेले. त्यांनी मराठीत रचलेल्या रचनांची संख्या एकशे पन्नासपेक्षा जास्त आहे. मात्र विशेष म्हणजे एकाही ग्रंथकाराचे चरित्र या जैन लेखकांनी लिहिल्याचे दिसत नाही. थोडक्यात सांगायचे तर जैन ग्रंथकार ग्रंथ रचत होते, जैन समाज ग्रंथ स्वीकारत होता पण जैन ग्रंथकारांची माहिती किंवा चरित्र मात्र उपलब्ध होताना दिसत नाही, हा एक मध्ययुगीन मराठी जैन साहित्याचा पैलू या सर्व साहित्यसंपदेवरून लक्षात येतो.

वर उल्लेख केलेल्या भाषांमधील जैन साहित्यावरून जैन साहित्याची राष्ट्रीय पातळीवरील विविधता, समृद्धी याविषयीच्या काही पैलूंचे दर्शन घडते. जैन धर्म हा भारतीय भूमीत उदयाला आलेला धर्म आहे. जैन धर्माचे साहित्य हे श्रमण साहित्य म्हणून ओळखले जाते. आज जरी जैन धर्म हा अल्पसंख्याक म्हणून ओळखला जात असला तरी मध्ययुगीन

भारतामध्ये जैनांनी वैदिक परंपरेच्या बरोबरीने स्वतःचे स्वतंत्र स्थान, तत्त्वज्ञान, आचारविचार, साहित्य यांची विविधांगी स्वरूपाची निर्मिती केली आहे. जैन धर्मातील अहिंसात्मक भाव आणि अनेकान्त तत्त्वज्ञान यांनी हे साहित्य ओतप्रोत ओथंबलेले आहे. जैन साहित्यातील ह्या पैलूंची आज एकविसाव्या शतकाला नितांत गरज आहे. जैन साहित्यातील ह्या विविध पैलूंमुळेच हे जग, हे अवकाश सुखी, समाधानी, आनंदी आणि सुंदर होईल; असा विश्वास वाटतो.

संदर्भ :-

१. शहा सुमतिबाई, पूर्णाघर्ष, पूर्णाघर्ष प्रकाशन, सोलापूर, द्वि.आ., १९९९.
२. ढेरे रा.चिं., प्राचीन मराठीच्या नवधारा, मोघे प्रकाशन, कोल्हापूर, प.आ., १९७२.
३. पठाण यू. म., मुसलमान संतांचे मराठी साहित्य, महाराष्ट्र राज्य साहित्य आणि संस्कृती मंडळ, मुंबई, प. आ. २००१.
४. अक्कोळे सुभाषचंद्र, प्राचीन मराठी जैन साहित्य, सुविचार प्रकाशन मंडळ, नागपूर, प. आ. १९६८.
५. संगवे विलास, जैन साहित्य आणि संस्कृती, शिवाजी विद्यापीठ प्रकाशन, कोल्हापूर, प.आ. इ.स. २०००.
६. मुनि मधुकर, तीर्थंकर महावीर, काँटिनेटल प्रकाशन, पुणे, प.आ., १९७७.

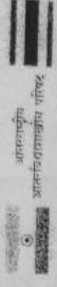


8/1/15  
Snehavardhan Research Institute Pune, India  
and  
Arya Samaj, Bangkok, Thailand

has jointly organised International  
Interdisciplinary Conference on

**Aspects of Folk-Culture in Literature  
at National and International Level**

देशविदेशातील लोकसंस्कृतीचे साहित्यातील दर्शन  
**Certificate**



International Interdisciplinary Conference  
Aspects of Folk-Culture in Literature  
at National and International Level

देशविदेशातील लोकसंस्कृतीचे  
साहित्यातील दर्शन



This is to certify that सुनीता जगदीश आवटे, डॉ. जगदीश आवटे has  
Participated and Presented the Research Paper on  
'मराठी साहित्यातील जैन लोकगीतांचे पैलू'  
in International Interdisciplinary Conference on  
25th & 26th November 2015 at Bangkok, Thailand.

S. P. Singh  
President,  
Samaj, Bangkok,  
Thailand.

Dr. Snehal Tawre  
Director,  
Snehavardhan Research Institute,  
Pune, India.

## मराठी साहित्यातील जैन लोकगीतांचे पैलू

- सुनिता जगदीश आवटे, जगदीश सदाशिव आवटे

हजारो वर्षांपूर्वी पृथ्वीवर मानव प्राण्याची निर्मिती झाली. मानवाची हळूहळू उत्क्रांती झाली. मानवाच्या विकासामध्ये शारीरिक, भावनिक, बौद्धिक अशा विविध अंगे येतात. त्यामध्ये भावनिक विकासासाठी मानवाने चित्र, शिल्प, नृत्य, नाट्य, संगीत इत्यादी साधनांचा उपयोग केला. संगीत कलेमध्ये लोकगीतांचा प्रभाव ग्रामीण तसेच शहरी समाजात जास्त दिसून येतो. मराठी भाषेत ज्याप्रमाणे लोकगीतांचा उपयोग समाजातील अनेक रुढी, परंपरा जपण्यासाठी केला जातो त्याप्रमाणेच जैन साहित्यातही जैन लोकगीतांचा वापर केला गेल्याचे आढळते.

मराठी जैन लोकगीतांमधून आपणाला समाजाच्या विविध अंगांचे स्वरूप पाहावयास मिळते. खेड्यापाड्यातून भगवान जिनेंद्राच्या पूजेसाठी, भक्तीसाठी, अनेक धार्मिक उत्सवासाठी, कौटुंबिक कार्यक्रमासाठी, जैन समाजातील अनेक ज्ञात कवी तसेच कवयित्रींच्याकडून लोकगीतांचे लेखन झाले आहे. जैन लोकगीते पूर्णतः धार्मिक तत्त्वावर आधारित नसून या विविध लोकगीतांतून जैन समाजाचे रीतिरीवाज, चाली रुढी, परंपरा दिसून येतात. काही लोकगीतांतून आचारधर्म, पर्व, उत्सव यांचे वर्णन आढळून येते, तर काही लोकगीतांतून तीर्थक्षेत्रे यात्रा याविषयी माहिती मिळते.

लोकगीतांतून जास्तीत जास्त स्त्रीजीवनाविषयीची माहिती मिळते. लोकगीते म्हणजे स्त्रियांचे एक अनमोल धन आहे. कारण लोकगीतांचा वारसा पुरुषांपेक्षा जास्त प्रमाणात नव्हे पूर्णतः स्त्रियांकडूनच चालत आला आहे. भारतीय स्त्रीजीवनाचे वैशिष्ट्य काही आगळेवेगळेच आहे. इतर स्त्रीजीवनाशी त्याची तुलना करता भारतीय स्त्रीजीवन निश्चितपणे अतिश्रद्धाशील आणि निष्ठावान असल्याचे दिसून येईल. कारण या भारतीय स्त्रीच्यासमोर रामायण, महाभारतातील सीता, द्रौपदीसारख्या शीलवान स्त्रियांची चरित्रे सतत डोळ्यासमोर असलेली दिसून येतात. स्त्रीजीवनाचे विविध पैलू घडविण्याचे महान कार्य या पुराणादि साहित्याने पार पाडले आहे. तरीसुद्धा स्त्रीजीवनाचे खरेखुरे प्रतिबिंब या सर्व साहित्यापेक्षा लोकगीतांत अधिक स्पष्टपणे उमटलेले आढळून येते. अशा आदर्श भारतीय जीवनात जैन स्त्री तरी कशी मागे राहिल ?

स्त्री जीवनात मातृत्वाला परमोच्च स्थान आहे. बाळाच्या आगमनाची चाहूल लागताच स्त्रीच्या अंगावर मूठभर मांस चढते. तिच्या आनंदाला पारावर राहत नाही. सर्व कुटुंबीय बाळाच्या आगमनाकडे डोळे लावून बसतात. बाळाच्या जन्माचे स्वागत आनंदाने, उत्साहाने सर्व कुटुंबिय करतात. पण ते बाळ जर साक्षात भगवान महावीर असेल तर मात्र जैन स्त्रियांच्या आनंदाला, उत्साहाला सीमाच राहत नाही. भगवान महावीरांच्या जन्माचे स्वागत जैन स्त्रिया खालील गीतातून करतात.

कशी सांगु मी सांगु तुम्हाला

आज महावीर जन्मास आला ।

रत्ने उधळू चला, फुले वेचू चला,

भगवंताचा महिमा अपार आहे. महान आहे. तो गाता गाता विद्वानदेखील कसे थकून गेले आहेत ते खालील गीतातून आपल्याला दिसते.

वीराच्या रे वीरा, रवीच्या रे रविराजा  
माझा नमस्कार तुला त्रिलोकाच्या त्रिलोकराजा ।  
मोठ मोठे पंडित, गुण गाता थकलेलं  
इंदु म्हणे तुज वीरा गुण गाऊ वाटयेलं ॥  
(इंदुमति मोतीलाल परबत (करकंब) यांनी हे गीत रचलेले आहे.)

जैन मंदिरात सगळीकडे स्वच्छता, टापटीप दिसून येते. प्रभू चरणावर वाहिलेल्या जाई-जुई तथा मोगरा, गुलाब आदि फुलांचा वास दरवळत आहे. उदबत्ती, कापराच्या सुगंधाने अवघे वातावरण सुगंधित, मोहक, आल्हाददायक झाले आहे. घंटानाद होत आहे. तरी सकाळची वेळ धर्मकार्य करण्यास अत्यंत महत्वाची असून स्त्रियांनी मंदिर परिसरात वावरताना कोणती दक्षता घ्यावी याचेही सुंदर विवेचन खालील लोकगीतातून करण्यात आले आहे.

मंदिराले जाता कुणाशी बोलू नये  
वेळ धरमाची आहे ।  
मंदिराले जाता कुणाशी बोलू नये  
मनाचे सोडू नये णमोकर मंत्र ॥

जैन धर्मांमध्ये णमोकार मंत्राला अत्यंत महत्वाचे स्थान आहे. णमोकार मंत्राची महती सर्व जैन धार्मिकांच्याकडून गायिली जाते. परंतु स्त्रीच्या दृष्टीने तो णमोकार मंत्र म्हणजे अमूल्य ठेवा असून आत्मा शुद्धीचे रामबाण औषध आहे. ती म्हणते,

पंच ग णमोकार सारखरीचा रवा ।  
याने माझा जिव्हाळा शुद्ध झाला ।  
पंच ग णमोकार सारखरीची पुडी ।  
याने माझी कुडी शुद्ध झाली ॥

णमोकार मंत्राचे चिंतन केले असता, संकटाचे निवारण होते तसेच आत्मशुद्धीची महान देणगी देखील या णमोकार मंत्राने प्राप्त होते. स्वर्गप्राप्ती सहज सुलभ होते.

सर्वच धर्मांमध्ये नामस्मरणाला पराकोटीचे महत्त्व दिले आहे. जैन धर्मात भगवान महावीरांचे नाव घेताच पापाचा भार हलका घेऊन आत्मा मुक्तिपदास कसा जातो, तसेच सम्यग्ज्ञान, सम्यग्दर्शन व सम्यक्चरित्र या तीन रत्नांचा मार्ग त्यांनी कसा दाखवला आहे, त्याचे सुंदर विवेचन खालील गीतात दिसून येते.

महावीरांचे नाव घेता पापभार हलका होई ।  
आत्मा तुमचा हलका होऊनी मुक्ती पदाला ग जाई



रुखवतावर बेडगी पान

नवरी दिसते छान पण नवरदेव दिसतो ध्यान ।

आला आला रुखवत,

रुखवतावर दोऱ्याची आटी

नवरदेव रुसला फटफटीसाठी ।

आला आला रुखवत

रुखवतावर तुरी

नवरी दिसते बरी

पण नांदल तवा खरी ।

लंग्नाच्यावेळी या रुखवत प्रकरणावरून एकमेकांची उणीदुणी काढण्याची संधी नवरा-  
नवरीच्या दोन्ही बाजूंना मिळते. अर्थात गोड शब्दांनी कानउघडणी करण्याचा प्रयत्न यातून केलेला  
दिसतो. कधी कधी रुखवताच्यावेळी दोन्ही पक्षात भांडणे होण्याचाही संभव असतो. तरी या जुऱ्या  
चालीरुढीला आता बाजूला ठेवून फाटा देऊन नवीन व चांगल्या रुढींचे स्वागत करणे, आज काळाची  
गरज झाली आहे.

नुकतेच लग्न झाल्यावर प्रथमच सासरी पाठविताना मातापित्यांच्या हृदयाला अतिशय वेदना  
होतात. यातना होतात. त्यांचे आंतरमन टोहो फोडत असते. पोटचा गोळा दुसऱ्याच्या पदरात टाकून  
देताना त्यांना कित अपार दुःख होत असेल ? पण मातापिता आपले हे अपार दुःख कोणालाही न  
दाखवता आपल्या लाडक्या लेकीला आनंदाने निरोप देतात व ती डोळ्याआड होताच आपल्या  
डोळ्यातील अश्रूंना वाट करून देतात. माहेरावरून सासरी जाणाऱ्या आपल्या मुलीला ते अनेक गोष्टी  
समजावून सांगतात तसेच उपदेश करतात. त्यांचा हा उपदेश खालील गीतातून दिसून येतो.

कोकरु वेडे माजे कालची सात पोर

मांडवात झाली थोर कुलवधू ।

माझ्या लाडक्या ग लेकी धरु नको फार हेका

संसार हा बहू बाका ॥ रणांगण ॥

तसेच - कामधान करताना तुझी विसर पदवी

नको माजवू यादवी स्वप्नातही ।

वडील आपल्या लाडक्या लेकीला समजावून सांगतात की, संसार करणे अवघड गोष्ट आहे.  
संसार हा एक प्रकारचे रणांगण आहे. पण या रणांगणावर यादवी न माजवता, भांडणतंटा न करता,  
प्रेमाने ही लढाई तुला जिंकायची आहे. जगाचे भयाण स्वरूप लेकीला समजावून सांगताना ती माता  
म्हणते

मंगळसूत्राच्या जोडीला ।

फुलामंदी फूल,

फूल जाईच चांगलं

पतिदेव म्हणूनि,

मला ते ग लाभलं ।

अखंड सौभाग्याचा ठेवा,

जपीन मी पती माझा

जपण्यासाठी अरिहंता,

आशीर्वाद हवा मला तुझा ॥

पती-पत्नीच्या नात्यात एक प्रकारचा गोडवा आहे. स्वतःचा पती आयुष्यमान व्हावा, त्याचे सान्निध्य सतत आपल्याला मिळावे तसेच सौभाग्याचा हा अखंड ठेवा सांभाळण्यासाठी ती खटपट करते. परमेश्वराजवळ पतीच्या आयुष्यासाठी आशीर्वाद मागत आहे. केवढा हा निःस्वार्थीपणा, उदारपणा व केवढा त्याग ! हे भारतीय संस्कृतीचे मोठे वैशिष्ट्य आहे.

अशाप्रकारे जैन लोकगीतांतून प्रामुख्याने धार्मिक, सामाजिक तथा नैतिक स्थितीचे वर्णन केलेले दिसते. जैन लोकगीतांत धार्मिकता अधिक प्रभावीपणे दिसून येते.

लोकगीते म्हणजे समाजाचा जणू आरसा आहे. या लोकगीतांतून जैन समाजाची धार्मिकता, नीतिमत्ता, सामाजिक रुढी, परंपरा, इ. पैलू लक्षात येण्यास मदत होते. या लोकगीतरूपी आरशात पाहताच समाज जीवनाचे मुख्य दृष्टीस पडते.

संदर्भ :-

पूर्णाचार्य, संपा. सुमतिबाई शहा, प्रकाशक - रतनचंद सरदाराम शहा, सोलापूर, पहिली आवृत्ती, सन १९९८.

Snehavardhan Research Institute Pune, India  
and  
Arya Samaj, Bangkok, Thailand

has jointly organised International  
Interdisciplinary Conference on

## Aspects of Folk-Culture in Literature at National and International Level

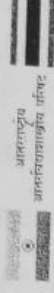
देशविदेशातील लोकसंस्कृतीचे साहित्यातील दर्शन

### Certificate

This is to certify that Dr. Jagadish Aute, Kadambari Aute has  
Participated and Presented the Research Paper on  
'Aspects of Jain Architecture'  
in International Interdisciplinary Conference on  
25th & 26th November 2015 at Bangkok, Thailand.

*Mr. S. P. Singh*  
**Mr. S. P. Singh**  
President,  
Arya Samaj, Bangkok,  
Thailand.

**Dr. Snehal Tawre**  
Director,  
Snehavardhan Research Institute,  
Pune, India.



International Interdisciplinary Conference  
Aspects of Folk-Culture in Literature  
at National and International Level

देशविदेशातील लोकसंस्कृतीचे  
साहित्यातील दर्शन



पुणे  
डॉ. स्नेहाल तावरे



## “ASPECTS OF JAIN ARCHITECTURE”

Kadambari Aute, Dr. Jagadish Aute\*

“Architecture” is a general term used to describe buildings and other non building structures. It can be the style of design and method of construction of buildings and other physical structures.

Temples, *chaityagraha*, *stupas* can be included in buildings and structures like caves, pillars can be included in other physical structures. Jain art and architecture refers to religious works of art associated with Jainism. As compared to Hindu temples and monuments, Jain temples are few and spaced out. But the mainstream art in India has been considerable. Every phase of Indian art is represented by Jain version. The most spectacular of all Jain temples are found at *Ranakpur* and *Mount abu* in *Rajsthan*. *Deogarh*(U. P.), *Ellora* in Maharashtra also have some specimens of Jain art. In a *perticular* the complex of five Dilwara temples of the 11<sup>th</sup> to 13<sup>th</sup> centuries at *mount abu* in *Rajsthan* is a much visited attraction. Jain architecture cannot be accredited with a style of its own, for in the first place it was almost an offshoot of Hindu and Buddhist rock cut style. Initially these temples were carved out of rock faces and the use of bricks was almost negligible.

At some places, it has been become hard to recognize that the caves and *stupas* are Jain or Buddhist and it is still undecided. For e. g. *Dharashiv* caves in *Maharashtra*. Even though Jainism spread only in some parts of India, it has made a significant contribution to Indian Art and Architecture. In general, Jain art broadly follows the contemporary style of Indian Buddhist and Hindu art, though the iconography and the functional layout of temple buildings reflects specific Jain needs.

Jain temples in north India are completely different from the Jain temples in south India, which in turn are quite different from Jain temples in west India. Jain temple which is 100 yrs old is called a ‘Tirtha’.

There are two types of Jain temples

1. *Shikhar-bandhi* Jain temple (one with dome)

## 2. Ghar- Jain temple (home temple without dome)

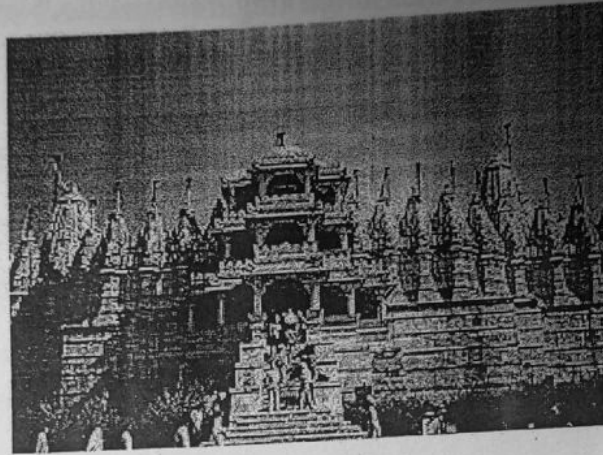
Plan of main temple building consist of Verandah, *Sabhagriha*, *Garbhagriha*. The buffering space between *Sabhagriha* and *Garbhagriha* is known as *Antaral* surrounded by cell. All *Shikhar-bandhi* Jain temples have many marble pillars which are carved beautifully with *Demi-god* posture. There is always a main deity also known as *Mulnayak* in each temple. The main part of Jain temple is called "*Gabhara*" (*Garbha-griha*) in which there is the stone carved God idol. *Yaksha* and *Yakshini* (*Demi-gods*), attendants, Spirits who guard Tirthankara are usually shown with them. These sculptures or images are usually depicted in either the lotus position (*padmasan*-the seating position) or *kayotsarga* (the standing position). *Manstambha* (column of honor) is a pillar that is often constructed in front of Jain temples.

In early stages of evolution, structures like caves came into existence and in later years Jain started building temple cities on hills based on the concept of mountains of immortality. Compared to Hindu temples in India Jain temples are few and spaced out. The latter used to tear down their older, decaying temples and build new ones at the same site. On the other hand Jain temples had a certain militant aura around them, probably because of plunderers who may have carried away riches. The reason being that Jain temples are the richest temples in the world, surpassing even *Mughal* buildings in terms of grandeur and material wealth.

The temple cities were not built on a specific plan; instead they were the result of sporadic construction. Natural level of the hill on which city was built accommodated various levels so that effect of architecture and grandeur goes on increase. Each temple of followed a set pattern, styles, designed on principles of architecture in use during the period. The only variation was in form of frequent *chaumukhas* or four faced temples. In these the image of a '*Tirthankar*' would face four cardinal points or four *Tirthankaras* would be placed back to back to face four cardinal points. Entry into this temple would be from four doors. If temple is dedicated to *Chaturmukha* image, its *Garbhagriha* is also opened to all four directions,

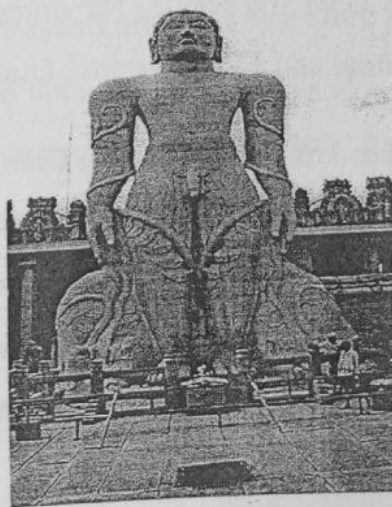
thus provides *Mandapa*, which represent a place of both worship and teaching in front of each side.

In the temples with multiple columns, the leading idea of the plan is that of a number of columns arranged in squares. Wherever it was intended to have a dome pillars were omitted, so as to leave spaces in the form of octagons. By corbelling over the pendentives in level courses the dome was gradually formed.



*Image:1 Adinath temple at Ranakpur in Rajasthan is an example of such a temple.*

Adinath temple at Ranakpur in Rajasthan is an example of such a temple. It stands on a basement of 60 m by 62 m which is like a stronghold. On the top of a flight of stairs at the central entrance, there is a three-storied 'Balanaka' (entrance hall) which has a domed roof.



*Image:2 Statue of Gommateshwara.*



Another famous Jain *Tirtha* is *Shravanbelagola* which is famous for 17 m monolith statue (statue casted from a single piece of rock) of *Bahubali* situated above a hill. It was built in around 983 A.D. and is one of the largest free standing statues in the world. There are five monolithic statues of *Bahubali* in Karnataka measuring more than 6m in height. Statue of *Gommateshwara* in *kayotsarga* position is regarded as one of the largest monolithic statues in the world and is visible from a distance of 30 km. it was created around 983 A.D. by *Chavundaraya*, a minister of the *Ganga* king *Rachamalla*. Neighboring area has Jain temples known as *Basadis* and several images of *Tirthankaras*

The famous example of Jain architecture is the world heritage site of Ellora consists of caves of Hindu, Buddha as well as Jain religion. First five Jain caves at Ellora belong to the 9<sup>th</sup> and 10<sup>th</sup> centuries. Jain caves reveal specific dimensions of Jain philosophy and tradition. They reflect a strict sense of asceticism – they are not relatively large as compared to others, but they present exceptionally detailed art works. “The sculpture of *Ellora* falls in a class by itself. The Jain sculpture is in no way inferior in skill or workmanship to his Buddhist and *Brahmanic* counterparts. This craftsmanship is perhaps of a high order. The Jain images are carved is perhaps of a high order. The Jain caves are carved with a great technical skill and devoted labor.”

“The pillars and images of Jain caves have great individual merit. The images are carved with care. The faces look calm and serene. The ornaments that they wear are delicately and beautifully carved.” [*Ajanta and Ellora* by prof. Gupta and prof. Mahajan].

The most remarkable Jain shrines are the Chhota Kailash (cave 30), The Indra sabha (cave 32) and the Jagannath Sabha (cave 33). Cave 31 is an unfinished four pillared hall and a shrine. Cave 34 is a small cave, which can be approached through an opening on left side of cave 33. Amongst other devotional carvings, a place called ‘*Samavasarana*’ is of special interest of Jains as it is a hall where the *Tirthankara* preaches after attaining omniscience (the state of having total knowledge).

'*Indra sabha*' (cave 32) is a two storied cave with one more monolithic shrine in its court. It has a very fine carving of lotus flower on ceiling. It is known as '*Indra sabha*' probably it is significantly ornate and also because of sculpture of *Yaksha* (dedicated attendant deity) *Matanga* on a elephant, which was wrongly identified as that of *Indra*. On the upper level of the double storied shrine excavated at the rear of court, an image of *Ambika* [image 3] is found seated on her lion under a mango tree, laden with fruits. All other Jain caves are also characterized by intricate detailing. Many of the structures had rich paintings in the ceilings fragments of which are still available.



**Image:3** *An image of Ambika*

The contribution of Jains towards art and architecture was especially important in view of the magnificent artistic creations, particularly in the forms of images, temples and paintings, spread all over the country and covering a time span in continuity from the earliest through the modern time. The Jain art with profuse variety changes, innovations and embellishments has never been monotonous also. The Jain art and literature thrived most vigorously between 10th and 15th century A.D. The period saw the building of a very large number of Jain temples with exquisite sculptural carvings.

## Glossary :-

1. Chaityagriha – isolated assembly or prayer hall structure.
2. Stupa – a dome shaped building erected as a Buddhist shrine.
3. Sabhagriha – assembly or prayer hall in temple.
4. Garbhagriha – innermost sanctum where idol of the primary deity of the temple resides.
5. Antaral – transitional space between sabhagriha and garbhagriha.
6. Mulnayak – main deity of temple.
7. Yaksha – demi-god.
8. Yakshini –demi-goddess.
9. Tirthankara – in Jainism a person who has conquered sansara (the cycle of death and rebirth) and provides a bridge for others to follow them from sansara to moksha (liberation).
10. Padmasan – seating position.
11. Kayotsarga – standing position.
12. Manstambha –column of victory often situated in court of temples.
13. Chaumukhas/ Chaturmukhas – idol or icon with four heads
14. Mandapa – pillared hall.
15. Balanaka – entrance hall.
16. Tirtha – Jain temple which is 100 years old is called tirtha.
17. Bahubali – another name of lord Gommateshwara.
18. Gommateshwara – lord Gomateshwara, was a son of Rishabha (first tirthankara and founder of Jainism).
19. Basadi – Jain monastery or temple where an image of one of the twenty four Tirthankaras is installed.
20. Samavasarana – the garbhagriha of Hindu temples means “house of God” on the other hand, a Jain temple is not house of God but a place where Tirthankara gives teaching.



**References :**

1. "Jain Sahitya Va Sanskriti"; Editor: Dr. Vilas Sanagave, kolhapur; Year-October 2000.
2. "Jain Aitihasik-1"; Editor: Shrenik Annadate; Year:April 2002.
3. "Jain Aitihasik-2"; Editor: Shrenik Annadate; Year: January 2003.
4. Encyclopedia Of Indian Architecture, Volume-3 Jain.

ISBN : 978-93-5158-583-1

**BJS**  
Bharatiya Jain Sanghatana

Sponsored by

Savitribai Phule Pune University Pune.



Organized by

Department of Commerce and Research Centre

Bharatiya Jain Sanghatana's

Arts, Science & Commerce College,

Wagholi, Pune – 412207

# National Conference

## MAKE IN INDIA – PYRAMID OF DEVELOPMENT

Reserch Publication Feb. 2016



**Chief Editor**

Prin. Dr. Babasaheb Sangale

Bharatiya Jain Sanghatna's

Arts, Science & Commerce College, Wagholi, Pune - 412207

## RESEARCH AND INNOVATION : DYNAMISM IN LOTTERY BUSINESS

**Prof. Landge Balwant Bhimrao**

Head, Dept. of Commerce, B.J.S. Arts, Science and Commerce College  
Wagholi, Pune-412207 Email : [bblandge@gmail.com](mailto:bblandge@gmail.com)

Mob. No. : 9423348264

### **Abstract :**

Retail business is undergoing fundamental changes, both in terms of the range of products offered to clients and with regards to the continually evolving modes of interaction between clients and retailers. This fact, coupled with the economic, financial and regulatory instability faced by many countries, whether on a large or small scale, creates a business environment that is far more complex and fluid than it was several years ago. The lottery business is a market which, at present depends largely on the deployment of extensive retail network. It also has to undergo these changes in order to adapt the new environment. Lottery success is accomplished through a combination of market research, effective game design, optimization of prize payouts, coordinated game introductions, requiring sales and marketing team efforts. As sales grow, so do demands. As the agency prepares for a slowing sales trend, product improvements will not be enough; the Lottery will need to consider other methods of increasing sales. These methods could include improving productivity at existing retailers, new retail environments, or potentially offering a new type of product. The ability to implement these strategies is dependent on sufficient resources.

**Key words:** Lottery, Business, Dynamism, Lottery Network, Productivity, Customers Trend

### **Objective :**

1. To know the dynamic environment in Lottery Retail.
2. To know the various elements of Environment in Lottery Business
3. To Understand the function of Lottery Business under Retail Shade.

### **Research Methodology :**

This study is based on secondary data. The data has been collected from various published sources books, journal & websites etc.

### **Lottery retail: A dynamic environment :**

Maintain its current Situation, of lottery let alone continue to grow revenues and develop a platform for the future technologies. The Lottery is reaching a tipping point. It is unable to find out the programmers that are competent. It is essential to move forward with a replacement solution to assure the continued integrity of the system and sustainability of revenues.



### Changing needs - New Customer :

It is the need of retailers to sustain their growth for this it led them to abolish the traditional "one-size-fits-all" business model which was the dominant framework of operations for many decades. Consumers nowadays are active, knowledgeable and even more informed and demanding than before. They not only demand good service and quality products but also prefer a wide range of product availability, easiness of purchase, and diverse distribution channels.

Consumers themselves are also undergoing major changes in their buying behavior. There is also the increasing importance of the population group born roughly between 1976 and 2000. The New Consumer has awareness about market and they are engaging with an interactive marketplace. It is characterized by heterogeneity and disputes the assumptions of conventional marketing.

Lottery point of sales seem to be adapting to this new situation by increasing their presence in shopping malls, recruiting exclusive stores, developing gaming corners, and utilizing state-of-the-art technology to offer information (e.g. through screens) or to connect multiple users in peer playing.

### Customer loyalty :

Nowadays games offer excitement mainly through their fast pace. Innovative technological solutions easily allow a group of connected players to interact with each other through gaming. Such innovative solutions formulate product offerings that are highly appreciated by the new type of player mentioned above.

The consumer of lottery products tend to be more store loyal rather than brand loyal, as is the case with various others product categories. The main reasons for this include:

- **Proximity** : It is a result of the high density of lottery POS (point-of-sale) network. Effectively covering the playing population of a given market, the POS network is probably the most important factor in the success of a lottery operation. This is the reason why a lottery shop can be found in almost every neighborhood.
- **Personal relationship** between the retailer and the player. This is due to the fact that players usually require guidance on how to play, draw results, and information on upcoming lottery events.
- **Social aspect** of new lottery games. Due to the core characteristics of specific games, players interact with each other inside the shop, exchanging views, prognostics and expectations on next draw results and statistics or are connected with each other in peer playing.
- **Responsible gaming** : Applying / enforcing responsible gaming practices and principles can be done more easily in the context of a stable point of sales than in any other environment.
- **Loyalty schemes** are usually initiated in a specific POS, and this reinforces the loyalty of players to the specific retailer.

Proximity refers not only to the physical aspect of a point of sale, but also to its virtual aspect, i.e. Internet. The Internet is not considered to be a competing distribution

channel in relation to the physical retail network, but rather a complementary one, e.g. in some lotteries, Internet represents more than 15% of the revenue with an astonishing growth trend.

#### **Solutions to Trend :**

Responding to this trend, various lottery retailers offer a range of technological and commercial platform solutions to integrate these two distribution channels and to reinforce the strength of retailers. Some of these solutions include:

- Single point of contact: Retailers, who register a player to participate through the Internet in the games of the given lottery, can receive their winnings only from that specific retailer. As a result, players can benefit from the advantages of the Internet, playing anytime, anywhere, while at the same time creating strong bonds with the retailer.
- Different Commission Models: Retailers who register players to participate through the Internet can increase their commission, based on the sales that the specific player makes through his/her Internet participation.
- Loyalty programs: After the registration, the personal data of the player are known to the Lottery, and so dedicated offers or promotional messages can be sent only to players whose profile and needs meet the specific marketing activity.

#### **Monitor Games :**

By making the Internet a complimentary channel to retail, the organic growth of the retailer is directly encouraged as a result of:

- Attracting the younger generation,
- Increasing point of sales traffic,
- Increasing average spending per visit to the point of sales,
- Increasing the frequency of visits by current customers,

Offering an attractive as well as a functional playing environment is of vital importance.

Applying merchandising principles to optimize retail space, such as TV screens to offer information and live gaming, monitor games to offer variety and excitement, ticket checkers to offer convenience, and functional coupon holders to enhance accessibility, are only few of the elements of a successful retail shop. In all cases, the retail outlet will remain the focal point for consumers participating in lottery products. Internet and mobile solutions are already integrated as a complimentary channel of distribution, and will continue to be so, in order to increase retailer shop traffic and lottery revenue.

Lottery Retailers have successfully applied merchandising principles in many cases.

#### **Lottery Business :**

Lottery business includes: computer and instant lottery, internet lottery, telecommunication lottery, video lottery, bingo lottery, lottery technology, lottery game, and international lottery, eight major categories. With business

comprehensiveness, has become a lottery industry's leading supplier of comprehensive business solutions.

**1) Computerized and instant lottery business :**

Lottery Retailers have carried out computerized and instant lottery marketing and promotion, and sales agencies carry logistics distribution businesses all over the cities.

**2) Internet lottery business :**

Lottery retailers largely use Internet for Lottery Business.

**3) Telecommunication lottery business :**

The telecommunication lottery business is mainly engaged in the provision of three business categories of services including mobile lottery betting, mobile instant lottery game and mobile value-added services for the lottery industry.

- a) **Mobile lottery betting:** the most professional expert in this respect, providing the most comprehensive types of lottery playing method, way of lottery betting, and covering the most of the mobile terminal user groups.
- b) **Mobile instant lottery :** the most forward-looking and advanced instant lottery operation system and is a perfect integration of traditional printed instant lottery, video instant lottery and mobile lottery betting business.
- c) **Mobile value-added :** platform the most precise and authoritative wireless value-added lottery information, provides professional lottery information and tools in the most convenient and quickest ways, such as SMS, MMS.

**4) Lottery technology business :**

Lottery technology business is mainly engaged in the provision of services of research and development, implementation, operation and maintenance for the lottery industry. Its lottery sales management system provides a comprehensive solution, and the "hotline system" for the paper printed lottery system, paperless lottery system and mobile phone instant lottery system are integral parts of the system, which provides the most secure, stable operational and maintenance services.

**5) Lottery game business :**

Lottery game business is mainly based on the philosophy that "transform lottery to game, transform game to lottery," aiming to a perfect combination of characteristic of lottery and game, creating unique and charming lottery products, and is engaged in the provision of lottery product development, design, and management and operation to the lottery industry.

**Appraisal of External Environment :**

It is essential that the Lottery assesses the external environment in order to implement our **Strategic Plan**.

The Lottery operates in a retail business environment and is therefore subject to rapidly changing market conditions. The Lottery's ability to adapt to those rapidly changing market conditions will determine its competitiveness and ability to continue generating revenues. Changing conditions include Lottery market share, Lottery



customers' expectations due to changes in the mix of products offered, and economic factors. Each of these shifts will be described in detail below.

#### **Lottery Customer Expectations :**

Customers of the Lottery expect us to keep games interesting and relevant.

Traditionally, the compelling reasons that consumers choose Lottery games over its competitors' games have been rooted in four general areas:

- 1) The ability to offer extraordinarily large sums of money as prizes for a very small wager;
- 2) The convenience of play as Lottery games is in nearly every convenience store and supermarket, as well as many other retail outlets;
- 3) Public openness and accountability with respect to game operations and beneficiaries.
- 4) Proceeds from the Lottery benefit.

**Economic Factors :** It will be difficult for Lottery to maintain its past reliable forecasting based on current and foreseeable economic trends. Nevertheless, significant and general decreases in disposable income might be expected to dampen Lottery sales.

**E-Commerce Drivers :** Entertainment is increasingly understood as something delivered electronically. Electronic games with a skill element are enormously popular. Pure games of chance (electronic or otherwise) generally require a material reward element to maintain the interest of players.

**Industry Trends :** It is essential that we consider industry trends in our efforts to perpetually develop new games and markets in order to maintain our current player ship and to attract new customers.

**Conclusion :** There is a frequent change in the environment of lottery Business. Various factors are responsible for Lottery environment. The Lottery still maintains a competitive edge in these areas, threats to its perceived value and therefore its player ship base is numerous. Increasing gaming options, such as those that attain a fast pace or involve an element of skill, have accounted for much of the growth in the lottery. The Lottery will need to create compelling games, within its guidelines that can compete in this market. The lottery business, a market that at present depends largely on the deployment of extensive retail networks also has to undergo these changes in order to adapt to the new environment. It will definitely be proved effective if lottery business adopt new policies and planning.

#### **References:**

- Lottery- Nashibachya Sandhipallyad- N. Sugalchand Jain
- <http://www.intralot.com>
- <https://www.wikipedia.org>
- [www.lottostrategies.com](http://www.lottostrategies.com)
- [www.biglotteryfund.com/research/environment](http://www.biglotteryfund.com/research/environment)

ISBN : 978-93-5158-583-1



Sponsored by

Savitribai Phule Pune University Pune.

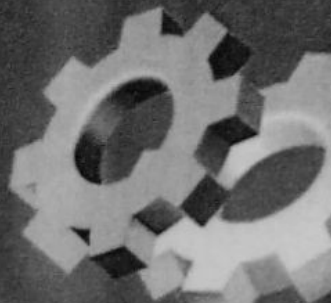
Organized by

Department of Commerce and Research Centre

Bharatiya Jain Sanghatana's  
Arts, Science & Commerce College,  
Wagholi, Pune – 412207

# National Conference MAKE IN INDIA – PYRAMID OF DEVELOPMENT

Reserch Publication Feb. 2016



**Chief Editor**

Prin. Dr. Babasaheb Sangale

Bharatiya Jain Sanghatna's

Arts, Science & Commerce College, Wagholi, Pune - 412207

## ROLE OF SKILL DEVELOPMENT IN MAKE IN INDIA

**Prof. Ghule Padmakar Tukaram**  
 Bharatiya Jain Sanghatana's  
 Arts Science & Commerce College,  
 Wagholi, Pune  
 Email- [Padmakar.02@gmail.com](mailto:Padmakar.02@gmail.com)  
 Mob.No. : 9763252156

**Prof. Landge Balwant Bhimrao**  
 Head, Dept. of Commerce,  
 BJS, Arts Science & Commerce College,  
 Wagholi, Pune  
 Email- [bblandge@gmail.com](mailto:bblandge@gmail.com)  
 Mob. No. 9423348264

### Abstract :

The Prime Minister acknowledged that India being ranked low on the 'ease of doing business' ranking by World Bank and added that he has started to sensitize the Government officials in this regard. On his recent meeting with World Bank President Jim Yong Kim, Modi said "World Bank President was also expressing this worry. Probably we were 135th in the world at that time. The Prime Minister Narendra Modi, prior to the commencement of his maiden US visit, last month launched 'Make in India', a major national initiative which focuses on making India a global manufacturing hub. Around one year back, Prime Minister Narendra Modi launched "Make in India" project, with an aim to make manufacturing a key engine for India's economic growth. Planning Commission report suggests only 10% of the Indian workforce get formal training and against the actual industrial training requirement of 22 million workers, only 4.3 million workers are getting trained. To overcome this, Government of India has launched various skill development initiatives, but faced various challenges while implementing the same.

### Introduction:

Make in India A national program designed to transform India into a global manufacturing hub. The focus is on attracting investment by physical infrastructure creation, foster innovation; protect intellectual property and enhancing skill development. For this project, government has released separate brochure for 25 sectors and also created a website allowing investors to seek clarifications on policy matters within 72 hours. According to Prime Minister Narendra Modi, it is important to increase the purchasing power of common man, as this would further boost demand, and result in development, in addition to benefiting the investors. The faster people are pulled out of poverty and brought into the middle class, the more opportunity will there be for global business. Therefore, investors from abroad should create jobs. More employment help will in increasing the purchasing power. But this requires equipping the workforce with the appropriate skills acceptable across the globe and Indian market.

Therefore, it is essential to focus on skill development for the success of "Make in India".



### What Is Skill Development?

Skill development acts as an instrument to improve the overall effectiveness and empowers an individual to work more efficiently. The economy becomes more productive, innovative and competitive through the existence of more skilled human potential. Increasing pace of globalization and technological changes provide both challenges and growing opportunities for economic expansion and job creation.

Countries with higher and better levels of skills adjust more effectively to the challenges and opportunities of globalization. Key processes in higher skills development at work:

- Engagement with challenging work
- Interactions at work
- Knowledge at work
- Self-directed learning at work
- Identities at work
- Supporting the learning of others

#### Definition:

Dr. BE Nzimande, MP Minister of Higher Education and Training states: “For our country to achieve high levels of economic growth and address our social challenges of poverty and inequality, we must work together to invest in education and training and skills development to achieve our vision of a skilled and capable workforce to support an inclusive growth path.”

“An ability and capacity acquired through deliberate, systematic, and sustained effort to smoothly and adaptively carryout complexactivities or jobfunctions involving ideas (cognitive skills), things (technical skills), and/or people (interpersonal skills). See also competence.”

“To improve productivity in the workplace and the competitiveness of our businesses and to improve the quality of life of workers, their prospects of work and their mobility.”

Note that he makes a distinction between education, training and skills development and that he frames skills development within clear objectives:

1. Skills development is, then, the intended output of education and training efforts and it should be an enabler for growth. As an entrepreneur, the growth of your business and the establishment of a legacy are paramount. James Moore, owner of Fleet Dynamics, captured this sentiment when I asked what the development meant to him; “Enhancing the capability of employees to (hopefully) improve the company’s efficiencies in the employee’s specific sphere of influence; and thus ultimately improving the bottom line revenue of the company.”
2. James has positioned employee capability as fundamental to the success of his business. Do you share the same view? The cliché remains valid: your people are your greatest asset. Do you understand what skills development means to them? Do you recognize that their attitude to personal growth determines the success or failure of your skills development efforts?

As an entrepreneur, you need to unpack each of these so that you can define what skills development means in your organization. Here’s how:

**Objectives of the Study:**

1. To know about the existing level of Skill Development in India
2. To analyze the requirement of Skill Development
3. To find out the suitable ways to fulfill the requirement of Skill Development
4. To study the challenges faced by skill development system in India.
5. To suggest possible solutions or ways forward.

**Research Methodology:**

Research Design selected for this research is descriptive design. In order to collect desired data, Secondary data method of data collection is adopted in this study. The data were collected from journals, magazines, publications, articles, research papers and websites.

**Research Data Explain:**

Percentage of employers having difficulty in filling jobs 2012

Sr. No.	Countries	Employers having difficulty in filling jobs %
1	Japan	81
2	Brazil	71
3	US	49
4	India	48
5	Germany	42
6	France	29
7	Canada	25
8	China	23
9	South Africa	10
10	Spain	09

,Source:International LabourOrganisation, 23 June 2012,

According to the NSSO survey (2004-05), only 6% of the total workforce (459 million) is in the organized sector. The World Economic Forum indicates that only 25% of the total Indian professionals are considered employable by the organized sector. The unorganized sector is not supported by any structured skill development and training system of acquiring or upgrading skills. The skill formation takes place through informal channels such as family occupations, on-the-job training under master craftsmen with no linkages to formal education training and certification.

**Projected growth and sector demand :**

India is expected to grow at a rate of 8%, on an average, in the next 10 years<sup>5</sup>. More than 700 million Indians are estimated to be of working age by 2022. Out of these, more than 500 million require some kind of vocational or skill development training. Twelfth Five Year Plan: The country has set a tough challenge in the field of vocational education and

training in its approach paper in the Twelfth Five Year Plan. It aims to increase the percentage of workforce with formal skills to 25%<sup>7</sup> at the end of the plan. It is estimated that 50–70 million jobs will be created in India over the next five years and about 75%–90% of these additional employment avenues will require some vocational training. The following table presents the projected employment in the various sectors of economy for diverse growth scenarios till 2017.

Projected growth and sector demand

Year	GDP growth Rate	Projected employment (in million)			
		Agriculture	Industry	Services	Total
2011-12	9%	229.2	105	154	487.7
	7%	225.4	102	149	476.4
	5%	221.5	99	145	465.0
2016-17	9%	240.2	126	189	555.0
	7%	232.0	117	175	523.5
	5%	224.0	108	161	493.3

Source: NSDC

**Sector focus:** The government has identified 20 high growth sectors of industries and services that have the ability to provide expanded employment. It consists of 10 high-growth sectors on the manufacturing side and an equal number on the services front. Out of these, the key sectors are manufacturing, textile, construction, automotive and health care<sup>8</sup>. It is necessary to develop proper skill training mechanisms as the skill sets that are required in the manufacturing and services sector are different from that of the agriculture sector.

**National policy on skill development:**

**Pradhan Mantri Kaushal Vikas Yojana:** (PMKVY) is the flagship outcome based skill training scheme of the new Ministry of Skill development and Entrepreneurship. This skill certification and reward scheme aims to enable and mobilize a large number of Indian youths to take up skill number of Indian youths to take up skill training and become employable and earn their livelihood. Under the scheme, monetary reward would be provided to monetary reward would be provided to trainees who are successfully trained, assessed and certified in skill courses run by affiliated training providers. This will boost the productivity of the country's workforce by enabling it to acquire high quality skill training across a range of sectors. It will also bring about a paradigm shift from input-based to outcome-based skill training in the country. It also seeks to significantly scale up skill training activities in the country and enable skill training to happen at a fast pace without compromising quality.

Today India is one of the youngest nations in the world with more than 62% of its population in working age group 15-60 years more than 54% of it is total population below 25 years of age. It is further estimated that the average age of the population in India by 2020 will be 29 years as against 40 years in USA, 46 ears in Europe and 47 years in japan. Over the next 20 years the labor force in the industrialized world is expected to decline by 4% while in India it will increase by 32%.



**National policy mission:**

1. Create a demand for skilling across the country.
2. Correct and align skilling with required competencies.
3. Connect the supply of skilled human resources with sectorial demands.
4. Certify and assess in alignment with global and national standards.
5. Catalase an ecosystem wherein productive and innovative entrepreneurship germinates, sustains and grows, leading to creation of a more dynamic entrepreneurial economy and more formal wage employment.

**Need for change of mind set of student and parents:**

Parents' mind-set towards their children should change. Referring olden days to the children will not help anymore. What they as parents have faced is not what their children will face. Parents should accept that the dynamics have changed and will keep changing. Parents and student should not regard vocational courses as low level and low status courses. These courses will be the most sought-after ones in the years to come and will be the closest to getting your children a job. Parents should come out of the notion that entrepreneurship is not for their children. Entrepreneurship will become more important than getting a job. Making a career by doing a will be a thing of the past. Girls would benefit most if they think to get themselves skilled. For those girls and boys who cannot afford higher education, getting vocationally qualified is the best way to career success.

There are several challenges that are faced by the government in imparting quality skill training to the youth of the country. These challenges include:

1. Increasing capacity and capability of the existing system to ensure equitable access for all
2. Maintaining quality and relevance.
3. Creating effective convergence between school education and the government's skill development efforts.
4. Creating institutional mechanism for research development quality assurance, examinations and certification, affiliations and accreditation.
5. Mobilizing adequate investment for financing skill development.

In order to provide adequate training to the youth and develop necessary skills, the Government of India took steps to improve the skill training scenario in the country. In 2009, the government formulated the national skill development policy hat laid the framework for skill development, ensuring that individuals get improved access to skills and knowledge.

**Suggestions:**

1. There should be certain amount of stipend to be paid for vocational students, which will encourage the students to opt for vocational training.
2. To encourage participation from local industries, the local governments should help local enterprises by incentives such as allotment of land at subsidized prices, or preferential treatment in case of award of government projects. Such measures

can prove to be influential in encouraging industry to actively participate in vocational education and training.

**Conclusions:**

In India, the concept of skill development has been largely recognized and many Programs and policies are being formulated to initiate this concept not only amongst the individuals in urban areas but in rural areas as well. NSDCB and NSDC are the organizations that have formulated policies for skill development amongst the individuals and besides these there are vocational training centers. Skill development has been facilitated by the organization of certain programs, educational institutions and training centers. Skills are of various kinds, within an organizational structure it is essential on the part of the management to develop leadership skills amongst themselves such as motivating people, decision making and communication. In India, rural masses are still in a backward condition, steps therefore have been implemented to develop skills amongst them for the purpose of obtaining self-sufficiency in resource utilization, governance and leadership. The different kinds of other skills which can open ways towards development of the individuals are literacy skills, computer skills, craftsmanship, manufacturing, trading skills and so forth. Skill development always leads to progress of the individual and the kinds of skills and knowledge that he acquires may not be applicable immediately but it always proves to be beneficial in the long run.

**External References:**

- [www.makeinindia.com](http://www.makeinindia.com)
- [Planningcommission.gov.in](http://Planningcommission.gov.in)
- Skill Development: The Key to Economic Prosperity A Study On The Requirement Of Skills Development For The Success Of "Make In India" Project.
- [www.forbesindia.com](http://www.forbesindia.com)
- Economic Times e-paper
- Business Standard e-paper
- Times of India e-paper
- The Hindu Business Line e-paper
- Financial Express e-paper

\*\*\*\*\*



University Grants Commission, New Delhi, India

Sponsored

INTERNATIONAL CONFERENCE  
(INTERDISCIPLINARY)

ON



## TERRORISM : A CHALLENGE BEFORE HUMAN RIGHTS

Organized by

Shikshan Prasarak Sanstha's

S.N.Arts, D.J.M. Commerce & B.N.S. Science College, Sangamner

Dist. Ahmednagar, Pin- 422 605. Maharashtra, India

Faculty of Social Sciences

14<sup>th</sup> March 2015

# Certificate

This is to certify that

Prof./Dr./Mr./Mrs. शाशिन यासिन शेख

of आर. बी. एन. बी. कॉलेज, श्रीरामपुर

has participated/delivered planary talk/presented a research paper

entitled दहशतवादामुळे भारतीय अर्थव्यवस्थेवर

झालेले आर्थिक परिणाम

in the International Conference on "Terrorism : A Challenge Before Human Rights" organized by our College.

Dr. Pratap J. Phalphale  
Co-ordinator

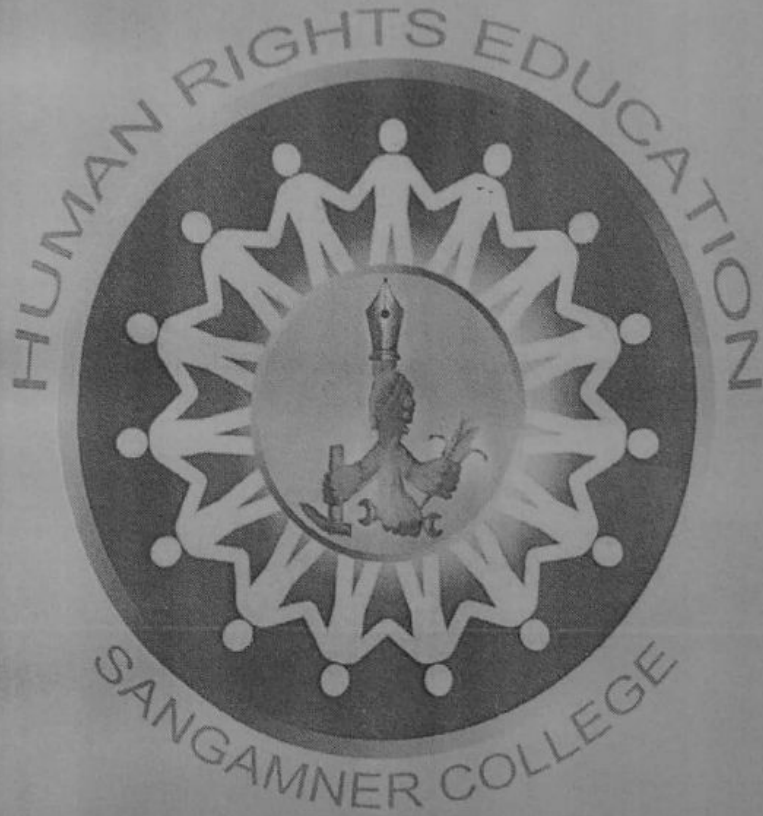
Prin. Dr. K. K. Deshmukh  
Convener

Ref.: UGC Letter No. F.1-123/2013(HRE)



ISBN- 978-93-81921-46-3

# Terrorism : A Challenge before Human Rights



दहशतवाद : मानवी हक्कांसमोरील आव्हान

Editor  
Prin. Dr. K. K. Deshmukh  
Dr. Pratap Phalphale

Scanned by CamScanner

Scanned by CamScanner



University Grants Commission, New Delhi, India  
Sponsored

INTERNATIONAL CONFERENCE  
(INTERDISCIPLINARY)

ON

**TERRORISM : A CHALLENGE BEFORE HUMAN RIGHTS**

14<sup>th</sup> March 2015

- Organized by -

Shikshan Prasarak Sanstha's

S.N.Arts, D.J.M. Commerce & B.N.S. Science College, Sangamner

Dist. Ahmednagar (M.S.) Pin- 422 605

Faculty of Social Sciences

**Dr. Pratap J. Phalphale**

Co-ordinator

**Dr. K. K. Deshmukh**

Convener

NAAC Reaccredited 'A' Grade

Savitribai Phule Pune University - Best College Award

An ISO 9001:2008 Certified Institution

**Volume II**

Sr.No.	Title	Pg. No.
८५.	प्रा.डॉ. फलफले प्रताप जगन्नाथ आश्विनी नागोराव कसबे दहशतवाद आणि मलाला'चा शैक्षणिक संघर्ष	३६७
८६.	प्रा. यासीन जी. सय्यद भारताला दहशतवादाचा शाप !	३७०
८७.	शायिन यासिन शेख अनंत श्रीराम राठोड दहशतवादामुळे भारतीय अर्थव्यवस्थेवर झालेले आर्थिक परिणाम	३७४
८८.	प्रा. जे. डी. गोपाळ दहशतवाद : चिंतन आणि चिंता	३७८
८९.	कु. गुजर तृप्ती द्वारकानाथ प्रा.डॉ. बी. वाय. देशमुख दहशतवाद निर्मितीची कारणे, परिणाम व उपाय योजना	३८२
९०.	देशमुख नितीन उल्हास डॉ. सुहास आव्हाड शांतीदूत - मलाला युसुफजई	३८६
९१.	डॉ. फलफले प्रताप जगन्नाथ देशमुख सागर संभाजी दहशतवाद : कारणे व जबाबदारी	३८९
९२.	डॉ. जयवंत रामदास भदाणे दहशतवाद व मानवी हक्क : एक अमूर्त विचार आणि पोकळ उपचार !	३९२
९३.	प्रा. परदेशी संगीता लक्ष्मणसिंह दहशतवाद - संकल्पना	३९८
९४.	वाकचौरे बाळासाहेब सुधाकर प्रा.डॉ. सुहास आव्हाड दहशतवादाचा उद्देश व कारणे	४०२
९५.	प्रा. दिलीप नलगे प्रा. अनिल मते दहशतवाद एक जागतिक समस्या	४०६
९६.	प्रा. ममता मधुकर पवार मानवाधिकार आणि आतंकवाद : एक अध्ययन	४१०
९७.	कु. प्रियंका दि. देशमुख युवक आणि आतंकवाद	४१३
९८.	प्रा. सूर्यवंशी जी. डी. दहशतवाद : मानवी हक्कांसमोरील आव्हान	४१६
९९.	कु. वैष्णव योगेश जयकुमार दहशतवाद : जागतिक स्वरूपाचे आव्हान	४२२
१००.	प्रा. करवार अनिल किसन दहशतवाद : एक जागतिक गंभीर समस्या	४२६
१०१.	प्रा. डी. डी. शेंडे कु. जाधव रुपाली शरद भारतातील दहशतवादाचे स्वरूप, संघटना आणि उपाययोजना	४२९
१०२.	दहशतवादाचे प्रकार	४३१



# दहशतवादामुळे भारतीय अर्थव्यवस्थेवर झालेले आर्थिक परिणाम

शाशिन शाशिन शेख  
आर.बी.एन.बी. कॉलेज, श्रीगंगुपर

अनंत श्रीराम राठी  
अदासाहेब गारवार कॉलेज, मुंबई

संपुर्ण जगाला भेडसावणारी गंभीर समस्या म्हणून आज दहशतवादाकडे पाहिले जाते आहे. कारण निरपराध लोकांचा बळी घेणे, स्त्रिया व लहान मुले, यांचे अपहरण करणे, लोकांवर अत्याचार करणे बॉम्बफोट घडवून आणणे, परन्त्यांचा घाक दाखवून विमाने, प्रवाषी गाड्या पळवून नेणे, सामुदायिक हत्याकांड घडवून आणणे, धार्मिक स्थळांवर हल्ले करून लोकांच्या भावना दुखविते या सारख्या अमानुष मार्गांचा दहशतवादी अवलंब करित आहे. या दहशतवादी गट व संघटनांना मानवी जीवनातील नैतिक मुल्यांशी त्यांना काही दण घेणे नाही. जगामध्ये सर्वांत जास्त दहशतवाद प्रभावित देशांमध्ये इराक, पाकिस्तान, अफगानिस्तान, भारत, येमेन, सोमालिया, नायजेरिया, थायलंड, रशिया आणि फिलिपाईन्स इत्यादी देशांचा समावेश होतो.

## दहशतवादाचा अर्थ

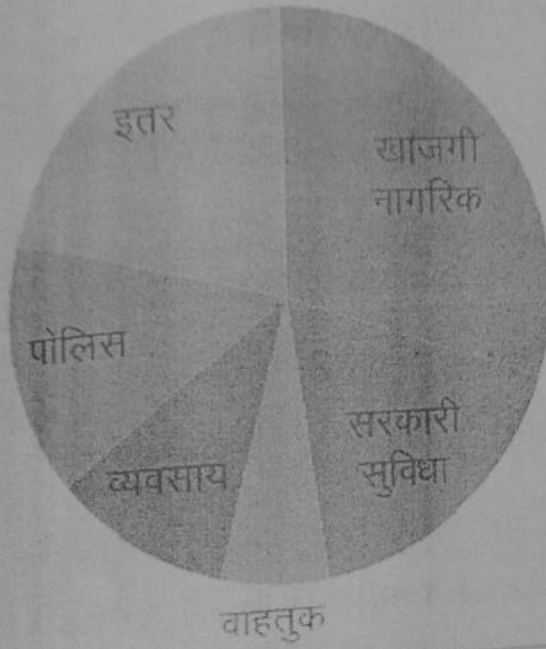
दहशतवाद हा पद प्रथम 105 बी.सी. मध्ये रोम राज्यातील Cimbri टोळीने लोकांच्या मनात भीती निर्माण करण्यासाठी वापरला होता. 'दहशतवाद' हा पद 'लढण्यासाठी' म्हणजेच लॅटिन भाषेतील 'Terrere' या पदाचा साधित रूप आहे. यावरून आपणास सामान्यताहा पुढील प्रमाणे व्याख्या करता येईल.

'सामान्य लोकांच्या मनात दहशत अथवा भीती निर्माण करून आणि त्यांना वेढीस घेऊन आपले उद्दिष्ट साध्य करण्याचा काही गटानी चालविलेला प्रयत्न म्हणजेच दहशतवाद होय.

## जगातील दहशतवाद प्रभावित क्षेत्र

जागतिक दहशतवादाचा विचार केलातर असे दिसून येत की, साधारण पणे 2002 ते 2011 पर्यंत दहशतवादी हल्ल्यांचे प्रमाण वाढले आहे. पण 2007 पासून 2011 मध्ये दहशतवादचे प्रमाण कमी झाल्याचे जी.टी.आय च्या निर्दोषांकगत नमुद केले आहे. कारण 72 देशांमध्ये दहशतवादाच्या हल्ल्यांचे प्रमाण वाढले आहे तर 63 देशांमध्ये दहशतवादाच्या हल्ल्यांचे प्रमाण कमी झाले आहे. कारण गेल्या दोन वर्षांचा विचार केला तर आपणास लक्षात येईल की, 2007 मध्ये दहशतवादी हल्ल्यात 10,000 लोकांच्या मृत्युची संख्या होती तर 2011 मध्ये हे प्रमाण कमी होवून 7,500 झाले होते. तसेच 2009 मध्ये फक्त जखमींची संख्या ही 19,000 होती तर 2011 मध्ये ही संख्या कमी होवून 14,000 झाल्याचे दिसून आले. 2002 त 2011 मध्ये दहशतवादी हल्ल्यात सर्वांत अधिक हल्ले खाजगी नागरिक 29 टक्के, सरकारी सुविधा 17 टक्के, पोलिस 14 टक्के, आणि आष्वर्यकारक म्हणजे लष्करी कर्मचारी 4 टक्के, वाहतुक 6 टक्के आणि व्यवसायावर 10 टक्के लक्ष्य केले आहे. तर धार्मिक, संस्था, उपयुक्त इतर खात्यांवर इत्यादी बाबींवर 20 टक्के लक्ष्य केले होते. हे पुढील पाय चार्ट क्र. 1 मध्ये दर्शविले आहे.

पाय चार्ट क्र 1



जागतिक दहशतवाद निर्दोषांक अहवाल 2012

2002 नंतर 1970 च्या दशकातील जगातील एकूण दहशतवादी हल्यातील मुत्युची संख्या ही वाढत राहली होती. इराक युद्धा नंतर अमेरिका आणि इतर देशात दहशतवादी हल्याचा जोर वाढत गेला त्यानंतर पुढे अफगानिस्तान, पाकिस्तान आणि भारतात दहशतवादाच्या लाटा दिसून आल्या. 2002 ते 2011 मध्ये जगातील एकूण दहशतवादी हल्या पैकी 35 टक्के हल्ले इराक व अफगानिस्तानात झाले होते. इराक नंतर पाकिस्तान, भारत व अफगानिस्तान या तीन देशात दहशतवादाचे प्रमाण जास्त आहे. जी.टी.आय. नुसार गेल्या दहा वर्षांच्या कालावधीमध्ये 158 देशांत 31 देशात एकही दहशतवादी घटना घडलेली नाही. पण त्याच बरोबर इराक, पाकिस्तान, भारत आणि अफगानिस्तान या देशांना सगळ्यात जास्त दहशतवाद प्रभावित क्षेत्र म्हणून घोषित केले आहे. 2002 पासून 2009 पर्यंत इराक नंतर पाकिस्तान, भारत आणि अफगानिस्तानात अनुक्रमे 12 टक्के, 11 टक्के आणि 10 टक्के दहशतवादी घटना घडल्या आहेत. याच बरोबर अफगाण, फिलिपाईन्स आणि रशियात अनुक्रमे 5 टक्के, 4 टक्के आणि 4 टक्के दहशतवादी घटना घडल्या आहेत. 2011 मध्ये सर्वात जास्त दहशतवादी प्रभावित दहा देशांनी मिळविलेले गुण पुढिल चर्चेत आहेत. 2011 मध्ये सर्वात जास्त दहशतवादी प्रभावित दहा देशांनी मिळविलेले गुण पुढिल चर्चेत आहेत.

2011 मध्ये सर्वात जास्त दहशतवादी प्रभावित दहा देश

तक्ता क्र. 1

क्रमांक	देश	जी.टी.आय. गुण
1	इराक	9.56
2	पाकिस्तान	9.05
3	अफगाणिस्तान	8.67
4	भारत	8.15
5	येमेन	7.30
6	सेमालिया	7.24
7	नाजेरिया	7.24
8	थायलंड	7.09
9	रुमिया	7.07
10	फिलिपाईन्स	6.80

जागतिक दहशतवाद निर्दोषांक अहवाल 2012

दहशतवादामुळे भारताच्या अर्थव्यवस्थेवर झालेले आर्थिक परिणाम

भारत 1970 पासून तर आज पर्यंत नक्षलवादी आणि दहशतवादी हल्यामुळे त्रस्त आहे. भारतातील पंजाब, जम्मू-काश्मीर, 1993 मुंबई साखळी बॉम्बरफोट, मुंबईतील 26/11 चा हल्ला, पुणे येथील साखळी बॉम्बरफोट, बुध्दगया येथील बॉम्बरफोट, गडचिरालीतील नक्षलवादी हल्ले आणि देशातील इतर अनेक भाग दहशत ग्रस्त आहे. यामुळे भारताच्या अर्थव्यवस्थेवर वाईट परिणाम झालेले आहे. ते पुढील मुद्द्याच्या आधारे स्पष्ट करता येईल.

#### • पर्यटन क्षेत्रावर झालेला परिणाम

जगातील सर्वात मोठा निर्यात उद्योग म्हणून पर्यटन क्षेत्राकडे पाहिले जात आहे. कारण जगातील एकूण निर्यातीत पर्यटनाचा हिस्सा हा 12.2 टक्के आहे. जागतिक रोजगारामध्ये पर्यटनाचा हिस्सा हा 8.1 टक्का आहे. सध्या भारताच्या जी.डी.पी. मध्ये प्रत्यक्ष व अप्रत्यक्ष पर्यटन क्षेत्राचे योगदान हे 6.8 टक्केच्या जवळपास आहे. या व्यवसायामुळे भारतात जवळपास 11 टक्के रोजगार निर्माण होतो आणि या व्यवसायापासून 2012 मध्ये 17.74 अरब डॉलर अर्जित विदेशी मुद्रा भारताला मिळाल्या आहेत. यामुळे भारतीय अर्थव्यवस्थेला चालणाऱ्याचे काम पर्यटन क्षेत्र करित आहे. यामुळे भारतातील पर्यटक आणि हॉटेल्स व्यवसायावर हल्ला करून भारतीय अर्थव्यवस्थेला खिळ बसविणे आणि भारतात येणारे पर्यटकांना घाबरविणे या हेतुने 26 नोव्हेंबर 2008 रोजी दहशतवादी संघटनेने भारतावर हल्ले केले होते.

भारतात गोवा या ठिकाणी सर्वात जास्त पर्यटक येतात. टुर ऑपरेटर्स यांच्या अहवालानुसार 2007-08 मध्ये 25 लाख पर्यटक आले होते. तर 26/11 च्या हल्या नंतर 2008-09 मध्ये यात



... 4 लाख पर्यटक आले. म्हणजे 26/11 च्या हल्या नंतर ही मोठ्या प्रमाणात पर्यटक ...  
... पण या वेळेसची परिस्थिती थोडी वाईट आहे. कारण 4 लाख पर्यटक कमी ...  
... विमान वाहतुक, हॉटेल्स, वैद्यकिय आणि पर्यटन क्षेत्रावर झाल्याचे लक्षात ...  
... हॉटेल्सचे सुमारे 60 टक्के आरक्षण रद्दबातल झाले. त्याच बरोबर पश्चिम भारतातील ...  
... 25 टक्क्यांनी खाली आले. यामुळे या व्यवसायात काम करणाऱ्या लोकांना मोठ्या ...  
... नुकसान सहन करावा लागला. आय.ए.टी.ओ च्या मते पर्यटक कमी होण्याच्या ...  
... 10 टक्के प्रमाण हे दहशतवादी हल्याचे होते. हॉटेल्स उद्योगात 40 टक्के, वैद्यकिय ...  
... 16 टक्के महसुल कमी झाले होत ही बाब भारतासाठी चांगली नाही.

शेअर बाजारावर झालेला परिणाम

... हल्याचा मुबई शेअर बाजारवर वाईट परिणाम झाला. कारण 26/11 च्या हल्यामुळे ...  
... शेअर बाजाराचा निर्देशांक 1.5 टक्क्यांनी खाली आला आणि 0.7 टक्क्यांच्या जवळ ...  
... 136 अघानी उघडला. यात विदेशी गुंतवणुकदारांचे 56 टक्क्यांनी आणि ताजमहाल ...  
... 17 टक्क्यांनी शेअर किंमत उतरले होते. पण दहशतवाद रोखण्यासाठी केलेल्या ...  
... भारतीय कोर्पोरेटर स्पेक्ट्रम मर्यादित व्यवसायावर याचा तात्पुरता परिणाम होईल ...  
... आहे कारण भारतीय लोकषाही परंपरा ही दहशतवादाला प्रतिकार करण्यासाठी ...  
... आज संपुर्ण जग हा जागतिकीकरणात चपापत आहे आणि भारत हा ...  
... महत्त्वाचा खेळाडू ठरला आहे, यात शंका नाही.

निर्दलीन आर्थिक नुकसान

... हल्यामुळे इमारतीचे, पायामूत सुविधा, स्ट्रक्चरल इत्यादीचे नुकसान मोठ्या ...  
... आहे. विमा उद्योगानुसार एकुण नुकसान 500 कोटीचे आहे, असे सांगतात. तसेच ...  
... दहशतवादाचा रोखण्यासाठी आपल्या दीर्घकालीन सुरक्षा खर्चात वाढ केली आहे. ...  
... 320,700,000,000 ऐवढी आहे आणि ही रक्कम जगातिल सुरक्षा सर्वाधिक खर्च ...  
... यादित भारताचा 9 वा क्रमांक लागतो. यामुळे इतर विकासासाठी आवषक ...  
... भारताचे आर्थिक नुकसान झाले.

- ... दहशतवाद निर्देशांक अहवाल 2012
- ... पुस्तक: दहशतवाद सामना मध्ये जागतिक सहकार्य
- ... इकोनॉमिक टाइम्स,
- ... भारत आज, जागतिक व्यवसाय, व्यवसाय भारत

Website  
[www.quora.com](http://www.quora.com)  
[www.dawn.com](http://www.dawn.com)  
[www.indiafutureofchange.com](http://www.indiafutureofchange.com)  
[www.indianmba.com](http://www.indianmba.com)



स्यत शिक्षण संस्थेचे,  
राधाबाई काले महिला महाविद्यालय, अहमदनगर.  
(नॅक पुनर्मूल्यांकन - व श्रेणी)

मराठी विभाग आयोजित

## ‘राष्ट्रीय परिषद’

‘आंतरविद्याशाखीय संशोधन : स्वरूप आणि संधी’  
(दि. २२ व २३ डिसेंबर २०१५)

### PROCEEDING

ISBN 978-93-83401-34-5



एन सी ई आर टी ई

राधाकाई काले महिला महाविद्यालय, अहमदनगर

दशक सांख्यिक 'B' श्रेणी

राष्ट्रीय वर्तासत्र

संस्करण २२-२३ डिसेंबर २०१९

'आंतरविद्याशाखीय संशोधन : स्वरूप व संघी'

ISBN : 978-93-83401-34-5

आयोजक

प्राचार्य डॉ. भाऊसाहेब कराळे

संपादक मंडळ

प्रा.डॉ. संजय नगरकर

समन्वयक: (मराठी)

प्रा. संध्याजी काशी  
सहसमन्वयक  
(सामाजिकशास्त्र)

प्रा. गणेश शेंख  
सहसमन्वयक  
(इतिहास)

प्रा. बुधमाहोब डे  
सहसमन्वयक  
(सा. शास्त्र)

प्रा. मनोहर करांडे  
सहसमन्वयक  
(इंग्रजी)

प्रा. श्रीद. निकळकर  
सहसमन्वयक  
(हिंदी)

प्रा. संतोष पायकवार  
सहसमन्वयक  
(मानसशास्त्र)

प्रा.डॉ. वैशाली पाटील  
सहसमन्वयक  
(अर्थशास्त्र)

प्रा. सहदेव आव्हाड  
सहसमन्वयक  
(समाजशास्त्र)

प्रा. निखिल सोयल  
सहसमन्वयक  
(व्यक्तिशास्त्र)

प्रा. सतीश काधव  
सहसमन्वयक  
(भूगोल)

प्रा. सुनेश्वर शिंगाडे  
सहसमन्वयक  
(इकोलॉजी)

क्र.सं.	परिच्छेद नाव	संशोधकाचे नाव	पान. नं.
११.	Research Methods In Interdisciplinary Research	Prof. Kamthar Rajendra.R.	२०१ ते २०२
१२.	मानसशास्त्रीय संशोधन पध्दती व पध्दती	डॉ. मंगेश काधव	२०३ ते २०४
१३.	Necessity Of Integrated Statistical Analysis Approach	Prof. Bhatkar Pravinraman Chaudharam.	२०५ ते २०६
१४.	A Study Of Sex Ratio Structure Nagpur Town In Ahmadrabad District Maharashtra	Dr. Khatu A.J. Theoretic Raspravaiah D.	२०७ ते २०८
१५.	Valuable Steps for Social Science Research	Dr. Dhadmalak Mahesh Prabhakarao	२०९ ते २१०
१६.	Research in Social Sciences	Prof. PAWAR.N.C. Dr. Ashad Sultan	२११ ते २१२
१७.	Report Writing Of Research Paper And Thesis	Dr. Ashad Sultan	२१३ ते २१४
१८.	"Contribution Of The Indian Economic Thinkers to Economic Development Under Independence"	Dr. Kadam Parag P.	२१५ ते २१६
१९.	'मानव विकास निर्देशक व यत्न'	प्रा. डॉ. सतीश काधव	२१७ ते २१८
२०.	Fundamentals And Collection Of Primary Data In Social Research	Prof. Khase Mahadeva Shikshak	२१९ ते २२०
२१.	अर्थशास्त्रीय संशोधनाचे प्रकार - एक विश्लेषण प्रयास	प्रा. डॉ. सतीश काधव डॉ. टी. शीवाजी. कशिदे काशीराम दाम	२२१ ते २२२
२२.	A Study Of Use Of Computer In Research	Jayant Arvind Kamthakar Shakti Shyam V. Rashed Aslam S.	२२३ ते २२४
२३.	Empowerment Of Women For Improved Quality Of Life	Prof. Bhatkar Y.M. Dr. Kadam Pravinraman	२२५ ते २२६
२४.	'संशोधनाचे विविध पध्दती'	प्रा. डॉ. पाटील डॉ. वसु	२२७ ते २२८
२५.	'संशोधन स्वरूप व यत्न'	प्रा. सत्यकाश डॉ. वी.	२२९ ते २३०
२६.	Globalization and Its Impact on Indian Culture	Prof. Dr. Dhadmalak N.V.	२३१ ते २३२
२७.	संशोधन पध्दतीस सांख्यिकीय तालम व माहिती प्रदानाचे महत्त्व - एक विश्लेषण	प्रा. डॉ. सतीश काधव डॉ. टी. शीवाजी काशीराम	२३३ ते २३४
२८.	संशोधनास सांख्यिकीय पध्दती व तालम एक विश्लेषण प्रयास	प्रा. डॉ. सतीश काधव डॉ. टी. शीवाजी काशीराम	२३५ ते २३६
२९.	संशोधनास सांख्यिकीय पध्दती व तालम एक विश्लेषण प्रयास	प्रा. डॉ. सतीश काधव डॉ. टी. शीवाजी काशीराम	२३७ ते २३८
३०.	संशोधनास सांख्यिकीय पध्दती व तालम एक विश्लेषण प्रयास	प्रा. डॉ. सतीश काधव डॉ. टी. शीवाजी काशीराम	२३९ ते २४०
३१.	संशोधनास सांख्यिकीय पध्दती व तालम एक विश्लेषण प्रयास	प्रा. डॉ. सतीश काधव डॉ. टी. शीवाजी काशीराम	२४१ ते २४२
३२.	संशोधनास सांख्यिकीय पध्दती व तालम एक विश्लेषण प्रयास	प्रा. डॉ. सतीश काधव डॉ. टी. शीवाजी काशीराम	२४३ ते २४४
३३.	संशोधनास सांख्यिकीय पध्दती व तालम एक विश्लेषण प्रयास	प्रा. डॉ. सतीश काधव डॉ. टी. शीवाजी काशीराम	२४५ ते २४६
३४.	संशोधनास सांख्यिकीय पध्दती व तालम एक विश्लेषण प्रयास	प्रा. डॉ. सतीश काधव डॉ. टी. शीवाजी काशीराम	२४७ ते २४८
३५.	संशोधनास सांख्यिकीय पध्दती व तालम एक विश्लेषण प्रयास	प्रा. डॉ. सतीश काधव डॉ. टी. शीवाजी काशीराम	२४९ ते २५०
३६.	संशोधनास सांख्यिकीय पध्दती व तालम एक विश्लेषण प्रयास	प्रा. डॉ. सतीश काधव डॉ. टी. शीवाजी काशीराम	२५१ ते २५२
३७.	संशोधनास सांख्यिकीय पध्दती व तालम एक विश्लेषण प्रयास	प्रा. डॉ. सतीश काधव डॉ. टी. शीवाजी काशीराम	२५३ ते २५४
३८.	संशोधनास सांख्यिकीय पध्दती व तालम एक विश्लेषण प्रयास	प्रा. डॉ. सतीश काधव डॉ. टी. शीवाजी काशीराम	२५५ ते २५६
३९.	संशोधनास सांख्यिकीय पध्दती व तालम एक विश्लेषण प्रयास	प्रा. डॉ. सतीश काधव डॉ. टी. शीवाजी काशीराम	२५७ ते २५८
४०.	संशोधनास सांख्यिकीय पध्दती व तालम एक विश्लेषण प्रयास	प्रा. डॉ. सतीश काधव डॉ. टी. शीवाजी काशीराम	२५९ ते २६०
४१.	संशोधनास सांख्यिकीय पध्दती व तालम एक विश्लेषण प्रयास	प्रा. डॉ. सतीश काधव डॉ. टी. शीवाजी काशीराम	२६१ ते २६२
४२.	संशोधनास सांख्यिकीय पध्दती व तालम एक विश्लेषण प्रयास	प्रा. डॉ. सतीश काधव डॉ. टी. शीवाजी काशीराम	२६३ ते २६४
४३.	संशोधनास सांख्यिकीय पध्दती व तालम एक विश्लेषण प्रयास	प्रा. डॉ. सतीश काधव डॉ. टी. शीवाजी काशीराम	२६५ ते २६६
४४.	संशोधनास सांख्यिकीय पध्दती व तालम एक विश्लेषण प्रयास	प्रा. डॉ. सतीश काधव डॉ. टी. शीवाजी काशीराम	२६७ ते २६८
४५.	संशोधनास सांख्यिकीय पध्दती व तालम एक विश्लेषण प्रयास	प्रा. डॉ. सतीश काधव डॉ. टी. शीवाजी काशीराम	२६९ ते २७०
४६.	संशोधनास सांख्यिकीय पध्दती व तालम एक विश्लेषण प्रयास	प्रा. डॉ. सतीश काधव डॉ. टी. शीवाजी काशीराम	२७१ ते २७२
४७.	संशोधनास सांख्यिकीय पध्दती व तालम एक विश्लेषण प्रयास	प्रा. डॉ. सतीश काधव डॉ. टी. शीवाजी काशीराम	२७३ ते २७४
४८.	संशोधनास सांख्यिकीय पध्दती व तालम एक विश्लेषण प्रयास	प्रा. डॉ. सतीश काधव डॉ. टी. शीवाजी काशीराम	२७५ ते २७६
४९.	संशोधनास सांख्यिकीय पध्दती व तालम एक विश्लेषण प्रयास	प्रा. डॉ. सतीश काधव डॉ. टी. शीवाजी काशीराम	२७७ ते २७८
५०.	संशोधनास सांख्यिकीय पध्दती व तालम एक विश्लेषण प्रयास	प्रा. डॉ. सतीश काधव डॉ. टी. शीवाजी काशीराम	२७९ ते २८०
५१.	संशोधनास सांख्यिकीय पध्दती व तालम एक विश्लेषण प्रयास	प्रा. डॉ. सतीश काधव डॉ. टी. शीवाजी काशीराम	२८१ ते २८२
५२.	संशोधनास सांख्यिकीय पध्दती व तालम एक विश्लेषण प्रयास	प्रा. डॉ. सतीश काधव डॉ. टी. शीवाजी काशीराम	२८३ ते २८४
५३.	संशोधनास सांख्यिकीय पध्दती व तालम एक विश्लेषण प्रयास	प्रा. डॉ. सतीश काधव डॉ. टी. शीवाजी काशीराम	२८५ ते २८६
५४.	संशोधनास सांख्यिकीय पध्दती व तालम एक विश्लेषण प्रयास	प्रा. डॉ. सतीश काधव डॉ. टी. शीवाजी काशीराम	२८७ ते २८८
५५.	संशोधनास सांख्यिकीय पध्दती व तालम एक विश्लेषण प्रयास	प्रा. डॉ. सतीश काधव डॉ. टी. शीवाजी काशीराम	२८९ ते २९०
५६.	संशोधनास सांख्यिकीय पध्दती व तालम एक विश्लेषण प्रयास	प्रा. डॉ. सतीश काधव डॉ. टी. शीवाजी काशीराम	२९१ ते २९२
५७.	संशोधनास सांख्यिकीय पध्दती व तालम एक विश्लेषण प्रयास	प्रा. डॉ. सतीश काधव डॉ. टी. शीवाजी काशीराम	२९३ ते २९४
५८.	संशोधनास सांख्यिकीय पध्दती व तालम एक विश्लेषण प्रयास	प्रा. डॉ. सतीश काधव डॉ. टी. शीवाजी काशीराम	२९५ ते २९६
५९.	संशोधनास सांख्यिकीय पध्दती व तालम एक विश्लेषण प्रयास	प्रा. डॉ. सतीश काधव डॉ. टी. शीवाजी काशीराम	२९७ ते २९८
६०.	संशोधनास सांख्यिकीय पध्दती व तालम एक विश्लेषण प्रयास	प्रा. डॉ. सतीश काधव डॉ. टी. शीवाजी काशीराम	२९९ ते ३००



## संशोधन पध्दतीत सामाजिक शास्त्र व माहिती प्रणालीचे महत्त्व : एक विश्लेषण

### प्रस्तावना :

मानवाला आजदेखील संपूर्ण वस्तु किंवा घटनांच्या संदर्भात सर्वच गोष्टी माहित नाही. म्हणून शोध घेण्याचे मानवाचे प्रयत्न निरंतर सुरु आहेत. ज्ञानाची वृद्धी करणे, अस्पष्ट ज्ञानाचे स्पष्टीकरण करणे, विद्यमान ज्ञानाची सत्यता पडताळून पाहणे हे मानवाच्या या प्रयत्नाचे उद्देश आहे. मानव हा जिज्ञासुवृत्तीचा आणि वृद्धीजीवी प्राणी असल्यामुळे तो सतत नवनवीन गोष्टींचा शोध घेत असतो. शास्त्रीय संशोधनात निरीक्षण करून आपल्या विशिष्ट विषयासंदर्भात ज्ञान प्राप्त करणे व कार्यकारण भावामुळे त्या तथ्याचा अर्थ, पारंपारिक संबंध आणि विद्यमान वैज्ञानिक ज्ञानाशी त्याचा संबंध निश्चित करणे हे शास्त्रीय संशोधनाचे दोन आवश्यक तत्त्व आहे. जे. डब्ल्यु. वेस्ट यांच्या मते संशोधन म्हणजे वैज्ञानिक पध्दती प्रत्यक्ष कार्यान्वित करण्याची सुव्यवस्थित व नियमबद्ध अभ्यासण्याची प्रक्रिया होय.

कोणत्याही देशाचा आर्थिक विकास घडून येण्यासाठी संशोधनाचे महत्त्व अनन्य साधारण आहे. नैसर्गिक साधन संपत्तीची पुरेपूर वापर करण्यासाठी गुणात्मक व कार्यक्षम संशोधनाचे महत्त्व वाढत आहे. भारतात सतत भेडसावणा-या अनेक समस्यांवर उपाययोजना सुचविण्यासाठी संशोधनाचे समाज जीवनावर परिणाम दिसून येते.

### शोध निबंधाची उद्दिष्टे :

१. सामाजिक संशोधनाची संकल्पना अभ्यासणे.
२. संशोधन पध्दतीत सामाजिक शास्त्रांचा विविध क्षेत्रातील संशोधनाचे कार्य व महत्त्व अभ्यासणे.
३. सामाजिक संशोधनात माहिती प्रणालीच्या साधनांचा वाढीचा अभ्यास करणे.

### शोध निबंधाची गृहीते :

१. संशोधन पध्दतीत सामाजिक शास्त्राच्या महत्त्वात सातत्याने वाढ होत आहे.
२. सामाजिक संशोधनात वाढत्या माहिती प्रणालीमुळे संशोधन कार्यात अनुकूल परिणाम होतात.

### संशोधन पध्दती :

प्रस्तुत शोध निबंधात विश्लेषणात्मक संशोधन पध्दतीचा उपयोग केला असून शोध निबंधातील विवेचन दुय्यम साधन सामग्रीवर अवलंबून आहे. यासाठी विविध संदर्भ ग्रंथ, पुस्तके, मासिके, अहवाल, वृत्तपत्रे, संकेतस्थळ (वेबसाईट) इत्यादींचा उपयोग केला आहे.

### अभ्यास विषयाचे महत्त्व :

कोणत्याही देशाच्या अर्थव्यवस्थेसमोर अनेक समस्या असतात. उदा. दारिद्र्य, बेरोजगारी, आर्थिक विषमता इतदी समस्यांमुळे समाजजीवनावर विपरित परिणाम दिसून येते. त्यावर उपाययोजना सुचविण्यासाठी देशाचा आर्थिक विकास होण्यासाठी संशोधन पध्दतीत सामाजिक शास्त्राचे कार्य / महत्त्व व माहिती प्रणालीचे परिणाम कसे होतात याचा अभ्यास "संशोधन पध्दतीत सामाजिक शास्त्र व माहिती प्रणालीचे महत्त्व : एक विश्लेषण" हा विषय निवडला आहे.

### सामाजिक संशोधनाची संकल्पना : (Nature of Definition of Social Research)

स्वरूप : समाजजीवनातील घटना, परिस्थिती आणि समस्या यांचे वैज्ञानिक पध्दतीच्या आधारे विवेचनात्मक आणि विश्लेषणात्मक क्रमबद्ध शोधकार्य करणे यास 'सामाजिक संशोधन' संबोधले जाते. वैज्ञानिक निरीक्षण, वर्गीकरण आणि निर्वाचन करून सामाजिक जीवनाच्या संबंधामध्ये सत्याचा शोध घेण्याची अध्ययनशिलता जोपासणे आणि नवीन ज्ञानप्राप्ती करणे.

### व्याख्या : सी.ए. मोझर (C.A. Moser) :

"सामाजिक घटना आणि समस्यांबाबत नवीन ज्ञान प्राप्तीकरीता करण्यात आलेल्या व्यवस्थित संशोधनाला आपण सामाजिक संशोधन म्हणतो."

### संशोधन पध्दतीत सामाजिक शास्त्राच्या विविध क्षेत्रातील संशोधनाचे कार्य / महत्त्व :

१. ऐतिहासिक संशोधन : (Historical Research) ऐतिहासिक संशोधन हे देखील सामाजिक संशोधनातील एक महत्त्वाचे अध्ययन क्षेत्र आहे. यामध्ये फक्त इतिहास याच विषयाचे संशोधन केले जात नसून अन्य सर्व सामाजिक विषयांच्या ऐतिहासिक समस्यांचे संशोधन केले जाते. भूतकाळातील घटनांची अचूक माहिती मिळविणे हा ऐतिहासिक संशोधनाचा मुख्य उद्देश आहे. इतिहासात केवळ राजकीय इतिहास नसून शैक्षणिक, व्यवस्थापन, सामाजिक व सांस्कृतिक या सारख्याच सर्वच विद्याशाखांना अमणा-या इतिहासाचे संशोधन व्यापक आहे. प्रकाशित

आणि अप्रकाशित अशा सर्व प्रलेखांमध्ये ऐतिहासिक घटनांचे विवरण असते असे प्रलेख हाच ऐतिहासिक संशोधनाचा आधार असतो. भारतात महात्मा गांधी, महात्मा फुले, गरुदेव रविंद्रनाथ टागोर, स्वामी विवेकानंद, डॉ. आंबेडकर यासारख्या अनेक महत्त्वपूर्ण नेत्यांच्या कार्यांचा अभ्यास करून अनेक संशोधकांनी भारतीय शिक्षण पध्दती समाज सुधारणा, राजकारण इत्यादी बाबत ऐतिहासिक संशोधन महत्त्वाचे आहे. तसेच भारतातील तक्षशिला, नार्लंदा, उदंतपुरी, नागार्जुन, बनारस हिंदू विद्यापीठही विद्यापीठे विशिष्ट उद्योग समुह, आकाशवाणी, दूरदर्शन, चित्रपट संस्था, नाट्य संस्था, सहकारी संस्था या सारख्या संस्था आणि संघटनांच्या उत्पत्ती आणि विकासाबाबतचे संशोधन ऐतिहासिक पध्दतीने करता येते. ऐतिहासिक संशोधनाद्वारे रुढी, परंपरा, प्रथा, चालीरिती, मुल्ये व आदर्श अशा सर्व परिवर्तनाचे वैज्ञानिक पध्दतीने संशोधन करता येते.

२. **साहित्यातील संशोधन : (Research in Literature)** : मानवी जीवनात साहित्य आणि कला यांना अतिशय महत्त्व आहे. मानवी मनाचा, विचारांचा, भावनांचा, सामाजिक आणि अन्य समस्यांचा अविष्कार व्यक्त करण्यासाठी विविध प्रकारच्या साहित्याची निर्मिती होत असते. सामाजिक समस्या हा साहित्याचा केंद्रबिंदू आहे. साहित्य हे समाज सापेक्ष असते. समाजाच्या सुखदुःखाचे आणि भावभावनांचे प्रतिबिंब हे साहित्यात उमटत असते. समाजातील धार्मिकता रुढी, परंपरा, तत्त्वप्रणाली, आचारविचार, संस्कार, संकेत, शिष्टाचार, व्यवहार या सर्व बाबींचा लेखकावर प्रभाव पडत असतो. विसाव्या शतकात साहित्याचे समाजशास्त्र हे नवीन अध्ययनाचे क्षेत्र म्हणून विकसित झाले आहे. कारण सद्यस्थितीत समाजशास्त्रीय दृष्टीकोनातून साहित्याचे अध्ययन केले जाते. साहित्याचे वैज्ञानिक पध्दतीने अध्ययन करण्यासाठी स्वतंत्र संशोधन पध्दती विकसित झाली आहे. कोणतेही साहित्य हे भाषेच्या माध्यमातून निर्माण होत असते. भाषा ही एक अत्यंत महत्त्वाची मानवी संस्था आहे. विशेष म्हणजे मानवी संस्कृतीच्या विकासाबरोबर भाषेची उदकांती झालेली आहे. भाषा ही सामाजिक आणि सामाजिक निर्मिती आहे. संस्कृतीचे हस्तांतरण हे भाषेच्या माध्यमातून होत असते. म्हणून भाषेचा अभ्यास हा सामाजिक शास्त्रात अतिशय महत्त्वाचा असा साहित्य संशोधनाचा विषय आहे. भाषेची निर्मिती, धारणा, जन्म काळ इत्यादींचा यात अभ्यास केला जातो. धर्मविचार, तत्त्वज्ञान, नीतीशास्त्र, लोकप्रवृत्ती इत्यादी विषयांचे संशोधन हे साहित्यातील संशोधन आहे. अशा संशोधनावरून विशिष्ट जाती-जमातीच्या सामाजिक, सांस्कृतिक आणि ऐतिहासिक जीवनाचा शोध घेता येतो. तसेच लोक साहित्याची भाषा, बोली इत्यादींचा अभ्यास करता येतो.

३. **शैक्षणिक संशोधन : (Educational Research)** : शैक्षणिक संशोधन हे शिक्षण क्षेत्राशी संबंधित आहे. यात शिक्षणाची उद्दिष्ट्ये, अभ्यासक्रम, अध्ययन आणि अध्यापन पध्दती मुख्यमापन, विद्यार्थ्यांच्या समस्या, शिक्षकांच्या समस्या, व्यवस्थापनाच्या समस्या, विविध संकल्पना, शैक्षणिक साहित्यत्रं, पाठ्यपुस्तके, शैक्षणिक वातावरण, शैक्षणिक धोरण इत्यादी बाबींचा समावेश होतो. या सर्व बाबींचा वैज्ञानिक पध्दतीने अध्ययन आणि संशोधन करून शिक्षण क्षेत्र हे समाजाच्या प्रगतीसाठी सहाय्यक केले जाते. कारण शिक्षण क्षेत्र हे पायाभूत क्षेत्र आहे. त्यामुळे समाजातील अन्य सर्व क्षेत्रेसुद्धा समाजाच्या उन्नतीसाठी फलदायी ठरतात. शैक्षणिक संशोधन हे प्रामुख्याने प्रेरणा आणि नीतीशास्त्राच्या समस्यांशी संबंधित आहे. सामाजिक व्यवहार हाच शैक्षणिक संशोधनाचा मुख्य आधार आहे. तत्त्वज्ञान, समाजशास्त्र, मानसशास्त्र, इतिहास, राज्यशास्त्र, अर्थशास्त्र, व्यवस्थापनशास्त्र, वाणिज्य इत्यादी सर्वच सामाजिक शास्त्रांचा आधार घेऊन म्हणजे आंतरशास्त्रीय संशोधन करावे लागते. शैक्षणिक संशोधनात समस्येच्या कारणांचे विश्लेषण, परिणामांचे अनुमान, समस्येच्या निराकरणासाठी उपाययोजना, त्यांचा उपयोग, अनुभवांचे मूल्यमापन हे शैक्षणिक संशोधनातील महत्त्वाचे टप्पे आहेत. इतर प्रगत राष्ट्रांच्या तुलनेत भारतात शिक्षण क्षेत्रातील संशोधनाला बरीच उशिरा सुरुवात झाली. इ.स. १९६१ मध्ये राष्ट्रीय प्रकल्प सहाय्य योजना, विभागीय शिक्षण महाविद्यालये, राष्ट्रीय शिक्षण संस्था, विद्याविषयक विभाग आणि सेवा तसेच निर्मिती विभाग, राज्यशिक्षण संस्था, विद्यापीठ अनुदान आयोग, उच्च शिक्षण अभ्यास केंद्राची या सर्व संस्थांद्वारे शिक्षण क्षेत्रात व्यापक संशोधन कार्य होण्यास प्रोत्साहन मिळत आहे.

४. **सामाजिक संशोधन (Social Research)** : मनुष्य आणि त्याची सामाजिक वर्तणूक या संबंधीचे नियम शोधून काढणे हा सामाजिक शास्त्राचा उद्देश आहे. मनुष्य हा केंद्रबिंदू मानून सामाजिक संशोधन केले जाते. यामध्ये मानसशास्त्रीय संबंध शोधून काढला जातो. मनुष्य त्याची मानसिक स्थिती आणि वर्तणूक हे सामाजिक शास्त्राचे मूलभूत घटक आहेत. सामाजिक शास्त्रातील मूलभूत घटकांचे स्वतंत्रपणे विश्लेषण करता येत नाही. सामाजिक शास्त्राचा अभ्यास विषय समाज हा असल्यामुळे त्यात तुलनात्मकदृष्ट्या कमी अचूकता असते.

५. **भौतिक संशोधन (Physical Research)** : निसर्गात असणा-या विविध घटकांसंबंधी भौतिक नियम शोधून काढणे हा भौतिक शास्त्रांमध्ये संशोधन केले जाते. भौतिक शास्त्रातील मूलभूत घटकांचे विश्लेषण करून येते. भौतिक संशोधनामध्ये वस्तुनिष्ठतेचे प्रमाण जास्त असल्यामुळे भौतिक शास्त्राचे अंदाज तुलनात्मकदृष्ट्या जास्त निश्चित असतात. मापन विषय समस्या फारश्या निर्माण होत नाहीत. भौतिक संशोधनामध्ये अभ्यास करण्यासाठी त्यांच्या प्रयोगशाळा सिध्द असतात.
६. **वैज्ञानिक संशोधन (Scientific Research)** : वैज्ञानिक पध्दतीने जसे भौतिक विषयांचे संशोधन केले जाते तसेच सामाजिक विषयांचे सुध्दा संशोधन केले जाते. म्हणूनच विज्ञान आणि वैज्ञानिक पध्दती हा अध्ययनाचा सर्वव्याप्त विषय झाला आहे. विज्ञानाला कोणत्याही विषयाची मर्यादा नाही. संशोधन विषयाशी संबंधित सर्वसामान्य नियमांची मांडणी करण्यासाठी तथ्य निर्धारण, क्रमबद्ध वर्गीकरण, परिक्षण, सत्यापन आणि निर्वाचन करण्याच्या शास्त्रशुध्द प्रक्रियेला वैज्ञानिक पध्दत म्हणतात.
७. **सांख्यिकीय संशोधन (Statistical Research)** : सांख्यिकी हे एक शास्त्र आहे. सांख्यिकी म्हणजे तथ्याचे विश्लेषण तसेच त्यावरून काढलेले निष्कर्ष यांचे शास्त्र होय. कोणत्याही सामाजिक घटनांचे यथार्थ अध्ययन करण्यासाठी सांख्यिकीचा उपयोग केला जातो. सामाजिक शास्त्रातही सांख्यिकी पध्दतीचा वापर केला जातो. म्हणून त्यास सामाजिक सांख्यिकी म्हटले जाते. सांख्यिकीमुळे जटील तथ्यांना सरळ व व्यवस्थित रूप देता येते. संशोधनात केंद्रीय प्रवृत्तीचे मापन करण्यासाठी सांख्यिकी पध्दतीचा विशेष उपयोग केला जातो.
८. **इतर शास्त्रांचे संशोधन** : संशोधनावरील सर्व क्षेत्रांचे महत्त्व अनन्यसाधारण आहे. याव्यतिरिक्त इतर शास्त्रांचे योगदान ही महत्त्वपूर्ण मानले जाते. उदा. अर्थशास्त्रात समाजातील कोणत्याही समस्यावर उपाययोजना सुचविण्यासाठी किंवा संशोधनासाठी त्या विषयाला पैशांशी संबंधित असते. त्यामुळे संशोधनात नेमकेपणा येतो. तर भुगोलात संशोधनाला क्षेत्र अभ्यासासाठी कोणते भौगोलिक क्षेत्र निवडणे सोपे जाते. त्यामुळे संशोधन कार्य व्यापक न होता घेतलेल्या कालावधीत पूर्ण होऊ शकते. तसेच संशोधनात राजकीय पैलूंचा विचार राज्यशास्त्रात केला जातो. व सांस्कृतिक व सामाजिक जिवनाचा अभ्यास केला जातो. अशा प्रकारे सामाजिक शास्त्रातील विविध क्षेत्रांचे कार्य व महत्त्वात सातत्याने वाढ होत आहे. हे बरील घेतलेले गृहितकृत्य सत्य असल्याचे दिसून येते.
- सामाजिक संशोधनात माहिती प्रणाली :**
- संशोधनात माहितीचे महत्त्व आहे. माहितीच्या आधारावरच सिध्दान्त मांडणे शक्य होते. माहिती मिळविण्यासाठी तसेच तिचे व्यवस्थापन करण्यासाठी माहिती प्रणालीची आवश्यकता असते. कोणत्याही प्रकारचे संशोधन करताना माहिती गोळा केली जाते. अशी माहिती व्यवस्थितरित्या साठवून ठेवणे महत्त्वाचे असते. कारण संशोधकाला कोणत्याही वेळी या माहितीची गरज भासू शकते. त्याकरिता विविध साधनांचा वापर केला जातो. ते पुढीलप्रमाणे :
- १) **माहिती प्रणालीत संगणकाचा उपयोग** : संगणक हे एक अद्भूत यंत्र असून ते संख्या, शब्द, चित्राच्या रुपातील माहिती स्विकारणे, संचय करणे, उपयोग करणे आणि माहिती देणे इत्यादी कार्य करते. संगणकाचे शैक्षणिक, वाणिज्य, औद्योगिक प्रशासकीय, वैद्यकीय, सामाजिक, आर्थिक आणि इतर अनेक संघटना मोठ्या प्रमाणात संगणकावर अवलंबून आहेत. कारण त्यामुळे वेळेची बचत होते. तथ्य संस्करणात उपयोगी, श्रमाची बचत, सोपी व सुलभ गणना, सादरीकरणात उपयोग तथ्य संकलीन व विश्लेषण क्रांतीकारक बदल तंत्रज्ञान इत्यादीमुळे माहिती प्रणालीत संगणकाचा वापर वाढता दिसून येतो.
  - २) **माहिती प्रणालीत इंटरनेटचा उपयोग** : इंटरनेटच्या वापरामुळे जग छोटे बनले आहे. इंटरनेटचे जाळे संपूर्ण जगभर पसरलेले असते. इंटरनेटद्वारे आपणास एका ठिकाणाहून जगातील कोणत्याही देशातील कोणत्याही एका ठिकाणी किंवा खेड्यातील व्यक्तीबरोबर संपर्क साधता येतो व माहितीची देवणा-धेवणा करता येते. इंटरनेटद्वारे एका क्षणात हवी ती माहिती उपलब्ध होते. इंटरनेटमुळे वेबपेजेस पाहता येतात. संपर्क साधता येतो, मासिके, पुस्तके वाचणे, कॉम्प्युटर प्रोग्राम्स मिळवता येतात. जाहिरात व विक्री संदेश पाठविणे, कार्यालयीन कामे, डाऊनलोडिंग, ब्लॉग, मेल्स इत्यादी फायदे इंटरनेटमुळे दिसून येतात. अशा प्रकारे सामाजिक संशोधनात वाढत्या माहिती प्रणालीमुळे संशोधन कार्यात अनुकूल परिणाम झालेला दिसून येतो. हे बरील घेतलेले गृहितकृत्य सत्य असल्याचे दिसून येते.



सारांश :

संशोधन हे संपूर्ण विद्वानमध्ये केले जाते. त्यामध्ये विभिन्न शास्त्र, क्षेत्र असून त्यामध्ये सामाजिक समस्यांचे निराकरण करण्यासाठी उपाययोजना सुचविल्या जातात. त्यामुळे समाजात निर्माण होणा-या महत्त्वपूर्ण समस्या सोडविण्यास मदत होते. माहिती प्रणालीमुळे संशोधनात जल्द गतीने पूर्ण केले जाते. यासारखे महत्त्व संशोधनामुळे सांख्यिकीय व माहिती प्रणाली इत्यादींचा संशोधन कार्यातील महत्त्वाचे योगदान दिसून येते.

निष्कर्ष :

1. सामाजिक संशोधनामध्ये समाज हा महत्त्वपूर्ण घटक आहे.
2. संशोधन पध्दतीत सामाजिक शास्त्राच्या ऐतिहासिक संशोधन, साहित्यिक संशोधन, शैक्षणिक संशोधन, सामाजिक संशोधन, भौतिक संशोधन, वैज्ञानिक संशोधन, सांख्यिकीय संशोधन इत्यादीचे कार्य महत्त्वपूर्ण दिसून येते.
3. वाढत्या संशोधन कार्यामुळे समाजातील समस्यांचे निराकरण होण्यास मदत होते.
4. वाढत्या संशोधन कार्यात माहिती प्रणालीत संगणक व इंटरनेटचे महत्त्व दिवसेंदिवस वाढत आहे.
5. वाढत्या संशोधन कार्यामुळे लोकांच्या राहणीमानाचा दर्जा उंचविण्यास व आर्थिक पिळवणुकीवर प्रतिबंध करण्यावर मदत झाली आहे.

संदर्भ ग्रंथ :

1. प्रा. डॉ. ह.श्री. साने, सामाजिक शास्त्रे आणि साहित्य : अंतःसंबंध, प्रतिमा प्रकाशन, पुणे (१९९५).
2. डॉ. रा.र. बोरुडे, संशोधन पध्दतीशास्त्र, पुणे विद्यार्थी गृह प्रकाशन, पुणे (२००५).
3. प्रा. डॉ. सुनील मायी, सामाजिक संशोधन पध्दती, डायमंड पब्लिकेशन्स, पुणे (२००८).
4. प्रा.एम.एन. गंदेवार, समाजशास्त्रीय संशोधन पध्दती, विद्याभारती प्रकाशन लातूर.
5. डॉ. सुमन बेहरे, सामाजिक संशोधन पध्दती, विद्या प्रकाशन, नागपूर (१९९८).
6. प्रा. सुधीर बोधनकर, प्रा. विवेक अलोणी, अॅड. मृणाल कुलकर्णी, सामाजिक संशोधन पध्दती, श्री साईनाथ प्रकाशन, नागपूर.

प्रा.डॉ. व्ही. डी. पाटील  
अर्थशास्त्र विभाग प्रमुख,  
राधाबाई काले महिला महाविद्यालय, अहमदनगर

कु. शाधिन यासिन शेख,  
संशोधक विद्यार्थिनी

ISBN : 978-93-84916-56-5

p23

**BJS**  
Bharatiya Jain Sanghatana

**National Level Seminar  
on**



**PROSPECTS AND OPPORTUNITIES  
IN CHEMICAL SCIENCES**

**29 - 30 January, 2015**

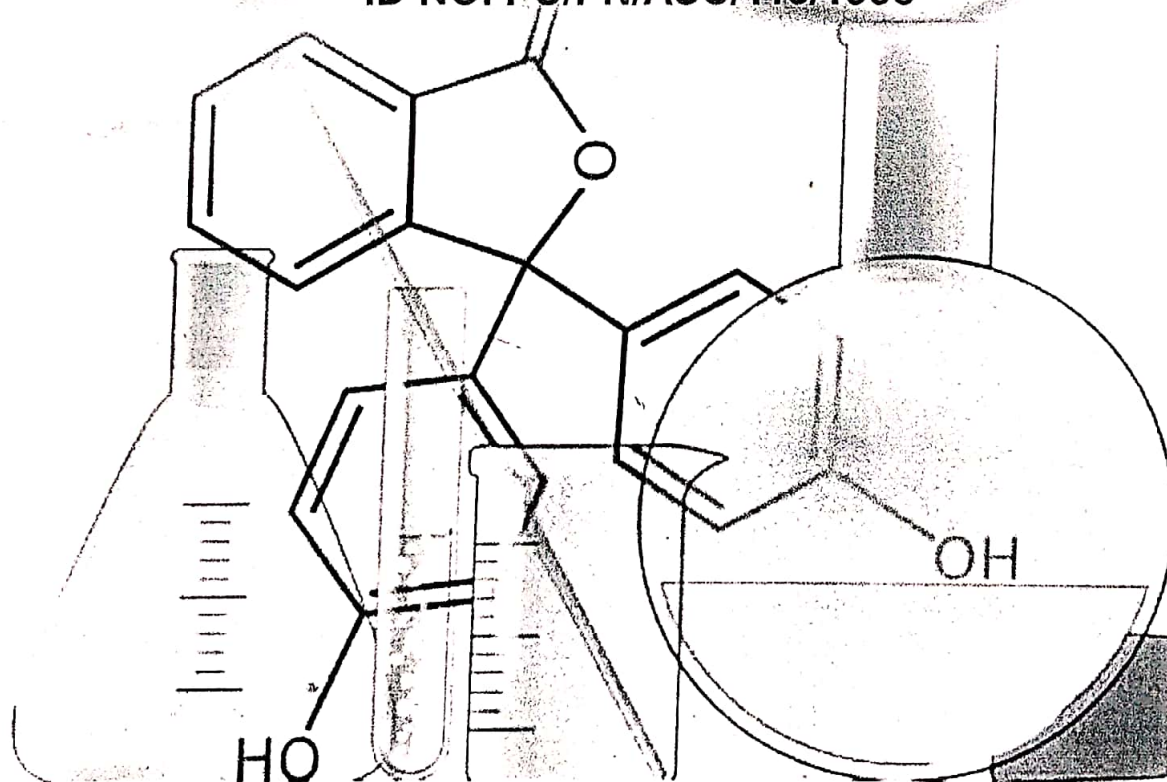
**Organised by**

**Savitribai Phule Pune University, Pune  
and**

**Department of Chemistry  
Bharatiya Jain Sanghatana's**

**Arts, Science & Commerce College, Wagholi, Pune.**

**ID NO. PU/PN/ASC/113/1995**



**Web: [www.bjsscollege.org.in](http://www.bjsscollege.org.in),  
Email: [bjss\\_college@yahoo.co.in](mailto:bjss_college@yahoo.co.in)**





## **Editors**

**Dr. Babasaheb Sangale (Principal)**

**Dr. Sanjay Gaikwad (H.O.D & Associate Professor)**

**Dr. Rupali Gulalkari (Assistant Professor)**

**Mrs. Manisha Bora (Assistant Professor)**

**Mr. Dinesh Gaikwad (Assistant Professor)**



## CONVERSION OF MACRO ELEMENTAL STATE OF IRON INTO MEDICINALLY IMPORTANT NANO BHASMA STATE THROUGH ANCIENT AYURVEDIC PROCESSES

Rupali Ajesh Gulalkari

Dept of Chemistry

Bharatiya Jain Sanghatana's Arts, Science and Commerce College, Wagholi, Pune

Email :-rupalilad.2009@rediffmail.com

### ABSTRACT:

Ayurvedic system of medicine includes an important class of drugs of mineral origin under which there is a subclass known as ayurvedicbhasmas. These are derived from metals like gold, silver, copper, iron, lead, supreme medicines due to their extraordinary medicinal properties. However, according to the modern science, heavy metals referred above are difficult to absorb at cellular levels and therefore are toxic and harmful to human bodies. As against this according to ayurved, all these elements, after ayurvedic processes of bhasmikananot only lose their toxicity but miraculous medicinal properties are induced when they are transformed into what is called as bhasma state. In an attempt to elucidate the exact nature of this bhasma state, we found that a genuine ayurvedicbhasma possesses two characteristics (i) extremely tiny particle size, tending to nano level of the order of 20-90 nm and (ii) attachment of an organic component to these nanosizedbhasma particles. These findings are expected to be useful to throw light on the medicinal potential of ayurvedicbhasma.

### INTRODUCTION:

Ayurved firstly introduced the concept of "Bhasma" in its medicinal system. Originally, ayurvedic system of medicine was mostly restricted to medicinal plants (vanaushadhi) and to, some extent to animal products such as cowurine, cowdung, cowmilk, honey etc. Later on metal-based bhasmas were introduced and subsequently they constituted the most important class of drugs of mineral origin.

The art and science of ayurvedicbhasmas in general and metal-based bhasmas in particular is the subject of "ayurved *rasashastra*" ,

which is an extremely important and interesting branch of ayurved. The origin, history, developments in ayurvedrasashastra is itself an attractive and promising area for research especially for chemists. Research in this subject will be also relevant and encouraging in coming years because ayurved and ayurvedic medicines will receive more and more appreciation and importance all over the world. Metal-based ayurvedic drugs being the superior drugs<sup>3</sup> as compared to all other classes of drugs, there is an excellent opportunity to rejuvenate this original art with the help of modern scientific developments. The present work is an attempt from this point of view.

### SYNTHESIS AND CHARACTERIZATION OF METALLICBHASMAS:

#### Synthesis of Metallic Bhasmas.

Preparation of bhasma is an elaborate process involving shodhana, marana and bhasmikanana. The classical texts of Ayurveda prescribe in detail these processes. Metals are first purified through a process called shodhana, during which the metal is repeatedly heated and then cooled in herbal extracts. This is followed by bhasmikanana where, the shodhit metal is repeatedly triturated with herbs (bhavana) and calcinated in closed earthen crucibles in a pit, by burning cowdung cakes (a process called puta), to obtain bhasma. The size of pit, the number of cowdung cakes to be used to obtain a specific temperature and duration of heating are specified in detail in standard ayurvedic texts. This process is repeated as many times as prescribed in classical texts for each preparation. Thus we have dashaputa (10 cycles), shataputa (100 cycles), Sahastraputa (1000 cycles) etc. to ensure that the

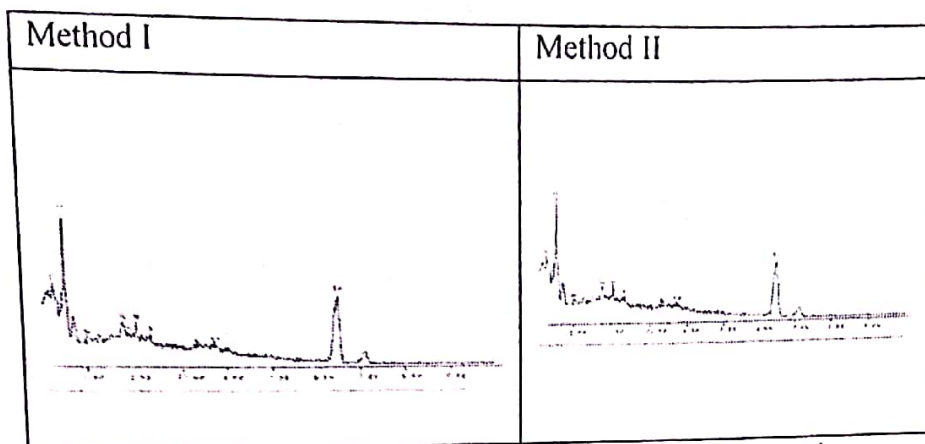


Figure 1.1 E-DAX patterns of the two lohabhasma samples.

**Table 1.1 Chemical Composition by E-DAX**

Method	C	O	Fe	Al	Si	Cr	K	S	Ca
Method I	30.40	28.07	35.60	0.40	1.02	—	0.15	0.58	1.91
Method II	36.93	28.30	29.14	—	0.77	3.43	1.17	0.26	—

**Phase analysis by XRD and particle size determination**

The investigations were done to examine the crystalline modifications of iron oxides. The XRD patterns were recorded on Phillips X-pert Pro Powder diffractometer in the diffraction range (10.90)2. The Scherrer equation was used to calculate mean crystallite size.

The XRD patterns with relevant details are shown in Fig. 2.2 while the results of phase analysis and particle size determination are shown in Table 2.2

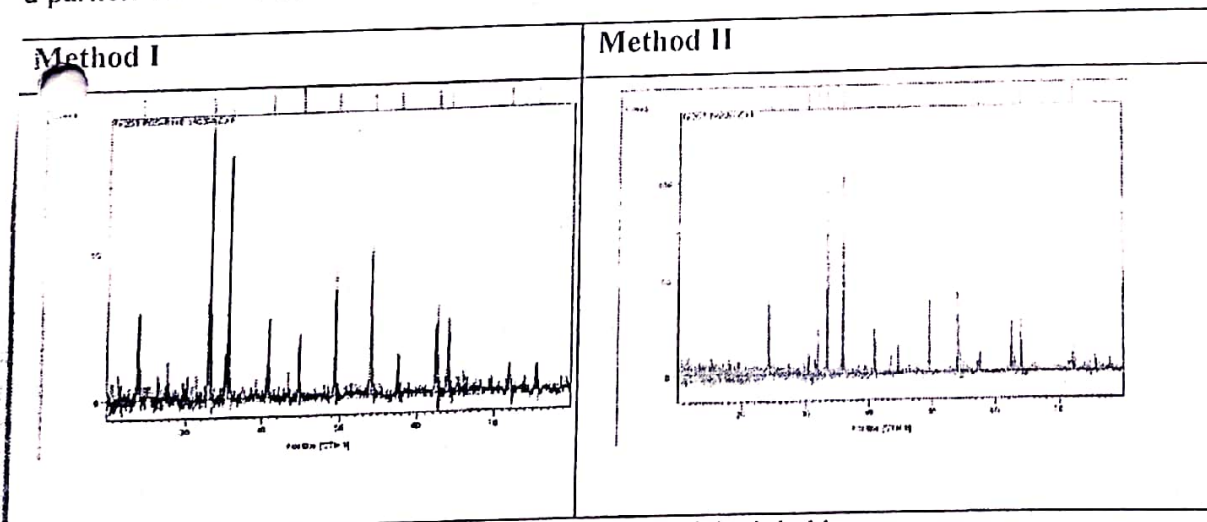


Figure 2.2 XRD patterns of the lohabhasma



silicates; carbonates or phosphates are not known to possess significant medicinal properties and also they are not assimilable to human bodies. But when they are transformed into their bhasma state miraculous medicinal properties are claimed to be induced in them. Two major factors seem to be responsible for induction of tremendous medicinal potential in the bhasma state. These may be (a) extremely tiny size tending to nanolevel (10-90 nm) of the bhasma particles and (b) organic component imparted to these tiny bhasma particles.

In the present work, encouraging experimental evidence is obtained in favour of both these factors. Similar results and evidence is obtained in metallic bhasmas derived from copper, gold, tin and zinc. These results and evidences are expected to be useful to throw some light on the nature of ayurvedic bhasmas and their claimed extraordinary medicinal properties.

**REFERENCES :**

1. S.B. Kulkarni –Dudhgaonkar Rasaratnasamuccya Shivaji University, Kolhapur publication (1970)
2. Pandit Kashinath Shastri, Rastarangini (Hindi) Motilal Banarasidas Dehli (2004)
3. Mrudula Wadekar, Yogesh Bendale, B.A. Kulkarni, C.V. Rode and Asmita Prabhune. Supremacy of Metal-Based Ayurvedic Bhasmas and Their Globalization. 2<sup>nd</sup> World Ayurved Congress, University of Pune, (2006)
4. M.P. Wadekar, C.V. Rode, Y.N. Bendale, K.R. Patil and A.A. Prabhune preparation and characterization of copper-based Indian Traditional Drugs Tamra Bhasma journal of pharmaceutical and Biomedical Analysis 39, 951 (2005)
5. M.P. Wadekar, C.V. Rode, Y.N. Bendale, K.R. patil, A.B. Gaikwad, A.A. Prabhune Effect of calcinations cycles on the preparation of tin oxide based traditional drugs. Studies of its formation and characterization J. of pharmaceutical and biomedical Science, 41 1473-1478 (2006)
6. Bhawat M, Kashalkar R.V. Bhawe A.S., Vidya S.S. and ramaswami v Preparation and structural characterization of jasad Bhasma Indian Drugs, 41(1) January 12-18 (2004)
7. Rupali M. Lad  
Chemical and Biochemical studies of some Iron based Ayurvedic Drugs ph.d Thesis, Bharati Vidyapeeth Deemed University pune (2009).
8. S. Pandit, t.K. Biawad, D.K. Debnath, A.V. Shaha, V. Choudhary  
Chemical and pharmacological evolution of different ayurvedic preparation of Iron. J. Ethnopharmacol 65, 149-56 (1999)
9. S.S. Kadam, R.W. Jawale, V.V. Dhapte, M.P. Wadekar, S.T. Takale and B.A. Kulkarni characterization of Nanometric Ayurvedic Bhasmas as Regenerative Drugs. International conference of Nanomedicine, Tanjaver, India. 2007
10. T.K. Bowmick, A.K. Suresh, S.G. Kane, A.C. Joshi and J.R. Bellare.  
Physico-chemical characterization of an Indian Traditional Medicine Jasad Bhasma. Detection of nano particles containing non-zinc oxide J. Nanopart. Res 11, 655-664 (2009)
11. Shivaji T. Takale  
Comparative Study of Metal Based Ayurvedic Bhasmas and corresponding metal oxides Ph.D. Thesis, Bharati Vidyapeeth Deemed University pune (2010)
12. Mrudala Wadekar, Viswas Gogte, Prasad Khandagale and Asmita Prabhune.  
comparative study of some commercial samples of Naga Bhasma Ancient Science of life Vol, XXIII (4) (2004)
13. Mrudala Kulkarni, G.T. Panase, B.A. Kulkarni, And Yogesh Bendale  
Characterization of Raupya Bhasma by using modern analytical techniques International conference on the role of Indian Systems of medicine in 21<sup>st</sup> Century Chennai (2003)
14. Mrudula Wadekar, R.B. Gaikwad, B.A. Kulkarni, And Asmita Prabhune  
Validity of imparting organic component to metallic bhasmas through and process of bhasmikarna 2<sup>nd</sup> World Ayurved Congress, University Of Pune, (2006)



# Chemical Basis for the Traditional Test Used for Loha Bhasma

<sup>1</sup>Mrudula P. Wadekar\*, <sup>2</sup>Shivaji Takale, <sup>3</sup>Rupali Lad, <sup>1</sup>Sonali Dhamal  
and <sup>1</sup>B.A. Kulkarni.

1. Yashwantrao Mohite College, Bharati Vidyapeeth Deemed University, Pune India
2. Bharati Vidyapeeth Engineering College, Lawale campus-Pune
3. Bharatiya Jain Sanghatna's BJS College of Arts, Science and Commerce, Wagholi, Pune, India.

**Abstract:** Characterization of the genuine metallic bhasmas and confirmation of their identity and authenticity is very important for their safer use. Complete conversation of metallic powder to the bhasma is essential for this purpose. In ancient days traditional test like test of *Phyllanthus emblica* with loha bhasma was one of the significant test to identify genuine loha bhasma. In the present study, five commercial samples of *Loha bhasma* ie bhasma of iron are subjected to this test to find presence or absence of free iron in the samples, using traditional ayurvedic test and chemical basis for the same is provided using UV-Visible spectroscopy. Importance and practical utility of the test is also discussed in this communication.

**Key words:** Loha Bhasma, ayurvedic test, *Phyllanthus emblica*, UV-Visible spectra.

## 1.0 INTRODUCTION:

In the ayurvedic system of medicines all the drugs may be broadly classified into three major categories (a) drugs of plant origin, (b) drugs of animal origin and (c) drugs of mineral origin[1]. Among these, the drugs of mineral origin include a very important class called as metal-based bhasmas. According to ayurved rasashastra, these bhasmas, especially those derived from mercury, gold, silver, copper, iron, tin, lead and zinc are of primary importance because they possess several merits and advantageous over all other medicines.

All these bhasmas are synthesized directly from the corresponding metals through the ayurvedic process called as *bhasmikiranana*. If this process of *bhasmikiranana* is followed strictly according to the instruction given in the standard ayurvedic texts, the resultant genuine bhasmas possess miraculous medicinal properties[2].

Characterization of the genuine metallic bhasmas and confirmation of their identity and authenticity is very important for their safer use. Reinvestigation of these traditional medicines are highly desirable on the basis of modern science to give them international recognition. Such types of attempts are previously made by some researchers[3-6]. For identification of a genuine bhasma, several preliminary and confirmatory tests have been established by ayurved pharmacy[7-8]. But most of these tests are either qualitative and arbitrary. More exhaustive and confirmatory tests are also prescribed in ayurvedic texts but these are not yet standardized. Secondly for each metal-based bhasma there are a variety of methods for their syntheses and therefore standardization of these bhasmas is also a very complicated task.

Therefore, in ayurved pharmacy, several traditional tests were introduced to test the purity and acceptability of certain ayurvedic drugs, for their safer use. These tests are simple, rapid and cheaper as well as convenient for practical purpose. However the chemistry behind most of such tests is yet to be explored. Some attempts have been done by the authors[9-11] and present work is one more attempt this direction.

The traditional test selected for present study i.e for *loha bhasma* is based on the use of *Phyllanthus emblica*. five commercial samples of *loha bhasma* (LB-1, LB-2, LB-3, LB-4, LB-5) are subjected to this test to find presence of free iron (which must be avoided) in the samples. The experimental details for this test along with the chemical interpretations of the results are presented below.

## 1.1 IMPORTANCE OF LOHA BHASMA:

*Loha bhasma* is an iron-based ayurvedic drug. It is a famous and versatile medicine in Indian system of medicine used all over India since ancient times. *Loha bhasma* is specially recommended for anaemia and its role in increasing haemoglobin level has been experimentally proved. Apart from its specific use in anaemia, it is claimed to be equally important and effective in several other diseases listed below

1. Liver and Spleen complaints.
2. Bronchial asthma.
3. Impotency.
4. Rheumatism.
5. Wasting diseases.

## 1.2 SYNTHESIS OF LOHA BHASMA

Large number of methods for the synthesis of *loha bhasma* have been established in ayurved Pharmacy. Most of these methods use metallic iron

as the starting material. This metallic iron is preferred in the form of fine powder or thin sheet. Preparations are still done by traditional methods.

The synthesis of *loha bhasma* involves three major steps

- a) Ayurvedic purification of iron (Shuddhikarana)
- b) Destruction of metallic structure / character (Marana)
- c) Transformation into the bhasma state (bhasmikarana)

All these processes are tedious, time consuming and very expensive, but if they are followed strictly and correctly, the genuine "*loha bhasma*" is believed to be a powerful and wonderful medicine. However, synthesis of genuine *loha bhasma* and its correct characterization is a challenging problem for research scientists.

### 1.3 TRADITIONAL TEST SPECIFIC FOR LOHA BHASMA

To decide the purity and acceptability of *loha bhasma* this test based on the use of "*Phyllanthus emblica*" has been recommended in ayurvedic pharmacy. According to this test, if *loha bhasma* is spread on the surface of *Phyllanthus emblica* fruit, the colour of the interacting surface should not change for a standard *loha bhasma*. Thus, if no change in colour is observed at list up to six hours, this test is positive. If however the colour of the interacting surface becomes dark (black or blue-violet) within three to six hours, the sample is defective and indicative of the fact that, formation of *loha bhasma* is incomplete and such *loha bhasma* is not acceptable for clinical use.

The blue or black coloration is most probably due to the impurities of iron powder or iron salts associated with *loha bhasma*. To confirm the origin of this coloration, its chemical interpretation and source of impurities responsible for the colour, a detail study of this test is carried out. It has been reported that *emblica* act as chelating agent with iron and copper [12] which supports this observation.

### 1.4 CHEMICAL COMPOSITION OF PHYLLANTHUS EMBLICA

(a) The fruit of *Phyllanthus emblica* is mainly composed of following constituents [13]

- Moisture ~ 77.00%
- Tannin ~ 28.00%
- Fibre ~ 3.20%
- Minerals ~ 0.70%
- Vitamin C ~ 0.60%
- Other Trace Constituents ~ 0.50%

(b) Distribution of trace constituents per 100gm :

- Silica ~ 1.2mg
- Phosphorus ~ 20.00mg
- Calcium ~ 50.00mg

- Nicotinic Acid ~ 0.2mg

(c) Important constituents of our interest :The fruit contains tannins and gallic acid.

### 2. MATERIALS AND METHODS:

For the present study, pure microfine powder of iron and common iron salts such as ferric ammonium sulphate, ferrous ammonium sulphate, ferrous chloride, ferric chloride, iron oxide, iron oxyhydroxide and the solvents such as ethanol, used were of AR grade. Five samples of *Loha bhasma* prepared in reputed Ayurvedic pharmacy were taken for the study. Fresh fruits of *Phyllanthus emblica* were purchased from local market.

The electronic spectra of the solutions under study were recorded in ethanol on Shimadzu U.V-300 double spectrophotometer in the range 200-800 nm using 1.0 cm matched quartz cells.

### 3. RESULTS AND DISCUSSION:

#### 3.1 Interaction of iron powder and iron compounds with *phyllanthus emblica*

As a part of the chemical study of this traditional test, an examination of the interaction of freshly cut pieces of *Phyllanthus emblica* with microfined iron powder, iron compounds and *loha bhasma* giving coloration has been carried out. About 500mg of the sample was used for each test. The results of this examination are summarized in Table-1.

Table: 1 Interaction of iron with "*Phyllanthus emblica*"

Material	Results of Interaction
1) Pure iron powder	Dark violate-blue colour is slowly developed
2) Ferric ammonium sulphate	Intense dark violet- blue colour is immediately developed.
3) Ferrous ammonium sulphate	Intense dark violate- blue colour is immediately developed.
4) Ferrous chloride	Immediate violate- blue colouration.
5) Ferric chloride	Immediate violet- blue colouration
6) Fe <sub>2</sub> O <sub>3</sub>	No colour is developed even upto six hours.
7) Fe O (OH)	No colour is developed even upto six hours.

#### 3.2 Isolation of the coloured chelate and its characterisation

For the characterization of the coloured chelate formed by the interaction of iron powder or iron salt with *Phyllanthus emblica*, it was extracted with distilled ethanol. For this purpose the material associated with the coloured chelate was transferred into a beaker containing sufficient ethanol within one hour which was filtered through



## Importance of the Test:

### (a) Detection of free iron in the reaction intermediates:

Metallic iron converted into microcrystalline form is the starting material of *loha bhasma*. For the synthesis of *loha bhasma* a number of ayurvedic processes are performed on this iron which mainly include, Purification(Shuddhi) of the metal involves strong heating of the metal powder ( or thin sheets) and deeping it seven times into oil, butter milk, cow-urine kanji. In this purification whether and to what extent iron is transferred to the medium may be detected through this test. Since number of such tests is large, rapidity of the test is a unique advantage. (ii) *Bhaskarana* of the purified iron: For this purpose a large number of calcination cycles (30, 100, 500 or 1000) (*gaja putas*) are necessary. After each cycle, the intermediate product may be tested for the presence of unconverted iron left behind due to the incomplete *bhaskarana*. This test is to be repeated till all the iron is completely consumed and *bhaskarana* is complete. To decide, how many minimum cycles are required for this purpose, this test will be very useful from practical point of view.

### Preliminary Examination of commercial samples:

Loha bhasma is manufactured by a large number of ayurvedic pharmacies all over India. of such samples are available for study. These samples may be screened through this test and very useful conclusions may be drawn for the clinical or research purpose.

Limitation of the Test: Ready availability of the *Phyllanthus emblica* only during a restricted period (October to February) is the most serious limitation for this test. To overcome this limitation attempts may be done to replace the naturally occurring plants material by tannin or gallic acid.

## 4.0 CONCLUSIONS

The traditional test for *loha bhasma* by using *Phyllanthus emblica* is based on the interaction of *loha bhasma* with freshly cut piece of the fruit of *phyllanthus emblica*.

The test is positive and indicative of the purity of the *loha bhasma* if no change in colour at the interacting surface takes place. The absence of blue or violet colour indicates that the sample of *loha bhasma* is completely free from iron powder, which is the starting material. This means all the iron is completely transferred into bhasma state. Similarly during the process of *bhaskarana* no iron salt or dissociable iron compound are contaminated in the end product.

Since *loha bhasma* is found to be composed of  $Fe_2O_3$  and  $Fe(OH)_3$ , it is not expected to show any interaction with *Phyllanthus emblica* and therefore no change in colour is expected. Among five samples, four samples show no coloration indicating genuine *loha bhasma* while one sample (LB-2) shows violate-blue coloration for the test indicating incomplete formation of the bhasma.

The origin of the blue or violet colour is the chelation of Fe (II) or Fe (III) with tannin (i.e. gallic acid). This colour reaction is specific for iron salts when applied for *loha bhasma* because the characteristic blue-violate colour is not given by any other contaminated ions (if any) such as  $Cu^{2+}$ ,  $Ca^{2+}$ ,  $Mg^{2+}$ ,  $Ni^{2+}$ ,  $Co^{2+}$ . Therefore the colouration is due to contamination of unreacted iron powder or residual iron salts.

The test is simple rapid and inexpensive and there is possibility for its modification by replacing *Phyllanthus emblica* with tannin or gallic acid.

### Acknowledgements:

Authors are thankful to Dr. S.S. Kadam, Vice Chancellor, Bharati Vidyapeeth Deemed University, Pune, Prof. K.D. Jadhav, Principal, Y.M. College, Pune, for providing necessary facilities and constant encouragement.

## References:

1. Chopra R. N. (1982) *Indigenous Drug of India*, Academic Publisher, Calcutta. New Delhi.
2. Vaidya Kudtarkar Shastri(1954), *Research in Ayurvedic Medicines*, Dhanwantari Aushadhalaya, Pune .
3. Wadekar M.P., Rode C.V., Bendale Y.N. , Patil K.R., Prabhune A.A., (2005) *Preparation and Characterization of a copper based Indian traditional drug :Tamra Bhasma.*, Journal of Pharmaceutical and Biomedical Analysis, 39, 951- 955.,
4. Wadekar M.P., Rode C.V., Bendale Y.N., Patil K.R., Gaikwad A. B., Prabhune A.A. (2006), *Study of effect of calcination cycles on the preparation of tin based traditional drug:Studies on its formation and characterization*, Journal of Pharmaceutical and Biomedical Analysis. 41, 1473-1478.,
5. Kulkarni(Wadekar)Mrudula , Panse G.T ,Kulkarni B.A and Bendale Yogesh (2004), *Characterization of Raupya Bhasma by using modern analytical techniques*,Journal of Indian Medicine and Homeopathy Vol. 3 No4, 37.



Whatman filter paper No. 41 to get clear transparent solution.

For characterization the UV-visible spectra of the coloured solution was recorded in the region 200-1000 nm against ethanol as the blank. Also UV-visible spectra of the ethanolic extract of pure *Phyllanthus emblica* (on which the samples of iron powder, iron salts and *loha bhasma* were spread) in the same region 200 - 1000 nm was

recorded [Figure 1-3]. Absorption maxima for the compounds are given in Table-2. The UV-visible spectra of coloured chelate formed by *bhasma* (LB-2) with *Phyllanthus emblica*, (having its maxima at ~ 585 nm) was compared with the UV-visible spectra of iron chelate formed by pure iron powder with *Phyllanthus emblica*. *Phyllanthus emblica* containing tannic acid and gallic acid form black blue coloured iron tannate complex [14-15].

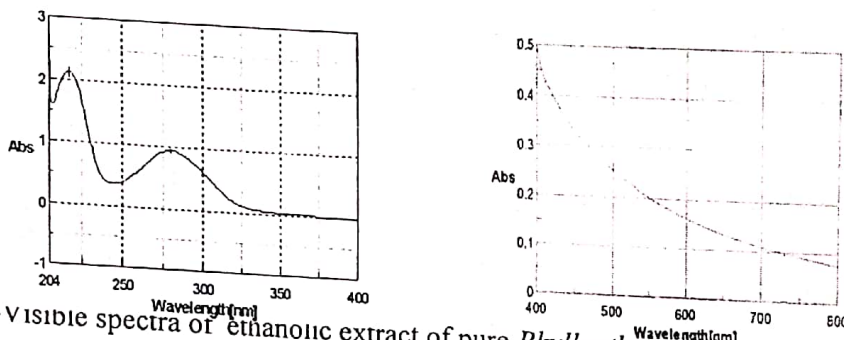


Fig-1 UV-visible spectra of ethanolic extract of pure *Phyllanthus emblica*

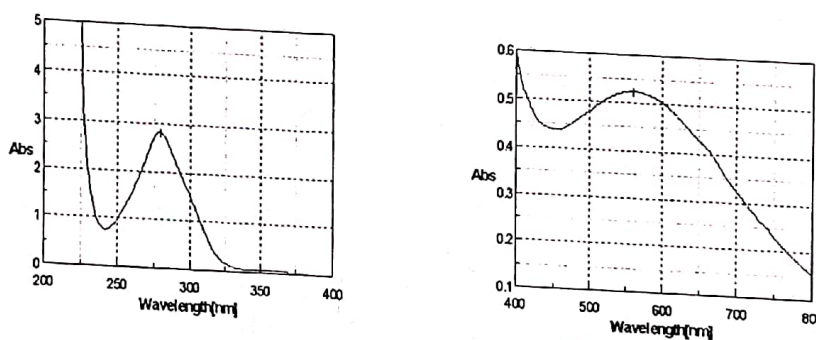


Fig -2 UV-Visible spectra of pure iron powder in ethanolic extract of *Phyllanthus emblica*

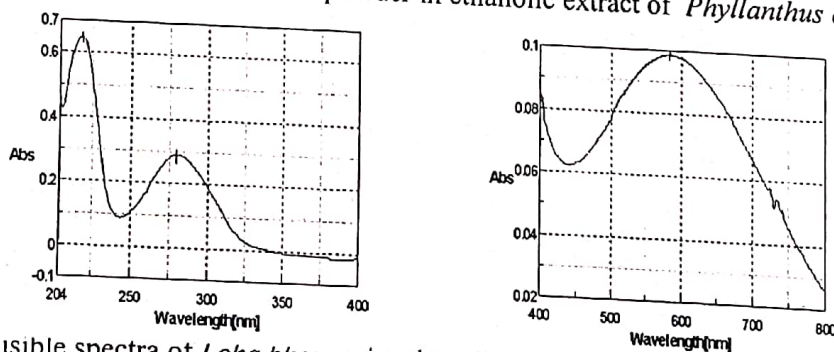


Fig -3 UV-Visible spectra of *Loha bhasma* in ethanolic extract of *Phyllanthus emblica*

Table-2 UV-Visible absorption maxima of Iron powder and samples of *Loha Bhasma*

Loha bhasma	Result of the Test	$\lambda_{max}$ (UV) nm	$\lambda_{max}$ (Visible) nm	Conclusions
Extract of pure <i>Phyllanthus emblica</i>	No coloration	280	--	Fe and Fe salts absent
Pure Iron powder	Violate-Blue coloration	282	585	Fe and Fe salts present
LB-1	No coloration	281	--	Fe and Fe salts absent
LB-2	Violate-Blue coloration	280	586	Fe and Fe salts present
LB-3	No coloration	282	--	Fe and Fe salts absent
LB-4	No coloration	281	--	Fe and Fe salts absent
LB-5	No coloration	280	--	Fe and Fe salts absent

6. Wadekar Mrudula , Gogte Viswas , Khandagale Prasad and Prabhune Asmita, (2004), *Comparative study of some commercial samples of Naga Bhasma*, Ancient Science of Life Vol 23 No 4 , 48.
7. Kulkarni S. B. (Dudhagavkar) (1976), *Rasaratnnasammuchhya*, Shivaji University Publication Kolhapur.
8. Borkar D. B. *Rasaratnnakar*, (1970), Shri. Gajanana Book Depot, Pune.
9. Wadekar Mrudula , Bendale Yogesh , Jadhav Pratibha and Prabhune Asmita, (2006), *Standardization and Chemical Interpretation of Traditional Curd Test for Tamra bhasma*, National Symposium on Designing the Molecular World Through Chemistry, Banaras Hindu University, Varanasi.
10. Wadekar Mrudula , Takale Shivaji , Lad Rupali , Jadhav Pratibha and Kulkarni B. A. (2006), *Validity of The Traditional Test for Loha bhasma Involving Use of Phyllanthus Emblica and its Practical Utility*, 2<sup>nd</sup> International Symposium on Drug Discovery and Process Research, Belgam (Karnataka).
11. Wadekar Mrudula , Takale S. T. , Jadhav Pratibha and Lad Rupali, (2006), *Use of Naturally Occurring Chelating Ligands to Test The Acceptibility of Metal-Based Ayurvedic Bhasmas*, 37<sup>th</sup> International Conference on Coordination Chemistry, Cape Town, South Africa.
12. Chaudhuri, Ratan K. Gutierrez, Gilles and Serrar, Mustafa(2003).: *Low Molecular-Weight Tannins of Phyllanthus emblica: A New Class of Anti-Aging Ingredients*. Proceedings Active Ingredients Conference, Paris.
13. Singh Ekta , Sharma Sheel , Pareek Ashutosh, Dwivedi Jaya , Yadav Sachdev and Sharma Swapnil,(2011), *Phytochemistry, traditional uses and cancer chemopreventive activity of Amla (Phyllanthus emblica): The Sustainer*. Journal of Applied Pharmaceutical Science, 02 (01), 176-183.
14. Iglesias J., Garcia E, DE Saldana and Jaen J.A,(2001) *On the tannic acid interaction with metallic iron*, *Hyperfine interactions*, 134, 109-114.
15. Fazary Ahmed Eid, Taha Mohamad and Yi-Hsu Ju,(2009), *Iron complexation studies of gallic acid.*, J. Chem, Eng. Data, 54, 35-42.



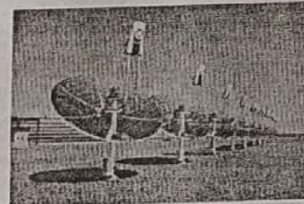
ISSN:2350-0905

\* Bora m.A  
conference Paper  
+  
certificate  
(2016)

P 236

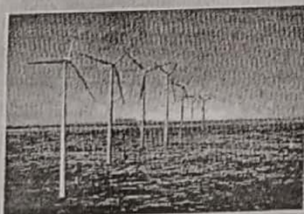
CTBC's

# INTERNATIONAL RESEARCH JOURNAL



Proceedings of  
International Conference on

## "ENVIRONMENTAL SYSTEMS AND SUSTAINABLE DEVELOPMENT"



Volume 2 / Issue 7 (Special Issue)  
January 2016

Website : [www.ctboracollege.edu.in](http://www.ctboracollege.edu.in)  
Email : [ctborainfo68@gmail.com](mailto:ctborainfo68@gmail.com)



## POLYANILINE-HEMATITE (PAni/ $\alpha$ -Fe<sub>2</sub>O<sub>3</sub>) HYBRID NANOCOMPOSITE AS A SENSOR FOR DETECTION OF AMMONIA GAS

Manisha Bora<sup>a,b</sup>, Prakash Chhattise<sup>a</sup>, Pravin Adhav<sup>a</sup>, Digamber Pawar<sup>a</sup>, Balasaheb Diwate<sup>a</sup>, Kakasaheb Mohite<sup>c</sup>, Vasant Chabukswar<sup>a\*</sup>

<sup>a</sup>Nowrosjee Wadia College, Chemistry Department, Pune, India

<sup>b</sup>Department of Chemistry, BJS's ASC College, Wagholi, Pune, India

<sup>c</sup>Department of Physics, C.T.Bora College, Shirur, Pune, India

**Abstract**—A facile, sensitive, economical and room temperature operable hybrid gas sensor of organic polymer poly-aniline (PAni) with inorganic material hematite ( $\alpha$ -Fe<sub>2</sub>O<sub>3</sub>) as ammonia gas sensor has been developed by in situ polymerization method. The hematite nanoparticles were synthesized hydrothermally at 200°C. The sensor shows excellent sensitivity for low concentration (5ppm) of ammonia gas with short recovery time. It is found that sensitivity linearly increases with increase in concentration of ammonia gas. The response of hybrid sensor was found to be better than pure polyaniline sensor at room temperature. PAni/ $\alpha$ -Fe<sub>2</sub>O<sub>3</sub> hybrid nanocomposite was characterized by Fourier transform infra-red spectroscopy (FT-IR), X-ray diffraction (XRD) and scanning electron microscopy (SEM). The SEM study of PAni/ $\alpha$ -Fe<sub>2</sub>O<sub>3</sub> nanocomposite reveals formation of spherical porous and highly agglomerated morphology.

**Keywords**—Ammonia sensor, Hematite, Hybrid nanocomposite, Poly-aniline (PAni)

### 1. INTRODUCTION

Environmental pollution has become one of the most serious issues that entire world is facing and hence obviously has also attracted scientific researchers in order to investigate various environmental safety and protecting measures (1-5). The major cause of environmental pollution is release of various harmful and toxic gases or chemicals in the air through various activities of mankind, industrial effluents and agricultural activities. Ammonia is a natural gas that is present in atmosphere in trace amount but in past decade it has been marked that its concentration has been increasing and has become one of the toxic pollutants in the environment. Ammonia is most abundant alkaline gas in the atmosphere. Recent study indicated that ammonia emissions have been increasing over a last few decades. This has caused negative impact on public health and also contributed in the climate change to a certain extent. According to United States Environmental Protection Agency, concentration of ammonia gas above 25ppm creates various health issues and also found that exposure to at about 50ppm of ammonia gas may cause life threatening situations such as swelling of eyelids, permanent blindness, respiratory tract diseases, skin irritations and skin diseases (6-10). Hence it is essential to design highly sensitive, room temperature efficient and economical ammonia gas sensor

\* Dr.V.V.Chabukswar. Tel.:+91-9960125609.  
E-mail address: vvchabukswar@gmail.com

which can detect presence of ammonia gas in atmosphere at very low concentration i.e. below the toxic concentration limit. Nanotechnology has an important key role in the development of new innovative methods to produce new improved products, to design new materials and chemicals with better performance resulting in less consumption of energy and materials and less harm to the environment. It is found that most of the organic conducting polymers such as polyaniline (PAni), poly-thiophene, poly-pyrrole, poly-phenylene possesses excellent gas sensing properties (11-14)

Poly-aniline (PAni) is one of the most versatile polymer which is eco-friendly, easy to synthesize and has good gas sensing properties. Due to its unique properties it has got various applications in several useful devices such as super capacitors, corrosion protection systems, light emitting diodes, rechargeable batteries etc. In recent studies it is marked that poly-aniline sensor has been used for the detection of various gases like H<sub>2</sub>S, H<sub>2</sub>, NH<sub>3</sub>, NO<sub>2</sub> etc. But this polymer have disadvantage that it is not possible to use it at higher temperature. In order to overcome this problem the blending of organic and inorganic nanocomposites materials have been utilized smartly for various gas sensing applications. (14-15). It is also found that most of the transition metal oxides are n-type semiconductors and may be used for gas sensing purpose. In the present study nano composite of PAni with hematite ( $\alpha$ -Fe<sub>2</sub>O<sub>3</sub>) is prepared in situ and is used for ammonia gas sensing purpose at room temperature. It is found that PAni- $\alpha$ -Fe<sub>2</sub>O<sub>3</sub> nanocomposites shows excellent

ammonia gas sensing activity at very low concentration (5ppm) of ammonia. This gas sensor operates on principle of conductance change due to chemisorption of gas molecules such as ammonia. This hybrid sensor is synthesized by simple, inexpensive, quick and eco-friendly process and found to be sensitive for ammonia gas.

**2. EXPERIMENTAL DETAILS**

**2.1 Synthesis of PANi/ $\alpha$ -Fe<sub>2</sub>O<sub>3</sub>(20%) Hybrid Nanocomposite**

All chemicals were of AR grade and used without further purification. FeCl<sub>3</sub> · 6 H<sub>2</sub>O was used as source for the synthesis of hematite ( $\alpha$ -Fe<sub>2</sub>O<sub>3</sub>) while Aniline as a monomer for the synthesis of Poly-aniline (PANi). All the chemicals were purchased from Merck. A 0.4 M solution of ferric chloride hexahydrate(FeCl<sub>3</sub> · 6H<sub>2</sub>O)in distilled water was made and the pH of the solution was adjusted to 10 by adding appropriate amount of 0.2 M NaOH solution. The mixture was stirred for 15min on magnetic stirrer and then hydrothermal synthesis of hematite was carried out in an autoclave reactor at 200°C for 24hours. The brick red precipitate obtained was then filtered, washed with DI water and dried in vacuum oven at 60°C for 12hrs. A solution of Aniline, HCl and hematite nanoparticles obtained hydrothermally was stirred at low temperature and to that an aqueous solution of Ammonium persulphate was added drop wise with constant stirring at low temperature for about 3hrs to get dark greenish thick emulsion of polymer-metaloxide hybrid nanocomposite. Finally the green emulsion was centrifuged and the precipitate was washed with DI water several times and then dried at 60°C for 24hours to get PANi/ $\alpha$ -Fe<sub>2</sub>O<sub>3</sub> (20%)nanocomposite.

**2.2 Characterization**

Fourier transform Infrared Spectroscopy (FTIR) analysis was performed with Perkin-Elmer 1600FT-IR Spectrophotometer in the wave ranging from 4000-400cm<sup>-1</sup>. X-ray diffraction pattern was obtained on Philips PW 172Q X-ray diffractometer using Cu-K $\alpha$  radiations. The morphology of nanocomposite was characterized by Scanning Electron Microscope (SEM), JEOL-JSM 6360A. The sensing performance of polymer nanocomposite pellet (Pellet having 10mm diameter and 3mm thickness was made by applying pressure at 7 tones using Pye-unicom system) to ammonia vapours in a closed system at room temperature. Sensing measurements were carried out for different concentrations of ammonia gas from 5ppm to 100ppm.

**3. RESULTS AND DISCUSSION:**

**3.1 FTIR study**

To identify presence of  $\alpha$ -Fe<sub>2</sub>O<sub>3</sub> in the composite and to observe the association of PANi with  $\alpha$ -Fe<sub>2</sub>O<sub>3</sub> FT-IR of PANi and its composite with  $\alpha$ -Fe<sub>2</sub>O<sub>3</sub> were

compared. Fig.1a and Fig.1b are the FT-IR spectra of PANi and PANi/ $\alpha$ -Fe<sub>2</sub>O<sub>3</sub> nanocomposite. The main bands for PANi (Fig. 1a) 1564 and 1504 cm<sup>-1</sup> were attributed to quinonoid and benzenoid ring stretching vibrations. The absorption band at 1246 and 1309 cm<sup>-1</sup> corresponds to C-N stretching vibrations inbenzenoid and quinonoid structure. The peak at 1159 cm<sup>-1</sup> was considered as bending vibrations of C-H in benzene ring. The absorption bands at 758 and 509 cm<sup>-1</sup> were attributed to bending vibrations of C-N for 1, 4-disubstituted benzene ring and bending vibrations of benzene ring respectively. The FTIR spectrum of PANi/ $\alpha$ -Fe<sub>2</sub>O<sub>3</sub> Nanocomposite (Fig.1b) was comparable to PANi even though some peaks were not fully identical. Vibrations of quinonoid and benzenoid structure were shifted from 1564 and 1500 cm<sup>-1</sup> to 1587 and 1500 cm<sup>-1</sup> respectively. The peaks at 574 and 470 cm<sup>-1</sup> indicates presence of Fe-O stretching frequency in nanocomposite. The minor red shift of peaks was observed in nanocomposite.

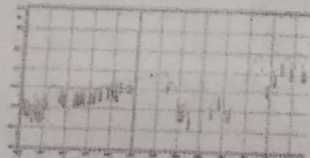


Fig.1 (a) of PANi



**3.2 XRD Study**

Fig.2 shows XRD patterns for the Nano composite. The peaks at  $2\theta = 33.180^\circ, 35.660^\circ, 40.880^\circ, 49.480^\circ, 54.680^\circ, 57.608^\circ$  may be assigned for the Bragg's planes: (012), (104), (110), (113), (024), (116) planes of Hematite. The broad peak at  $2\theta = 25.80^\circ$  is due to PANi. The XRD showed the presence of twodifferent phases i.e. PANi and  $\alpha$ -Fe<sub>2</sub>O<sub>3</sub>, supporting for thefor-

mation of PANi/ $\alpha$ -Fe<sub>2</sub>O<sub>3</sub> Nanocomposite. The peak between  $20^\circ-25^\circ$  confirms the presence of PANi while rest of the peaks confirms the presence of  $\alpha$ -Fe<sub>2</sub>O<sub>3</sub> phase of iron oxide in hybrid nano-composite. The broad peak indicates the amorphous form and nano size of particles in composite.

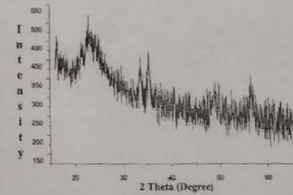


Fig.2.XRD of PANi/ $\alpha$ -Fe<sub>2</sub>O<sub>3</sub> Nanocomposite

**3.3 SEM Micrographs**

Fig.3(a) represents SEM micrograph of PANi which shows porous morphology while Fig.3(b) indicates SEM micrograph of PANi/ $\alpha$ -Fe<sub>2</sub>O<sub>3</sub> Nanocomposite with spherical porous and highly agglomerated morphology. There is remarkable change in SEM morphology of hybrid nanocomposite material in comparison with PANi.

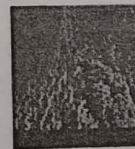


Fig.3 (a) SEM of PANi

Fig.3 (b) SEM of PANi /  $\alpha$ -Fe<sub>2</sub>O<sub>3</sub>

**3.4 Gas sensing study**

**Sensitivity-** It is ratio of resistance of sensor in air ambient to that in ammonia gas.

**S- Ratio of resistances.**  $S = R_a/R_x$

Total change in resistance of a sensor when it is exposed to gas ambient with respect to original resistance in air ambient is expressed in percent.,

$$S (\%) = \frac{[R_a - R_g/R_a] \times 100}{R_a}$$

Where

$R_a$  - Resistance of sensor material to air  
 $R_x$  - Resistance of sensor material to ammonia gas

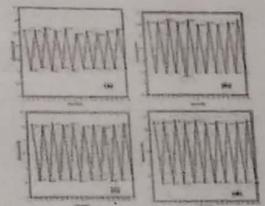
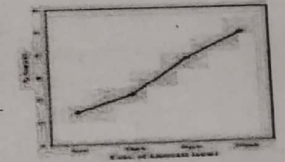


Fig. 4 Responses of PANi/  $\alpha$ -Fe<sub>2</sub>O<sub>3</sub> Nanocomposite sensor to NH<sub>3</sub> concentrations in ppm(a) 5ppm (b) 10ppm (c)50ppm (d)100ppm

Table 1 -Effect of Conc.of ammonia on % Sensitivity (S %)

Entry	Conc.of NH <sub>3</sub> (ppm)	R <sub>a</sub>	R <sub>amb</sub>	S (%)
1	5ppm	10.7	9.2	14.02
2	10ppm	10.7	8.4	21.46
3	50ppm	10.7	6.7	37.38
4	100ppm	10.7	5.5	48.59



The effect of concentration of ammonia and the response for different ammonia gas concentrations at room temperature is as shown in Table1, which indicates that the response of PANi/ $\alpha$ -Fe<sub>2</sub>O<sub>3</sub> Sensor was increased with increasing concentration of NH<sub>3</sub> gas. At higher concentration of ammonia (100 ppm) it showed the maximum percentage sensitivity. %sensitivity of PANi/ $\alpha$ -Fe<sub>2</sub>O<sub>3</sub> Sensor is linear and increased with concentration of ammonia gas from 5ppm to 100ppm.



#### 4. Conclusions

PANI/ $\alpha$ -Fe<sub>2</sub>O<sub>3</sub> nanocomposite was synthesized successfully by in situ polymerization method. This hybrid nanocomposite has good environmental stability and sensitivity for low concentration of ammonia gas (5ppm) at room temperature. This is the most facile, inexpensive, fast and ecofriendly method for the synthesis of ammonia sensor. The PANI/ $\alpha$ -Fe<sub>2</sub>O<sub>3</sub> (20%) nanocomposite was tested for various concentration of ammonia and found excellent sensitivity for 100 ppm (48.59%) concentration at room temperature. It shows fast response and short recovery time.

#### Acknowledgment

The authors are thankful to the CSRO-Pune Cell for providing financial assistance. We are also thankful to the Nowrosjee Wadia College, Pune and BJS'S ASC College for providing laboratory facilities.

#### References

- [1] R. Kortum, and M. Oden, "Engineering Devices for low-Resource Health Care," *Science*, 342, pp. 1085-1087, 2013
- [2] H. Yang, R. Flower, J. Thompson, "Pollution: China's New Leaders Offer Green Hope," *Nature*, 493, pp. 163-163, 2013
- [3] D. Henschler, "Toxicological Problems Relating to Changes in the Environment," *Angew. Chem.*
- [9] A. Sutti, C. Barato, G. Calestani, C. Dionigi, M. Ferroni, G. Faglia and G. Sberveglieri, "Inverse Opal Gas Sensors: Zn(II)-Doped Tin Dioxide Systems for Low Temperature Detection of Pollutant Gases," *Sens. Actuators B*, 130, pp. 567-573, 2008, doi: 10.1016/j.snb.2007.11.048
- [10] Xu, X., Fang, X.; Zeng, H.; Zhai, T.; Bando, Y.; Golberg, D. "One-Dimensional Nanostructures in Porous Anodic Alumina Membranes," *Sci. Adv. Mater.*, 2, pp. 273-294, 2010, doi.org/10.1166/sam.2010.1094
- [11] X. B. Yan, Z. J. Han, Y. Yang and B. K. Tay, "NO<sub>2</sub> gas sensing with polyaniline nanofibers synthesized by a facile aqueous/organic interfacial polymerization," *Sens. Actuators B*, 23, p. 107, 2007, doi: 10.1016/j.snb.2006.07.031
- Int. Ed.* 12, pp. 274-282, 1973
- [4] M. N. Rummyantseva, A. M. Gaskov, N. Rosman, T. Pagnier and R. Morante, "Raman Surface Vibration Modes in NanoCrystalline SnO<sub>2</sub> Prepared by Wet Chemical Methods: Correlations with the Gas Sensors Performances," *Chem. Mater.* 17, pp. 893-901, 2005.
- [5] J. Leclaire, G. Husson, N. Devaux, V. Delorme, L. Charles, E. Ziarelli, P. Desbois, A. Chaumonnot, M. Jacquin, F. Fofiadu and G. Buono, "CO<sub>2</sub> Binding by Dynamic Combinatorial Chemistry: an Environmental Selection," *J. Am. Chem. Soc.* 132, pp. 3582-3593, 2010.
- [6] B. Timmer, W. Olthuis, A. van den Berg, "Ammonia Sensors and their applications-a Review," *Sens. Actuators B* 107, pp. 666-677, 2005, doi: 10.1016/j.snb.2004.11.054
- [7] D. Narducci, "Biosensing at the Nanoscale: There's plenty Of Room Inside," *Sci. Adv. Mater.* 3, pp. 426-435, 2011.
- [8] E. Bekyarova, I. Kalinina, M. E. Itkis, L. Beer, N. Cabrera and R. C. Haddon and Mechanism of Ammonia Detection by Chemically Functionalized Single-Walled Carbon Nanotubes: in Situ Electrical and Optical Study of Gas Analyte Detection, *J. Am. Chem. Soc.* 129, pp. 10700-10706, 2007, doi: 10.1021/ja0703271
- [12] G. D. Khushpe, S. T. Navale, D. K. Bandgar, R. D. Sakhare, M. A. Chougule and V. B. Patil, "SnO<sub>2</sub> nanoparticles-modified polyaniline films as highly selective, sensitive, reproducible and stable ammonia sensor," *Mater. Lett.* 10, pp. 191, 2014.
- [13] V. V. Chabukswar, S. V. Bhavsar, A. S. Home, K. N. Handore, V. B. Gaikwad and K. C. Mohite, "Conducting Poly(N-propylaniline) nanoparticles useful for the detection of Hydrogen sulfide gas," *Macromolecular Symposia* 327, pp. 39-44, 2013, doi: 10.1002/masy.201350504
- [14] V. V. Chabukswar, S. Pethkar and A. A. Athawale, "Acrylic acid doped polyaniline as an ammonia sensor," *Sensors and Actuators B* 77, pp. 657-663, 2001, doi.org/10.1016/S0925-4005(01)0078

## "ENVIRONMENTAL SYSTEMS AND SUSTAINABLE DEVELOPMENT"

Jointly Organized by



S.S.P. M's

Chandamal Tarachand Bora College, Shirur

and



B.C.U.D.

Savitribai Phule Pune University, Pune

### Certificate

This is to certify that Prof. Dr. Mrs. Bora Manisha Atul of B. J. S. College, Wagholi has participated and presented oral poster paper entitled Polyaniline-Hematite (PANI/ $\alpha$ -Fe<sub>2</sub>O<sub>3</sub>) Hybrid Nanocomposite as a Sensor for Detection of Ammonia Gas. (Merit No. 3 Jointly Shared) at the International Conference on Environmental Systems and Sustainable Development

held at Chandamal Tarachand Bora College, Shirur, Dist- Pune (MS), India during January

15-16, 2016

Dr. V. V. Awati  
Co-ordinator

Dr. B. R. Khot  
Co-ordinator

Dr. K. C. Mohite  
Principal and Convener





P24

44.



रयत शिक्षण संस्थेचे,  
राधाबाई काळे महिला महाविद्यालय, अहमदनगर.  
(नॅक पुनर्मूल्यांकन - ब श्रेणी)

मराठी विभाग आयोजित

## ‘राष्ट्रीय परिषद’

‘आंतरविद्याशाखीय संशोधन : स्वरूप आणि संधी’  
(दि. २२ व २३ डिसेंबर २०१५)

### PROCEEDING

ISBN 978-93-83401-34-5



स्वतंत्र शिक्षण संस्थेची,

राधाबाई काले महिला महाविद्यालय, अहमदनगर.

नंक मानांकित 'B' श्रेणी

राष्ट्रीय चर्चासत्र

(दिनांक २२-२३ डिसेंबर २०१७)

'आंतरविद्याशाखीय संशोधन : स्वरूप व संधी'

ISBN : 978-93-83401-34-5

आयोजक

प्राचार्य डॉ. भाऊसाहेब कराळे

संपादक मंडळ

प्रा.डॉ. संजय नगरकर  
समन्वयक (मराठी)

- |  |   |  |  |
|--|---|--|--|
| प्रा. संभाजी कातोरे<br>सहसमन्वयक<br>(राज्यशास्त्र) | प्रा. गफूर शेख<br>सहसमन्वयक<br>(इतिहास)           | प्रा. युवासाहेब वेरे<br>सहसमन्वयक<br>(शा. शिक्षण)          | प्रा. मनोहर कराडे<br>सहसमन्वयक<br>(इंग्रजी)      |
| प्रा. भूपेंद्र निकाळजे<br>सहसमन्वयक<br>(हिंदी)     | प्रा. संतोष गायकवाड<br>सहसमन्वयक<br>(मानसशास्त्र) | प्रा.डॉ. वैशाली पाटील<br>सहसमन्वयक<br>(अर्थशास्त्र)        | प्रा. सहदेव आक्हाड<br>सहसमन्वयक<br>(समाजशास्त्र) |
| प्रा. निखिल गोयल<br>सहसमन्वयक<br>(वाणिज्य)         | प्रा. गणेश जाधव<br>सहसमन्वयक<br>(भूगोल)           | प्रा. ज्ञानेश्वर शिंगाडे<br>सहसमन्वयक<br>(ग्रंथालयशास्त्र) |  |

अ.नं.	पेपरचे नाव	संशोधकाचे नाव	पान. नं.
६२.	Research Methods In Interdisciplinary Research	Prof. Kumbhar Rajendra.R.	२११ ते २१२
६३.	मानसशास्त्रीय संशोधन स्वरूप व पध्दती	प्रा. नवाळे सजय पम	२१३ ते २१४
६४.	Necessity Of Integrated Statistical Analysis Approach	Prof. Bedarkar Pritamkumar Chandrakant,	२१५ ते २१८
६५.	A Study Of Sex Ratio Structure Nagar Tashil In Ahmednagar District Maharashtra	Dr. Khan A.I. Thombre Raviprakash. D.	२१९ ते २२१
६६.	Valuable Steps for Social Science Research	Dr. Deshmukh Mahesh Prabhakarao	२२२ ते २२४
६७.	Research in Social Sciences	Prof. Pawar N.C. Dr. Avhad Suhas	२२५ ते २२७
६८.	Report Writing Of Research Paper And Thesis	Dr. Avhad Suhas	२२८ ते २३१
६९.	"Contribution Of The Indian Economic Thinkers to Economic Development Before Independence"	Dr. Kadam Parag P.	२३२ ते २३४
७०.	'मानव विकास निर्देशांक व भारत'	प्रा. डॉ. खैरे महादेव गोपाळा	२३५ ते २३७
७१.	Fundamentals And Collection Of Primary Data In Social Research	Prof. Khose Maharadra Bibhishan	२३८ ते २४१
७२.	अर्थशास्त्रीय संशोधनाचे प्रकार - एक चिकित्सक अभ्यास	प्रा.डॉ. श्रीमती. पाटील व्ही.डी. श्रीमती. सरोदे ललिता दामु	२४२ ते २४५
७३.	A Study Of Use Of Computer In Research	Jumare Avinash Kamalakar Shaikh Shayin Y. Rathod Anant S.	२४६ ते २४७
७४.	Empowerment Of Women For Improved Quality Of Life	Prof. Bhilore Y.M. Dr. Kadam Pramodini	२४८ ते २५१
७५.	'संशोधनाच्या विविध पध्दती'	प्रा. डॉ. पाटील व्ही. एच.	२५२ ते २५४
७६.	'संशोधन स्वरूप व व्याप्ती'	प्रा. सोनटकरे डॉ.पी.	२५५ ते २५६
७७.	Globalization and Its Impact on Indian Culture	Prof. Dr. Deshmukh B.Y.	२५७ ते २६१
७८.	संशोधन पध्दतीत सामाजिक शास्त्र व माहिती प्रणालीचे महत्त्व : एक विश्लेषण	प्रा.डॉ. पाटील व्ही. डी. कु. शेख शायिन यासिन	२६२ ते २६५
७९.	संशोधनात सामाजिक पाहणी पध्दत: एक चिकित्सक अभ्यास	प्रा.डॉ. देशमुख बी.वाय. कु. शेख शायिन यासिन कोकरणे संदीप बाळासाहेब	२६६ ते २६८
८०.	संशोधनातील गृहितकांचे महत्त्व	प्रा.डॉ. श्रीमती. भिंगारदेवे एस.बी.	२६९ ते २७०
८१.	सामाजिक संशोधनात नमुना निवडीची भूमिका : एक विश्लेषण	राठोड अमृत श्रीराम राठोड नीता श्रीराम कु. शेख शायिन यासिन	२७१ ते २७४
८२.	भारतात सामाजिक सर्वेक्षण विकास एक चिकित्सक अभ्यास	प्रा. डॉ. श्रीमती, पाटील व्ही.डी. कु. शेख शायिन यासिन	२७५ ते २७७
८३.	सामाजिक शास्त्रीय संशोधनाचे स्वरूप आणि दृष्टिकोन	डॉ. वैद्य सजय गोविंदराव	२७८ ते २८१
८४.	संशोधनाच्या विविध पध्दती	खामसे प्रिचका नारायण	२८२ ते २८३
८५.	Research And Types Of Research	Dr. Mote D.K. Ms. Goyal Neelam Bharat	२८४ ते २८६
८६.	Study Of Problems In Data Collection For Research	CA. Goyal Nikhil Bharat	२८७ ते २८९

## संशोधनात सामाजिक पाहणी पध्दत: एक चिकित्सक अभ्यास

### प्रस्तावना :

सामाजिक संशोधनात वैज्ञानिक विचार, संशोधन पध्दत आणि संशोधनाची तंत्रे असे तीन भाग पडतात. वैज्ञानिक विचारपध्दत ही सर्व शास्त्रांची समान पध्दत आहे. वैज्ञानिक दृष्टीकोन हा तिचा आधार असतो आणि तर्कसुद्ध विचार हा तिचा आत्म अंमल. त्यांच्या परस्पर संबंधातून निर्माण होणा-या समस्यांचा अभ्यास करून उपाय शोधायचे असतात. प्रत्येक घटनेत सहभागी असलेल्या व्यक्तीच्या वर्तनाचा अर्थ लावणे त्यासाठी आवश्यक असते. सामाजिक संशोधनासाठी विविध पध्दती वापरल्या जातात. ऐतिहासिक पध्दत, सामाजिक पाहणी, व्यष्टी अध्ययन पध्दती, आशय विरलेषण पध्दत, नैतिक पध्दत, सांख्यिकी विरलेषण पध्दत, समाजनीती अशा अनेक पध्दती आहेत. संशोधनाचा विषय व हेतू यानुसार अनुसरून योग्य ती पध्दत वापरली जाते. यापैकी सामाजिक पाहणी ही सर्वांत जास्त वापरत असलेली पध्दत आहे.

### शोध निबंधाची उद्दिष्ट्ये :

सामाजिक पाहणी पध्दतीचा इतिहास अभ्यासणे.

1. सामाजिक पाहणी पध्दतीची संकल्पना अभ्यासणे.
2. सामाजिक पाहणी पध्दतीची उद्देश अभ्यासणे.
3. सामाजिक पाहणी पध्दतीची कारणे अभ्यासणे.
4. सामाजिक पाहणी पध्दतीतील मुख्य टप्पे अभ्यासणे.
5. सामाजिक पाहणी पध्दतीचे प्रकार अभ्यासणे.
6. सामाजिक पाहणी पध्दतीचे गुण-दोष अभ्यासणे.

### शोध निबंधाची गृहिते :

भारत देशातील सामाजिक विकासात सामाजिक पाहणी पध्दतीचे महत्त्व दिवून येते.

### संशोधन पध्दती :

प्रस्तुत शोधनिबंधात विरलेषणात्मक संशोधन पध्दतीचा उपयोग केला असून शोधनिबंधात विवेचन तुल्य साधन सामग्रीवर अवलंबून आहे. यामाठी विविध संदर्भग्रंथ, पुस्तके, मासिके, अहवाल, वृत्तपत्रे, सकेतस्थले (वेबसाईट) इत्यादींचा उपयोग केला आहे.

### अभ्यास विषयाचे महत्त्व :

अनेक प्रकारच्या संशोधनाचा समावेश सामाजिक पाहणीत केला जातो. इंग्लंडच्या पूर्वापार वारिष्ठ पाहण्यासमूह अमेरिकन गॅलन पॉल्स (चांचणच्या), विपणन संशोधन (नगर रचनेच्या पाहण्या या संगठनांचा सामाजिक पाहण्या म्हणतात. त्याचे महत्त्व दिवून येते. वेगवेगळ्या प्रकारच्या पाहण्यांचे हेतूही वेगवेगळे असतात. काही पाहण्या शासन कर्ता माहिती जमावतात. काही पाहण्या कारण-परिणाम संबंध तपासण्यासाठी करतात. तर काही पाहण्या सामाजिक सिध्दांतीचा चाचणी होण्याकरिता करतात. सामग्रीची लोकसंख्यात्मक वैशिष्ट्ये सामाजिक पर्यावरण, सामाजिक पाहणी अंभुवृत्ती प्रतीचा आर्थिक विकासात होणारा परिणाम कसे होतात याचा अभ्यास "संशोधनात सामाजिक पाहणी पध्दत - एक चिकित्सक अभ्यास" हा विषय निवडला आहे.

### सामाजिक पाहणीचा इतिहास (History of Social Survey):

सामाजिक शास्त्रामध्ये पाहणी पध्दतीचा इतिहास सुमारे 3000 वर्षांची जुनी कल्पना आहे. पण शास्त्रीय सामाजिक पाहणीची सुरुवात जॉन हॉवर्ड यॉनी इ.स. 1900 मध्ये केंद्राची परिस्थिती समजाण्यासाठी केली. फ्रान्समधील लॅलॅच्या सामाजिक मुद्राप्रकारने औद्योगिकीकरणानंतर कामगारांच्या स्थितीचा अभ्यास करण्यासाठी त्यांनी पाहणी आटव्या ने एकागिमात्या राहतात केली. त्यात त्यांनी कामगारांचे आर्थिक अंदाजपत्रक व कौटुंबिक स्थितीचा प्रमुख मुद्दांचा अभ्यास करण्यासाठी पाहणी केली. चार्ल्स वूथ यॉनी पूर्व लंडनच्या लोकांचे वारिष्ठ हा त्याचा विषय होता. बी.एम. राउट्टी यॉनी सन 1911 मध्ये वारिष्ठ्याची आणि प्रगती या विषयावर अभ्यास केले आहे.

### सामाजिक पाहणीची संकल्पना (Nature of Definition of Social Survey)

स्वरूप पाहणी हा शास्त्रात चिकित्सक पाहणी ही महत्त्वाची वाच अंतर्भूत आहे. चिकित्सायांचा अर्थ एखाद्या घटकांचा सर्व वैयक्तिक अभ्यास करणे व त्या अभ्यासाचे निष्कर्ष मांडणे हा आहे.

व्याख्या : वेबस्टर कोशानुसार : अनुक माहिती देणारी चिकित्सक तपासणी म्हणजे पाहणी होय. विशिष्ट ठिकाणाच्या परिस्थितीचा ज्ञान अभ्यास म्हणजे पाहणी किंवा सर्वेक्षण होय.

Radhakali Kale Mahila Mahavidyalaya, Ahmednagar

## सामाजिक पाहणीचा उद्देश (Aims of Social Survey) :

सामाजिक शास्त्रांमध्ये प्रत्यक्ष समाजात जाऊन व ठिकाणच्या गटाररित जाऊन जी पाहणी केली जाते ती काही ठिकाणिक उद्देश पूर्वोक्तप्रमाणे :

1. सामाजिक पाहणीतील घटकांची सविस्तर माहिती मिळविणे. उदा. निवडलेल्या एखाद्या लहान गावातील शिक्षणाची साधने, 4) त्या साधनांना मिळणारे प्रतिसार 6) सार्वजनिक आरोग्याच्या सोयी 3) इतर खाजगी विभागांसाठी लोक 10) विविध धर्मातील लोक 11) गावातील आर्थिक वर्ग 12) नोकरी करणारे किती ? 13) गावातील लोकांविषयी मुलमूल माहिती जमा करणे व त्यानंतर स्वतःच्या सुल्लक्षणच्या आधारे संशोधकांना माहिती मिळविणे.
2. गटातील समस्या माहिती करून घेणे 3) पुढाह तपासून घेणे 4) गटाविषयी नवीन गोष्टी समजणे. 4) लोकांची विचारधारा समजणे 6) एकाच गटाचा नियमित अभ्यास करणे इ. आहे

**सामाजिक पाहणीची कारणे (Causes of Social Survey) :** कोणत्याही व्यक्ती हेतूसाठी पाहणी हा संशोधनाचा प्रकार वापरला जातो. पाहणी कारणे ही दीर्घकाळ चालणारी व वेळ, पैसा, कार्यक्षमता आवश्यक असणारी प्रक्रिया असली तरी काही घटना समजावण्यात म्हणून पाहणी प्रती व्यक्तीच लागते. सामाजिक पाहणीचे कारणे पुढील प्रमाणे

- 1) लोकमत पाहण्यासाठी : एखाद्या प्रश्नावर लोकांचे मत नेमके कोणते आहे ? त्याच्या प्रत्येक प्रकल्प, आहे याविषयी माहिती जाणून घेण्यासाठी वेळोवेळी सामाजिक पाहणी केली जाते. उदा. न्यूज चॅनलस अशाप्रकारे सर्वेक्षण हाती घेतात. निवडणुकीपूर्वी जनमत चाचणीच्या माध्यमातून कोणत्या पक्षात किती जाण मिळतील याविषयी सांगितले जाते.
- 2) लोकसंख्येतील बदल : पाहणीच्या माध्यमातून लोकसंख्येतील विविध घटकांचा वैज्ञानिक अभ्यास करायला येतो. उदा. राख्यानुसार लोकसंख्या, लोकसंख्येतील लिंग गुणोत्तर, मृत्युदर, उत्पन्न, व्यावसायिका दर, लोकसंख्येतील गतिशिलता, लोकांचे आर्थिक महत्त्व इत्यादी माहिती मिळविणे जाते.
- 3) समाजातील लोकांची माहिती घेणे : सामाजिक पाहणीचा हेतू मुख्यतः माहिती देण्यासंदर्भात असतो. उदा. भारतीय समाजात किती टक्के आदिवासी लोक राहतात, प्राणीय धर्मात किती ? इतकी समस्यात किती ? या सगळ्यांची गंजगाराची साधने इत्यादी माहिती वेगवेगळ्या सामाजिक सर्वेक्षणांचाच आधार मिळते.
- 4) लोककलांची माहिती करून घेणे : मानव केंद्रक अन्न, कथ व निवास या सहा पूर्ण शक्तीची विवेक राहते असे नाही तर त्याला जगण्यासाठी काहीतरी उद्दिष्ट असणे लागते. उदा. वेगवेगळे छंद, कला, लोककला, सार्वजनिक प्रथा, धावा, पर्यटन ही या सगळ्या गोष्टी स्वतःपर्यंत पाहणीविषयाचे काय केले जाते.

### सामाजिक पाहणीतील मुख्य टप्पे (Main Stages in Survey) :

सामाजिक शास्त्रांमध्ये संशोधन करण्यासाठी संशोधन विषयापासून ते सिध्दांत जाडणीपर्यंतचे टप्पे पुढील प्रमाणे :

- 1) नेम कोणत्या प्रश्नावर सर्वेक्षण करावयाचे आहे हे सुल्लक्षण ठरवून घ्यावे लागते
- 2) पाहणी कोणत्या धर्मात किंवा परिमरात करावयाची हे निश्चित करावे लागते
- 3) आपल्या पाहणीचा हेतू नेमका कोणता आहे ? त्यामुळे कोणत्या मध्य होणार आहे याबद्दल संशोधकाच्या मनात सर्व प्रश्नांची उत्तरे तयार पाहिजेत.
- 4) पाहणी करताना एखाद्या परिमराची जी करावयाची असेल तरी ते आरंभ आहे असे वाटल्यास काही काळ 'नमुना' म्हणून निवडावी लागतील.
- 4) पाहणीसाठी कोणत्या संशोधन तंत्रांचा वापर करावा हे संशोधकांना आपल्या अनुभववजनाने ठावावे लागते. उदा. प्रश्नावली, मुद्राखत, अनुसुची इत्यादी.
- 6) माहिती जमा करताना किती लोकांची मदत लागेल याचा विचारही संशोधकांना पाहिती जमा करावयात म्हणून करण्यापूर्वी करावा लागेल.
- 3) माहिती जमा करताना अडथळी उत्पन्न होऊ नये याचे काय करावे याचे निष्पत्तीही संशोधकांना करावे लागते

Radhakali Kale Mahila Mahavidyalaya, Ahmednagar



- ८) बरेचदा संशोधक माहिती विचारात असताना लोक काही प्रश्न संशोधकालाच विचारातात त्याची उत्तरे देण्याची तयारी संशोधकाने ठेवली पाहिजे.
- ९) माहिती जमा करण्यास किती काळ, वेळ, पैसा लागेल याविषयी नियोजन केले पाहिजे.
- १०) पाहणीतील माहितीचे व्यवस्थित संख्याशास्त्रीय विश्लेषण करून पाहणीतील मते सर्वसामान्य लोकांपर्यंत पोहचविली पाहिजेत.
- ११) कोणत्याही पाहणीचा उद्देश लोकांसाठी माहिती जमा करणे हा असतो. कारण शेवटी माहिती लोकांनीच दिलेली असते. जे निष्कर्ष निघाले ते सत्य परिस्थितीत समाजासमोर ठेवण्याचे धाडस संशोधकाने दाखविले पाहिजे.

### सामाजिक पाहणी पध्दतीचे प्रकार (Types of Survey) :

सामाजिक पाहणीचा कालावधी व हेतू वेगळा असतो. या आधारावर पाहणीचे खालील काही प्रकार पडतात.

- १) नियमित पाहणी : उराविक काळाच्या अंतराने एखाद्या घटकात, व्यक्तीमध्ये व व्यवस्थेमध्ये जे बदल होतात ते तपासण्यासाठी काही पाहण्या केल्या जातात त्यांना नियमित पाहणी असे म्हणतात. उदा. लोकसंख्येची पाहणी, टाटा समाजविज्ञान संस्थेतर्फेही अशा आर्थिकमान पाहणी केल्या जातात. या नियमित पाहणीचा उद्देश दोन काळातील बदल तपासणे, त्यांची तुलना करणे व त्याआधारे काही उपाययोजना करणे हा असतो.
- २) अधिकृत व अनधिकृत पाहणी : सरकारकडून नियुक्त करण्यात आलेल्या एखाद्या संघटनेतर्फे जी पाहणी केली जाते. त्याला अधिकृत किंवा औपचारिक पाहणी असे म्हणतात. तर एखाद्या व्यक्तीने स्वतःच्या संशोधनासाठी जी पाहणी केलेली असेल तिला अनधिकृत पाहणी असे म्हणतात.
- ३) प्रत्यक्ष व अप्रत्यक्ष पाहणी : संख्याशास्त्रीय पध्दतीच्या आधारे ज्या पाहणीतील निष्कर्ष सांगता येतात त्या पाहणीला प्रत्यक्ष पाहणी असे म्हणतात. याउलट ज्या पाहणीचे निष्कर्ष कमी वैज्ञानिक असल्यामुळे संख्याशास्त्रीय आधारावर सांगता येत नाहीत त्यांना अप्रत्यक्ष पाहणी असे म्हणतात.
- ४) वैयक्तिक व पोस्टाने केलेले सर्वेक्षण : वैयक्तिक पाहणीत व्यक्तीला स्वतः संशोधन विषयापर्यंत जाऊन माहिती करावी लागते. संशोधक जेव्हा स्वतःच व्यक्तीपर्यंत जाऊन पाहणी करतो तेव्हा त्या पाहणीला वैयक्तिक पाहणी तर जेव्हा पोस्टाच्या माध्यमातून प्रश्नावल्या पाठवून मागवून घेतल्या जातात त्याला पोस्टाने केलेले सर्वेक्षण म्हणतात.
- ५) गुप्त आणि खुली पाहणी : जेव्हा एखादा प्रश्न जनतेच्या जिवाळ्याचा असतो तेव्हा जनतेला त्याबद्दलच्या पाहणीबद्दल उत्सुकता असते. त्या पाहणीचे निष्कर्ष जनतेसाठी खुले करावे लागतात तेव्हा अशा प्रकारच्या पाहणीला खुली पाहणी व जेव्हा एखादा प्रश्न एखाद्या संस्थेपर्यंतच मर्यादित असेल तर अशा पाहणीला गुप्त पाहणी असे म्हटले जाते.

सामाजिक पाहणी पध्दतीचे गुण-दोष (Merits and Demerits of Survey Method) : सामाजिक संशोधनासाठी पाहणी हे महत्त्वाचे तंत्र भावी काळात ठरणार आहे. पाहणी पध्दतीच्या गुण-दोष खालीलप्रमाणे आहेत.

अ) पाहणी पध्दतीचे गुण :

- १) सखोल अभ्यास करता येणे शक्य : जनमत जाणून घेणे हा पाहणीचा मुख्य उद्देश आहे. त्यामुळे पाहणी करणाऱ्या संशोधकाला संशोधनकार्याची पुरेशी माहिती असणे आवश्यक आहे. या तंत्रामुळे लोकांच्या कल्पना, त्यांचे विचार

प्रा.डॉ. वी.वाय. देशमुख  
अर्थशास्त्र विभाग प्रमुख,  
अॅड. एम.एन. देशमुख,  
कला, विज्ञान व वाणिज्य महाविद्यालय,  
राजूर

कु. शायिन यासिन शेख,  
संशोधक विद्यार्थीनी

संदीप बाळासाहेब कोवरणे  
संशोधनक विद्यार्थी



रघत शिक्षण संस्थेचे,  
 राधाबाई काळे महिला महाविद्यालय, अहमदनगर.  
 (नॅक पुनर्मूल्यांकन - ब श्रेणी)

मराठी विभाग आयोजित

## ‘राष्ट्रीय परिषद’

‘आंतरविद्याशाखीय संशोधन : स्वरूप आणि संधी’  
 (दि. २२ व २३ डिसेंबर २०१५)

# PROCEEDING

ISBN 978-93-83401-34-5







संस्कृत विद्यापीठ संशोधन

संस्कृत विद्यापीठ संशोधन, अहमदनगर

एक पाठ्यक्रम 'म' श्रेणी

राष्ट्रीय स्तरावर

(दिनांक २२-२३ डिसेंबर २०१९)

'आंतरविद्याशाखीय संशोधन : स्वरूप व संघी'

ISBN : 978-93-83401-34-5

आयोजक

प्राचार्य डॉ. भाऊसाहेब करले

संपादक मंडळ

प्रा.डॉ. संजय नारकर  
समन्वयक (मराठी)

प्रा. संभाजी कातोरे  
सहसमन्वयक  
(राज्यशास्त्र)

प्रा. गणेश शेंकडे  
सहसमन्वयक  
(इतिहास)

प्रा. बुध्दसाहेब वैरे  
सहसमन्वयक  
(शा. शिक्षण)

प्रा. मनोहर करंदे  
सहसमन्वयक  
(इंग्रजी)

प्रा. सूर्येद निवाळजे  
सहसमन्वयक  
(हिंदी)

प्रा. संतोष गायकवाड  
सहसमन्वयक  
(सातसंशास्त्र)

प्रा.डॉ. शैशाली पाटील  
सहसमन्वयक  
(अर्थशास्त्र)

प्रा. सहदेव आच्छाड  
सहसमन्वयक  
(समाजशास्त्र)

प्रा. निखिल गोयल  
सहसमन्वयक  
(भाषाशास्त्र)

प्रा. गणेश आश्व  
सहसमन्वयक  
(पुराण)

प्रा. ज्ञानेश्वर शिंगाडे  
सहसमन्वयक  
(प्रशासनशास्त्र)

अ.नं.	पेपरचे नाव	संशोधकाचे नाव	पान. नं.
६२.	Research Methods In Interdisciplinary Research	Prof. Kumbhar Rajendra.R.	२१२ ते २१२
६३.	मानसशास्त्रास संशोधन स्वरूप व पध्दती	प्रा. नवल्ले संजय राम	२१३ ते २१३
६४.	Necessity Of Integrated Statistical Analysis Approach	Prof. Bedarkar Pritamkumar Chandrakant.	२१५ ते २१६
६५.	A Study Of Sex Ratio Structure Nagar Tashil In Ahmednagar District Maharashtra	Dr. Khan A.I	२१९ ते २२१
६६.	Valuable Steps for Social Science Research	Thombre Raviprakash. D. Dr. Deshmukh Mahesh Prabhakarao	२२२ ते २२३
६७.	Research in Social Sciences	Prof. PAWAR N.C. Dr. Avhad Suthas	२२५ ते २२७
६८.	Report Writing Of Research Paper And Thesis	Dr. Avhad Suthas	२२८ ते २३१
६९.	"Contribution Of The Indian Economic Thinkers to Economic Development Before Independence"	Dr. Kadam Parag P.	२३२ ते २३४
७०.	'मानव विकास निर्देशांक व भारत'	प्रा. डॉ. खैर महादेव गोपाळ	२३५ ते २३७
७१.	Fundamentals And Collection Of Primary Data In Social Research	Prof. Khose Mahanadra Bibhahan	२३८ ते २४१
७२.	अर्थशास्त्रीय संशोधनाचे प्रकार - एक चिकित्सक अभ्यास	प्रा. डॉ. श्रीमती. पाटील व्ही. डी. श्रीमती. सरोदे ललिता दामू	२४२ ते २४५
७३.	A Study Of Use Of Computer In Research	Jumare Avinash. Kamalakar Shaikh Shayin Y. Rathod Anant S.	२४६ ते २४७
७४.	Empowerment Of Women For Improved Quality Of Life	Prof. Bhillore Y.M. Dr. Kadam Pramodini	२४८ ते २५१
७५.	'संशोधनाच्या विविध पध्दती'	प्रा. डॉ. पाटील व्ही. एच.	२५२ ते २५४
७६.	'संशोधन स्वरूप व व्याप्ती'	प्रा. सोनटकरे डी.पी.	२५५ ते २५६
७७.	Globalization and Its Impact on Indian Culture	Prof. Dr. Deshmukh B.Y.	२५७ ते २६१
७८.	संशोधन पध्दतीत सामाजिक शास्त्र व माहिती प्रणालीचे महत्त्व : एक विदलेषण	प्रा.डॉ. पाटील व्ही. डी. कु. शंख शायिन यामिन	२६२ ते २६५
७९.	संशोधनात सामाजिक पाहणी पध्दत: एक चिकित्सक अभ्यास	प्रा.डॉ. देशमुख बी.वाय. कु. शंख शायिन यामिन कोवरणे संदीप बाळासाहेब	२६६ ते २६८
८०.	संशोधनातील गृहितकाचे महत्त्व	प्रा.डॉ. श्रीमती. भिनारदिवे एस.बी.	२६९ ते २७०
८१.	सामाजिक संशोधनात नमुना निवडीची भूमिका : एक विदलेषण	राठोड अनंत श्रीराम राठोड नीता श्रीराम कु. शंख शायिन यामिन	२७१ ते २७४
८२.	भारतात सामाजिक सर्वेक्षण विकास एक चिकित्सक अभ्यास	प्रा. डॉ. श्रीमती. पाटील व्ही. डी. कु. शंख शायिन यामिन	२७५ ते २७७
८३.	सामाजिक शास्त्रीय संशोधनाचे स्वरूप आणि दृष्टिकोन	डॉ. वैद्य संजय गोविंदराव	२७८ ते २८१
८४.	संशोधनाच्या विविध पध्दती	खोसे त्रियका नाथयण	२८२ ते २८३
८५.	Research And Types Of Research	Dr. Mote D.K. Ms. Goyal Neelam Bharat	२८४ ते २८६
८६.	Study Of Problems In Data Collection For Research	CA. Goyal Nikhil Bharat	२८७ ते २८९



## सामाजिक संशोधनात नमुना निवडीची भूमिका : एक विश्लेषण

प्रस्तावना :

सामाजिक संशोधन करण्यासाठी गृहीतकृत्य आणि संशोधन आसखंडा तयार केल्यानंतर नमुना निवड केली जाते. ज्यावेळी संशोधन विश्वातील किंवा सामग्रीतील एककांची संख्या जास्त असते त्यावेळी त्या सामग्रीतील एककांचा एक छोटासा किंवा लहानसा नमुना गट निवडला जातो. या नमुना गटातील संपत्तीशी संबंधित निष्कर्ष काढले जातात. आपल्या दैनंदिन जीवनात या पध्दतीचा उपयोग करीतच असतो. शितावरून भाताची परीक्षा घेतली जाते, जेव्हा जेव्हा समूर्ण समूहावर एखाद्या काटकाचा कसा आणि कोणता परिणाम होतो, हे जाणून घेण्यासाठी काही प्रातिनिधिक एकक निवडल्या जातात आणि त्यांच्या आधारे त्या परिणामांचे मापन केले जाते. तेव्हा त्या पध्दतीला "नमुना निवड पध्दती" असे म्हणतात.

शोध निबंधाची उद्दिष्टे :

- १) नमुना निवडीची संकल्पना अभ्यासणे.
- २) नमुना निवडीच्या प्रक्रियेचा अभ्यास करणे.
- ३) नमुना निवडीचे प्रकार अभ्यासणे.
- ४) नमुना निवडीचे फायदे / गुण अभ्यासणे.
- ५) नमुना निवडीची मर्यादा / दोष अभ्यासणे.

● शोध निबंधाची गृहीते :

संशोधन पध्दतीत नमुना निवडीचे तंत्रावर संशोधन कार्य पूर्ण होण्यासाठी अवलंबून व महत्त्वाचे असते.

संशोधन पध्दती :

प्रस्तुत शोध निबंधात विश्लेषणात्मक संशोधन पध्दतीचा उपयोग केला असून शोध निबंधातील विवेचन सुव्यम साधन सामग्रीवर अवलंबून आहे. यामाठी विविध संदर्भ ग्रंथ, पुस्तके, मासिक, अहवाल, वृत्तपत्रे, संकेतस्थळ (वेबसाईट) इत्यादींचा उपयोग केला आहे.

● अभ्यास विषयाचे महत्त्व :

संशोधन कार्यात नमुना निवड पध्दतीचा उपयोग प्राचीन काळापासून केला जातो. जनगणना पध्दती वेळ, धर्म आणि पैसा या दृष्टीने परवडणारी नाही म्हणून अनेक संशोधक नमुना निवड तंत्राचाच अवलंब करतात. संस्थाद्वारे नमुना पध्दतीचा अवलंब करून सामाजिक सर्वेक्षण केले. त्यामुळे आज नमुना निवड तंत्र हे सामाजिक संशोधनाचे एक लोकप्रिय असे तंत्रे कसे बनले आहे याचा अभ्यास करण्यासाठी "सामाजिक संशोधनामध्ये नमुना निवडीची भूमिका महत्त्व : एक विश्लेषण" हा विषय निवडला आहे.

नमुना निवडीतील संकल्पना : (Nature of Definition of Sample) :

स्वरूप : नमुना ही विश्व अथवा समग्रान्त निवडण्यात आलेला एक भाग असतो. ज्या लोकांसाठी संशोधन केले जाते अशा सर्व समूहाचे वर्णन करण्यासाठी ही संकल्पना वापरली जाते. समग्रान्त निश्चित व अनिश्चित असे दोन प्रकार पडतात.

नमुना निवडीची व्याख्या :

हुड व हॅट : "नमुना त्यातील नावाप्रमाणेच एक विस्तृत समूहाचा लघु प्रतिनिधी आहे."

नमुना निवडीची प्रक्रिया : (Process of Selection of Sample) :

संशोधन कार्यातील प्रमुख भाग म्हणजे नमुना निवड असून ही गुणात्मिक प्रक्रिया आहे. या प्रक्रियेतील पाय-या किंवा टप्पे पुढीलप्रमाणे :

- १) समग्र निश्चित करणे (Determination of Universe) : नमुना निवड करताना ज्या समग्रान्त एकक निवडायचे आहे ते समग्र सर्वप्रथम निश्चित करावे लागते. निश्चित समग्र, अनिश्चित समग्र, वास्तविक समग्र, काल्पनिक समग्र इत्यादी समग्रच्या प्रकाराचा आढावा घ्यावा लागतो.
- २) नमुना निवडीचे एकक निश्चित करणे (Determination of Selection of Sample Units) : नमुना निवड प्रक्रियेतील दुसरे चरण म्हणजे नमुनाचे एकक निश्चित करणे होय.
- ३) उगम सूची (Source List) : ही सूची म्हणजे समग्रच्या सर्व एककांविषयी नियमावलीची असे.

- ४) नमुनाचा आकार निश्चित करणे (Determination of Size of Sample) : नमुनाचा आकार काय ठरवायचा असल्यास तो समग्रचे प्रतिनिधित्व करीत नाही आणि तो आकार काय मोठा झाल्यास संशोधकाचा वेळ, धर्म यांचा अपेक्ष्य होतो. त्यामुळे संशोधकाला खबरदारी घ्यावी लागते.
- ५) नमुना निवड पध्दती पुरवणे (Selection of Sample Method) : समग्रचे स्वरूप, समग्रचे महत्त्व, वेळ, पैसा, क्षम, उपलब्ध साधने इत्यादींचा विचार करूनच नमुना पध्दतीची निवड करणे शक्यकर टरते.
- ६) नमुना निवड (Selection of Sample) : निवडलेला नमुना हा विश्वसनीय, प्रतिनिधिक आणि प्रयोग्य असावा.

अशा प्रकारे नमुनावरच संशोधन कार्याचे यशस्वता निर्भर करते. नमुना निवडीचे विश्वसनीयतेचे मापन. समांतर नमुना निवड, समग्रशी नमुना, समग्रान्त नमुना, नमुना निवड, प्रतिनिधिक आणि प्रयोग्य असावा.

नमुना निवड पध्दतीचे प्रकार : (Types of Sampling Method)

नमुना निवड पध्दतीचे प्रकार पुढीलप्रमाणे

नमुना निवडीचे स्मूल मनने दोन प्रकार पडतात.

- अ) संभाव्यता नमुना निवड : (Probability Sampling) : "समग्रतील सर्व एककांच्या निवडीची संभाव्यता ही समान असते अशा नमुना निवड पध्दतीला संभाव्यता नमुना निवड पध्दती असे म्हणतात."
- ब) गैर संभाव्यता नमुना निवड : (Non Probability Sampling) : "ज्यावेळी समग्रतील सर्व एककांचे नमुनामध्ये निवड होण्याची शक्यता किंवा संभाव्यता नसते तेव्हा त्या नमुना निवड पध्दतीला संभाव्यता नमुना निवड पध्दती असे म्हणतात."

दोन्ही प्रकारच्या उपप्रकारांची माहिती पुढीलप्रमाणे :

संभाव्यता नमुना निवड पध्दतीचे पुढील याच प्रकार पडतात

- १) साधा यादृच्छिक नमुना (Simple Random Sampling) : समग्रतील सर्व घटकाना नमुना निवडीत समान संभाव्यता होण्याची ज्या पध्दतीत समान संभाव्यता राखी असते त्या पध्दतीला साधा यादृच्छिक नमुना पध्दती असे म्हणतात. समग्रतील एककांतून निवड करण्यासाठी पुढीलप्रमाणे एका पध्दतीचा उपयोग केला जातो.
  - अ) टिकट पध्दती (Ticket Method) : लॉटरी पध्दतीत तसेच एककांचे नोंदविलेले क्रमांक देवून काढून त्यावर काढे तयार करतात. शेवटी सर्व काढे एकत्र करून त्यातूनच काही काढे निवडली जातात.
  - ब) टिकट पध्दती (Ticket Method) : या पध्दतीत दोन्ही उभे उभे देवून काढे काढली जातात.
  - क) ग्रीड पध्दती (Grid Method) : या पध्दतीत सर्वप्रथम समग्रचा विभाग क्षेत्राचा नकाशा तयार करावा लागतो. एकक टांगण्यासाठी निश्चित असते. नकाशाचा ग्रिडपेट देवून नंबर निवडले जातात. जेव्हा नमुना घ्यावयाचा असतो तितकेच क्रमांक त्या पत्रेवर लिहिलेले असतात.
  - ड) नियमित अंकन पध्दती (Regular Marking Method) : ज्यावेळी समग्रान्त एकक हे काढे, त्यात या आधारवाच व्यवस्थित असतात तेव्हा नियमित अंकन पध्दतीद्वारे नमुनाची निवड केली जाते.
  - ई) अनियमित अंकन पध्दती (Irregular Marking Method) : अनियमित अंकन पध्दतीत समग्रान्त नमुना एककांची सूची बनविली जाते व त्या सूचीमधून पहिला व शेवटचा अंक नोंदून बाकी अंकांचा संशोधन कार्य अनियमित पध्दतीने जेव्हा नमुना ठरविलेला असतो तितकेच सूचीतून घ्यावे लागते. यानेच संशोधन कार्यसंबंधित ही अंशदा असते की, त्यात फसणेत न काढा नमुनाची निवड करावी.
  - फ) टिपेट पध्दती (Tippet Method) : विचारवत टिपेट यांनी ही नमुना पध्दती सांगितली. यांनी काय अंकाची १०४० संख्यांची सूची तयार करून संशोधन कार्यासंबंधीचे कार्य सुलभ केले.
  - ग) क्वोटा निवड पध्दती (Quota Sampling Method) : या पध्दतीत समग्रान्त काही वर्गांचे विभागण केली जाते. प्रत्येक वर्गातून किती एकक निवडावयाचे हे ठरविले जाते. या पध्दतीत फसणेत होण्याचा संभाव्यता असतो.
  - २) स्तरीय यादृच्छिक नमुना निवड पध्दती (Statistical Sampling Method) : या पध्दतीत समग्रान्त नमुना प्रतिनिधी असतो. स्तरीय यादृच्छिक नमुना निवड पध्दतीचे उपप्रकार पुढीलप्रमाणे :
    - अ) प्रमाणावध स्तरीय नमुना (Proportionate Stratified Sampling) : ज्या प्रमाणात प्रत्येक वर्गात एककांचे प्रमाण समग्रान्त असते त्याच प्रमाणात त्या वर्गाचे वर्गातून एकक नमुनामध्ये निवडले जाते.

ब) अप्रमाणबद्ध स्तरीय नमुना (Disproportionate Stratified Sampling) : समानांतर एखाद्या वर्गातील एककांच्या संख्येचा विचार न करता सर्व वर्गांतून समान एकक घेतले जातात. परंतु त्यामुळे समाप्तील प्रत्येक वर्गाला त्याच्या प्रमाणात नमुन्यात प्रतिनिधित्व मिळत नाही.

क) भारयुक्त स्तरीय नमुना (Stratified Weighted Sampling) : प्रमाणबद्ध व अप्रमाणबद्ध नमुना या दोहोंचे मिश्रित रूप म्हणजे भारयुक्त स्तरीय नमुना होय.

ख) व्यवस्थाबद्ध नमुना निवड (Systematic Sampling) : या पध्दतीत प्रथमतः समाप्तीची विशिष्ट क्रमानुसार एक सूची तयार केली जाते व त्यानुसार नियमित अंतरानंतरच्या एककाला निवडले जाते.

ग) बहुपदी किंवा एककपुंज नमुना निवड (Multistage or Cluster Sampling) : या पध्दतीत समाप्तीचे अनेक समुहामध्ये विभाजन केले जाते. त्यानंतर त्यामधील काही समुहांना नमुन्यात निवडून त्याचे अध्ययन केले जाते.

घ) बहुव्यवस्थिय नमुना निवड (Multiphase Sampling) : या पध्दतीत नमुन्यातील एककांना विचारपूर्वक प्रश्न विचारून उरलेल्या नमुन्यातच माहिती संकलन केली जाते यातून काही मूलभूत तथ्ये प्राप्त करता येतात.

गैर संभाव्यता नमुना निवड पध्दतीचे पुढील पाच प्रकार पडतात :

१) सोयीस्कर नमुना निवड पध्दती (Convenience Sampling) : संशोधकाच्या सोयीनुसार नमुन्याची निवड करण्यात येते त्या प्रक्रियेला सोयीस्कर नमुना निवड असे म्हणतात.

२) सहेतूक नमुना निवड पध्दती (Purposive Sampling) : संशोधनकर्ता कोणते विशिष्ट उद्देश समोर ठेवून जाणीवपूर्वक समाप्तील काही एककांची निवड करतो.

३) कोंटा नमुना पध्दती (Quota Sampling) : या पध्दतीत प्रत्येक समाप्तील वर्ग एककांच्या प्रमाणावरून माहिती जमा केली जाते. तसेच मुलाखतदारास निश्चित संख्येचा कोंटा दिला जातो.

४) स्वयंनिर्वाचित नमुना पध्दती (Self Selection Sampling) : जेव्हा संशोधन विषयासंबंधी माहिती देण्यासाठी स्वतः व्यक्ती आपले नाव देऊन नमुन्यातील एकक बनवण्याची इच्छा संशोधनकर्त्याकडे व्यक्त करतो.

अ) क्षेत्र नमुना निवड पध्दती (Area Sampling) : ज्या विषयीचा अभ्यास करावयाचा आहे त्याविषयीचे समग्र क्षेत्र लक्षात घेतले जाते. एखाद्या घटकाची निवड निश्चित झाल्यानंतर त्याआधारावर अनेक माहाण्या विविध हेतूसाठी घेता येतात.

ब) दुहेरी नमुना निवड (Double Sampling) : प्रनावली व मुलाखत या दोन्ही पध्दतीचा संयोग होऊन ही पध्दत निर्माण होते.

नमुना निवडीचे फायदे / गुण (Merits of Sampling) :

नमुना निवडीचे फायदे / गुण पुढीलप्रमाणे :

- १) वेळ, श्रम व पैसा यांची बचत होते.
- २) योग्य अशा तंत्रांचा वापर करून अचूकता साधता येते.
- ३) वापरण्यात येणारी तंत्रे ही लवचिक असतात.
- ४) सर्वांच्या वावरील तपशीलवार माहिती गोळा करणे शक्य होते.
- ५) विश्वसनीय निष्कर्ष काढले जातात.
- ६) विस्तृत क्षेत्रासाठी उपयोग असते.
- ७) कार्याचे प्रशासन सुलभतेने करता येते.
- ८) सर्वांत उत्तम प्रतिसाद व सहकार्य लाभते.
- ९) अनुभवजन्य तथ्ये संपादित करणे शक्य.
- १०) पाठपुरावा फारसा खर्चिकही नसतो.

वरील माहितीवरून घेतलेले गृहितक सत्य ठरल्याचे दिसून येते.

नमुना निवडीचे प्रमुख दोष पुढीलप्रमाणे :

- १) अवघड व गुंतागुंतीची पध्दत आहे.
- २) विशिष्ट ज्ञानाची गरज असते.
- ३) छोट्या समाप्तीत निवड करणे अवघड असते.
- ४) पक्षपात किंवा पूर्वग्रहाची शक्यता असते.
- ५) नमुन्यावर अवलंबून राहणे कठीण असते.

६) असंभाव्यता / अशक्यता एककांचे निवडून असते.

सांगोश : संशोधनाचे निश्चित उद्देश असतात. त्या उद्देशाची प्राप्ती करण्यासाठी योजनाबद्ध रूपाने संशोधन कार्य करावे गरजेचे असते. त्यासाठी एक नमुना निवडला जातो. हा नमुना म्हणजे एक समुहातून एक निश्चित प्रतिशत निवडले जाते. अशा प्रकारच्या नमुन्यामुळे संशोधन कार्यात अचूकता, विश्वसनीयता, लवचिकता येते. आपुनिक व्यवसाय जाणवत मिळत आहे. तसेच ते अत्यंत जटील आहे. त्यामुळे प्रत्येक बाबीचे प्रत्यक्ष अध्ययन करणे अशक्य असते. वेळ, श्रम व पैसा या दृष्टींनीही ते खर्चिक असते. इतके करूनदेखील निष्कर्ष हे सांगणे असतात. त्यामुळे प्रत्येक बाबीचे अध्ययन करण्यासाठी समाप्तीतून काही एकके / नमुने निवडून अध्ययन करणे फावट्याचे ठरते.

निष्कर्ष :

- १) संशोधनात नमुना निवड हे तंत्र महत्त्वाचे दिसून येते.
- २) नमुना निवड हा समाप्तीतून निवडला जातो.
- ३) नमुना निवडीची प्रक्रियामध्ये समग्र निश्चित करणे, नमुना निवडीचे एक निश्चित करणे, डगम सूची नमुन्याचा आकार निश्चित करणे, नमुना निवड पध्दती ठरविणे आणि नमुना निवड इत्यादींवरून संशोधनकार्याचे यशायशा दिसून येते.
- ४) नमुना निवडीचे दोन प्रकार व त्यांचे अनेक उपप्रकार पडतात. त्यामध्ये संभाव्यता नमुना निवड व गैर संभाव्यता नमुना निवड होय.
- ५) नमुना निवड तंत्रामुळे संशोधन कार्य अचूक व सुलभ झालेले दिसून येते.

संदर्भ ग्रंथ :

- १) डॉ. प्रवीण आगलवे, संशोधन पध्दतीशास्त्र व तंत्रे, विद्या प्रकाशन, नागपूर (२०००).
- २) प्रा. एस. एन. गंदेवार, समाजशास्त्रीय संशोधन पध्दती, विद्याभारती प्रकाशन, लातूर.
- ३) डॉ. सुनील माथी, सामाजिक संशोधन पध्दती, डायमंड पब्लिकेशन्स, पुणे (२००८).
- ४) डॉ. सुमन बेहरे, सामाजिक संशोधन पध्दती, विद्या प्रकाशन, नागपूर (१९९८).
- ५) डॉ. सुधीर बोधनकर, प्रा. विवेक अलोणी, अॅड. मृणाल कुलकर्णी, सामाजिक संशोधन पध्दती, श्री साईनाथ प्रकाशन, नागपूर.

अनंत श्रीराम राठोड  
आबासाहेब गरवारे कॉलेज, पुणे  
संशोधक विद्यार्थी

नीता श्रीराम राठोड  
आबासाहेब गरवारे कॉलेज,  
पुणे  
संशोधक विद्यार्थी

कु. शाश्विन यासिन शेख,  
संशोधक विद्यार्थिनी

१२६



रयत शिक्षण संस्थेचे,  
**राधाबाई काळे महिला महाविद्यालय, अहमदनगर.**  
 (नॅक पुनर्मूल्यांकन - ब श्रेणी)

मराठी विभाग आयोजित

# ‘राष्ट्रीय परिषद’

‘आंतरविद्याशाखीय संशोधन : स्वरूप आणि संधी’  
 (दि. २२ व २३ डिसेंबर २०१५)

## PROCEEDING

ISBN 978-93-83401-34-5







उच्च शिक्षण संस्थाने,

राधाबाई काले महिला महाविद्यालय, अहमदनगर

नॅक मानांकित 'B' श्रेणी

राष्ट्रीय चर्चासत्र

(दिनांक २२-२३ डिसेंबर २०१५)

'आंतरविद्याशाखीय संशोधन : स्वरूप व संधी'

ISBN : 978-93-83401-34-5

आयोजक

प्राचार्य डॉ. भाऊसाहेब कराळे

संपादक मंडळ

प्रा.डॉ. संजय नगरकर  
समन्वयक (मराठी)

प्रा. संभाजी कातोरे  
सहसमन्वयक  
(राज्यशास्त्र)

प्रा. गफूर शेख  
सहसमन्वयक  
(इतिहास)

प्रा. बुवासाहेब ठेरे  
सहसमन्वयक  
(शा. शिक्षण)

प्रा. मनोहर करांडे  
सहसमन्वयक  
(इंग्रजी)

प्रा. भूपेंद्र निकाळजे  
सहसमन्वयक  
(हिंदी)

प्रा.संतोष गायकवाड  
सहसमन्वयक  
(मानसशास्त्र)

प्रा.डॉ. वैशाली पाटील  
सहसमन्वयक  
(अर्थशास्त्र)

प्रा. सहदेव आन्वड  
सहसमन्वयक  
(समाजशास्त्र)

प्रा. निखिल गोयल  
सहसमन्वयक  
(वाणिज्य)

प्रा. गणेश जाधव  
सहसमन्वयक  
(भूगोल)

प्रा. ज्ञानेश्वर शिंगाडे  
सहसमन्वयक  
(ग्रंथालयशास्त्र)

अ.नं.	पेपरचे नाव	संशोधकाचे नाव	पान. नं.
६२.	Research Methods In Interdisciplinary Research	Prof. Kumbhar Rajendra.R.	२११ ते २१२
६३.	मानसशास्त्रीय संशोधन स्वरूप व पध्दती	प्रा. नवाळे संजय एन	२१३ ते २१४
६४.	Necessity Of Integrated Statistical Analysis Approach	Prof. Bedarkar Pritamkumar Chandrakant,	२१५ ते २१८
६५.	A Study Of Sex Ratio Structure Nagar Tashil In Ahmednagar District Maharashtra	Dr. Khan A.I. Thombre Raviprakash D.	२१९ ते २२२
६६.	Valuable Steps for Social Science Research	Dr. Deshmukh Mahesh Prabhakar	२२२ ते २२४
६७.	Research in Social Sciences	Prof. PAWAR N.C. Dr. Avhad Suhas	२२५ ते २२७
६८.	Report Writing Of Research Paper And Thesis	Dr. Avhad Suhas	२२८ ते २३१
६९.	"Contribution Of The Indian Economic Thinkers to Economic Development Before Independence"	Dr. Kadam Parag P	२३२ ते २३४
७०.	'मानव विकास निर्देशांक व भारत'	प्रा. डॉ. खैरे महादेव गोपाळ	२३५ ते २३७
७१.	Fundamentals And Collection Of Primary Data In Social Research	Prof. Khose Mahanadra Bibhishan	२३८ ते २४१
७२.	जर्नशास्त्रीय संशोधनाचे प्रकार - एक चिकित्सक अभ्यास	प्रा.डॉ. श्रीमती. पाटील व्ही.डी. श्रीमती. सुरोदे ललिता दामु	२४२ ते २४५
७३.	A Study Of Use Of Computer In Research	Jumare Avinash Kamalakar Shaikh Shayin Y. Rathod Anant S.	२४६ ते २४७
७४.	Empowerment Of Women For Improved Quality Of Life	Prof. Bhilore Y.M. Dr. Kadam Pramodini	२४८ ते २५१
७५.	'संशोधनाच्या विविध पध्दती'	प्रा. डॉ. पाटील व्ही. एच	२५२ ते २५४
७६.	'संशोधन स्वरूप व व्याप्ती'	प्रा. सोनटक्के डी.पी.	२५५ ते २५६
७७.	Globalization and Its Impact on Indian Culture	Prof. Dr. Deshmukh B.Y.	२५७ ते २६१
७८.	संशोधन पध्दतीत सामाजिक शास्त्र व माहिती प्रणालीचे महत्त्व : एक विश्लेषण	प्रा.डॉ. पाटील व्ही. डी. कु. शेख शाफिन यामिन	२६२ ते २६५
७९.	संशोधनात सामाजिक पाहणी पध्दत: एक चिकित्सक अभ्यास	प्रा.डॉ. वेदामुख बी.जाय. कु. शेख शाफिन यामिन कोबरणे संदीप बाळासाहेब	२६६ ते २६८
८०.	संशोधनातील गृहितकाचे महत्त्व	प्रा.डॉ. श्रीमती. भिंगारदिवे एस.बी.	२६९ ते २७०
८१.	सामाजिक संशोधनात नमुना निवडीची भूमिका : एक विश्लेषण	राठोड अन्त श्रीराम राठोड नीला श्रीराम कु. शेख शाफिन यामिन	२७१ ते २७४
८२.	भारतात सामाजिक सर्वेक्षण विकास एक चिकित्सक अभ्यास	प्रा. डॉ. श्रीमती. पाटील व्ही. डी. कु. शेख शाफिन यामिन	२७५ ते २७७
८३.	सामाजिक शास्त्रीय संशोधनाचे स्वरूप आणि सुशिक्षित	डॉ. वैद्य संजय गोविंदराव	२७८ ते २८१
८४.	संशोधनाच्या विविध पध्दती	छोले विजयक नारायण	२८२ ते २८३
८५.	Research And Types Of Research	Dr. Mote D.N. Ms. Goyal Neelam Bharat	२८४ ते २८६
८६.	Study Of Problems In Data Collection For Research	CA. Goyal Nikhil Bharat	२८७ ते २८९

## “भारतात सामाजिक सर्वेक्षण विकास एक चिकित्सक अभ्यास”

### प्रस्तावना :

भारतात सामाजिक सर्वेक्षणाचा विकास इतर प्रगत देशांच्या तुलनेत अतिशय मंद गतीने होत आहे. आज देखील सामाजिक सर्वेक्षणकर्त्यांना अनेक अडथळ्यांना सामना करूनच सर्वेक्षण करावे लागते. आर्थिक समस्या आणि लोकांची उदासिनता सामाजिक सर्वेक्षणाच्या विकासातील प्रमुख अडथळे होत. भारतीय समाज हा रूढी परंपरावादी आहे. शिक्षणाचा अभाव, अंधश्रद्धा, परंपरावरील विश्वास इत्यादी कारणामुळे सूचनांना एकत्रित करणे हीच स्वतः एक समस्या आहे. या सर्व कारणांमुळे भारतातील सर्वेक्षणाचा विकास अतिशय मंद आहे.

### शोध निबंधाची उद्दिष्टे :

१. भारतातील ब्रिटीश काळातील सामाजिक सर्वेक्षण अभ्यासणे.
२. स्वतंत्र भारतातील सामाजिक सर्वेक्षण अभ्यासणे.
३. भारताच्या विकासातून सामाजिक संशोधनाची आवश्यकताचा अभ्यास करणे.
४. संशोधनाचे प्रमुख प्रकार अभ्यासणे.

### शोधनिबंधाची गृहीते :

१. भारतातील संशोधन संस्थांची सातत्याने वाढ होत आहे.
२. भारतातील वाढत्या संशोधन पध्दतीमुळे आर्थिक विकासावर परिणाम झालेला दिसून येतो.

### संशोधन पध्दती :

प्रस्तुत शोध निबंधामध्ये विश्लेषणात्मक संशोधन पध्दतीचा उपयोग केला असून शोधनिबंधातील विवेचन दुय्यम साधन सामग्रीवर अवलंबून आहे. यासाठी विविध संदर्भग्रंथ, पुस्तके, मासिके, अहवाल, वृत्तपत्रे, संकेतस्थळ (वेबसाईट) इत्यादींचा उपयोग केला आहे.

### अध्यास विषयाचे महत्त्व :

भारताच्या अर्थव्यवस्थेसमोर समस्यांचे निराकरण करण्यासाठी संशोधन करणे अत्यंत महत्त्वाचे आहे. संशोधनामुळे देशातील आर्थिक विकासात महत्त्वाची भूमिका आहे. संशोधनामुळे ब्रिटीश कालीन संशोधन व स्वतंत्र भारतातील संशोधन तसेच भारतासारख्या विकसनशील देशांला संशोधनाची आवश्यकता का आहे, याचा अभ्यास करण्यासाठी “भारतात सामाजिक सर्वेक्षणाचा विकास एक चिकित्सक अभ्यास” हा विषय निवडला आहे.

### भारतात सामाजिक सर्वेक्षणाचा विकास :

(Development of Social Survey in India) भारतातील सर्वेक्षणाच्या विकासाचे दोन भागात विवेचन पुढीलप्रमाणे :

#### अ) ब्रिटीश काळातील सामाजिक सर्वेक्षण : (Social Survey During British Period)

ब्रिटीश काळात सामाजिक सर्वेक्षणाचा अतिशय मंद गतीने का होईना पण विकास होण्यास सुरुवात झाली. दुष्काळ, मजुरांच्या समस्या, बेकारी, आरोग्य इत्यादी विषयाबाबत सूचनांची आवश्यकता भासली म्हणून ब्रिटीश शासनाने वेळेवेळी काही आयोगांची (Royal Commission) नियुक्त केली. त्यांनी वेगवेगळे गॅजेटिअर्स (Gazetteers) तयार केले. १९५० मध्ये सांख्यिकीय सचिवालय, स्थापन केले. १८९१ पासून दर दहा वर्षांनंतर जनगणना करून त्यासंबंधीचा अहवाल प्रकाशित केले जाते. काही व्यक्तीगत प्रयत्नांद्वारे सामाजिक सर्वेक्षणातील विकासात विशेष योगदान देण्यात आले. १९१३ मध्ये सर टी. मोरीसन यांनी Economic Transition In India मद्रास राज्याच्या काही भागात समाजशास्त्रीय आणि सांख्यिकीय सर्वेक्षण करण्यात यावे. १९१२ मध्ये जी. किटींग यांनी Rural Economy in Bombay Deccan. तसेच पंजाब राज्यातील आर्थिक संशोधन बोर्डाचे योगदान उल्लेखनीय आहे. १९१२ मध्ये लहोरमध्ये दुधाची पूर्ती करण्याबाबतचे संशोधन केले. १९२८ च्या भारतीय कुषीच्या शाही आयोगाने (Royal Commission on India Agriculture) यांनी शेती, कर्जबाजरीपणा, बाजार, ग्रामीण जीवनावर विशेष भर दिला. १९२९-३० मध्ये हैद्राबादमध्ये प्रा.एस. केशव आर्यगर व १९३७ मध्ये प्रा. डी.आर. गाडगीळ यांनी सर्वेक्षण केले. भारतातील विविध जमातीचे सर्वेक्षण वेगवेगळ्या मानसशास्त्रज्ञांनी केले. सर रिजले यांनी १९०६ मध्ये तोंडा, एस.सी. रॉय यांनी मुंडा आणि मिल्स यांनी नागा जमातीचे अध्ययन केले.

ब) स्वतंत्र भारतातील सामाजिक सर्वेक्षण (Social Survey in Independent India) स्वतंत्र भारतातील सामाजिक सर्वेक्षणातील संस्थांचे योगदान पुढीलप्रमाणे :

- १) नॅशनल सॅम्पल सर्व्हे : (National Sample Survey-१९५०) : या राष्ट्रीय संस्थेद्वारे संपूर्ण भारतातील आर्थिक व सामाजिक परिस्थिती आणि सराच्या संबंधात सूचना एकत्रित करणे, पंचवार्षिक योजना तयार करणे, समाज-जीवनाच्या कुटुंबांचा आकार, उत्पन्न, सुखाचे स्वरूप, बेकारी, ग्रामीण शेतमजूर इत्यादी संबंधात महत्त्वपूर्ण तथ्यांचे संकलन केले आहे.
- २) संशोधन कार्यक्रम समिती :- (Research Programme Committee) या समितीद्वारे विविध प्रकारच्या सर्वेक्षणांना प्रोत्साहन देणे त्यांना आर्थिक मदत देणे, विविध सर्वेक्षण योजनांना स्वीकृती देणे, पुणे, हैद्राबाद, दिल्ली, मद्रास आणि मुंबईचे सामाजिक आर्थिक सर्वेक्षण, मुरादाबाद व शिवकाशी येथील लघु उद्योगांचे सर्वेक्षण आणि शेतीवरील अधिकारसंबंधी कायद्याचे सामाजिक आर्थिक परिणामांचे अध्ययन करणे, गाव आणि शहरातील आर्थिक संरचना, सामाजिक गतीशीलता, मजूर आणि मिल मालकांच्या पारंपारिक संबंधाशी संबंधित प्रश्न, बेकारी आणि भूमिमुधार इत्यादी सर्वेक्षणाबाबत या समितीचे विशेष महत्त्व आहे.
- ३) नॅशनल कौन्सिल ऑफ अप्लाइड इकॉनॉमिक्स : (National Council of Applied Economics Research : NCAER) : या संस्थेने अनेक महत्त्वपूर्ण सर्वेक्षण केले आहेत. दिल्ली येथील वचत संवर्धित मुंबई, दिल्ली, मद्रास, कानपूर इत्यादी शहरात सामाजिक, आर्थिक परिस्थितीचे सर्वेक्षण केले. अमेरिकन मॉडेल प्रमाणाचे ही संस्था आपल्या सर्वेक्षणात रसायन शास्त्र, इलेक्ट्रिकल इंजीनियरिंग, वन, वाहतूक, अर्थशास्त्र आणि सांख्यिकी विद्योपत्त्याच्या संशोधनाचा आणि तांत्रिक ज्ञानाचा समन्वय करण्याचा प्रयत्न करते, त्यामुळे सध्यास्थिती आणि विकासाच्या संभाव्य दिशेबाबत प्रयोगसिद्ध ज्ञान प्राप्त होऊ शकते.
- ४) लोकमत सर्वेक्षण : (Public Opinions Survey) : लोकमतच्या संबंधित सर्वेक्षणास प्रोत्साहन देण्यासाठी Indian Institute of Public Opinion या संस्थेची स्थापना केली. Public Opinion Surveys मासिक प्रकाशित केले जाते. या मासिकात विविध सामाजिक, आर्थिक आणि राजकीय विषयावर भारतीय लोकमतदार प्रकारा टाकणारे लेख छापले जाते.
- ५) विधवाविद्यालयाद्वारा सर्वेक्षण : (University Surveys) : अनेक विद्यापीठात एम.पी.ए., एम.ए.चे लघुशोध प्रबंध, पी.एच.डी.चे संशोधन कार्य केले जाते. या संशोधन कार्यात सर्वेक्षण पध्दतीचा अवलंब केला जातो. त्याचप्रमाणे विद्यापीठ अनुदान आयोगाच्या मदतीने विविध विषयावरील सर्वेक्षण विद्यापीठ करीत असते.
- ६) इतर संस्था : इंडियन इन्स्टिट्यूट ऑफ कम्युनिटी डेव्हलपमेंट (Indian Institute of Community Development) : गोखले इन्स्टिट्यूट ऑफ पॉलिटिक्स अँड इकॉनॉमिक्स (Gokhale Institute of Politics and Economics) स्टॅटिस्टिकल इन्स्टिट्यूट कलकत्ता, (Statistical Institute, Calcutta) टाटा इन्स्टिट्यूट ऑफ सोशल सायन्सेस (Tata Institute of Social Sciences), अग्रो इन्स्टिट्यूट ऑफ सोशल सायन्सेस (Agra Institute of Social Sciences) आणि दिल्ली स्कूल ऑफ सोशल वर्क (Delhi School of Social Work) या संस्थांचे सामाजिक सर्वेक्षण कार्यासंबंधी विशेष योगदान आहे. वरील माहितीनुसार भारतातील संशोधन संस्थांची सातत्याने वाढ झालेली दिसून येते. तसेच मांडण्यात आलेले गृहितक सत्य ठरल्याचे दिसून येते.

भारतासारख्या विकसन देशात सामाजिक संशोधनाची आवश्यकता : (Need of Social Research in Developing Countries like India) - विकसित देशांच्या तुलनेने विकसनशिल देशात सामाजिक संशोधनाची किती आवश्यकता आहे ते पुढीलप्रमाणे :

१. अज्ञानाचा नाश करणे : Removal of Ignorance : सामाजिक विविध विषयांचे वस्तुनिष्ठ ज्ञान प्राप्त केले जाते आणि या ज्ञानाचा प्रसार करून समाजातील अज्ञान नष्ट करणे शक्य आहे.
२. अंधविश्वासाचा नाश करणे : (To Removal of Dogmatism) भारतीय समाजातील अंधविश्वास लोकच मन्त्रे तर सुशिक्षित लोकमुखा अंधश्रद्धा पाळतात. म्हणून सामाजिक संशोधनाद्वारे संबंधित विषयावर संशोधन करून लोकांमधील अंधविश्वास नष्ट करणे शक्य आहे.
३. सामाजिक परिवर्तनाची दिशा जाणण्यासाठी : (To understand the Direction of Social Change) भारतीय समाजात शीघ्रगतीने परिवर्तन होत असून त्यामध्ये नवीन विचार, नव्या संस्था, प्रथा, परंपरा निर्माण



झाल्या असून ते योग्य दिशेने होणे आवश्यक आहे. अन्यथा अव्यवस्था निर्माण होईल त्याकरिता सामाजिक संशोधन योग्य दिशेने सामाजिक परिवर्तन घडून आणले जाते.

४. सामाजिक समस्यांच्या निराकरणासाठी (To Solve the Social Problems) : देशातील बेकारी, दारिद्र्य, गुन्हेगारी, बाल गुन्हेगारी, जाती संघर्ष, मद्यपानांची समस्या इत्यादी विविध समस्याविषयीचे वस्तुनिष्ठ ज्ञान प्राप्त करणे आवश्यक आहे या ज्ञानाचा उपयोग करून सामाजिक समस्यांचे निराकरण करता येते.
५. योजनेच्या यशस्वितेसाठी : (To Success of Planning) शासकीय योजनेस लोकांचे सहकार्य का मिळत नाही त्याची कारणे कोणती, शासकीय योजना अयशस्वी का ठरतात इत्यादी वर सामाजिक संशोधन करून योजनांची आखणी केल्यास लोकांचे सहकार्य प्राप्त होऊ शकेल.
६. प्रभावी सामाजिक नियंत्रण : (Effective Social Control) : भारतामध्ये परंपरागत साधनाऐवजी कायदे, न्यायालये, पोलिस व्यवस्था इत्यादी नवीन साधनांचा प्रभावी नियंत्रण करणे ही एक मोठी समस्या आहे. त्यामुळे सामाजिक संशोधनातून प्राप्त केलेल्या ज्ञानाचा विशेष उपयोग होतो.
७. राष्ट्रीय एकता : (National Integration) : भारतीय समाजात विविधता असल्यामुळे एकात्मतेची समस्या निर्माण झाली आहे. त्यासंबंधीत घटकांचे संशोधन करून अडथळे दूर करण्याबाबत काही उपाययोजना सुचविता येतात व समाजातील लोकांची दृष्टी विशाल बनविण्यास अतिशय उपयुक्त आहे.

वरील माहितीवरून भारतातील वाढत्या संशोधनामुळे आर्थिक विकास अनुकूल परिणाम झालेला दिसून येतो. तसेच मांडण्यात आलेले गृहितक सत्य ठरल्याचे दिसून येते.

#### सारांश :

भारतातील सामाजिक संशोधनाचा विकास मंद गतीने होत आहे. त्यामध्ये ब्रिटीश काळातील सामाजिक सर्वेक्षणांचे विकासात फार मोठे योगदान असून विकास होण्यास सुरुवात झालेली आहे. जनगणनेचे विशेष महत्त्व प्राप्त झाले आहे. त्यानंतर स्वतंत्र भारतातील सामाजिक समस्यांचे निराकरण करण्यासाठी अनेक सर्वेक्षण संस्थांची स्थापना त्याद्वारे दिलेल्या उपाययोजनावर कार्यक्रम आखून आर्थिक विकासासाठी कार्य केले जाते. भारता सारख्या विकसनशील देशासाठी सर्वेक्षणाची आवश्यकता मोठ्या प्रमाणात दिसून येते. सर्वेक्षणामुळे आर्थिक विकासावर अनुकूल परिणाम दिसून येतो. त्यामध्ये अज्ञान व अंधश्रद्धा दूर करणे, राष्ट्रीय एकता जोपासणे, सामाजिक समस्यांचे निराकरण, परिवर्तन झाल्यामुळे आर्थिक विकासात महत्त्वाचे योगदान दिसून येते. तसेच संशोधनाचे विविध प्रकार पाडून संशोधनात अचुकता येते.

#### निष्कर्ष :

- १) भारतातील ब्रिटीश काळात सामाजिक सर्वेक्षण विकास झालेला दिसून येतो.
- २) स्वतंत्र भारतातील सामाजिक सर्वेक्षणासाठी अनेक महत्त्वपूर्ण संस्थांची स्थापना करून त्यांनी सांगितलेल्या उपाययोजनांची अंमलबजावणी करताना दिसून येते.
- ३) भारतासारख्या विकसनशील देशाने संशोधनाने आर्थिक विकासासाठी आवश्यक ते प्रयत्न केले आहे.
- ४) भारतामध्ये आर्थिक विकासासाठी व विविध समस्या निराकरणासाठी संशोधनाची आवश्यकता दिसून येते.
- ५) संशोधनाचे आठ प्रकार पडतात. त्यामध्ये वर्णनात्मक संशोधन, विश्लेषणात्मक संशोधन, मुलभूत संशोधन, उपयोजित संशोधन, गुणात्मक संशोधन, संख्यात्मक संशोधन, संकल्पनात्मक संशोधन व अनुभवाधिष्ठित संशोधन इत्यादी होय.

#### संदर्भ ग्रंथ :

- १) डॉ. प्रदीप आगलावे, संशोधन पध्दतीशास्त्र व तंत्रे, विद्या प्रकाशन, नागपूर (२०००).
  - २) डॉ. रा.रं. बोरुडे, संशोधन पध्दतीशास्त्र, पुणे, विद्यार्थी गृह प्रकाशन, पुणे (२००५).
  - ३) प्रा. डॉ. सुधीर बोधनकर, प्रा. विवेल अलोणी, अॅड. मृणाल कुलकर्णी, सामाजिक संशोधन पध्दती, श्री साईनाथ प्रकाशन, नागपूर.
  - ४) डॉ. सुमन बेहरे, सामाजिक संशोधन पध्दती, विद्या प्रकाशन, नागपूर (१९९८).
  - ५) प्रा. डॉ. सुनील मायी, सामाजिक संशोधन पध्दती, डायमंड पब्लिकेशन, पुणे (२००८).
- प्रा. डॉ. श्रीमती. व्ही.डी. पाटील  
अर्थशास्त्र विभाग प्रमुख,  
राधाबाई काळे महिला महाविद्यालय, अहमदनगर

कु. शायिन यासिन शेख,  
संशोधन विद्यार्थिनी



47  
ISBN, 978-93-84659-22-8

P27  
Proceeding

**National Level Conference**

ON

" Contribution of Dr. Babasaheb Ambedkar  
in Economic Thoughts "



Organized by  
Department of Economics

K. J. Somaiya College of Arts,  
Commerce & Science

Mohinirajnagar, Kopargaon, Dist:- Ahmednagar,  
Pin-423 601 (MS)

NAAC Reaccredited 'A' Grade • ISO 9001:2008 Certified Institute

Scanned by CamScanner

Scanned by CamScanner



## International E - Publication

427, Palhar Nagar, RAPTC, VIP-Road, Indore-452005 (MP) INDIA  
Phone: +91-731-2616100, Mobile: +91-80570-83382  
E-mail: [contact@isca.co.in](mailto:contact@isca.co.in), Website: [www.isca.mc](http://www.isca.mc), [www.isca.co.in](http://www.isca.co.in)

© Copyright Reserved  
2016

*All rights reserved. No part of this publication may be reproduced, stored, in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, photocopying, reordering or otherwise, without the prior permission of the publisher.*

ISBN: 978-93-84659-22-6



Date : 9 Feb.2016

Price: 475

## INDEX

Sr. No.	Name Of Author	Title	Page No.
17	Dr. Ghanshyam Agrawal Mr. Suhas G. Gopane	Agriculture And Land Reform: Thoughts Of Dr. Babasaheb Ambedkar	129
18	Mr. Anant Rathod	A Glimpse Of Dr. Babasaheb Ambedkar's Life And Social Works	135
19	Mr. Ankush Motale	Agricultural Thoughts Of B. R. Ambedkar	139
20	Ms. Sunita Shivaji Mhasade	Dr. Babasaheb Ambedkar's Economic Views On Indian Agriculture	145
21	Shital G. Bardale Nasiket G. Suryavanshi	Economic Thoughts Of Dr. Babasaheb Ambedkar	153
21	प्रा. गणेश पी. लोडे	डॉ. बाबासाहेब आंबेडकरांचे अर्थशास्त्रातील योगदान	163
22	डॉ. शिवाजी अंभोरे गोवर्धन भुतेकर	डॉ. बाबासाहेब आंबेडकर यांचे सामुहिक शेती विषयक प्रारंभिकता	166
23	प्रा. मोहन शिंदे	डॉ. बाबासाहेब आंबेडकरांचे आर्थिक विचार	169
24	प्रा. नानवटे एन. एन. प्रा. सिरसाठ एम. के.	डॉ. बाबासाहेब आंबेडकर एक अर्थतज्ञ	175
25	प्रा. डॉ. शिवाजी एन. झांझुण्णे प्रा. डॉ. उदय एम. लोखंडे	डॉ. बाबासाहेब आंबेडकरांचे तत्कालीन आर्थिक विचार	182
26	डॉ. मुरलीधर के. इंगोले	डॉ. बाबासाहेब यांच्या भारतीय कामगार चळवळीची दशा आणि दिशा : एक आर्थिक चिंतन	186
27	प्रा. डॉ. श्रीमती एस. बी. भिगारदिवे	डॉ. बाबासाहेब आंबेडकरांचे शेतीविषयक विचार	191
28	प्रा. डॉ. बी. एम. वाघमोडे प्रा. पी. ए. त-हाळ	डॉ. बाबासाहेब आंबेडकर व भारतीय अर्थव्यवस्था	195
29	डॉ. सौ. पाटील व्ही. डी. कु. शेख शायीन यासिन	डॉ. बाबासाहेब यांच्या शेती व चलनविषयक विचारांचा परिणाम : एक विश्लेषण	200
30	डॉ. विश्वास आर कदम	डॉ. बाबासाहेब आंबेडकर यांचे शेतीविषयक विचार	204
31	प्रा. डॉ. बी. एम. वाघमोडे प्रा. डॉ. बी. बी. कांदळकर	डॉ. बाबासाहेब आंबेडकरांचे आर्थिक विचार : एक अभ्यास	210

**“डॉ. बाबासाहेब यांचे शेती व चलन विषयक विचारांचा परिणाम :  
एक विश्लेषण”**

सौ. डॉ. पाटील व्ही. डी.  
अर्थशास्त्र विभाग प्रमुख  
राधाबाई काळे महिला महाविद्यालय, अहमदनगर

कु. शेख शायिन यासिन  
सशोधक विद्यार्थीनी

प्रस्तावना :-

दलितांचे कैवारी, भारतीय राज्यघटनेचे शिल्पकार आणि भारतरत्न डॉ. बाबासाहेब आंबेडकर यांचा जन्म मध्य प्रदेशातील महु या गावी 14 एप्रिल 1891 साली झाला. त्यांनी अमेरीका व इंग्लंड मध्ये एम. ए., पी. एच. डी. एम. एस. सी. डी. एस. सी., कायद्याचे बॅरिस्टर इतक्या पदवी संपादन केल्या. दलीतांवरील अन्यायाची जाणीव करून देण्यासाठी 'मुक्त नायक' हे पत्रिके, 'बहिश्त हितकरणी समा' ही संस्था स्थापन केली. 'बहिश्त भारत' हे साप्ताहिक तर 'शिकवा, चेतवा आणि संपादित करा' हे त्रिद वाक्य असून स्वाभिमान, स्वावलंबन, आत्मोद्धार ही तत्वे बाबासाहेबांची होती. 1927 मध्ये महाडमध्ये चवदार तळ्यासाठी सत्याग्रह व नाशिक मध्ये काळाराम मंदीरात सत्याग्रह करून अस्पृशांना प्रवेशबंधी उठविण्याचा प्रयत्न केला. गोलमेज परिशद व पुणे करार आणि भारतीय राज्यघटनेचे मसुदा अध्यक्ष म्हणून त्यांनी महत्त्वाचे कार्य केले आहे.

सशोधनाची उद्दिष्टे :-

1. डॉ. बाबासाहेब आंबेडकर यांचे शेतीविषयक विचार अभ्यासणे.
2. डॉ. बाबासाहेब आंबेडकर यांचे चलनविषयक विचार अभ्यासणे.

शोधनिबंधाची गृहितके :-

1. डॉ. बाबासाहेब आंबेडकर यांच्या शेती व चलनविषयक विचारांमुळे समाजावर विधायक परिणाम झालेला आहे.

शोधनिबंधाचे महत्त्व :-

भारतीय समाजावर हजारो वर्षे असणारी सामाजिक गुलामगिरी, अन्याय, धर्मातील जाचक रूढी सहन करणाऱ्या दलीत समाजातील व शेतकरी वर्गासाठी डॉ. बाबासाहेब आंबेडकर यांचे शेती व चलन विषयक विचारांचे परिणाम कसे होतात. याचा अभ्यास करण्यासाठी “डॉ. बाबासाहेब यांचे शेती व चलन विषयक विचारांचा परिणाम : एक विश्लेषण” या विशयाची निवड केली आहे.

संशोधन पध्दती :-

प्रस्तुत शोध निबंधामध्ये विश्लेषणात्मक संशोधन पध्दतीचा उपयोग

केला असून शोध निष्कर्षातील विवेचन दूरगम साधन सामुगीयर अवलंबून आहे. यासाठी विविध संदर्भ ग्रंथ, पुस्तके, मासिके, अहवाल, वृत्तपत्रे व संकेतरथक इत्यादीचा उपयोग केला आहे.

डॉ. बाबासाहेब आंबेडकर यांचे शेती विषयक विचार :-

डॉ. बाबासाहेब आंबेडकर यांचे भारतीय शेतीविषयक विचार पुढील प्रमाणे आहे. भारतातील लाहान धारणक्षेत्रे आणि त्याचरिज उपाय हा लेख भारताच्या शेती प्रश्नावरील असून या लेखाचे तीन भागात विश्लेषण केले आहे. पहिल्या भागामध्ये शेतीच्या धारण क्षेत्राच्या आकारमाना विशयक समस्या. दुसऱ्या भागामध्ये त्यांनी छोट्या धारण क्षेत्राच्या आकडेवारीचे विश्लेषण केले आहे. तिसऱ्या भागामध्ये उपाय योजनामध्ये धारण क्षेत्राचे एकत्रिकरण व विस्तार यावर विश्लेषण केले आहे. त्यामध्ये भांडवल आणि भांडवली साधन सामुग्रीची उत्पादकता वाढविणे, औद्योगिकरण करणे इत्यादी विषयक विचार मांडले आहे.

1. कोकणात आढळून येणारी खोत ही जमीनधारा पध्दत रद्द करण्यासाठी 1937 मध्ये मुंबई कायदे मंडळात विधेयक मांडले. त्यामध्ये शेती कसणाऱ्यांचे शोषण थांबविणे व शासनाशी प्रत्यक्ष संबंध प्रस्थापीत करणे. डॉ. बाबासाहेब यांनी जमीन सुधारणा विषयक कायद्याची सुरुवात केली.
2. औद्योगिक श्रमीकाप्रमाणे शेतमजुरांनाही गविष्य निर्वाह निधी, आरोग्य विमा, नुकसान भरपाई मिळाव्यात असे विचार त्यांनी मांडले.
3. डॉ. बाबासाहेब आंबेडकरांनी सामुहिक शेती व यांत्रिकीकरणाचा शेतीमध्ये उत्पादन वाढविण्यासाठी खात्रीशीर मार्ग आहे, असे विचार मांडले.
4. भारतीय शेती व्यवस्थेच्या संदर्भात डॉ. बाबासाहेब यांनी निरर्थक रोजगार किंवा आवश्यक रोजगार ही संकल्पना मांडली.
5. डॉ. बाबासाहेब आंबेडकर यांनी निश्क्रिय भांडवल आणि निश्क्रिय श्रम यातील फरका विषयी विचार मांडले.
6. भारतातील शेतीक्षेत्रातील निष्क्रिय श्रमाची समस्या औद्योगिकरणाला चालना देवून सोडवता येवू शकते असे, विचार डॉ. बाबासाहेबानी मांडले.

व. डॉ. बाबासाहेब आंबेडकर यांचे चलनविषयक विचार :-

डॉ. बाबासाहेब आंबेडकर यांचे भारतीय चलनविषयक विचार पुढील प्रमाणे आहे. डॉ. बाबासाहेबांनी लंडनमध्ये कॅनन यांच्या मार्गदर्शनाखाली 'रूपयाचा प्रश्न' हा संशोधनात्मक प्रबंध लिहला आहे. त्यामध्ये त्यांनी भारतीय रूपयाचा ऐतिहासिक



आढावा, भारतीय रूपयाची जडण-पाडण ही सुवर्ण परिणामात किंवा सुवर्ण विनीमय परिणामात याबाबत तुलनात्मक अभ्यास केले आहे. त्यामध्ये सुवर्ण परिणाम लवचिक असून भविष्यकालीन अर्थव्यवस्थेसाठी उपयुक्त असून कॅन्सच्या सुवर्ण विनीमय परिणामाला विरोध केला आहे. कारण त्यामुळे सुवर्ण परिणामामुळे अर्थव्यवस्थेत स्थैर्य राहत नाही. आवश्यकते पेक्षा जास्त चलन निर्मातीमुळे भाव वाढ होईल हे सिद्ध करण्यासाठी डॉ. बाबासाहेबांनी हिल्टन गंग कमिशनमुळे अर्थशास्त्रज्ञ म्हणून ऐतिहासिक पुरावे दिले. त्यामध्ये सुवर्ण विनीमय परिणाम स्थिराकारल्यावर किंमती वाढत गेल्या याचे विवेचन केले आहे. तसेच 1926 मध्ये रूपयाची किंमत स्थिर राहिली तर वस्तुच्या किंमती स्थिर राहतील व महागाई वाढणार नाही असे मत आंबेडकरांनी भारतीय अर्थव्यवस्थेत संबंधित रॉयल कमिशन मुळे मांडले होते. तसेच 1875 पासून पौंडच्या तुलनेत रूपयात घसरण होऊन लाखो रूपयाचे कर ब्रिटिश सरकारने भारतीय जगतोवर लादले. त्यावर डॉ. बाबासाहेबांनी भारतीय रूपया व लंडनच्या पौंडशी असलेल्या संबंधाचा अभ्यास करून चलन मर्यादित करण्यासाठी दोन मार्ग सुचविले 1. चलन रूपांतर करता आले पाहिजे. 2. चलन निर्माती यावर मर्यादा घातली पाहिजे, असे डॉ. बाबासाहेब आंबेडकरांनी चलन विषयक विचार मांडले होते.

अशा प्रकारे चरिल माहिती चरून असे स्पष्ट होते की, घेतलेले गृहितत्ये सत्य ठरल्याचे दिसून येते.

**सारांश :-**

भारतीय अर्थव्यवस्थे समोर असणाऱ्या समस्यांमध्ये अस्पृश्याचे निमुलून शेती विषयक समस्या, चलन विषयक समस्या, राज्यक्रिये व आर्थिक समस्या, जमीण सुधारणा, समाजवादाची अंमलबजावणी, रोजगार, यांत्रिकीकरण, सामुहिक शेती विशयी मांडलेले विचार आजही लागू होताना दिसून येते.

**निष्कर्ष :-**

1. डॉ. बाबासाहेब आंबेडकर यांनी शेती विषयक विचारांमध्ये यांत्रिकीकरण, सामुहिक शेती, छुपी बेकाशी व खोत पध्दती बंद करण्यासाठी विचार मांडले आहे.
2. भारतीय अर्थव्यवस्थेसमोर असणाऱ्या भारतीय रूपयांचे प्रश्न सोडविण्यासाठी डॉ. बाबासाहेब यांनी अनेक विचार मांडलेले आहे.

202

3. डॉ. बाबासाहेब यांच्या शेती व चलन विशयक विचारांमुळे भारतीय अर्थव्यवस्थेचे विधायक परिणाम दिसून येतो. **संदर्भ ग्रंथ :-**

1. कुमार अनसुया, त्रिवार बंदन तुम्हा, विद्याभारती प्रकाशन लातूर. जानेवारी 2013 प्रथम आवृत्ती.

2. कदम डी. एस., दातीर आर. के., चिंतामणी आर. एम., जाधव ए. पी., आर्थिक विचारांचा इतिहास, प्रगती बुक प्रा. लि. पुणे. जानेवारी 2005 प्रथम आवृत्ती.

3. कुलकर्णी बी. डी. व दमढरे एस. व्ही., आर्थिक विचार व विचारवंत, डायमंड पब्लिकेशन पुणे. ऑगस्ट 2008 प्रथम आवृत्ती.

4. कौर धनंजय, डॉ. बाबासाहेब आंबेडकर, पॉपिलर पब्लिकेशन मुंबई, ऑक्टोबर 1989 सहावी आवृत्ती.

203

Scanned by CamScanner



RAYAT SHIKSHAN SANSTHA'S

**DHANANJAYRAO GADGIL COLLEGE OF COMMERCE, SATARA.**

Organized

International Conference

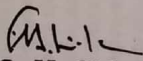
On

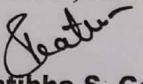
**"Contemporary Issues in Commerce, Economics and Management"**

10<sup>th</sup> December, 2015

**CERTIFICATE**

This is to Certify that Mr./Miss./Mrs./Dr./Prin. Capt. Dr. Ashok V. Gixi of MES, Narware College of Commerce, Pune has participated / Worked as a Resource Person / Chairperson / Member of Organizing Committee and presented the paper entitled Brand Positioning: The unbreakable weapon in present marketing scenario at the International Conference on "Contemporary Issues in Commerce, Economics and Management" held on 10<sup>th</sup> December, 2015 organized by Dhananjayrao Gadgil College of Commerce, Satara, Maharashtra, India.

  
**Dr. C. M. Shinde**  
Convener

  
**Prin. Dr. Pratibha S. Gaikwad**  
Organizing Secretary  
D.G. College of Commerce, Satara.



# Brand Positioning: The Unbeatable Weapon in Present Marketing Scenario

*Capt. Dr. Ashok V. Giri*

*Assistant Professor,*

*MES Garware College of Commerce,*

*Ph.D & M.Phil Research Guide Savitribai Phule Pune University*

*Pune-411004. (Maharashtra, India)*

*Email ID:-capt.drashokgiri@gmail.com*

## Abstract

Over the decades, the sea change in the attitudes and lifestyles of people provided various big ideas to marketers, which can be nurtured out of changing social needs, desires and values of the target customers. These innovative ideas resulted in reshaping the thinking of marketers by first identifying and understanding the needs and expectations of the target group and then to come up with suitable products. In the present scenario, the innovations are taking place rapidly but even the best demanded brands are not sure regarding their survival because the innovations are difficult to develop and easy to copy. So, the marketers are continuously seeking the distinct positions for their brands in the minds of customers and hence brand positioning has emerged as the most challenging job in today's mature and overcrowded markets. It aims at imprinting a differentiated image of the brand in the minds of the prospective customers. According to Charles Mittelstadt, "Positioning refers to how you want your brand 'thought about' in connection with the competitors in its product category. It needs to be specific to your brand aimed at specific target audience". A successful brand positioning strategy concentrates on finding out the strong position in customer's mind and then sitting on it, which leads to gain the competitive advantage in the market. The marketing managers are constantly facing the dilemma to position and reposition the brands according to the changing perceptions, needs and desires of the customers. Therefore, in the light of this fact, in this present study, we tend to focus upon describing the various strategies to position brands accurately in the market. The objective of our study is twofold. Firstly, to contemplate the basic concept of positioning and secondly, to give a brief account of puzzles and advancements in positioning.

**Keywords:** Brand, Marketing, Brand Positioning, Brand Personality, brand loyalty.

## POSITIONING AS A VITAL TOOL OF MARKETING

Positioning emerged as a vital tool to understand how brands are positioned in the mind of customer in relation to relevant attributes. It is based on the functional attributes or the emotional associations with the brand. Positioning is the pursuit of differential advantage (Subroto Sengupta, 1999). Whatever the brand positioning strategy is opted by the organization, the customers and employees must get the clarity about what differentiates your brand. The organization will bear less expense if it adopts the right positioning strategy with right marketing mix aimed at specific target audience. The brands, which have a clear vision, a concise meaning and understand their parameters of relevance, are well positioned. Nike has done its positioning as: "Athletic Shoes for Winners". Whatever you want, you can 'just do it' in Nikes. Similarly, 7-up positioned itself as 'The Uncola' drink by using colas as a frame of reference which creates its distinct image in the soft drink market. So the marketers must discover the positions which can award them the competitive advantage. Further, these positions are generally divided in three categories.

- (a) **Functional Positions**, which can be achieved by providing benefits of the product and solutions to the problems.
- (b) **Symbolic Positions**, which can be attained by enhancing the self-image, ego-identification and satisfaction.
- (c) **Experiential Positions**, by providing the prospects, sensory pleasures and cognitive stimulations.



## **SIGNIFICANCE OF POSITIONING**

### **Positioning is the hub of business wheel**

Positioning is the basis of everything done in business. No brand can be built effectively and no consistent image can be conveyed until a strong brand positioning is developed. Positioning is the foundation of R&D, Product development, Branding, Pricing, Packaging, Advertising, Promotion, Merchandising, Publicity, Distribution Channels etc.

### **Positioning can beat the competition**

Today, the markets are flooded with clones or a sea of homogeneous products. The only way to cross this sea is to create and communicate a distinct image which makes the customers convinced to choose your brand over the competitor's brands. Lifebuoy occupies the 'Hygiene' position. The original version of Lifebuoy was targeted to rural segment. The Double-action plus was for urban teenagers (Boys) and Lifebuoy Gold for young girls, but in all, the position was same i.e. Germ-Killing action. On the other hand, Margo is in 'Herbal' position and Mysore sandal in 'pure and natural fragrance' slot.

### **Positioning drives growth**

Unfortunately, many organizations tend to focus upon making products rather than building brands. Product is something which is made in a factory, whereas brands are made in the mind. A good brand name combined with strong and clearly defined positioning leads to excellent market performance and increased market share and profits.

### **Positioning creates brand loyalty**

We are in the habit of using at least one brand of a particular product in our daily life. We keep on using that product until the manufacturer changes the product. This brand loyalty is created by strong positioning which makes the customer feel that there is no perfect substitute available in the market for their preferred brand.

## **POSITIONING A PRODUCT IN THE MARKETPLACE**

The pillar of positioning is based on the foundation of market segmentation i.e. partitioning the market into homogeneous groups of the potential customers. To engrave a strong position for the product, marketers first have to divide the market in unique segments and then select the target segments. After discovering the way to reach the market, the next step is how to attract the customers to try their products. In the monopolistic market, though too many brands are functionally similar, yet the firm can adopt various positioning strategies, which help it to differentiate its brands on one facet or the other.

### **Quality**

Quality had been the base of positioning and the efforts are put together to build the dominant perception of quality. It can be built up by focusing on limited range of products, specializing in them and it can also be achieved by attaching higher price tag to the brand. To some customers, a higher price tag provides the psychological satisfaction but a product must also have some uniqueness to justify the price. Eureka Forbes, Sony, Levi, Microsoft owned this qualitative perception for their products. The positioning at the lower end of price-quality range embraces the problem of upgrading the image of the product.

### **Features**

Sticking to the facts about the product brings the credibility in positioning, either it is VW's.. 'Think Small' on the introduction of Beetle, Onida's.. 'Science of Sound' or 'Avis' the rental cars 'We Try Harder.' Product feature positioning can range from specific physical benefits to more abstract features.

### **Benefits**

Markets overwhelmed with the brands similar in features, open doors to position on the basis of the benefits of products. This is superior convincing strategy as it aims at providing the reason to purchase the solution of the problem like Frozen meals save time of preparation, Crest reduces cavities, Head & Shoulders clears dandruff.



## Value

Once the good value brands were thought to be inexpensive, but today they are more popular amongst consumers. Coca-Cola & Pepsi, besides meeting with various controversies, are still well-liked by people because of the status symbol. People don't visit McDonalds because of the services offered but for the reason that they love to be seen there. They feel proud to talk about these brands. Besides keeping hold of the strong identity, McDonalds nicely announced the 'Happy Price Menu' leaving the competitors to think about new ways.

## Usage

Another influential differentiating strategy is positioning the product according to the usage occasions. Some organizations reflected the courage to dominate the usage position in the market like Dettol antiseptic for nicks and cuts. Further, Vicks Vaporub is sitting on the unchallengeable usage positioning of 'cold at night'. Dettol Soap perfectly grilled the idea of '100% bath' to refresh you up.

## User Category

Delving deeply into the segment, positioning prompts are decided keeping in mind the target customers; who should buy the product. Nestlé's Cerelac, the easily digestive cereal food and Johnson & Johnson's mild shampoo were positioned for babies. Further positioning Complan for 'Growing Children' and communicating 'I am a Complan boy. No, I am a Complan girl' in their ads, Glaxo Laboratories created a distinct image in the customer's mind.

## Competition

Product's superiority can be demonstrated by comparing it directly with competitors. Some organizations adopt this aggressive positioning strategy to justify that how 'their' brand is superior. This process is followed in two ways. Firstly, by *comparative advertisements*, and secondly, by *relating your brand with the No. 1 brand*. In comparative advertisements, the product is compared with the competitor's product which is not named but can be recognized by people and then after comparison of attributes, superiority of 'our' product is justified. Cold Drinks and laundry detergents are going head to head to prove themselves better. Further if your brand is not No. 1, relate it with No. 1. Avis followed this 'Against Position Strategy' by stating "Avis is only No. 2 in rent-a-cars, so why go with us? We try harder." This was a success as consumers start relating No.2 Avis to No. 1 Hertz (Ries & Trout, 2003).

## Looking inside the prospect's mind

By ignoring the conventional logics, a unique position can be found out by digging up the minds of prospects, not by looking inside the organization and product. 7-Up is still on the unbeatable position of 'The Uncola Drink' as it was able and successful to discover & extract the 'Uncola' idea from the mind of the soft drink consumer and did not look inside the product.

## Hunting Holes

Exploring the unoccupied positions (not grabbed by the competitors) and getting first to the mind provides a powerful weapon in the hands of marketers to position their brands. 7-Up used 'Uncola' idea, Maggi noodles used the idea of '2-Minutes', and VW introduced Beetle in small segment by saying 'Think Small'. Further IBM was first to position the computer, yet it was not the first to invent it. Emami was the first to introduce and position 'Fair & Handsome', a fairness cream in male segment in India. Here we would like to add one more thing that if a company is first to introduce the product in market, then this fact must be emphasized to draw the attention of prospects. Coca-Cola beautifully discovered 'The Real Thing' implying that the competitors are just imitators.

## Multibrand /Single Position

The pace of new technology provides numerous opportunities to enter into new markets which award the leaders with the chance of introducing multiple brands rather than changing existing brands holding the leading positions. Introducing and positioning a new brand is much more economical and simpler rather than changing the existing ones. Reliance is continuously grabbing this strategy by entering into new fields. Ries and Trout named this as a single position strategy as each brand owns a static position in the mind of the customer. Success can also be achieved by focusing on a single theme. Nokia 'Connecting People' and Amul 'The Taste of India' have been able to achieve success by focusing on a single theme and reflecting it in their communication mix respectively.



## PREREQUISITES OF AN EFFECTIVE BRAND POSITIONING STRATEGY

The insight of consumer behavior is necessary for drafting a successful positioning strategy. Here, the central idea is to focus upon what consumers think about brands rather than what we think. So, positioning requires the extensive research and perfect understanding of consumers as well as brands on the different aspects such as needs of customers, product category, target segment, competition, benefits, perceptions, brand personality.

### (a) Needs of customers

A good place to start with is by identifying the existing and emerging needs of the customers in the marketplace. To get a clear understanding of consumer needs, one should keep in consideration that two different types of needs exist. Functional needs and emotional needs. Functional needs are more tangible, whereas emotional needs are related to emotions or psychographic factors like self-image, status symbol, desire to be different, lifestyle, values, attitudes and beliefs etc. It is impossible to ignore any need, but the homework is related to what type of need is more important in the segment. No doubt that functional need is important but sometimes like in the case of perfumes and cosmetics, emotional needs are more important than functional needs.

### (b) Product Category

Product class or product category is the set of all the products, which the consumers perceive as substitutes to satisfy the specific need. It consists of all the alternatives that the consumers can go for while facing some problem. Suppose, if a person wants snacks, then he is having various alternatives. He can either go for ready-to-eat snacks, mostly available at home, like biscuits, wafers; peanuts etc. or he can go for snacks prepared at home like pakora, sandwich, noodles, papad, dhokla etc. He can also purchase snacks from the market like samosa, pakora, burger etc.

Similarly, if a person is suffering from headache, then also he can go for a number of modes. He can take tea or drink something else, lie down or have a sleep, get a massage, take some medicine, go for the acupuncture exercise or visit the doctor.

Since, the consumers are having a plethora of alternatives to choose from, the marketers must have the knowledge of all these ways. Identifying these options and studying them in detail helps in identifying the product category, i.e. in which class, our product will enter, which in turn will help in defining the competition.

### (c) Target Segment

The next step on the ladder is finding out the target customers for our product. It involves the understanding of demographic, psychographic and usage behavior of the customers in that product category. All the audience cannot come in target segment because one positioning cannot appeal to everybody. Only those customers will be targeted who are having similar needs. Thums-Up targets those who are adventurous by saying 'Taste the Thunder'. Pepsi targets who thinks 'Young' and American Express targets 'Prestige conscious, frequent travelers, who crave recognition, attention and special service'. So, after digging out the right customers, it is important to communicate them, that this is the perfect brand which can best satisfy their needs.

### (d) Competition

Product category defines the competition. The companies wish to enter in the product category grinded with less or no competition. But the reality is far beyond this situation. To face reality and to cope up with the marketing warfare, four ways are suggested.

1. **Defensive Mode:** Only the market leader can defend himself by strengthening his own position. Position can be strengthened by bringing out the new innovations in new products/ services that supersede his own existing ones. e.g., Nokia and Gillette.
2. **Offensive mode:** This is followed by the follower by searching out the negative in the leader's positioning and attacking on that negative. e.g., Vicks Vaporub.
3. **Flanking mode:** All the segments cannot be occupied by the market leader. So, the neglected segment is occupied. e.g., Complan.



**4. Guerilla mode:** Finding out the niche in the market. Niche is a very small part of the market, where the volumes are very low but margins are very high. e.g., Rolls Royce.

Earlier, while analyzing the competitive framework, the companies used to consider standard of identity but today, new ways to look at competition have emerged. Now power brands adopt perceptual competitive framework e.g. Nestle is not selling Nescafe merely as a coffee, but it is a brand associated with achievement and freedom. It is something that rejuvenates you and freshens you up and prepares you for the whole day. In the same line, Nokia is not just selling cell phones; it is selling 'Fashion Accessories'. McDonald's is not competing in the fast food industry but in the 'Family Entertainment' business. Mercedes is not merely selling the cars but selling 'Self-esteem'.

#### (e) Benefits

People purchase benefits. Benefits convey strong reason to the customer that why they should go for a particular product. So, while framing the positioning strategy, benefits should be given due consideration, because they can provide the competitive advantage in the market, if not exploited by the competitors. While considering the benefits, the marketers are mostly in the situation of flux that whether to concentrate on functional/physical benefits or on emotional benefits. Like functional needs, functional benefits are more tangible and measurable. For example, Colgate helps in decay prevention, Maruti Suzuki is India's most fuel-efficient car, Tide removes tough stains and brightens the clothes etc. But the brand loyalty or the sense of belongingness cannot be achieved just by achieving the functional end. Belongingness comes with the emotions. So, the positioning strategy must be framed by ensuring that the brand is conveying functional as well as emotional benefits.

Further, Dettol kills germs. This is the functional aspect but the housewife is feeling relaxed that her family is safe is the emotional aspect of the brand. 'Fairness' by Fair & Lovely is the physical benefit, but it connects deeply with the emotions which bring the annoyed 'Lucky Girl' out of the fear that she will be rejected by the boy coming to see her. Then she feels excited by listening the word 'Lucky Boy'. In India, Fiat India talked about safety by offering crumple zones, side-impact beams for maximum passenger and driver safety, fire prevention system and anti-lock braking system. 'Safety' lies on functional end but the emotional side of this benefit is to convey the customer that he is purchasing the best car to protect his family during the journey.

Sometimes, the customers are not frequently using the physical benefit but are feeling relaxed on the emotional end. In case of the insurance companies, we are paying premium regularly for the number of years but rarely do we bother about the financial reimbursement due to any mishappening. Truly saying, in the wrap of premium, we actually are paying the price to purchase the relaxed sleep at night which is the height of emotional benefit.

#### (f) Perceptions

'Marketing is not the battle of products. It is the battle of perceptions' (Ries & Trout). For the marketer, it is necessary to know the consumer perceptions regarding the products that they perceive as the substitutes. This can be known with the technique of perceptual mapping. Perceptual map is basically the two-dimensional space on which the consumer perceptions and preferences regarding your product and competitor's products are plotted. So, this technique helps the marketer to know the consumer perceptions and preferences about his own products in relation to the competitor's products. This technique also defines the similarities and dissimilarities among the products. The closely plotted points on the map convey that the products are similar whereas far situated points convey dissimilarity. The single consumer's preferred position is represented by one point but if the number of points are closely situated, it makes a cluster, which means that several consumers have same preferences. The preference is considered as an "ideal vector". The marketers analyze that whether their products comes in ideal vector category or not. If yes, positioning is strong, but if not, then how much is the difference between perception and preference and how can it be minimized? So the major concern of the strategist is to bring the consumer perception close to the ideal point or bring the ideal position close to the perception. No doubt, the second mode is difficult but the first can be achieved by re-positioning the brands by changing advertisement and modifying products in accordance with consumer preferences.

#### (g) Brand Personality

Brands are like individuals. Individuals can inherent some similar physical characteristics but still differ in their personalities. Personality is the perception of individual in totality i.e. his physical characteristics, values, beliefs, attitude, lifestyle, potential to perform and emotional associations. Similarly, though brands can be similar in terms of physical attributes or functions performed, yet they differ in terms of personality. According to David Ogilvy, "The personality of a product is an amalgam of many things- its name, its packaging, its price, the style of its advertising and above all the nature of the product itself." No two brands can be similar in personality/character, as no two individuals can be. For example, one brand can be considered as youthful, upper-class, trendy and perfectionist while a similar brand, on the other end, can be considered as middle-aged, mature, sophisticated, and graceful. So while framing a positioning strategy, the crucial aspect taken into consideration is to create the brand character/personality that keeps it distinct from other brands. Personality creation is the



responsibility of advertising agencies, marketers or sometimes the head of an organization. It can be articulated by thinking the brands in terms of human-beings and then visualizing that if it were a person then how old would it be? How would it be dressed up? In what profession would it be? What would be his likes or dislikes? What attitudes would it have and how emotionally would it be associated? Whatever personality is created by the marketers should be consistent with the perception of that personality that the consumer carries. The symbolic imprints of a brand impression should be the same in the marketer's as well as in the consumer's mind.

## PUZZLES AND ADVANCEMENTS IN BRAND POSITIONING

In theoretical, as well as in practical field, brand positioning is given the utmost importance, but, at the floor of implementation, some doubts remain in the mind of the marketer when he indulges in the market loaded with the competition which leads to change. So when everything is changing, the customer perceptions, preferences, and expectations also change. Then it becomes difficult for the companies staying with constant positioning. Further, it is very difficult to measure the space owned by a product in the customer's mind. Again, one strong recommendation in literature regarding positioning is to position the product in top category or by creating powerful category, but again, if it is already grabbed by the competitors, then what's the way? Today even when the stability is at stake, all these things become extremely difficult.

But where there is a will, there is a way. This tough competition conceived the idea of brand wikization. Actually, the irony with the organizations is that they still engrave positioning as the corporate exercise and companies keep on doing the experiments by selling the products according to their wish, not in the way the consumers seek to purchase. But now the companies have started to move towards wikization. Wiki is actually the common judgment. Today the companies are not defining brands and markets, the consumers do this through word-of-mouth and personal experiences. Brand Wikization is derived by customers and also emphasizes on building healthy and long-term relationships with customers which in turn, means low cost and higher profits. Being customer driven, brand wikization forces the companies to identify and fulfill the customer requirements and also respond to their dissatisfaction. Unlike the positioning, brand wikization is measurable by identifying what customer's value and delivering according to their benchmarks.

## CONCLUSION

The concept of positioning emerged in 1969 when used by Al Ries and Jack Trout in the paper *Positioning is a game people play in today's me-too market place* in the publication *Industrial Marketing*. It became the vital process in identifying the space in the mind of consumer and then fitting the image of brand in that space. A strongly positioned brand assumes more survival and competitive advantage for the company. No doubt, it is quite a tough job but can be achieved by indulging in extensive research regarding consumer behaviour, which again made the marketers gripped with the number of positioning strategies. Whatever the strategy is opted by the organization to position the brand must be unique, pertinent, reliable, evident, convincing and communicable. Moreover patience should be there, because positioning is not a one night game. It takes years to position the brand. So, in the competitive world, the only way to survive in the market is to build a strong positioning for the brands. It is substantiated from the number of examples available in literature that nobody could beat those companies, which had sharpened their positioning edges and hence, for decades the strong positioning walked with grace by wearing the crown of "unbeatable weapon" in the market place.

## REFERENCES

1. Ries Al and Trout Jack(2003), *Positioning: The Battle for Your Mind*, New York: Mc Graw-Hill.
2. Sengupta Subroto(1999), *Brand Positioning strategies for competitive advantage*, Tata McGraw Hill Publishing Company Limited, New Delhi.
3. Cowley Don (1996), "Understanding Brands" Kogan Page Limited, London.
4. Kumar Ramesh S.(2007), *Managing Indian Brands- Marketing Concepts and Strategies*, Vikas Publishing House Pvt. Ltd., New Delhi.
5. Moorthi Y.L.R.(2006), *Brand Management: The Indian Context*, Vikas Publishing House Pvt. Ltd., New Delhi.
6. Soundararaj J.J, Rengmani J., "The inevitability of Positioning in the present marketing scenario, *Indian Journal of Marketing*, XXXII(12) (2002),3-5.
7. Renganathan R. "Positioning a tourism destination to gain a competitive advantage", *Indian Journal of Marketing*, XXXIV(9) (2004),6-10.
8. Sekar I.F.G., "Successful Positioning Strategies of Indian Corporates-A Replica and Retrospect in the Last Millenium." *Indian Journal of Marketing*, XXX (11-12) (2000), 9-12.

9. Reckom Johan Van, Jacobs Garriele, Verlegh P.W.J., "Measuring and managing the essence of brand personality", *Market Lett* (17) (2006), 181-192.
10. Ganguly P., "An empirical study to determine the perceptual positioning of ten well-known toothpaste brands in the minds of youth." *Indian Journal of Marketing*, XXXV (10) (2005), 19-25.
11. Bence Brenda, "Getting Back to the Basics: The Fundamentals of Positioning" *Thai American Business*, July-Aug.2004.10-13.
12. Chakraborty Kishore, Mitra Amit, Laser Petors, "Winning Markets Through Power Brands" *Journal of Marketing and Communication*, Vol I (2) Sep- Dec.2005. 119-126.
13. Gurowitz Edward M.. "Positioning products and services accurately" *The CEO Refresher*,(2000),1-6.
14. Hofer Vera, Ladner Klaus, "Positioning of new brands in an experiment" *CEJOR* (14) (2006), 435-456.
15. [www.brandingasia.com](http://www.brandingasia.com)
16. [www.brandblogs.com](http://www.brandblogs.com)
17. [www.indiainfoline.com](http://www.indiainfoline.com)





**Australasian Conference on Business and Social Sciences 2015**  
**(in partnership with the Journal of Developing Areas, USA)**



4

April 13-14, 2015

Central Queensland University, Sydney Campus, Australia

**Certificate of Paper Presentation**

Presented to

**ASHOK VISHWANATH GIRI**

for

the research paper titled

**"EFFECTIVENESS OF THE ADVERTISING PROCESS"**

Stephen Boyle, PhD  
Conference Chair  
AABSS Conference 2014

Abu N.M. Wahid, PhD  
Managing Editor  
The Journal of Developing Areas



# Australasian Conference on Business and Social Sciences 2015, Sydney

(in partnership with the Journal of Developing Areas)

April 13-14, 2015

Central Queensland University, Sydney Campus

## Certificate of Participation

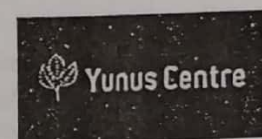
Presented to

**ASHOK VISHWANATH GIRI**

for participating in this conference

Stephen Boyle, PhD  
Conference Chair  
ACBSS 2015, Sydney

Abu N M Wahid, PhD  
Managing Editor  
The Journal of Developing Areas



[www.aabss.org.au](http://www.aabss.org.au)



# EFFECTIVENESS OF THE ADVERTISING PROCESS

*Capt. Dr. Ashok V. Giri*

Assistant Professor,

MES Garware College of Commerce,

Savitribai Phule Pune University

Pune - 411004. (Maharashtra, India)

## ABSTRACT

The idea that advertising is something someone does to someone else with an identifiable effect permeates most attempts to explain the process by which advertising works. Accordingly, statements of advertising objectives generally delineate what the advertiser would like to do to the consumer. Indeed, it would seem that even though the marketing concept has won some acceptance, it has resulted neither in a parallel theory of the advertising process nor in the specification of advertising objectives mutually advantageous to advertiser and consumer. The purpose of this paper is twofold:

1. To seek a set of criteria for judging advertising effectiveness consistent with the letter and spirit of the marketing concept.
2. To develop a research paradigm for analyzing the advertising process consistent with the proposition that advertising is effective to the extent that both the advertiser and the consumer accomplish their intentions or objectives.

The marketing concept has important consequences for advertising research and for judging advertising effectiveness. An attempt is made in this article to show the possibility of several complementary conceptions of the advertising process. Since these complementary conceptions do not logically derive from each other, they do not necessarily result in mutually consistent conclusions. Consequently, a comprehensive model of the advertising process consistent with the marketing concept would appear to be both multidimensional and multivalued.

**KEYWORDS:** auxiliary concepts, advertising effectiveness, impedes progress, multidimensional, multivalued

**AUTHOR'S EMAIL ADDRESS:** [capt.drashokgiri@gmail.com](mailto:capt.drashokgiri@gmail.com)

## INTRODUCTION

The past decade has witnessed the development of information and communication technologies that enable easy and rapid interaction between customer and advertiser. As a result, advertisers are increasingly relying on various modes of interactive technology to advertise and promote their products and services. A new genre of advertising and marketing communications agencies has emerged, the interactive agency, even as more traditional advertising agencies have embraced interactive technologies. Expenditures for online advertising, only one form of interactive communication, doubled from 1998 to 1999 and are expected to reach \$ 21 billion by 2004. Although this will still be less than 10% of all advertising expenditures, there is reason to believe that this estimate underestimates the amount of advertising that is in reality interactive.

Although the Internet is widely heralded as a new medium for interactive communications consumers have already begun to provide evidence that they have integrated the Internet experience into their broader media use. Almost half of all personal computers are in the same room as the television set, and simultaneous viewing of television and access to the Internet are common. Such consumer directed integration of television and the Internet is but one example of interactivity involving the integration of media by consumers. Combinations of older media, such as traditional print and broadcast advertising with the telephone (especially, but not exclusively 800 telephone numbers) have long provided a degree of interactivity.

At the most general level, feedback via sales reflects interactivity. Interactivity is, therefore, a characteristic of the consumer, not a characteristic of the medium; consumers can choose to respond or not. Thus, in this sense interactivity is not really new. What is new, are the speed, scope, and scale of interactivity that is provided by



new information and communication technologies. The Internet is a new technology that makes some things simpler, cheaper and easier. It is a new way to communicate with consumers, for consumers to communicate with one another, and a new way to sell products and services to consumers, but it joins other media and distribution channels as vehicles for these tasks. It does have some features, such as hyperlinks, that are different from those found in other media, but other media also have unique characteristics. The increasing technological integration of telephones and television with the Internet also suggests that interactive media, and hence, interactive advertising, are not unique to the Internet.

## LITERATURE REVIEW

In literature and practice the evaluation of advertising effectiveness has used two basic models:

- the dichotomous model;
- the three-dimensional model.

The dichotomous model is applied mainly in product and brand advertising, tending to isolate and evaluate separately the following:

- sales effect;
- communication effect.

The sales effect refers to the assessment of the capability of advertising to affect the sales volume and/or the market share, regardless of the possible influence of other variables. For Batra et al. (1995), the effectiveness of advertising should be considered for its effect on sales in the short term. This advertising performance measurement is based on the marginal theory (Chamberlin, 1948). The advertising is therefore regarded as an independent variable that can be combined with other marketing variables to have a certain effect on the dependent variable, i.e. sales. The aim is to seek the best combination of the determinants of the sales increase.

The effect of communication refers to the ability to reach, with appropriate messages, a more significant share of public. Such effect is examined in literature with different approaches:

- sociological;
- semiotic;
- psychological;
- socio-psychological.

Sociological analysis focuses on the community, considered as a system governed by rules and social norms, and on the social behavior. The role of advertising and consumption in the society change is a very fertile topic. Sociology has examined how advertising influences opinions, attitudes and behaviors of individuals and social groups.

There are two opposite sociological perspectives to the advertising function in contemporary society. The first maintains a positive approach to advertising. It is believed that the role advertising is to better organize economic and social relations, to harmonize social behaviors, to make people adhere to common values and to help them to better live together without problems. The second approach is, by contrast, rather critic, because advertising tends to generate a mass consumption. In order to adapt messages to a wider audience, introduces new, poorly differentiated, symbolic values.

The semiotic analysis focuses in the first instance, on symbols. These are identified as anything that conveys meaning, e.g., words, gestures, images, and dance. Semiotics studies the problem of encoding, and more generally of the code used. The object of investigation is the message itself containing different signs that can be interpreted according to a pre established intention, without reference to the consumer and the influence on the consumer behavior. This approach is useful especially in the context of advertising creation. Authors assess the effectiveness of advertising in reference either to the language of the message or the graphic image of the message. However, they analyze the quality of message from the viewpoint of its construction, its presentation and the place of the communication process. The impact of the message on the recipient is a minor problem in



the process of the message evaluation. This is an important limitation to the semiotic approach in terms of marketing.

Communication in general and advertising in particular, were treated by psychologists starting from the motivations of recipients, which occupy a central position in the analysis. This is because of their influence on the perception of the recipient. They believe that the motivations drive consumer behavior. So the purpose for the advertising creator, is to identify the reasons of consumer behavior, in order to identify the most effective advertisement message or to remove the communication barriers. With the psychological approach, other types of research and investigation have emerged, thanks to the contribution of neuroscience. The evidence (obtained through scientific experimentation) has become a necessary support to verify the assumptions. The psychological approach has the advantage to measure the effectiveness of advertising with reference to the recipient of the message, particularly to the consumers' characteristics. On the other hand, the approach does not provide exhaustive answers, not delving into the exact causes that lead the recipient of the message publicity to expose themselves voluntarily to the message, decode it, to store and, eventually, to make the purchase. So it is not taken into account the entire communication process, and, in particular, the external factors, especially those related to the environment, that may play a crucial role in determining the behavior of the recipient.

The socio-psychological approach takes simultaneously into account the message and the recipient of the message. This approach aims to study the effectiveness of advertising in terms of persuasiveness, observing the effects on the formation process of attention, memory, attitude and behavior. This research methodology considers the environment of the communication process and its actual interactions. The experimentation is widely used. It also allows to consider all hypotheses tested together, and all the links that may exist between variables, through a pre-test, getting an advantage in terms of validity of the research. Rather than focusing solely and exclusively on direct effects of certain variables taken individually, that is difficult to control in reality, this approach studies the actual contribution of these variables in explaining the evolution of the dependent variable, sales.

The major criticisms to the dichotomous model concern the partial evaluation and the inability to provide reliable breakdowns of the effects achieved by advertising and by other company politics (marketing and communication). For these reasons, sometimes, the three-dimensional models (i.e. AIDA model and model Dagmar) are preferred. These models are used both in planning advertising campaigns and evaluating their effectiveness. They propose a hierarchy of communication effects, cognitive affective and behavioral. Namely the analysis of cognitive dimension concerns the messages understanding and storing and must take account of different types of memory: spontaneous recall, without any added indication; stimulated recall, facilitated by the presentation of certain evidence; related memory, when respondents are able to describe at least one specific element of the communication; recognition, or identification of the advertising; brand allocation, the memory not only of the advertising but also of the advertised brand).

The affective dimension is linked to the attitude toward and perceptions of communication. Affective reactions and emotional acceptance of that type of campaign are investigated. The affective attitude towards the images proposed and the spread opinion of consumers is detected.

The behavioral dimension describes changes in buying behavior, detectable by intentions and actions measured by sales and market share.

All the models mentioned so far are mainly focused on three elements of the communication process: the recipients (in terms of audience, memory, storage), the media used (in terms of impact, coverage, frequency, etc..) and the feedback (in terms of attitudes, behaviors, opinions, etc...). They totally omit other elements (source, code, context) assuming essentially that the communication process was conducted in optimal conditions or at least without distortion. Moreover a fundamental element for an effective communication process is the use of the same code by the source and recipient. Otherwise, the recipient will not understand the message or give a different meaning and this will lead to the phenomenon Eco called "aberrant decoding". However, since as stated the message is what we understand, not what it was intended to understand, it becomes important to examine not so much and not only what the firms wanted to communicate, but what was actually communicated.



## THE ADVERTISING PROCESS

There is, of course, no doubt that advertising in some sense "works" and that it makes a difference. Perhaps it is the very "self-evidence" of the "effects" of advertising which impedes progress toward a more adequate understanding of the process by which advertising works and of the nature of the effects which advertising produces. Most of the published models of the process by which advertising is thought to work are based on simple, mechanical principles. The general belief is that a sender sends a message via some medium to a receiver who, upon intercepting the message, is variously "caused," "triggered," or "stimulated" to react in accordance with the advertiser's intentions. The fact that not all consumers react in quite the same manner has been "explained" in various ways. Inattention, selective perception, misinterpretation, forgetting, or just plain fickleness are some of the concepts that have been advanced to account for differences in consumer behaviour. Actually, many modern psychologists and behavioural scientists have rejected the mechanical, or stimulus-response, model of psychological and communicative processes as conceptually and empirically inadequate. And those who have adhered to this model have had to add numerous auxiliary concepts to justify empirical phenomena not explained by the original, simple model. It can be demonstrated empirically that communication is not something someone does to someone else. Morally and operationally, the individual human is an autonomous entity who communicates from and to the world around him by attributing meaning and importance to selected data of that world. This fact of life may be overlooked, in part because it is concealed behind people's overlapping expectations, and in part because mechanical models of the advertising process have prevented researchers from "seeing" this process in other than cause and effect terms. To demonstrate the inadequacy of cause and effect models of the advertising process, it is useful to first differentiate between the data and the information people derive from these data. Second, it is useful to differentiate between the intentions that advertisers seek to embody in their ads, and the intentions consumers apply to these same ads. Third, it must be recognized that the complex array of needs, emotions, values, and knowledge underlying human choice behaviour is not transferable or communicable as such. People must actively create information and feelings by processing available physical data in the context of their own unique experiences. To put it differently, psychologically passive people cannot be persuaded to purchase particular products. Without active involvement by consumers, advertising can have no "effect" whatsoever. Thus, in view of the fact that information must necessarily be sent or received by humans as physical data, an important question facing the advertising researcher is not what advertising does to people but what people do with advertising. The purposes for which people use advertising will, in turn, be dependent upon at least two sets of conditions:

1. People's feelings, beliefs, and knowledge about the usefulness, believability, and function of advertising. Technically, these are the metacommunicative characteristics of advertising. The conditions involved here apply to all advertising and serve to define, facilitate, and constrain the kinds of information people can, will, and feel they should derive from advertising in general.
2. People's feelings, beliefs, and knowledge about the usefulness and validity of some specific advertisement. Technically, these are the communicative characteristics of advertising. The conditions involved here serve to define the amount and kinds of information particular consumers can and are willing to derive from particular ads.

The traditional models of the advertising process seldom include this distinction between the metacommunicative and the communicative characteristics of advertising. But more important, these same traditional models also tend to neglect the active and indispensable role played by consumers in bridging the gap between messages and action. The creative efforts of advertisers and advertising agencies loom so large in the general image of the advertising process that researchers often overlook the fact that the consumer must be as creative as the advertiser if he is to perceive the intended information or to feel the intended emotion.

## OBJECTIVES OF INTERACTIVE ADVERTISING

In general, the goals of interactive advertising tend to be similar to the traditional objectives of advertising. This means that many of the traditional measures of advertising effectiveness remain relevant, even in a world of interactive media. However, interactive advertising also has some properties that expand the range of potential objectives and that facilitate the acquisition of traditional measures of advertising effectiveness. Interactive advertising also has the potential to lessen the 'process loss' associated with uncoordinated advertising, to reduce the difficulties commonly encountered in clearly communicating an advertising message and to help overcome resistance to new products.

At the same time, interactive advertising also has the potential to increase the efficiency and quality of consumers' decisions, increase customers' involvement and satisfaction, and promote trust through reciprocity in information exchange, technical assistance, and reduction of information asymmetry. Finally, marketers can use feedback from consumers to improve their advertising message and intended target, and strategically adjust their customer support, product line, and services provided. Interactive advertising may also produce greater



efficiency, trustworthiness, and quality in advertising. Thus, interactive advertising has the potential to fundamentally change the nature of advertising in much the same way that electronic communication infrastructure has changed the nature of group interaction.

Interactive media of various types not only opens new opportunities for communication with and among consumers, it also creates opportunities for creating new measures of consumer response to such communications, as well as to product offerings and other marketing initiatives. Interactive media shift control of the information flow from the marketer to the consumer. This provides many more options for responding to information than previous forms of marketing communication, and it is the response of consumers to these options that provides the basis for new measures of consumer response. For example, providing consumers with the opportunity to search for more information about a product, as is done at many Internet sites, provides an opportunity to monitor the types of information and products that consumers seek at both an individual and aggregate level.

To illustrate the power of interactivity, consider the following scenario: a manufacturer of a product offers a description of a product concept. Information about this concept can be obtained by consumers in an interactive environment through an interactive search of various branching trees of information offering more and more detailed information about the product concept. Note that the intensity of search for information (measured by click through rate) can become a surrogate for interest in the product. Indeed, because such search involves deliberate and active decisions by the consumer, it is likely that measures of the breadth and depth of information search will be far better predictors of product interest and eventual purchase behavior than measures currently in use.

It is very likely that measures of intensity of information search bears a strong relationship to product interest and, in turn, to product purchase. Further, interactive media provide the opportunity for direct customer feedback regarding product modifications, likes and dislikes, and improvements. Evaluation of product concepts is but one potential opportunity for using the power of interactive media. By tracking the types of information users of interactive media seek it should be possible to determine the information that consumers find most useful when evaluating a product. Indeed, examination of the information search patterns of users of interactive media may inform positioning decisions. Information provided by the consumer to the marketer can provide a means for customized offers and customized advertising. Indeed, fully interactive advertising would provide the consumer with the opportunity to request information, not simply respond to what is provided by the advertiser.

While the potential of interactive media is clear, much remains to be done to realize that potential. For example, numerous measures of intensity of search for information (click-through rates) might be constructed which vary in their capacity to capture the depth and breadth of search. There is also the important issue of establishing a link between such measures and more traditional measures of purchase interest and intent. In addition, new issues arise in the context of interactive advertising that do not arise, at least to the same extent, in the context of traditional advertising.

For example, there is the question of whether and when consumers wish to be engaged by an interactive medium. There is also the question of how much information consumers are prepared to provide advertisers or even how much information consumers are prepared to allow marketers to capture about the interaction. Finally, there are issues of satiation of response that arise in the context of measures based on interactive media that do not arise with more traditional measures. Consumers have only limited time and resources, and therefore, are unlikely to be able to sustain large numbers of on-going interactive relationships.

#### **NEW THEORETICAL FRAMEWORK FOR ADVERTISING EFFECTIVENESS**

Most scholars generally concede that the effects of advanced technologies are less a function of the technologies themselves, and more a function of how these technologies are adapted by people. Thus, the effects and effectiveness of interactive advertising may differ from anticipated outcomes as consumers and marketers respond and adapt to changes in their own environments. This suggests that research on interactive advertising should focus on the dynamic processes by which consumers and marketers incorporate advanced technologies into their reciprocal communications. DeSanctis and Poole (1994) have proposed adaptive structuration theory, an extension of structuration theory, to explain the interplay between the structures of technology, relevant actors, and changes in technology and behavior that arise from such interplay.

For example, Poole and DeSanctis (1989) used structurational concepts to examine how groups appropriated the interaction rules of their decision support systems, thereby structuring their group communications and reinforcing or modifying their systems' influence over time. Such an adaptive model may also be an appropriate conceptual framework for examining the effects and effectiveness of interactive advertising. Ongoing interaction between consumers and marketers may be conceived of as a special case of structuration.



Structuration involves the production, reproduction, and transformation of social institutions, which are enacted through the interaction between individuals and institutions.

Application of structuration theory to interactive advertising would involve the identification of the ways in which consumers shape the production, reproduction, and transformation of the advertising message, future products and services and relationships with marketers and other consumers. This interaction can, in turn, shape the actions taken by advertisers. Structural concepts can be used to examine how marketers and consumers appropriate interaction rules to influence the effectiveness of advertising and other jointly beneficial outcomes. Following structural terminology interactive advertising may be regarded as a social institution that is produced, reproduced, and modified when consumers engage in interactive communication. As a social institution, advertising both shapes and is shaped by consumer preferences.

### MEASURING ADVERTISING EFFECTIVENESS

One important reason for the reliance on mechanical models of the advertising process appears to arise from the need and predilection of advertisers to measure the effects of advertising. Indeed, the argument for some measure of the relationship between advertising effort and purchasing behaviour has such an extremely strong intuitive appeal that its attainment often seems worth the cost of a few simplifying assumptions. It should be noted that sales is not the only criterion used in measuring the effects of advertising. Some researchers have sought to establish communications or non-purchase measures of advertising effects. Changes in consumers' product awareness, attitudes, preferences, and loyalties are examples of such communications effects of advertising. The differences between sales and communications measures of advertising effects have been elaborately discussed by several researchers. The differences are largely a question of technical accuracy, in as much as the reasoning underlying applications of sales and communications criteria are quite similar. The issue of concern here is conceptual adequacy rather than technical accuracy. For example, sales and communications measures of advertising effectiveness both take into account only selected residuals of the advertising process, but neither measures the effectiveness of the process itself. Quite contrary to the spirit of the marketing concept, advertising effectiveness is still measured only in terms of the advertiser's costs and benefits. That is, existing means of measuring advertising effectiveness serve the purposes of the advertiser interested in "selling what he makes." These same means, however, do not and cannot possibly serve the purposes of the advertiser interested in "delivering a standard of living. In view of the role necessarily played by consumers in the advertising process, there is no way, on the basis of the traditional theories of the advertising process, to decide just who or what it is that is effective. Is it the consumer who is an effective receiver, or is it the ad or the medium which delivers an effective message, or is it the copywriter who is an effective sender? Traditional models do not attempt to answer these questions. And, from a policy point of view, intelligent answers to these questions seem both necessary and crucial.

In sum, advertising is here viewed as effective only to the extent that it is mutually advantageous to advertisers and consumers. Indeed, effectiveness does not seem a meaningful concept apart from some understanding of the purposes or objectives of both consumers and advertisers. Or, to put it differently, a measure of the effectiveness of the advertising process should include some assessment of the costs and benefits from the point of view of both consumers and advertisers.

Levels of Analysis and Description The particular statements made concerning communication systems and the particular standards adopted for the purpose of assessing advertising, media, and messages will depend upon the assumptions and the conceptual constructs underlying the analysis. Five different ways of analyzing and describing the advertising process (and, with appropriate modifications, any communication process) are suggested here

1. One can think about communication systems in terms of physical data dissemination and in terms of dissemination techniques and media. The reduction of advertising phenomena to physical messages and movements of messages allows the application of many well developed and time tested physical science models and measurement techniques. Also, it enables the use of terminology familiar from everyday encounters with the physical world. The mechanistic model of consumer behavior necessarily involved is based on the assumption that words, pictures and media comprise the essence of communication.
2. One can think about communication systems in cognitive or psychological terms. Given this approach one becomes involved in such concepts and terms as perception, conception, information processing, thinking and the like. This approach quite clearly goes beyond the realm of physical phenomena and measurement is extremely difficult. The basic assumption here is that communication is a uniquely individual and human phenomenon.
3. One can think about communication systems in functional terms. Here one leaves the world of psychological phenomena as such and enters a world of utility, usefulness, operational requirements, instrumental purposes, and economic values. In other words, the concern here is with the functions



(informative, persuasive, confirmative) that advertising performs in the consumer's communication system. The basic assumption is that human communication is purposeful and intentional in nature.

4. One can think about communication systems in structural terms. That is to say, one can think in terms that enable one to view advertising (either a total campaign or a single ad) as one element of either a producer's or a consumer's communication system. One possible research topic here would pertain to the relative prominence of advertising as a source of information for consumers. The basic assumption here is that an individual's communication system has significant enduring or stable characteristics or that an individual's data acquisition indeed is "systematic" to a significant degree.
5. Finally, one can think about communication systems from a moral or ethical point of view. The current interest in truth in advertising, for example, appears to be part of an attempt to develop a philosophy of advertising. Unfortunately, the controversy surrounding advertising as a means of facilitating the performance of a free market economy is fraught with pseudo issues and emotional outbursts which bear little resemblance to a well considered philosophy. Intelligent discussion of these issues is not, of course, facilitated by the fact that advertising researchers themselves are using inadequate models of the advertising process.

These five ways of thinking about communication and, more specifically, about advertising, comprise logically complementary approaches to researching and to creatively intervening in the communication systems of consumers. The key features of this paradigm are:

1. Each of the five different elements of an individual's communication system can be studied from five different and complementary points of view.
2. Since each of the five approaches to the analysis and description of the advertising process implies a conceptualization of that process different from that of the others, five different yet complementary criteria for the assessment of advertising effectiveness logically emerge.

The conceptual categorizations emerging from the paradigm outlined invite a far more detailed description of the advertising process than space permits here. With these conceptual categories potentially ranging from the physical characteristics of awareness (biological and neurological enablers and constraints) to the moral characteristics of commitment (moral attitudes toward advertising constituting an integral part of the individual's identity), some have clearly greater intuitive appeal than others.

But even in a more general sense there are many interesting consequences of the fact that several logically complementary ways of thinking exist regarding advertising and communication systems. Thus, advertising can be effective in psychological terms, and quite ineffective in functional terms and vice versa. That is, an ad (or campaign) can evoke communication which leads to behavior not associated with purchasing (or even to behavior oriented toward avoiding purchase) of the advertised product. This is not a very surprising conclusion. But note also that advertising can be useful even if consumers do not derive the information intended by the advertiser. To put it differently, advertising can be useless even if it is "truthful" and "false" even if it is useful. But what does all this do to the idea of advertising "effectiveness"? It is, of course, possible to avoid this issue merely by maintaining that effective advertising is advertising that sells. But since sales are after the fact events, a resolution of the issue raised above still seems necessary. At the present time it seems possible to do little more than repeat the criteria outlined above and suggest some of the implications for the creation and measurement of advertising effectiveness. In light of a consumer centered concept of the advertising process, the most effective advertising campaign would seem to be that which:

1. Provides the most efficient means of physically disseminating and receiving the data required;
2. Provides the best possible means for the advertiser to say what he wants to say, and for the consumer to "receive" what he can, will, and should receive (psychological characteristics);
3. Provides the functionally most suitable and relevant guidance for exchange and consumption behavior;
4. Provides the best structural match or fit with other elements in both the advertiser's and the consumer's communication systems;
5. Is strategically, ethically, and legally as sound as possible.

Taken together, these five statements comprise a broad definition of the term "advertising effectiveness." Each statement implies a criterion which frequently conflicts with the criteria implied by one or more of the other statements. Resolution of these conflicts could be an important task for future research of the advertising process. Though criteria such as these increase immensely the complexity of the measurement issue, they also open up some possibilities for innovations which perhaps have not hitherto been obvious.

**INTERACTIVE ADVERTISING DOES NOT WORK ALONE**



Advertising is only a part of a total marketing effort. A product that is poorly positioned, overpriced, inadequately distributed, badly packaged, or inferior to competition may suffer sales declines even though the advertising itself is well-conceived and professionally executed. The specific contribution of advertising to sales has always been difficult to ascertain. Interactive advertising may well make the determination of precisely what marketing actions produced a particular outcome even more difficult to do. The influence of any particular advertising message may be less important than the cumulative reciprocal communication between advertiser and consumer. Recently, several scholars have argued that the increasing availability of information, and the sophistication of the technology for obtaining, processing and analyzing this information, are blurring the boundaries of the several elements of the marketing mix.

There have also been calls for changes in the organization of both the marketing function and the firm itself to accommodate this blurring of traditional functional lines within marketing and between marketing and other functional disciplines within and external to the firm. This blurring of boundaries has been partially recognized by calls for "integrated communications," but the blurring extends beyond communication activities. Distribution and communication are becoming inextricably linked, and decisions about the one are increasingly difficult to make in isolation from the other. Indeed, it may be difficult to differentiate some marketing activities as clearly serving an advertising or distribution function. Similarly, where interactive advertising is used to better design products, it will be impossible to separate the effects of communication from product design.

Models of consumer response that focus only on the effects of advertising, or that attempt to separate advertising effects from other effects of the marketing mix are likely to be less than helpful or even misleading. Rather than measure the effectiveness of interactive advertising, it may be more useful to measure the effects of integrated marketing programs. Similarly, other consumers and other sources of information may play a role as great or greater than interactive advertising. Discovering consumers' use of these sources and how they integrate such information into decision making will be a challenging research question.

### SOME IMPLICATIONS

Let it be emphasized that the exchanges of products and services are being accepted as the ultimate end and *raison d'être* of advertising. But the data one would use in assessing the effectiveness with which this key function of advertising is accomplished depend in large measure upon how one thinks about (conceptualizes) the advertising process. And, though sales are the key aim of advertising, it would seem that, by thinking of advertising as the cause of sales, millions of dollars have been wasted either on attempting to "make" people do what they intended to do anyway or on attempting to "make" people do what they had no intentions of doing whatever the incentive. Equally important is the fact that advertising appears to be used by consumers for purposes which have little or nothing to do with the purchase of goods and services. Though little is known in a scientific sense about the manner in which people use advertising, it would seem that the mere presence of countless advertising messages necessarily modifies either favorably or unfavorably the individual consumer's environment in quite a significant way. If the advertising process were thought of not as something someone does to someone else but as a phenomenon of human communication designed, managed, and operated for the mutual advantage of buyers and sellers, perhaps more efforts would be devoted to:

1. Upgrading and protecting the legitimacy and therefore the usefulness of advertising as an information source.
2. Designing advertising programs as if they were information systems aimed at enabling the consumer to rely on them as sources of necessary, useful, and inspiring information when and where such information serves his purposes.
3. Measuring the effectiveness of advertising as one would measure the effectiveness of an information system. That is to say, seeking to measure effectiveness not only by the number of decisions made by all consumers, but also by the contributions of advertising to the soundness of these decisions.
4. Creating or modifying media and data displays (ads) to improve qualitatively and quantitatively upon communicative possibilities (in contrast with present attempts to improve upon communicative probabilities) at the consumer advertisement interface. That is, to aim for a richer communication experience rather than a more determinate one.

These are just a few implications of thinking about advertising from the point of view of the mutual interests of consumers and advertisers. The main point is that if advertisers chose to think of themselves and their customers as members of the same organization as individuals with a common goal then the "problem" of advertising effectiveness would look different. Just as the test of an in company information system involves some

conception of the needs and requirements of the user, so the test of advertising should involve some measure of how well it enables both the advertiser and the consumer to get where they both want to go.

## CONCLUSION

It must be emphasized that the thoughts outlined in this article hold no promise of solving or even simplifying the existing problems of advertising and advertising research. Rather, the aim is to point out that most of these existing problems are born of the way advertisers have chosen to think about advertising. To change one's mode of thinking about advertising will not eliminate problems of advertising and advertising research. But it may change them. Advertisers and advertising have been severely criticized in recent years. But whether or not the criticisms are reasonable, advertisers have thought about advertising in a way which renders them incapable of taking into account, let alone seriously dispute, the critics' allegations. On the one hand, the critic assumes that advertising is effective and concerns himself with the nature of these effects. On the other hand, the advertiser has yet to decide whether advertising is effective and, if so, how and in what way it is effective. Furthermore, those who create advertising need qualitative data. They need data which will aid them in deciding what to say in their advertisements. But the traditional way of thinking about advertising effectiveness calls primarily for quantitative data. Even if it is known that a particular campaign was effective, decision makers and creative people are often left to rely on their hunches concerning why it was effective. These are some of the reasons for advocating a different way of thinking about the advertising process and a different direction in advertising research. Whether the consequences of this particular way of thinking are to be preferred over those emerging from traditional models has yet to be established. But then, one does not legislate ways of thinking, one proposes them.

## REFERENCES

1. Arun Chaudhuri, *Indian Advertising: 1780 to 1950 A.D.*, 2006, West Patel Nagar, New Delhi
2. S N Murthy, *Advertising*, 2007, New Delhi.
3. C.L. Tyagi, Arun Kumar, *Advertising Management*, 2004, New Delhi.
4. Bent Stidsen, 1970, 'Some Thoughts on the Advertising Process', *Journal of Marketing*, Vol. 34, No. 1 (Jan., 1970), pp. 47-53.
5. John Wilmshurst, Adrian Mackay, *Fundamentals of Advertising*, 2010, New York.
6. Arch G. Woodside, *Measuring the Advertising Effectiveness*, 1996, USA.





CELEBRATING 100 YEARS OF EXCELLENCE  
Shikshana Prasarak Manadali's  
**SIR PARASHURAMBHAU COLLEGE**  
NAAC Accredited 'A' Grade 3.32 ( on a 4-point scale)  
Tilak Road, Pune - 411030.



NATIONAL CONFERENCE ON

**"EMERGING TRENDS IN BUSINESS PARADIGM"**

February 22<sup>nd</sup> and 23<sup>rd</sup>, 2016

SPONSORED BY  
Board of College and University Development (BCUD)  
Savitribai Phule Pune University

### Certificate

This is to certify that

Dr. /Prof. /Mr. /Ms. Dr. Ashok V. Giri  
of MEB Garware College of Commerce Karve Road  
has participated/presented a paper on Growth and Various Challenges of Retail industry in  
India at the National Conference.

  
Conference Coordinator

Prof. S. B. Thorat

  
Conference Convener

Dr. Saroj Hiremath

  
Vice-Principal

Prof. Ashok Morwal

  
Principal

Dr. Dilip Sheth



**"GROWTH AND VARIOUS CHALLENGES OF RETAIL INDUSTRY IN INDIA"**  
Capt. Dr. Ashok V. Giri  
MES Garware College of Commerce, Pune

**ABSTRACT**

The Indian Retail Industry is the fifth largest in the world. Comprising of organized and unorganized sectors, Indian retail industry is one of the fastest growing industries in India, especially over the last few years. Though initially the retail industry in India was mostly unorganized, however with the change of taste and preferences of consumers, the Industry is getting more popular these days and getting organized as well. The Indian Retail Industry is expected to grow from US\$330 billion in 2007 to US\$640 billion by 2015. According to the 10th Annual Global Retail Development Index (GRDI) of A.T. Kearney, India is having a very strong growth fundamental base that's why it's the perfect time to enter into Indian Retail Market. Indian Retail Market accounts for 22% of country's GDP and it contributes to 8% of the total employment. The total retail spending is estimated to double in the next five years. The Government's initiative to allow 51 percent foreign direct investment (FDI) in multi-brand retail has been a subject for debate for quite sometime now. Indian retail sector has therefore attracted the attention of people from various fields including academia, industry, research organisations. The present study is under taken to gain an insight about the present structure of Indian Retail Sector, the major sub-sectors in organized and traditional retail and changes in the relative share of various sub-sectors over last few years and penetration of organized retail in various segments. The analysis also covers the opportunities and emerging challenges before Indian retail sector in view of recent policy changes by Government of India. With India's large 'young' population and high domestic consumption, the macro trends for the sector look favorable. The Indian retail sector is highly fragmented with more than ninety percent of its business being run by the unorganized retailers like the traditional family run stores and corner stores. During 2005-07 and 2007-10, the share of organized retail increased by 13.9 percent and 21.9 percent respectively. However thereafter organized retail is penetrating the market at a more rapid pace. During the period 2010-12 share of organized retail rose by 60 percent and is expected to increase by 2.6 times during 2012-15. Clothing/Apparel segment is the biggest contributor in organized retailing in India in both the years of study. Of this, organized retail - currently growing at a CAGR of 22% - is estimated to be 21% of total expenditure. The unorganized retail sector is expected to grow at about 10% per annum with sales expected to rise from \$309 billion in 2006-07 to \$496 billion in 2011-12. This paper focused on changing face of Retail Industry, organized or unorganized retail industry, major players in retail industry and also highlights the challenges faced by the industry in near future.

**KEYWORDS:** Retail, Industry, Major Players, Infrastructure, Global Retailing, Unorganized Retailing, GDP.

**INTRODUCTION**

Retailing can be defined as a distribution channel function, where an organization, buying the products from supplying firms or manufacturing the products themselves, sells these directly to consumers. Many a times, consumers buy from an organization who is not the manufacturer of the products, rather it is a reseller of the products obtained from others. However, in some cases we may find the product manufacturers operating their own retail outlets in a corporate channel arrangement. Retailing is beneficial to both consumers and sellers. On the one hand it enables the consumer to purchase small quantities of an assortment of products at a reasonably affordable price, on the other it offers an opportunity to suppliers to reach their target market. Through retail



promotion they can build product demand and provide consumer feedback to the product marketer [1]. Thus retail consists of sale of goods and services from individuals or businesses to the end-user. A retailer earns profit by purchasing large quantities of goods and services either from manufacturers directly or through a wholesaler and he is a part of an integrated system called the supply chain [2].

**Objective:**

This kind of thinking in the society is also compelling 'kiriyana stores' to change their format and be a bit organized at their level. Keeping in view this fact the paper focuses on the following objectives:

1. To understand the evolution of retail sector in India
2. To study the popular retail formats
3. To study the emerging retail trends in India
4. To study the growth trends of Indian retail sector
5. To study the factors having impact on growth of organized retail sector
6. To study the future prospects of organized retail sector in India.

**Research Methodology:**

Information has been sourced from various books, trade journals, government publications, newspapers etc. and research is descriptive in nature. Data presented in the form of tables and analyzed in form of percent trends and chart.

**Evolution of Indian retail:**

Retailing is one of the biggest sectors and it is witnessing revolution in India. The new entrant in retailing in India signifies the beginning of retail revolution. India's retail market is expected to grow tremendously in next few years. According to AT Kearney, The Windows of Opportunity shows that Retailing in India was at opening stage in 1995 and now it is in peaking stage in 2006. The origins of retailing in India can be traced back to the emergence of Kirana stores and mom-and-pop stores. These stores used to cater to the local people. Eventually the government supported the rural retail and many indigenous franchise stores to open up in the 1980s resulting in the change of retailing. The first few companies to come up with retail chains were in textile sector, for example, Bombay Dyeing, S Kumar's, Raymond's, etc. Later Titan launched retail showrooms in the organized retail sector. With the passage of time new entrants moved on from manufacturing to pure retailing. Retail outlets such as Food world in FMCG, Planet M and Music world in Music, Crossword in books entered the market before 1995. Shopping malls emerged in the urban areas giving a world-class experience to the customers. Eventually hypermarkets and supermarkets emerged. The evolution of the sector includes the continuous improvement in the supply chain management, distribution channels, technology, back-end operations, etc. this would finally lead to more of consolidation, mergers and acquisitions and huge investments. India's retail market is expected to grow tremendously in next few years. India shows US\$330 billion retail market that is expected to grow 10% a year, with modern retailing just beginning. In India, the most of the retail sector is unorganized. The main challenge facing the organized sector is the competition from unorganized sector. Unorganized retailing has been there in India for centuries. The main advantage in unorganized retailing is consumer familiarity that runs from generation to generation. It is a low cost structure; they are mostly operated by owners, have very low real estate and labor costs and have low taxes to pay. Organized retail business in India is very small but has tremendous scope.

**Retail formats in India:**

- Hyper marts/supermarkets: large self-servicing outlets offering products from a variety of categories.

- Mom-and-pop stores: they are family owned business catering to small sections; they are individually handled retail outlets and have a personal touch.
- Departmental stores: are general retail merchandisers offering quality products and services.
- Convenience stores: are located in residential areas with slightly higher prices goods due to the convenience offered.
- Shopping malls: the biggest form of retail in India, malls offers customers a mix of all types of products and services including entertainment and food under a single roof.
- E-trailers: are retailers providing online buying and selling of products and services.
- Discount stores: these are factory outlets that give discount on the MRP.
- Vending: it is a relatively new entry, in the retail sector. Here beverages, snacks and other small items can be bought via vending machine.
- Category killers: small specialty stores that offer a variety of categories. They are known as category killers as they focus on specific categories, such as electronics and sporting goods. This is also known as Multi Brand Outlets or MBO's.
- Specialty stores: are retail chains dealing in specific categories and provide deep assortment. Mumbai's Crossword Book Store and RPG's Music World are a couple of example.

**Trends in the Retail industry**

- Emergence of organized retail: Real estate development in the country, for example, the construction of mega malls and shopping malls, is augmenting the growth of the organized retail business
- Spending capacity of youth of India: India has a large youth population, which is a conducive environment to growth of this sector.
- Raising incomes and purchasing power: The per capita income in India has doubled between 2000-01 and 2009-10 resulting in improved purchasing power.
- Changing mindset of customers: The customer mind set is gradually shifting from low price to better convenience, high value and a better shopping experience
- Easy customer credit: Emergence of concepts such as quick and easy loans, EMIs, loan through credit cards, has made purchasing possible for Indian consumers, for products such as consumer durables
- Higher brand consciousness: There is high brand consciousness among the youth, 60% of India's population is below the age of 30 leading to popularization of brands and products

**GROWTH OF RETAIL INDUSTRY IN INDIA**

An increasing number of people in India are turning to the services sector for employment due to the relative low compensation offered by the traditional agriculture and manufacturing sectors. The organized retail market is growing at 3.5 percent annually while growth of unorganized retail sector is pegged at 6 percent. The Retail Business in India is currently at the point of inflection. Rapid change with investments to the tune of US \$ 25 billion is being planned by several Indian and multinational companies in the next 5 years. It is a huge industry in terms of size and according to management consulting firm Techno park Advisors Pvt. Ltd., it is valued at about US \$ 350 billion. Organized retail is expected to garner about 16-18 percent of the total retail market (US \$ 65-75 billion) in the next 5 years. According to the tenth report of GRDI of AT Kearney, India is having a very favorable retail environment and it is placed at 4th spot in the GRDI. The main reasons behind that is the 9% real GDP growth in 2010, forecasted yearly growth of 8.7% through 2016, high saving and

investment rate and increased consumer spending. According to report, organized retail accounts for 7% of India's roughly \$435 billion retail market and is expected to reach 20% by 2020. Food accounts for 70% of Indian retail, but it remains under penetrated by organized retail. Organized retail has a 31% share in clothing and apparel and continues to see growth in this sector. A report by Boston Consulting Group has revealed that the country's organized retail is estimated at US \$ 28 billion with around 7% penetration. It is projected to become a US \$ 260 billion business over the next decade with around 21% penetration. The analysts believe that the sector is likely to show significant growth of over 9% over the next ten years and also see rapid development in organized retail format with proportion likely to reach more respectable retail sales with growth from US \$ 422.09 billion in 2011 to US \$ 825.46 billion by 2015. The report highlights strongly underlying economic growth, population expansion, increasing disposable income and rapid emergence of organized retail infrastructure as major factors behind the forecast growth.

According to department of Industry Policy and Promotion Cumulative, FDI inflows in single brand retail trading stood at US\$ 44.45 million during April 2000 to September 2011. Indian retail sector is wearing new clothes and with a three year compounded annual growth rate of 46-64%, retail is the fastest growing sector in the Indian economy. The sector is the second largest employer after agriculture, employing more than 35 million people with wholesale trade generating an additional employment to 5.5 million crore. The enormous growth of retail industry has created a huge demand for real estate. Property developers are creating retail real estate at an aggressive pace. According to report titled "India Organized Retail Market 2010", published by Knight Frank, during 2010-12, around 55 million square feet of retail space will be ready in Mumbai, NCR, Bangalore, Kolkata, Chennai, Hyderabad and Pune. Besides between 2010 and 2012 the organized retail real estate will be grown from existing 41 million square feet to 95 million square feet. The total no. of shopping mall is expected to expand at CAGR of 18.9% by 2015. Hypermarket, currently accounting for 14% of mall space is expected to witness high growth. Industry experts predict that the next phase of growth in the retail sector will emerge from the rural market. By 2012, the rural retail market is projected to have a total of more than 50% market share. By 2012, the rural India's retail market is expected to be worth about US\$ 410 billion, with 5 per cent of sales through organized retail, meaning that the opportunity in India remains immense. Retail should continue to grow rapidly—up to US\$ 535 billion in 2013, with 10 per cent coming from organized retail, reflecting a fast-growing middle class, demanding higher quality shopping environments and stronger brands, according to the report 'Expanding Opportunities for Global Retailers', released by A T Kearney.

**Challenges Faced by the Retail Industry:**

- International Standards:** Even though India has well over 5 million retail outlets of different sizes and styles, it still has a long way to go before it can truly have a retail industry at par with International standards. This is where Indian companies and International brands have a huge role to play.
- Inefficient supply chain management:** Indian retailing is still dominated by the unorganized sector and there is still a lack of efficient supply chain management. India must concentrate on improving the supply chain management, which in turn would bring down inventory cost, which can then be passed on to the consumer in the form of low pricing.
- Lack of Retail space:** Most of the retail outlets in India have outlets that are less than 500 square feet in area. This is very small by International Standards.

Cultural Diversity: India's huge size and socio economic and cultural diversity means there is no established model or consumption pattern throughout the country. Manufacturers and retailers will have to devise strategies for different sectors and segments which by itself would be challenging.

- Real estate issues:** The enormous growth of the retail industry has created a huge demand for real estate. Property developers are creating retail real estate at an aggressive pace. With over 1,000 hypermarkets and 3,000 supermarkets projected to come up by 2011, India will need additional retail space of 700,000,000 sqft (65,000,000 m2) as compared to today.
- Human resource problems:** Trained manpower shortage is a challenge facing the organized retail sector in India. The Indian retailers have difficulty in finding trained person and also have to pay more in order to retain them. This again brings down the Indian retailers profit levels.
- Frauds in Retail:** It is one of the primary challenges the companies would have to face. Frauds, including vendor frauds, thefts, shoplifting and inaccuracies in the challenges of security techniques, supervision and administration are these and increase, this would increase that are difficult to handle. This is so even after the use of security techniques such as CCTV and POS systems. As the size of the sector would increase, this would increase the number of thefts, frauds and discrepancies in the system.
- Challenges with Infrastructure and Logistics:** The lack of proper infrastructure and distribution channels in the country results in inefficient processes. This is a major hindrance for retailers as an inefficient distribution channel is very difficult to handle and can result in huge losses. Infrastructure does not have a strong base in India. Urbanization and globalization are compelling companies to develop infrastructure facilities. Transportation, including railway systems, has to be more efficient. Highways have to meet global standards. Airport capacities and power supply have to be enhanced. Warehouse facilities and timely distribution are other areas of challenge. To fully utilize India's potential in retail sector, these major obstacles have to be removed.

**Future Prospects of Organized Retail Sector in India:**

India has been ranked as the third most attractive nation for retail investment among 30 emerging markets by the US-based global management consulting firm. AT Kearney's study on Global Retailing Trends Found that India is the least competitive as well as least saturated of all major Global markets. This implies that there are significantly low entry barriers for players trying to setup base in India, in terms of competitive landscape. The report further stated that Global Retailer such as Wal-Mart, Carrefour, Tesco and Casino would take advantage of more favorable FDI rules that are likely to be introduced in India. A good talent pool, unlimited opportunities, huge markets and availability of quality raw material at cheaper cost is expected to make India overtake the world best retail economies by 2042. The sector is expected to see an investment of over \$30 billion within next 5 years and putting modern retail in the country to \$175-200 billion, according to Technopark estimates. International retailers see India as the last retailing frontier left as the China's retail sector is becoming as saturated.

**Conclusion**

Many agencies have estimated differently about the size of organized retail market in 2011. The one thing that is common among these estimates is that Indian organized retail market will be very big in 2011. The status of the retail industry will depend mostly on external factors like Government regulations and policies and real estate prices, besides the activities of retailers and demands of the customers also show impact on retail industry. As the retail market place changes shape and competition increases, the potential for improving retail productivity and cutting costs is



19

likely to decrease. Therefore it is important for retailers to secure a distinctive position in the marketplace based on values, relationships or experience.

Finally, it is important to note that these strategies are not strictly independent of each other; value is a function of not just price, quality and service but can also be enhanced by personalization and offering a memorable experience.

### *References*

1. "Retail reality." 7 November 2007.
2. "ICRIER Begins Survey of Indian Retail Sector." 19 March 2007.
3. "Retailing in India Unshackling the chain stores". The Economist. 29 May 2008. "India again tops global retail index." 22 /6/ 2007.
4. "Economic and financial indicators"-3 July 2008.
5. "Indian Retail story from Myths to Mall." 11 August 2007.
6. "India Retail Forum 2008"
7. "Business standard dec26,2010."
8. Hindustan Times dec26,2010"
9. www.Business Maps of India.com
10. www.ibff.org.com
11. www.articlebase.com/ retail industry in India, june04, 2007.
12. Kothari.C.R, Research Methodology, New Age (P) Limited, Second Edition, 2004.
13. Pillai&Bagavathi, Marketing management, New Delhi, sultan Chand & Sons, 1999.
14. David Gilbert, Retail Marketing Management, Prentice Hall, Second Edition, 2003.
15. Amatual Baseer (2007), "Emerging Trends in India", Indian Journal of Marketing, Vol. XXXVII, No.11. Hariharan.G. (2008), "Profile and perception of retail consumers", Indian Journal of Marketing, Vol.XXXVIII, No.2.
16. LaxmiPrabha.G. (2007), "The prospects and problems of Indian Retailing", Indian Journal of Marketing, Vol. XXXVII, No.10.
17. 2013 from www.asa.in/asa-knowledge-bank-surveys-reports.asp

१३३

67



'ज्ञान, विज्ञान आणि सुसंस्कार यांसाठी शिक्षण प्रसार'

- शिक्षणमहर्षी डॉ. बापूजी साळुंखे

Shri Swami Vivekanand Shikshan Sanstha, Kolhapur

**Samajbhushan Ganpatrao Kalbhor College,**

Loni kalbhor, Pune - 412 201

( NAAC Reaccredited ' B ' Grade )

**Department of Commerce**

Organized

**NATIONAL CONFERENCE**

(UGC Sponsored)

2nd & 3rd September 2016

ON

**"IMPACT OF COMMERCE EDUCATION IN RURAL DEVELOPMENT IN INDIA"**



**BHUSHAN**

**2016-17**

**ISBN : 978-93-5158-380-6**



## RURAL DEVELOPMENT CHALLENGES AND PROSPECTS IN INDIA

**Prof. Ghule Padmakar Tukaram**  
Bharatiya Jain sanghatana's  
Arts Science & Commerce College,  
Wagholi, Pune  
Email- padmakar.02ghule@gmail.com  
Mob.No. 9763252156

**Prof. Landge Balwant Bhimrao**  
Head, dept. of commerce,  
BJS, Arts Science & Commerce College,  
Wagholi, Pune  
Email- bbandege@gmail.com  
Mob. No.9423348264

### Introduction:-

India is a country of villages and its development is synonymous with the development of the people living in rural areas. India is a vast and second most populous country of the world. (According to the 1991 census, 74.28 per cent population of our country reside in the countryside). But a big part of this population has been leading an uncertain economic life due to non-synchronization of employment opportunities in agriculture sector because of the fast growing population. Rural development has been receiving increasing attention of the governments across the world. In the Indian context rural development assumes special significance for two important reasons. First about two thirds of the population still lives in villages and there cannot be any progress so long as rural areas remain backward. Second, the backwardness of the rural sector would be a major impediment to the overall progress of the economy. India is predominately an agricultural country and farming is their main occupation. In terms of methods of production, social organization and political mobilization, rural sector is extremely backward and weak. Moreover, technical developments in field of agriculture have increased the gap between the rich and poor, as the better off farmers adopted modern farm technology to a greater extent than the smaller ones. The all India Rural Credit Review Committee in its report warned "If the fruits of development continue to be denied to the large sections of rural community, while prosperity accrues to some, the tensions social and economic may not only upset the process of orderly and peaceful change in the rural economy but even frustrate the national efforts to set up agricultural production." It was therefore felt necessary to make arrangements for the distribution of fruits of development to the rural weak and backward section of society. It is rightly pointed out that a purely agricultural country remains backward even in respect of agriculture. Most of the labor force in India depends on agriculture, not because it is remunerative but because there are no alternative employment opportunities. This is a major cause for the backwardness of Indian agriculture. A part of the labour force now engaged in agriculture needs to be shifted to non-agricultural occupations.

### What is Rural Development?

There is no universally accepted definition of rural development. The term is used in different ways in vastly divergent contexts. As a concept, it connotes overall development of rural areas with a view to improve the quality of life rural people. As a phenomenon, it is the result of various physical, technological, economic, socio-cultural and institutional factors.

As a discipline, it is multi-disciplinary in nature representing an intersection of agricultural, social, behavioural and management of sciences. In short, rural development is a process that aims at improving the standard of living of the people living in the rural areas.

Rural development may be defined as overall development of rural areas to improve the quality of life of rural people. It is an integrated process, which includes social, economical, political and spiritual development of the poorer sections of the society.

Rural development can be defined as, helping rural people set the priorities in their own communities through effective and democratic bodies, by providing the local capacity; investment in basic infrastructure and social services, justice, equity and security, dealing with the injustices of the past and ensuring safety and security of the rural population, especially that of women.

The term is used to mean 'organizing things' so as to change existing conditions in favour of a better state. There may be many variants of development drawing their nomenclature from the sphere of activity where the change is managed or the type of change or the 'method' how the desired change is attained. For several decades the term was used, solely, for economic change, inclusive of the conditions which affect betterment. The concept was later extended to its wider meaning to embrace 'changes' of political, social, cultural, technological, economic and also the psychological frame of society. In its current meaning 'development' is used to express animated change for reaping utmost human potential. Technically, development is the name of a 'Policy' and its 'Consequent programmes', designed to bring about a desired change' in social, economic, political, or technological spheres of life. It is concerned with the promotion of human capacities : Physical or mental, to attain the cherished socialgoals. Development is potential-related, and it can be attained to the extent of the existing development potential, which is measured by the 5un-exploited resources, talents, margin of sophistication and the 'will power' which implements development policy. Development is the conditioning of progress, and when efforts are laid towards the use of Growth potentials in rural economy and Society, it is rural development.

#### **Objectives:-**

- To Study of agricultural development problem and Prospects.
- To Study of Employment Grouthproblems and Prospects
- To Study of Rural development along with its drawbacks and to suggest recommendations.

#### **Research Methodology:-**

The proposed study mainly is descriptive in nature. It solemnlybased in secondary date and information which is collected from the concerned sources as per need of the reseach.The relevant books, documents of narious department and organizations, articles, papers and web sites areb used in study.



### **Education and Trade:**

Some countries have successfully combined openness and investment in learning and education, forming a virtuous circle: openness creates demand for education, and learning and education make a country's export sector more competitive. Knowledge accumulation influences a country's trade performance and competitiveness (Grossman and Helpman 1989); trade, in turn, enhances knowledge accumulation, especially through imports (Ben David and Loewy, 1995). Lucas notes that to sustain any kind of knowledge accumulation, a country has to be outward-oriented and a significant exporter. Young and Keller find that trade itself cannot be the engine of growth, but rather must operate throughout some mechanism, such as the formation of human capital, to affect growth. A World Bank study found that economic growth rates in a sample of 60 developing countries during 1965-87 were especially high where there was a combination of a high level of education and macroeconomic stability and openness (Tilak, 1989). The impact of trade openness on long-term growth thus depends on how well people are able to absorb and use the information and technology made available through trade and foreign investment. It is widely accepted that in order to adapt to an environment of stronger competition, and to a world emphasizing the role of information, knowledge and skills, advanced economies need continuously to upgrade the overall quality of their labour force.

### **Education and Productivity:**

Clearly the educational provisions within any given country represent one of the main determinants of the composition and growth of that country's output and exports and constitute an important ingredient in a system's capacity to borrow foreign technology effectively. For example: health and nutrition, and primary and secondary education all raise the productivity of workers, rural and urban; secondary education, including vocational, facilitates the acquisition of skills and managerial capacity; tertiary education supports the development of basic science, the appropriate selection of technology imports and the domestic adaptation and development of technologies; secondary and tertiary education also represent critical elements in the development of key institutions, of government, the law, and the financial system, among others, all essential for economic growth. Empirical evidence at both micro and macro levels further illuminates these relationships. At a micro level, numerous studies indicate that increases in earnings are associated with additional years of education, with the rate of return varying with high level of education (Behrman 1990, Psacharopoulos 1994). The returns to primary schooling tend to be greater than returns to secondary and tertiary education (Psacharopoulos, 1994: 1325-45). In agriculture, evidence suggests positive effects of education on productivity among farmers using modern technologies, but less impact, as might be expected, among those using traditional methods. In Thailand, farmers with four or more years of schooling were three times more likely to adopt fertilizer and other modern inputs than less educated farmers (Birdsall, 1993: 75-79). Similarly, in Nepal, the completion of at least seven years of schooling increased productivity in wheat by over a quarter, and in rice by 13% (Jamison and Moock, 1994:13). Education is

also an important contributor to technological capability and technical change in industry. Statistical analysis of the clothing and engineering industries in Sri Lanka, to cite just one example, showed that the skill and education levels of workers and entrepreneurs were positively related to the rate of technical change of the firm (Deraniyagala, 1995)

#### **Integrated Rural Development Programme (IRDP):**

The programme was launched by the Centre in March 1976 as a major instrument of the government to alleviate poverty. Its main feature was to enable selected families to cross the poverty line in a given time-frame by taking up self-employment in various activities like agriculture, horticulture, animal husbandry, weaving and handicrafts and services and business activities.

The target group consisted of small and marginal farmers, agricultural labourers and rural artisans having annual income below Rs 11,000 defined as poverty line in the Eighth Plan. Among the selected families, it is stipulated that at least 50 per cent of assisted families should be from SCs and STs. Furthermore, 40 per cent of the coverage should be of women beneficiaries. In spite of its many important features, the programme has also been criticized widely.

#### **The main criticisms against the programme are:**

1. There was much corruption, misuse and malpractice in the implementation of the programme at every level—from selection of beneficiary families to the distribution of loans. Bribing was a sine qua non for obtaining a loan.
2. The poor people were not well conversant about the programme. They took less interest in the programme because they were afraid of being cheated. Moreover, they were unable to fill up complicated forms and find the 'guarantors' for themselves.
3. The bank officials, through which loans were to be given, were often reluctant towards these poor borrowers.
4. It was found that this scheme also could not make any significant impact in the generation of employment in rural areas.
5. Several studies indicated that IRDP loans neither raised the living standard of the beneficiaries, nor does it had any impact in the alleviation of rural poverty for which this scheme was launched.

#### **3. Training Rural Youths for Self-Employment (TRYSEM):**

This scheme was launched in 1979 to provide technical skills (training) to rural youths (between 18-35 years) living below the poverty line, to enable them to seek employment in fields of agriculture, industry, services and business activities.

As in other schemes of poverty alleviation, in this scheme also, youths belonging to SCs and STs and ex-servicemen, who had passed ninth class, were given priority. One-third seats were reserved for women. The beneficiaries of this scheme after completion of training were absorbed in the IRDP scheme.



According to an estimate, up to 1995-96, about two lakh youths were being trained every year, of whom about 45 per cent became self-employed and 30 per cent got regular employment.

In spite of being a good scheme, it has many shortcomings. For example,

- (1) its coverage is very small in relation to need;
- (2) the amount of stipend given to the trainees (about Rs 75 to 200 per month) to motivate the youth is very meagre to join training programme; and
- (3) skills imparted in the training are of very low level and not linked with rural industrialization process.

#### **4. Food for Work Programme (FWP):**

This programme was introduced in 1977 by the then Janata government with the objective to provide employment to the unemployed/underemployed village persons during the slack season. The wages paid to the workers were in kind, i.e., food grains.

The works undertaken were flood protection, maintenance of existing roads, construction of new link roads, improvement of irrigation facilities, construction of school buildings, medical and health centres and Panchayat Ghars (community halls) etc.

#### **5. National Rural Employment Programme (NREP):**

This is redesigned programme of FWP, planned for creating additional employment opportunities in the rural areas with the help of surplus food grains. It was started in 1980 as a part of the Sixth Plan (1980-85). This programme was especially for those rural people who largely depended on wage employment but had no source of income during lean agricultural period. PRIs were actively involved in this programme.

Later on, this programme was merged with JawaharRozgarYojana (JRY).

#### **6. Rural Landless Employment Guarantee Programme (RLEGP):**

Special schemes were formulated by some states such as Maharashtra and Gujarat to provide increasing employment opportunities to rural people, especially landless people. Maharashtra started the Employment Guarantee Scheme (EGS) for the unemployed in rural areas. The Gujarat government's scheme provided for unskilled jobs to the unemployed workers on different projects. This scheme was later on merged into JRY along with NREP.

#### **7. JawaharRozgarYojana (JRY):**

This programme came into existence in April 1989 with the merger of the NREP and the RLEGP. Under this scheme, it was expected to provide at least one member of each poor family (BPL family) an employment for 50 to 100 days in a year at a work near his/her residence. About 30 per cent of the jobs under this programme were reserved for women. The scheme was implemented through Village Panchayats.

### **8. Antyodaya Yojana:**

The Hindi word 'antyodaya' is a combination of two words—ant meaning end or bottom level and udaya meaning development. Thus, as a whole, it implies the development or welfare of a person standing at the end of the queue (lowest level), that is, the poorest of the poor.

This programme was initiated by the Government of Rajasthan on 2nd October, 1977 for special assistance to persons living below the poverty line (BPL). It was later on picked up by the then Janata government at the centre in 1978. The idea was to select five of the poorest families from each village every year and help them in their economic betterment.

**For the selection of beneficiary families, a few economic criteria were laid down, in order of priority:**

- (1) families under severe destitution without any productive assets with no member in the age group of 15-59 years capable of any economic activity;
- (2) families without any productive assets of land or cattle but having one or more persons capable of working and with a per capita income up to Rs 20 per month;
- (3) families having some productive assets with per capita income upto Rs 30 per month; and
- (4) families having per capita income upto Rs 40 per month.

Under this scheme, assistance was given in the form of allotting land for cultivation, monthly pension (Rs 30-40 per month), bank loan for purchasing bullocks, buffaloes, cows, goats and pigs, basket making, carpentry tools, opening a tailor's shop, a tea shop, a barber's shop or a grocer's shop and manufacturing activities like niwar-making, soap-making, etc.

Following the footsteps of the Government of Rajasthan, UP and Himachal governments also launched it on the same lines in 1980. The scheme has seen much ups and downs with many shortcomings, such as delay in the payment of loans, apathy on the part of government officials, etc. 'Antyodaya,' as preached by Mahatma Gandhi, has disappeared into 'ananta' or eternity and is replaced with 'swantyodaya', meaning one's own development. It places emphasis on 'myself mentality.'

### **9. Mahatma Gandhi National Rural Employment Guarantee Scheme (MNREGS):**

After independence, for the development of rural society, particularly to develop the socio-economic life of the rural poor, many schemes and programmes were launched from time to time but unfortunately the fruits of these programmes reached to a very low proportion of these people.

It was estimated about 70 per cent of rural population was still deprived of the basic necessities of life. For the purpose of extending the benefits to rural people, a new scheme was launched and legislation was enacted under the name 'National Rural Employment Guarantee Act' (NREGA).

This scheme was initially started in 200 districts of the country from February 2006 and from April 2008, it has been extended to cover all the districts of the country. The main

objective of the scheme is to provide 100 days employment to rural unemployed people. In this scheme, employment to women is also provided.

#### Some Other Development Schemes:

1. **PradhanMantriAdarsh Gram SadakYojana (PMAGSY):**

It focuses on integrated development of 100 villages with a 50 per cent population of SCs.

2. **Bharat Nirman Yojana:**

It was launched in 2005 for building infrastructure and basic amenities in rural areas. It comprises of six components—rural housing, irrigation, drinking water, rural roads, electrification and rural telephony.

3. **Indira Awas Yojana:**

It is one of the six components of Bharat NirmanYojana. It was introduced in 1985-86. It aims to help built or upgrade the households of people living under BPL.

4. **Jawaharlal Nehru National Urban Renewal Mission (JNNURM):**

It was launched on 3rd December, 2005. The main objective of this scheme was fast track development of cities across the country. It was focused especially on developing efficient urban infrastructure service delivery mechanism, community participation and accountability of urban local bodies and other agencies towards citizen.

5. **Rajiv Awas Yojana (RAY):**

This programme was announced in June 2009 with an objective to make the country slum-free.

6. **National Rural Health Mission:**

It was launched to make basic health care facilities accessible to the rural people.

7. **National Rural Livelihood Mission:**

It is meant to eradicate poverty by 2014-15.

8. **National Food Security Scheme:**

On the pattern of MNREGS, the central government is trying hard to bring a bill in the monsoon session (2013) to provide guarantee for food to the poor people, although it has already issued an ordinance in this regard.

#### CHALLENGES:

The following are the some of the challenges of the Indian agriculture:

- Agriculture sector in India is facing lots of Challenges. 50% of the population engaged in agriculture are still illiterate and just 5% have completed Higher Secondary education. The Education & Incomes of agricultural labourers very low. During 1982 families operating farms below 1 hectare was 56% which has become 70% in 2003.
- Lack of proper planning for utilization of funds available under the foreign aid is also a major issue. As per the CAG report during the Financial Year 2009-10 the total amount of unutilized fund was Rs 9,557 Crore for "Agriculture & Rural Development"



- The real challenge for the India Agriculture is the information asymmetry between farmer and farmer, village and village, region and region and the country as a whole versus other countries in which e-Agriculture is the feasible solution.
- The 100,000 Common Services Centers (CSCs) has a big role to play in e-Agriculture as well as in bridging the digital divide in India. But the non-availability of the contents in local languages is a big handicap considering the huge percentage of illiterate population involved in Agriculture sector.
- Connectivity especially high speed Internet connectivity in rural areas is also another big challenge for e-Agriculture. Although the KCC is providing the first level instant solution for Agriculture related issues but it not sufficient for the growing demand of e-Agriculture like Precision Agriculture.

**References:-**

1. Prime Minister (PMSBY), PradhanMantriJeevanJyotiBimaYojana (PMJJBY) AND TheAtal Pension Yojana (APY) on 9th May 2015 at Kolkata
2. Frequently ASked Questions on MGNREGA Operational Guidelines - 2013
3. National Urban Livelihood Mission
4. Approval of Indira Gandhi MatritvaSahyogYojana (IGMSY)- a Conditional Maternity Benefit (CMB) Scheme"



ISBN NO. 978...



Sponsored by  
Savitribal Phule Pune University

Organized by

Department of Commerce and Research Centre  
Bharatiya Jain Sanghatna's  
Arts, Science & Commerce College,  
Wagholi, Pune - 412207

# International Conference

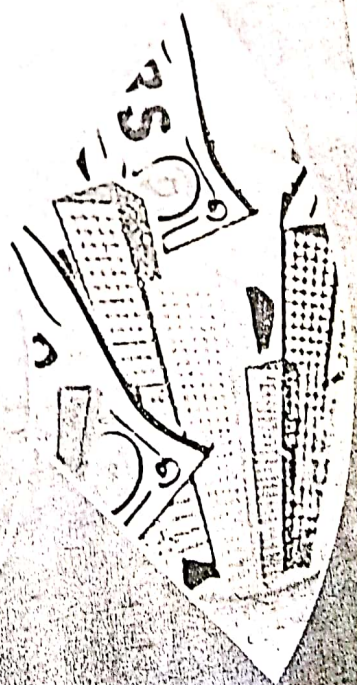
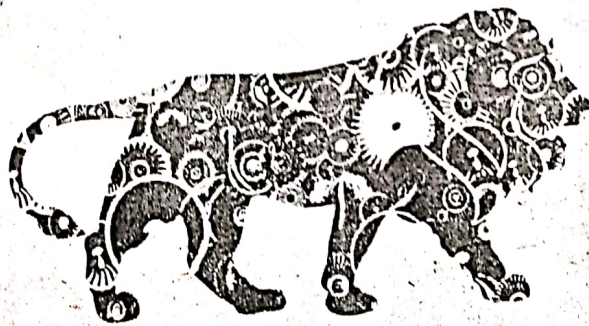
ON

## MAKE IN INDIA

### OPPORTUNITIES, CHALLENGES & ITS IMPACT

16-17th April 2017

P34  
P40  
P24



Chief Editor

Prin. Dr. Babasaheb Sangale  
Bharatiya Jain Sanghatna's

Arts, Science & Commerce College, Wagholi, Pune - 412207



# MIRACULOUS PROPERTIES OF LOHABHASMA PROVEN BY MODERN TECHNIQUES

Dr. Rupali A. Gulalkari  
Dept of Chemistry, BJS College Wagholi  
Mail ID. rupalilad.2009@rediffmail.com  
Mo. No. 9850677833

## Abstract:

*Ayurveda system of medicine includes an important class of drugs of mineral origin under which there is a subclass known as ayurvedic bhasmas. These are derived from metals like gold, silver, copper, iron, lead, supreme medicines due to their extraordinary medicinal properties. However, according to the modern science, heavy metals referred above are difficult to absorb at cellular levels and therefore are toxic and harmful to human bodies. As against this according to ayurved, all these elements, after ayurvedic processes of bhasmikarana not only lose their toxicity but miraculous medicinal properties are induced when they are transformed into what is called as bhasma state. In an attempt to elucidate the exact nature of this bhasma state, we found that a genuine ayurvedic bhasma possesses two characteristics (i) extremely tiny particle size, tending to nano level of the order of 20-90 nm and (ii) attachment of an organic component to these nanosized bhasma particles. These findings are expected to be useful to throw light on the medicinal potential of ayurvedic bhasma.*

## INTRODUCTION

Ayurved firstly introduced the concept of "Bhasma" in its medicinal system. Originally, ayurvedic system of medicine was mostly restricted to medicinal plants (vanaushadhi) and to, some extent to animal products such as cowurine, cowdung, cowmilk, honey etc. Later on metal-based bhasmas were introduced and subsequently they constituted the most important class of drugs of mineral origin. The art and science of ayurvedic bhasmas in general and metal-based bhasmas in particular is the subject of "ayurved rasashastra, which is an extremely important and interesting branch of ayurved. The origin, history, developments in ayurved rasashastra is itself an attractive and promising area for research especially for chemists. Research in this subject will be also relevant and encouraging in coming years because ayurved and ayurvedic medicines will receive more and more appreciation and importance all over the world. Metal-based ayurvedic drugs being the superior drugs<sup>3</sup> as compared to all other classes of drugs, there is an excellent opportunity to rejuvenate this original art with the help of modern scientific developments. The present work is an attempt from this point of view.



## SYNTHESIS AND CHARACTERIZATION OF METALLIC BHASMAS 4-6

### Synthesis of Metallic Bhasmas.

Preparation of bhasma is an elaborate process involving shodhana, marana and bhasmikiranana. The classical texts of Ayurveda prescribe in detail these processes. Metals are first purified through a process called shodhana, during which the metal is repeatedly heated and then cooled in herbal extracts. This is followed by bhasmikiranana where, the shodhit metal is repeatedly triturated with herbs (bhavana) and calcinated in closed earthen crucibles in a pit, by burying cowdung cakes (a process called puta), to obtain bhasma. The size of pit, the number of cowdung cakes to be used to obtain a specific temperature and duration of heating are specified in detail in standard ayurvedic texts. This process is repeated as many times as prescribed in classical texts for each preparation. Thus we have dasha puta (10 cycles), shata puta (100 cycles), Sahastra puta (1000 cycles) etc. to ensure that the bhasma is properly prepared. To confirm the formation of a genuine bhasma a set of tests are also specified (Ayurvedic Formulary of India, 2003).

Though bhasma preparations are widely used in ayurved, practically nothing is known as to what happens to the metal when it is subjected to bhavana with herbs and subsequent calcinations processes. The traditional texts also don't throw any light on the changes undergone by a metal during the above processes.

### Flow Sheet of the Synthesis of Ayurvedic Bhasma.

The synthesis of an ayurvedic bhasma generally involves THREE major steps given below and illustrated in following flow sheet

- a. Ayurvedic purification of the metal (shuddhi).
- b. Destruction of metallic state (marana).
- c. Conversion of crude product into bhasma state (bhasmikiranana).

### Synthesis of Loha bhasma as a representative example

There are numerous methods reported in literature for the synthesis of loha bhasma which is an ancient and famous iron based ayurvedic preparation. Out of these following three methods are selected for the present work.

#### Method Using Plant (Kanchnar) Material

In this method the general purification was first done by the standard method. For special purification trifala extract was prepared in cowurine and the above processed iron powder was heated to red heat and then dipped in this extract successively seven times. The process of marana was done in the juice of kanchnar (bauhinia variegata). For this purpose the purified iron powder was mixed with this plant juice in a mortar and the mixture was triturated till a homogenous paste is formed. This paste was transformed to closed crucible system and then subjected to gaja-puta.

The process of bhasmikiranana was also done in the same way as that for marana but here the trituration for plant juice followed by gaja-puta was repeated seven times.

### Method Using cow-urine

In this method the first operation was identical with that described for general purification.

For special purification, the above processed iron powder (500g) was heated and dipped in freshly collected cow-urine. This operation of heating and dipping the hot iron powder in cow urine was repeated seven times.

After special purification, the iron powder was taken in a mortar and mixed with cowurine and the mixture was trituated for six hours keeping it in viscous state. This mixture was kept overnight for interaction to complete the destruction of metallic state (marana).

Finally for bhasmikiranana, the above iron powder is mixed with cow-urine in a mortar and trituated till a homogenous paste is obtained. The paste is transferred to closed crucible system and subjected to gaja-puta. Total seven gaja-puta are given

### Method By using mercuric sulfide HgS and lemon juice

This method involves the use of mercuric sulfide (hingul) for the process of marana. The mercuric sulfide used in the form of hingul is purified prior to use (using the juice of kadu Nimb).

The iron powder was purified by the same process described in above method and then the purified iron powder is mixed with equal quantity of Hgs and trituated in a mortar, till a homogeneous mixture is obtained. This was then transferred to a closed crucible system and subjected to gaja-puta. This process was repeated three times to complete the process of marana.

Finally for bhasmikiranana, the above iron powder is mixed with lemon juice in a mortar and trituated till a homogenous paste is obtained. The paste is transferred to closed crucible system and subjected to gaja-puta. Total six gaja-puta are given

### Characterization and particle size Determination 9-10

#### Chemical Composition by E-DAX

The quantitative determination of the elemental constituents of the three loha bhasma samples to establish their chemical composition was done through EDAX model IncMahwah NJ USA. The E-DAX patterns are shown in figure 1.1 and the result of analysis is shown in table 1.1

Table 1.1 Chemical Composition by E-DAX

Method	C	O	Fe	Al	Si	Cr	K	S	Ca
Method I	30.40	28.07	35.60	0.40	1.02	—	0.15	0.58	1.91
Method II	36.93	28.30	29.14	—	0.77	3.43	1.17	0.26	—
Method III	32.73	23.30	39.06	—	1.30	2.15	0.69	0.77	5.95



### Phase analysis by XRD and particle size determination

The investigations were done to examine the crystalline modifications of iron oxides. The XRD patterns were recorded on Phillips X-pert Pro Powder diffractometer in the diffraction range  $(10.90)2\theta$ . Debye Scherrer equation was used to calculate mean crystallite size.

The XRD patterns with relevant details are shown in Fig. 2.2 while the results of phase analysis and particle size determination are shown in Table 2.2

Table 2.2 components identified through XRD

Sr. No.	Method	Major Constituent	Solid State Nature	Crystallite Size
1.	Method I	Hematite	Microcrystalline	39.7 nm
2.	Method II	Fe <sub>2</sub> O <sub>3</sub>	Mostly Amorphous	23.5 nm
3.	Method III	Fe <sub>2</sub> O <sub>3</sub>	Partly Microcrystalline	90.1 nm

### Infrared Spectra of loha bhasma 11-33

The solid state infrared spectra were studied in KBr pellets in the region 4000-400  $\text{cm}^{-1}$  these spectra were recorded on a FTIR Perkin- Elmer spectrophotometer.

### Evidence for organic component<sup>14</sup>

The significant percentage of carbon identified by E-DAX and the nature of the IR spectra of loha bhasma (as well as for metallic bhasmas obtained from other metals) give some indications in favour of the presence of organic components associated with loha bhasma particles. However, since EDAX is unable to detect the presence of hydrogen and solid state IR spectra show poor resolution, some confirmatory evidence to support the presence of such organic component is necessary. For this purpose samples of loha bhasma (method II) were refluxed on pure toluene for 12 hour for three successive times and the soluble part was isolated. The IR spectra as well as electronic spectra (200-700 nm) in spectroscopic chloroform are then recorded. (fig. 5.1 and fig. 5.2) These spectra gave confirmatory evidence for the presence of organic components. The exact nature of this component is under investigation at present

### Conclusions :-

According to the ayurvedic principals, metals as well as non-metals alone, cannot exhibit extraordinary medicinal properties in their inorganic form. Therefore, pure metal oxides; sulfides; silicates; carbonates or phosphates are not known to possess significant medicinal properties and also they are not assimilable to human bodies. But when they are transformed into their bhasma state miraculous medicinal properties are claimed to be induced in them. Two major factors seem to be responsible for induction of tremendous medicinal potential in the bhasma state.



These may be (a) extremely tiny size tending to nanolevel (10-90 nm) of the bhasma particles and (b) organic component imparted to these tiny bhasma particles.

In the present work, encouraging experimental evidence is obtained in favour of both these factors. Similar results and evidence is obtained in metallic bhasmas derived from copper, gold, tin and zinc. These result and evidences are expected to be useful to throw some light on the nature of ayurvedic bhasmas and their claimed extraordinary medicinal properties.

#### REFERENCES :

1. S.B. Kulkarni –Dudhgaonkar Rasaratnasumuccya Shivaji University, Kolhapur publication (1970)
2. Pandit Kashinath Shastri, RAstarangini (Hindi) Motilal Banarasidas Dehli (2004)
3. Mrudula Wadekar, Yogesh Bendale, B.A. Kulkarni, C.V. Rode and Asmita Prabhune. Supremacy of Metal-Based Ayurvedic Bhasmas and Their Globalization. 2<sup>nd</sup> World Ayurved Congress, University of Pune, (2006)
4. M.P. Wadekar, C.V. Rode, Y.N. Bendale , K.R. Patil and A.A. Prabhune preparation and characterization of copper-based Indian Traditional Drugs Tamra Bhasma journal of pharmaceutical and Biomedical Analysis 39, 951 (2005)
5. M.P. Wadekar, C.V. Rode, Y.N. Bendale, K.R. patil, A.B. Gaikwad, A.A. Prabhune Effect of calcinations cycles on the preparation of tin oxide based traditional drugs . Studies of its formation and characterization J. of pharmaceutical and biomedical Science, 41 1473-1478 (2006)
6. Bhawat M, Kashalkar R.V. Bhawe A.S., Vidya S.S. and ramaswami Preparation and structural characterization of jasad Bhasma Indian Drugs, 41(1) January 12-18 (2004)
7. Rupali M. Lad Chemical and Biochemical studies of some Iron based Ayurvedic Drugs ph.d Thesis, Bharati Vidyapeeth Deemed University pune (2009).
8. S. Pandit, t.K. Biawad, D.K. Debnath, A.V. Shaha, V. Choudhary Chemical and pharmacological evolution of different ayurvedic preparation of Iron. J. Ethanaopharmacol 65, 149-56 (1999)
9. S.S. Kadam, R.W. Jawale, V.V. Dhapte, M.P. Wadekar, S.T. Takale and B.A. Kulkarni characterization of Nanometric Ayurvedic Bhasmas as Regenerative Drugs. International conference of Nanomedicine, Tanjaver, India. 2007
10. T.K. Bowmick, A.K. Suresh, S.G. Kane, A.C. Joshi and J.R. Bellare. Physico-chemical characterization of an Indian Traditional Medicine Jased Bhasma, Detection of nano particles containing non-zinc oxide J. Nanopart. Res 11,655-664 (2009)
11. Shivaji T. Takale Comparative Study of Metal Based Ayurvedic Bhasmas and corresponding metal oxides Ph.D. Thesis, Bharati Vidyapeeth Deemed University pune (2010)



ISBN NO. : 978-93-24457-17-5

**BJS**  
Bharatiya Jain Sanghatana



Sponsored by

**Savitribai Phule Pune University Pune.**

Organized by

**Department of Commerce and Research Centre  
Bharatiya Jain Sanghatana's  
Arts, Science & Commerce College,  
Wagholi, Pune – 412207**

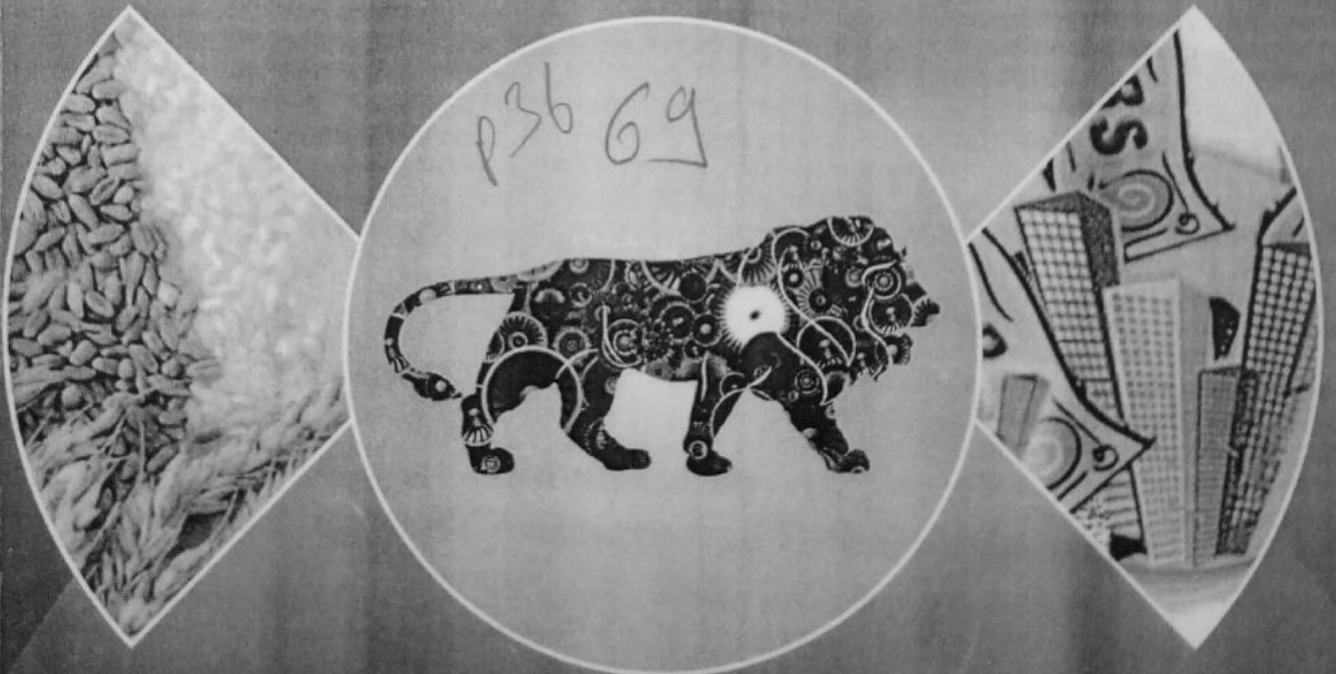
# **International Conference**

**on**

**MAKE IN INDIA**

**OPPORTUNITIES, CHALLENGES & ITS IMPACT**

Research Publication Feb. 2017



Chief Editor

Prin. Dr. Babasaheb Sangale

Bharatiya Jain Sanghatna's

Arts, Science & Commerce College, Wagholi, Pune - 412207

69

**BJS**

Bharatiya Jain Sanghatana

**International Conference  
on**

**MAKE IN INDIA  
OPPORTUNITIES, CHALLENGES & ITS IMPACT**



**Research Publication**

**February 2017**

**(ISBN No. 978-93-24457-17-5)**

**Chief Editor**

**Prin. Dr. Babasaheb Sangale**

**Published By**

**Department of Commerce And Research Centre**

**Bharatiya Jain Sanghatana's**

**Arts, Science & Commerce College,**

**Wagholi, Pune – 412207**

**Email : bjs\_college@yahoo.co.in,**

**Web : bjscollege.org.in**



## MAKING "MAKE IN INDIA": ROLE OF FDI

69

Dr. Landge Balwant Bhimrao

HOD, Dept. of Commerce

BJS College Wagholi, Pune

Email.bbllandge@gmail.com Mo. No. 9028579800

### Abstract

*Make in India was launched by Prime Minister, Narendra Modi on 25 September 2014, to encourage companies to manufacture their products in India. He has launched this ambitious campaign with an aim to turn the country into a global manufacturing hub. This study focuses on the changes in FDI rate after introduction of Make in India by Modi and growth due to increase in the FDI rate. In August 2014, the Cabinet of India allowed 49% foreign direct investment (FDI) in the defense sector and 100% in railways infrastructure. FDI inflows before and after the "MAKE IN INDIA" campaign were compared using the quantitative data which has been collected from various reports like Reserve Bank of India Database on Indian Economy, database of department of Industrial Policy and Promotion. It has been analyzed that there is high correlation between Industrial Production and FDI inflows. The effect of FDI on economic development ranges from productivity increased to enable greater technology transfer*

**Keywords:** FDI, Industrial production, Infrastructure, Make in India.

### Introduction:

India's economic reforms way back in 1991 has generated strong interest in foreign investors and turning India into one of the favourite destinations for global FDI flows. According to A.T. Kearney, India ranks second in the World in terms of attractiveness for FDI. A.T. Kearney's 2007 Global Services Locations Index ranks India as the most preferred destination in terms of financial attractiveness, people and skills availability and business environment. Foreign direct investment (FDI) is a controlling ownership in a business enterprise in one country by an entity based in another country. FDI is defined as the net inflows of investment (inflow minus outflow) to acquire a lasting management interest in an enterprise operating in an economy other than that of the investor. FDI usually involves participation in management, joint-venture, transfer of technology and expertise. A foreign direct investment (FDI) is a controlling ownership in a business enterprise in one country by an entity based in another country. Types: Horizontal FDI arises when a firm duplicates its home country-based activities at the same value chain stage in a host country through FDI. Platform FDI Foreign direct investment from a source country into a destination country for the purpose of exporting to a third country. Vertical FDI takes place when a firm through FDI moves upstream or downstream in different value chains i.e., when firms perform value- adding activities stage by stage in a vertical fashion in a host country. FDI Stimulate the economic

development of the country in which the investment is made, creating both benefits for local industry and conducive environment for the investors. It creates job and increase employment in the target country.

### **Literature Review**

Dunning (2004) [1, 10] in his study "Institutional Reform, FDI and European Transition Economics" studied the significance of institutional infrastructure and development as a determinant of FDI inflows into the European Transition Economies. The study examines the critical role of the institutional environment (comprising both institutions and the strategies and policies of organizations relating to these institutions) in reducing the transaction costs of both domestic and cross border business activity. By setting up an analytical framework the study identifies the determinants of FDI, and how these had changed over recent years. Sunday et al. (2004) [8, 11], in their work "Explaining FDI Inflows to India, China and the Caribbean: An Extended Neighborhood Approach" find out that FDI flows are generally believed to be influenced by economic indicators like market size, export intensity, institutions, etc., irrespective of the source and destination countries. Klaus (2003) in his paper "Foreign Direct investment in Emerging Economies" focuses on the impact of FDI on host economies and on policy and managerial implications arising from this (potential) impact. The study finds out that as emerging economies integrate into the global economies international trade and investment will continue to accelerate. MNEs will continue to act as pivotal interface between domestic and international markets and their relative importance may even increase further. Boon (2001) [13] in his study, "Foreign Direct Investment and Economic Growth" investigates the casual relationship between FDI and economic growth.

### **Objectives of study**

1. To find out the effect of FDI on economic development after launch of "Make in India" campaign.
2. To study about the role of FDI inflows and its contribution in increasing output.

### **Research Methodology:**

The study is based on secondary data. The required data has been collected from various sources i.e. research papers, various Bulletins Of Reserve Bank Of India, Publications from Ministry Of Commerce, Govt. Of India that are available on internet.

### **Manufacturing led transformation approaches**

To achieve a manufacturing led transformation, India would need to undertake a structured and planned approach across three levels:

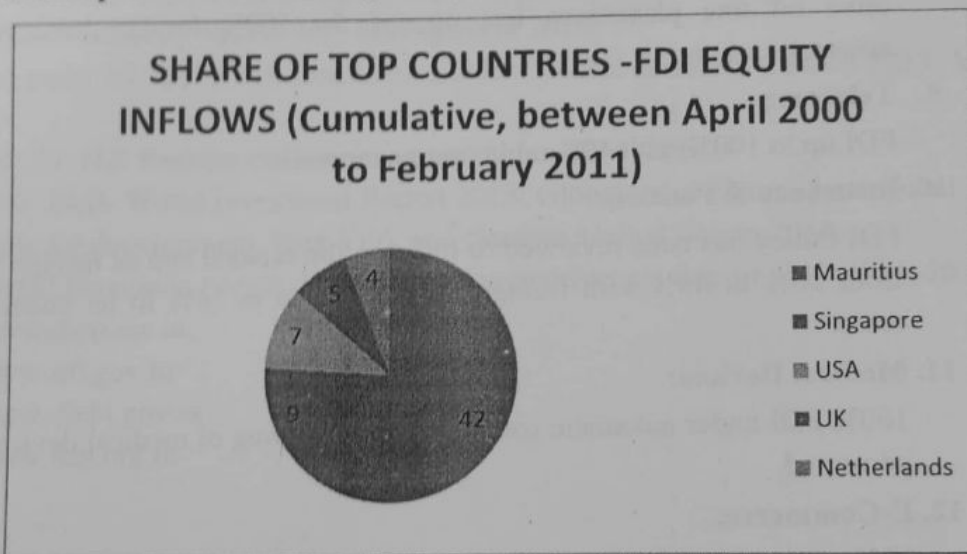
1. Revive manufacturing: The right infrastructure not only ensures an effective supply chain and key inputs feeding into the manufacturing process but also creates a seamless link across production hubs and end markets both domestic



and global. Domains emerge from these areas requiring significant change to revive domestic manufacturing:

- ✓ Financial environment
  - ✓ Land acquisition
  - ✓ Administrative environment
  - ✓ Legal & regulatory environment
2. Gain global competitive advantage: building an export ecosystem and developing an infrastructure which support export growth and attracting more investments
  3. Claim global leadership:- sustaining and expanding competitiveness, changing mindset

**SHARE OF TOP COUNTRIES -FDI EQUITY INFLOWS (Cumulative, between April 2000 to February 2011)**



### Major FDI Reforms

FDI stimulates country's economic development and creates more conducive environment for the industry to grow

#### 1. Defence:

Up to 49% under automatic route and above 49% through Government route

#### 2. Civil Aviation:

100% FDI under automatic route in Greenfield Projects and 74% FDI in Brownfield Projects under automatic route beyond 74% for Brownfield Projects is under government route.

#### 3. Broadcasting:

New sectoral caps and entry routes are as under:

Broadcasting Carriage Services & down-linking of news channels: 100% FDI

Cable Networks: 100% FDI and in News channels: 49% FDI

#### 4. Banking:

FDI up to 74% with 49% under automatic route rest through government route

**5. Railways:**

100% FDI under automatic route permitted in construction, operation and maintenance of Rail Infrastructure projects

**6. Construction:**

100% FDI through automatic route and Removal of minimum floor area & minimum capital requirement

**7. Pharmaceuticals:**

The extant FDI policy on pharmaceutical sector provides for 100% FDI under automatic route in Greenfield pharma and FDI up to 74% under automatic route and 100% under government approval in Brownfield pharma.

**8. Plantation:**

Certain plantation activities namely; coffee, rubber, cardamom, palm oil tree and olive oil tree plantations has opened for 100% foreign investment under automatic route.

**9. Telecom:**

FDI up to 100% with 49% under automatic route

**10. Insurance & Pension:**

FDI Policy has been reviewed to increase the sectoral cap of foreign investment from 26% to 49% with foreign investment up to 26% to be under automatic route.

**11. Medical Devices:**

100% FDI under automatic route for manufacturing of medical devices has been permitted.

**12. E-Commerce:**

100% FDI in B2B e-commerce, Single brand retail trading entity permitted for B2C e-commerce and e-commerce food retailing

**13. Retail:**

100% FDI and 49% under automatic route is allowed. In case of 'state-of-art' and 'cutting-edge technology' sourcing norms can be relaxed subject to Government approval. 100% FDI is now permitted under automatic route in Duty Free Shops located and operated in the Customs bonded areas.

**FDI in INDIA SECTOR WISE**

- ✚ Liberalization of the policy in Single- Brand Retail Trading.
- ✚ Present Position: Foreign Direct Investment (FDI); in retail trade, is prohibited except in single brand product retail trading, in which FDI, up to 51% is permitted.
- ✚ Revised Position: The Government of India has reviewed the extant policy on FDI and decided that FDI, upto 100%, under the government approval route, would be permitted in Single-Brand Product Retail Trading.



**CONCLUSION:**

FDI plays an important role in the long-term development of a country not only as a source of capital but also for enhancing competitiveness of the domestic economy through transfer of technology, strengthening infrastructure, raising productivity and generating new employment opportunities. It has been analyzed that there is high correlation between Industrial Production and FDI inflows. The effect of FDI on economic development ranges from productivity increased to enable greater technology transfer

**REFERENCES**

1. Government of India. FDI Statistics. Ministry of Commerce & Industry, Department of Industrial Policy and Promotion 2013.
2. Himachalpathy, R.. A Comparative analysis of FDI in India and China. Journal of Contemporary Research in Management 2010;
3. Kearney AT. 2013 FDI Confidence Index. Global Business Council 2013; Vol. 13.
4. OECD. FDI Regulatory Restrictiveness Index 2013; 2014.
5. UNCTAD. World Investment Report 2013: Global value chains- Investment and trade for development, New York and Geneva: United Nation 2013.
6. World Economic Forum. The Global Competitiveness Report 2013-2014, 2013
7. [www.dipp.nic.in](http://www.dipp.nic.in)
8. [www.fdi.gov.in](http://www.fdi.gov.in)
9. [www. Sebi.gov.in](http://www.Sebi.gov.in)
10. [www.Rbi.org.in](http://www.Rbi.org.in)





# Quest 2016

The Research Annual of

**MES Garware College of Commerce, Pune**

NAAC Re-Accredited 'A' Grade (CGPA 3.39)

Recipient of Best College Award from Savitribai Phule Pune University

*Celebrating Golden Jubilee Year 2016-17*

1. An Evaluation of Utility of Enhancing Emotional Intelligence of Marketing Personnel in Improving the Performance  
*Dr. S. B. Joshi*
2. Employees Skill Development: A Study with Special Reference to Information Technology (IT) Sector in Bangalore.  
*Dr. D. Raja Jebasingh*
3. The comparative analysis of Marathi OCR softwares  
*Dr. Ketaki Modak*
4. Generation Next of Women Entrepreneurs  
*Dr. Jehangir Bharucha*
5. A Study of Multi-Dimensional Deprivation of Tribes in Maharashtra  
*Dr. S. J. Daware*
6. A Study of Views of Undergraduate Students on the use of ICT in Commerce Education in Ratnagiri District of Maharashtra State  
*Shri. Haneer S. Vinchu*
7. Make In India - The Winning Strategy  
*Dr. Hema Joshi*
8. An Analytical study on Impact of Orientation Programmes conducted by UGC-Academic Staff Colleges, with special reference to Academic Staff colleges in Maharashtra and Gujarat  
*Dr. Sunil Zagade and Deepa Hovur*
9. Role of Marketing Communication In Modern Indian Business  
*Capt. Dr. Ashok V. Giri*
10. Spiritual Skills in Management : A Vedanta Philosophy  
*Dr. Ashish M. Puranik*
11. Cooperative Learning - An isthmus between the Teacher and Student  
*Dr. Deepa Paturkar*
12. CSR Activity-An investment for future  
*Smt. Shweta Jain*
13. People to People network for fostering Grassroots Innovations - A case study  
*Smt. Geeta Vivek Acharya*
14. Mutual Funds : A Long Road Ahead  
*Smt. Shephalika Gokhale*
15. Mediatic Events and the Hypnotized Spectator : A Case Study of Contemporary Catastrophe Reportage



# ROLE OF MARKETING COMMUNICATION IN MODERN INDIAN BUSINESS

Capt. Dr. Ashok V. Giri\*

## ABSTRACT

Integrated marketing communication (IMC) is one of the most controversial areas of research, the concept marking a constant progress from the simple coordinating of promotional tools to a complex strategic process. Further to the evolution of modern marketing, where IMC has become a major way of achievement the objectives of a company, there is a need to identify opportunities to increase its impact on consumer of different segments w.r.t. age. Therefore, it is of interest, the relatively recent approach found in the literature. In this context, this paper intends to clarify some aspects regarding the effects of IMC on the consumer behavior of different age groups, materialized in the consumer decision-making process. The present paper touches upon the emergence of integrated marketing communications (IMC) that has significantly influenced thinking and acting among all types of companies and organizations facing the realities of competition in the present open economy. It has been proved as an efficient promotional tool to communicate more universally, clear, and effectively. The paper put lights on various facets of Integrated Marketing Communication (IMC) especially in Indian Business Scenario. The challenges and scopes of IMC with the context of strategies, implementation, and audit have also been discussed. The greater utilization of marketing communication tools within an IMC approach can lead to a better overall outcome and may also deliver a more holistic picture. Integrated Marketing Communication approaches have become the accepted norm for agencies offering services to clients. The psychological continuity is a consistent attitude towards a brand or firm. It is reference for company's voice and personality for the consumers. This can be achieved but Integrated Marketing Communication with them. Marketing communication activities must be integrated to deliver a consistent message and strategic positioning.

**Keywords:** Consumer Behavior, Efficient communication, Identify opportunities, Integrated Marketing, Social networking.

## Introduction:

In today's ever changing "Nanosecond Culture" of social networks, empowered customers and

\* Assistant Professor, MES Garware College of Commerce, Ph.D & M.Phil Research Guide Savitribai Phule Pune University, Pune-411004. (Maharashtra, India) Email ID:-capt.drashokgiri@gmail.com



hyper competition, we need to be prepared to immediately implement holistic thinking for marketing and communications strategy. With an increase in global competition, technological advances, and fast informed customers, it is important for businesses to make a powerful impact on target audiences and markets. Integrated Marketing Communication (IMC) is one of the most important communications trends adopted all over. It is one such step toward an integrated approach to achieving efficiency by synergy. The emergence of this concept has become one of the most significant examples of development in the marketing discipline. It has influenced thinking and acting among companies but also authorities, state owned companies and political parties, all facing the realities of competition in an open economy. Integrated marketing communication (IMC) emerged during the late twentieth century and its importance has been growing ever since. Owing to the impact of information technology, changes came about in the domains of marketing and marketing communications which led to the emergence of IMC.

The multiplication of media, degasification of consumer markets, and the value of the Internet in today's society are just three of the areas in which technological innovation has. This in turn left marketers in a challenging and competitive environment, trying to fulfill customer's wants and needs while also developing long-term relationships with them. IMC can help in creating coordinated consistent messages across various channels of communication. Furthermore, the concept is especially valuable in that it places great emphasis on the importance of all stakeholder groups and, in particular, on customer loyalty, which can only be created through strategic relationship building.

#### REVIEW OF LITERATURE:

We are sure to see innovations in communications research during the next several years, the like of which have never been before seen in the field. Integrated Marketing Communication has recognized all the trends by which firms touch customers must be related, aligned and coordinated making it more than advertising, sales promotion and direct marketing programs. Let us assume that the ultimate process of marketing is to deliver higher standard of living through communications. The marketers of twenty-first century should utilize an IMC program, which goes beyond usual marketing concepts of 4p's, trying in addition to generate new ways of creating customers by database. If companies disregard IMC and different messages are not delivered in unison, it may lead to an incoherent brand image, which can negatively influence consumer behavior. To draw the benefits from IMC approach, it is imperative that whole organization, functional and subsidiaries understands how IMC works and how IMC plans can be put into action. If this is not the case integration will be lost which will intern weaken both corporate brand and relationship. The primary goal of IMC is to affect the perception of value and behavior through communication. The greater utilization of marketing communication tools within an IMC approach can lead to a better overall outcome and may also deliver a more holistic picture. Integrated Marketing Communication approaches have become the accepted norm for agencies offering services to clients. The psychological continuity is a consistent attitude towards a brand or firm. It is reference for company's voice and personality for the consumers. This can be achieved but Integrated Marketing Communication with them. Marketing communication activities must be integrated to deliver a consistent message and strategic positioning.

#### MANAGERIAL IMPLICATIONS:

Integrated Marketing Communication is the boost for promotional mix elements, whether it is advertising; direct marketing, interactive/internet marketing, sales promotion, publicity/public relations or personal selling, combining these disciplines to provide consistently and clearly a maximum communication impact. Promotion has been defined as the coordination of all seller-



initiated efforts to set up channels of information and persuasion to sell goods and services or promote an idea. Promotion is the systematic attempt to move forward step by step prospects from a state of unawareness to awareness then to knowledge and liking, then to preference and conviction and finally to action (purchase) or a positive behavioral response. The communication accomplishes its objectives in a series of mental stages as the receiver or audience moves from unawareness to actual deal. The purpose of integrated marketing communication should be to maximize customer delivered value. Integrated marketing communication plays a very important role in the ability and capacity of firm to innovate and success fully delivers competitive response through value added offerings to their customers.

The various steps commonly followed in an integrated marketing communication process are:

- Identify the audience to be targeted.
- Determine objectives of your communication.
- Design the message of communication.
- Select your media channel.
- Decide the budget.
- Decide the marketing communication mix.
- Measuring your results.
- Managing and coordinating IMC.

So a centralized strategic planning is the very heart of integrated marketing communication. The use of various options should be centrally planned and coordinated utilizing a systematic strategic planning. Strategy lays down the broad principles by which a company hopes to secure an advantage over the competitors, exhibit attractiveness to buyers and lead to efficient utilization of resources and promote company image. Moreover a successful Integrated Marketing Communication program must have the right combination of promotional tools and techniques that must help companies to identify appropriate and efficient methods for communicating and building relationship with customers as well as other stakeholders, such as employees, suppliers, investors, interest groups and the general public.

### **BACKGROUND AND CONCEPT OF IMC:**

As a customer centered process integrated marketing communication is the first step in developing a common understanding of its purpose and value. Integrated marketing communication integrates everything that helps a company to promote its business and position its product in the market. An integrated marketing communication program must be continuous and strategic oriented. Some early attempts appeared in academic literature. Integrated marketing communication began to be practiced and became a hot topic throughout. suggest that background for the emergence of integrated marketing communication is from three areas first from corporate or client side, an increasing competition and higher risk in markets brought by merging and acquisitions have been required to meet the consumer changing needs more successfully through new marketing strategies. Second from media and market side weakening the traditional trends of advertising and marketing, due to exposure of information technology has increased the search for more effective and cost efficient methods in communications among marketers. Third from, the consumer, as ongoing changes in his life style have made advertisers to develop more elaborate and quicker response communication formats. Today's business environment demands a well managed and equally



planned relational customer data-base, a focused and customer-oriented approach to customers and clients, and a psychological-driven prospecting approach to Sales. Reich then insists that marketers should combine proven marketing techniques with new integrated marketing communication methods to ensure success. It begins with the product development and includes packaging, pricing, selection of distribution channels, channel management, customer relationship management, total quality management etc. it involves the multidimensional, interactive, continuously measured communication that connects the brand or product and the customer. The allocation of communication budget, away from mass media and traditional advertising has obviously promoted integrated marketing communication in recognition and effective marketing. The American Association of Advertising Agencies defines integrated marketing communication as "a concept that recognizes the added value of a comprehensive plan that evaluates the strategic roles of a variety of communication disciplines and combines these disciplines to provide clarity, consistency and maximum communication impact".

Apparently in just a short period, the concept of integrated marketing communication became a watch-cry not only of marketing communications, but also an integral part of corporate communication strategies of many companies. It has increased communication impact, made communications more effective and provide consistency in communication. Integrated Marketing Communication has evolved over a period of time from awareness level of integration to image level integration to functional integration to coordinate integration to consumer based integration to stakeholder based integration to relationship management integration. It is a promotional tool along with other marketing mix components to gain advantage over competitors using to reach highest level of consumer satisfaction by knowing the right touch points. It is a data driven approach using outside-in thinking focused on identifying consumer insights using both on and off-line channel strategy to develop a stronger brand-consumer relationship. Integrated marketing communication is thus the voice of marketing creating brand awareness, deliver information, educate the market and make a positive image of the company.

### **The Evolution Of IMC**

Integration, the attempt to present a consistent message across the available promotional mix elements has always been important to successful organizations even during the mid twentieth century.

However, some researchers believe that the concept of IMC can be traced back to the 1970s. The first study on IMC was conducted by Caywood, Schultz, and Wang (1991b) at the end of the 1980s, while the first "conceptual ideas" were published in the book "Integrated Marketing Communications" by Schultz, Tannenbaum, and Lauterborn (1993). IMC advocates believe that its emergence was down to the context of media upheaval of that time, for example, digital TV and mobile phones, market environments, that is, increasing global competition and rapid technological developments, such as the personal computer. Technology can affect IMC from two sides, that is, from the marketing and consumer perspectives. Today, integration is needed owing to globalization and the resulting interdependence between countries and marketplaces. Thus, corporate and brand managers need to coordinate the actions of their global and even national brand(s) with the aim of integrating elements of promotional mix.

### **The Concept of IMC**

As a concept IMC has become well known on an international scale during the 1990s. Thus IMC is a term whose widespread use is comparatively recent, a fact, which might explain why there not yet is a common understanding of its real meaning and the lack of a generally accepted definition. Some 20 years ago academics and professionals discussed theory and practice of business communication but



without considering the idea of integration as a realistic approach to reach a competitive strategic position for the company. Some early attempts in the beginning of the 1980s initiated academic interest and articles appeared in the academic literature. From the beginning of the 1990s IMC became a real hot topic in the field of marketing. Few years back, major portion of marketing budgets went to advertising, but now the scene has changed, it is allocated into various activities such as trade promotions, consumer promotions, branding, PR and advertising. The allocation of communication budgets away from mass media and traditional advertising has obviously promoted IMC in recognition and importance for effective marketing. The emergence of IT has fundamentally affected the media practices, contributed to an extensive deregulation of markets and individualized patterns of consumption and increased the segmentation of consumer tastes/preferences. The key has been 'value' and several combinations of methods are used, all aiming to raise benefits and reduce costs.

Smith *et al.* (1999) have defined IMC as "the strategic analysis, choice, implementation and control of all elements of marketing communications which efficiently (best use of resources), economically (minimum costs) and effectively (maximum results) influence transactions between an organization and its existing and potential customers and clients". The American Association of Advertising Agencies defines IMC as "a concept that recognizes the added value of a comprehensive plan that evaluates the strategic roles of a variety of communication disciplines, and combines these disciplines to provide clarity, consistency and maximum communication impact".

Integrated marketing communication is integration of all marketing tools, approaches, and resources within a company which maximizes impact on consumer mind and which results into maximum profit at minimum cost. Generally marketing starts from "Marketing Mix" and also includes internet marketing, sponsorship marketing, direct marketing, database marketing and public relations. And integration of all these promotional tools along with other components of marketing mix to gain edge over competitor by knowing the right touch-points using to reach highest level of consumer satisfaction is referred as Integrated Marketing Communication. Using outside-in thinking, it is a data-driven approach that focuses on identifying consumer insights and developing a strategy with the right (online and offline combination) channels to forge a stronger brand-consumer relationship. The objectives of any marketing communication process are to create brand awareness, deliver information, educate the market, and advance a positive image of the product brand. In simpler terms, "IMC refers to speaking with one voice, eliciting a response". Therefore, "IMC is a return to building brand loyalty by building brands that deserve loyalty".

#### **Integrated Marketing Communication in Indian Business Context:**

India is one of the most favorite markets on the globe. The growing purchasing power of India's huge middle class makes it attractive. However, the customer base in India is extremely fragmented. The huge geographic expanse of the country has resulted in an inconsistent distribution system that is radically different from other countries. Also the cultural diversity of consumer, differences in their tastes, habits, and requirements that make it more complex task to market their goods in a streamlined and consistent manner. The concept of IMC with focused and massive marketing is fairly new to the Indian companies who have traditionally experienced a mixed economy and trade restrictions back home. In a protected economy, the companies had faced restricted competition and consequently did not realize the importance of targeted and more focused marketing. In the absence of well-developed departments for individual elements of marketing communications, a quasi-integrated approach was in practice among various departments in Indian companies.

The idea of IMC still manifests itself in a variety of local and situational ways for marketers. It is



necessary to examine the cultural and social factors with demographic influences, keeping in perspective a pertinent analogy of 'GO GLOCAL' with the concept of IMC.

IMC is a major strategic concept that is as evolutionary and discursive in Indian context. A strong need is compulsory here to explore the concept and phenomena of IMC directly in the real world of communication. With the change in communication practices and technologies, integration in marketing techniques is inevitable for Indian companies to survive in this multi-national and multi-cultural world emerging globally. Flow of communication is easy and open and our ability to adapt to these changes has made it a very enthralling and promising place for the global market.

The purpose of integrated marketing communications strategy is to work toward the common goal of customer focused marketing. The Indian marketplace consists of an increasingly complex arena of competitors within a rapidly changing environment. Businesses are now getting Internet-based operations, portraying a charming picture of sophisticated and cluttered market. It is attempting to speak with clear voices about the natures of their operations and the benefits associated with the brands and products. Numbers and variety of media is bombarding potential customers with messages, it is vital to have clear and consistent communication in the clutter. Response to this apparently amorphous marketing environment has led many Indian organizations to desire integration of their communications efforts under the umbrella of this strategic marketing communications function. Effective marketing departments and advertising agencies are developing

Table-1: IMC Definitions

Author and Year	Concepts Introduced
Caywood, Schultz, and Wang (1991a) and Caywood, Schultz, and Wang (1991b)	<ul style="list-style-type: none"> <li>• Coordination and consistency of messages and communication channels (one sight, one sound)</li> <li>• Use of a variety of communication disciplines to work in synergy based on a comprehensive plan</li> <li>• IMC as a concept</li> </ul>
Schultz (1991)	<ul style="list-style-type: none"> <li>• Inclusion of consumers, prospects</li> <li>• Behavioral responses</li> <li>• Nurture relationship and customer loyalty</li> <li>• IMC as a process</li> </ul>
Duncan and Everett (1993)	<ul style="list-style-type: none"> <li>• Profitable relationships expanded audience scope from customers to other stakeholders</li> </ul>
Nowak and Phelps (1994)	<ul style="list-style-type: none"> <li>• Reinforced notions of consistency, coordination, and behavioral response</li> </ul>
Schultz and Schultz (1998)	<ul style="list-style-type: none"> <li>• Strategic business process</li> <li>• Expanded notion of brand communication</li> <li>• Measurability</li> <li>• Specified the multiple markets more explicitly, inclusive of external and internal audiences</li> </ul>
Schultz (2004b) and American Marketing Association (2007)	<ul style="list-style-type: none"> <li>• Strategic business process</li> <li>• Extensive brand communication</li> <li>• Evaluation and measurement</li> <li>• External and internal stakeholder groups</li> <li>• Long-term brand value focus</li> </ul>
Kliatchko (2005)	<ul style="list-style-type: none"> <li>• Process and concept</li> <li>• Audience-focused</li> <li>• Communication program</li> <li>• Result-driven</li> </ul>

Source: Adapted from Kliatchko (2005: 21)



pipelines of new, talented innovations, media buyers, promotions managers, database web masters, and others in order to succeed in the long term. Employee performance attitudes reflect morale within the marketing department and also relations with other departments and groups. The effect of IMC plans are building bridges with other internal departments and making everyone aware of the thrust and theme of the program. The Indian companies are identifying the target niches on social and attitudinal behavior, and offering common product across different demographics and also formulating the message accordingly. Internet marketing is picking up pace in India with fast technological advancement. Consumption and shopping patterns are changing. Online shopping, credit card usages are being accepted. Professionalism is increasing. Recent liberalization policies have increased competition and enforced new marketing practices in India, the local environment and local markets dictate the need for specialized and integrated approaches.

As demonstrated in Table 1, during the early 1990s IMC was referred to as the one sight, one sound or one voice or the seamless marketing communication approach (Beard, 1997; Nowak and Phelps, 1994; Duncan and Everett, 1993). However, the increasing interest in the subject of IMC led researchers to reevaluate the concept and the "buzz words" were soon set aside (Grove, Carlson, and Dorsch, 2002; Lee, 2002; Fill, 2001; Hartley and Pickton, 1999; Phelps and Johnson, 1996). These words only hinted at the many applications of IMC and, therefore, new concepts were added to the earlier definitions of IMC.

Many researchers have noted that it may not be possible to agree upon a universal IMC definition, given the various interpretations of IMC and its different values in the academic and commercial spheres (Kliatchko, 2005; Phelps and Johnson, 1996; Stewart, 1996).

A critical review of previous definitions of IMC and an assessment of current IMC literature reveals that researchers were able to reduce any IMC definition to five crucial attributes (Kitchen et al., 2004a; Low, 2000):

1. The communication effort should be directed at consumers in order to affect behavior.
2. An outside-in approach should be utilized i.e. start with the customer first when developing a communication strategy.
3. A well-established relationship between the company and the customer is necessary.
4. To deliver a message correctly all communication activities should be included with contact points integrated into the strategy.
5. To create a competitive brand, coordination between the communication disciplines is needed.

### **Major reasons for the Growing Importance of IMC in India**

Several reasons have caused IMC to develop into a primary strategy for marketers in India; few of them are given below-

1. Market is now having a rural-urban mix shape
2. Occupational diversity (Agriculture to other skills)
3. Awareness is spreading fast
4. Indian consumer is being more smart
5. Heterogeneous Demographic Traits
6. Diversity in economic conditions



7. Media advertising is shifting to multiple forms of communication focusing at target centered niche media.
8. Market is shaping from a manufacturer-dominated market to a retailer-dominated, consumer-controlled market.
9. Technology is getting updated rapidly
10. Huge opportunities are available to develop with market
11. Manpower is getting performance-based compensation from traditional compensation, sales and profit margins are increasing.

### KEY CHALLENGES OF IMC:

Across the globe, there is continuity in market deregulation and emergence of individualized segmentation of consumer tastes and preferences. So IMC being not an easy process has to face internal as well as external challenges. As some markets flee traditional media they still come across some communication clutter. The challenges of IMC are.

- A shift in market place power from manufacturer to wholesaler to retailer/shift in character power.
- A movement away from relying on advertising focused approach.
- Rapid growth of data base marketing.
- A shift in traditional promotions.
- Change in the way the advertising agencies compensated.
- Rapid growth of internet marketing.
- Growing competition in relationship marketing.
- Change from mere information delivery to value delivery.
- Consumer empowerment.
- Fragmentation of media.
- Increasing advertising clutter.
- Desire for greater accountability.

### Conclusion

The emergence of integrated marketing communications (IMC) has become a significant example of development in Indian marketing discipline. It has influenced thinking and acting among all types of companies and organizations facing the realities of competition in the present open economy. It is the judicious and efficient use of the product promotional tools so that a universal, clear, and effective promotional message is communicated amongst the target audience. Integrated Marketing Communication (IMC) is more than the coordination of a company's outgoing message between different media and the consistency of the message throughout. This also facilitates in ascertaining the effectiveness of the overall marketing effort to evaluation of brand messages. It is an aggressive marketing plan that captures and uses an extensive amount of customer information in setting and tracking marketing strategy. As the IMC strategies should be based on situation analysis and SWOT analysis, a periodical implementation would be significant. The need of the audit of the IMC process should be well understood and measurement and evaluation of the effectiveness should be taken care of. The primary goal of affecting the perception of value and behavior through IMC has to be checked up carefully. Indian consumption pattern are changing rapidly, technical



advancements are fast, development and diffusion of IMC program should closely be associated with these changes. Objectives and strategies must be elastic enough to mould accordingly. In order to reach a better result, the marketers needs to develop marketing integration as occurring different levels and degree of various functions. The most important and fundamental level should be of vertical integration of objectives and activities. Within their own organizations, marketers should recognize the importance of creating important position with clear responsibility at different level on performance and productivity basis.

At last but not the least the key is 'Value' and all efforts must be in level-headed way to deliver in order to reduce the cost and increase the benefits. Integrated Marketing Communication can perform and lead to way to reap the benefits if exercise as a unit in order to attain the common objective of delivering the value to customer.

#### References:

1. Aaker, D.A., (2004). "Leveraging the Corporate Brand", California Management Review, 46 (3), 6-18.
2. Alan, M., (1994). "In Good Company", Marketing, March 3rd, 22-24.
3. Alessandri, S. W., and Alessandri, T., (2004). "Promoting And Protecting Corporate Identity: The Importance of Organizational And Industry Context", Corporate Reputation Review, 7 (3), 252-268.
4. Alvarez, J. G.; Raeside, R., and Jones, W. B., (2006). "The Importance of Analysis and Planning In Customer Relationship Marketing: Verification of The Need For Customer Intelligence And Modelling", Database Marketing and Customer Strategy Management, 13 (3), 222-230.
5. Caywood, D., Schultz, D.E., Wang, p. (1991), "Integrated marketing communications: a survey of national goods advertisers", unpublished report, Medill School of Journalism, Northwestern University, June.
6. Coulson-Thomas, C.J. (1983), *Marketing Communications*, Butterworth-Heinemann, Oxford.
7. Dyer, G. (1982), *Advertising As Communication*, Routledge, London, .
8. Kitchen, P.J., Schultz, D.E. (1999), "A multi-country comparison of the driver for IMC", *Journal of Advertising Research*, Vol. 39 No.1, pp.17-21.
9. Miller, D., Rose, P.B. (1994), "Integrated communications: a look at reality", *Public Relations Quarterly*, Vol. 39 No.1, pp.13.
10. Smith, P.R., Berry, C., Pulford, A. (1999), *Strategic Marketing Communications*, KoganPage, London.
11. Lavidge, R.J. (1999), "Mass Customization is not an Oxy-moron. Journal of Advertising Research, Vol.39, No. 4, pp. 70-72.
12. McGrath, J.M. (2005), "A Pilot Study Testing Aspects of IMC Concept", *Journal of Marketing Communications*, Vol.11 No.3. pp.1-20.
13. Panda, T.K. (2003), "Marketing Management", Excel Books, New Delhi
14. Peltier, J.W., Schibrowsky, J.A. and Schultz, D.E. (2003), "Interactive Integrated Marketing Communications; Combining the Power of IMC: The new media and Database Marketing". *International Journal of Advertising*, Vol. 22, pp. 93-115.



67

15. Reich, K. (1998), "Integrated Marketing Communications through the looking Glass of the new Millennium". Communication World, Vol. 15, No. 7, pp. 26-33.
16. Rid, M., Luxton, S., and Mavondo, F. (2005), "The relationship between IMC, Market Orientation and Brand Orientation, Journal of Advertising, Vol. 34 No. 4, PP. 11-23.
17. Sisodia, S., Telrandhe, N. (2010), "Role of Integrated Marketing communication in Modern Indian Business". Researchers World. Journal of Arts Science and Commerce, Vol. 1, No. 1, pp. 134-138.
18. Schultz, D.E. (2003), "The Next Generation of Integrated Marketing Communication", Interactive Marketing, Vol. 4, No. 4, pp. 318-319.
19. Schultz, D.E. and Schultz, D.E. (1998), "Transitioning Marketing Communication into the Twenty-First Century". Journal of Marketing Communications, Vol. 4, No. 1, PP. 9-26.
20. Smith, T.M., Gopalakrishna, S. and Chatterjee, R. (2006), "A Three Stage Model of IMC at the Marketing-Sales Interface, Journal of Marketing Research, Vol. 43 No. 3, PP. 561-579.
21. Michael, L.R. (1982), "Advertisement and Communication Management", Englewood Cliffs, NJ, Printice Hall.





Riyat Shikshan Sanstha's

S. M. Joshi College, Hadapsar, Pune, MS, India

Two Day International Conference on

Interdisciplinary Approach in Chemical Research ( IACR 2017)

Sponsored by

Research cell, Savitribai Phule Pune University, Pune

# CERTIFICATE

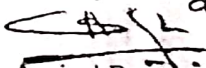
This is to certify that Dr./Mr./Smt Manisha A. Boya  
of B. J. SS. ABC. college, Wagholi

has attended and actively participated in the International Conference on IACR 2017 organised by department of chemistry on 13<sup>th</sup> & 14<sup>th</sup> December 2017. He/She has worked as a resource person / chairperson / presented a paper as an oral / poster His / Her Contribution in the conference is highly appreciated.

He / She has presented paper entitled Recyclable and Magnetically Separable Nanocatalyst for the synthesis of Biologically active Tri-Aryl Imidazole derivative

  
Dr. Sharad Pasale  
Coordinator

  
Dr. Shakuntala Sawant  
Convener

  
Dr. Arvind Burungale  
Principal &  
Organizing Secretary

Dr. S. Manoj



Dnyaneshwar Gramonnati Mandal's

**Hon. Balasaheb Jadhav**

**Arts, Commerce & Science College, Ale**

Tal. Junnar, Dist. Pune, Pin-412 411.

NAAC Accredited 'B' Grade

Affiliated to Savitribai Phule Pune University, Pune



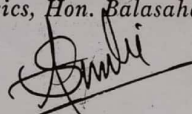
## CERTIFICATE

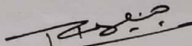
This is to certify that,

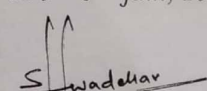
Prof. / Dr. / Mr. / Mrs. Rupali Gulalkasi  
of B. G. S. College, Wagholi, Pune

has chaired a session / Participated / presented a research paper entitled Synthesis and Characterization - - - - - by E-DAX Analysis

in State Level Conference on "Advanced Methods for Material Characterization" [SCAMMC-2018]  
(Interdisciplinary) Sponsered by BCUD, Savitribai Phule Pune University, Pune organized by Department  
of Physics, Hon. Balasaheb Jadhav Arts, Commerce & Science College, Ale on 5<sup>th</sup>-6<sup>th</sup> Jan., 2018.

  
Dr. Ajit Suryawanshi  
Co-ordinator

  
Dr. Ramesh Bhise  
Head/Convenor

  
Dr. Subhash Wadekar  
Principal



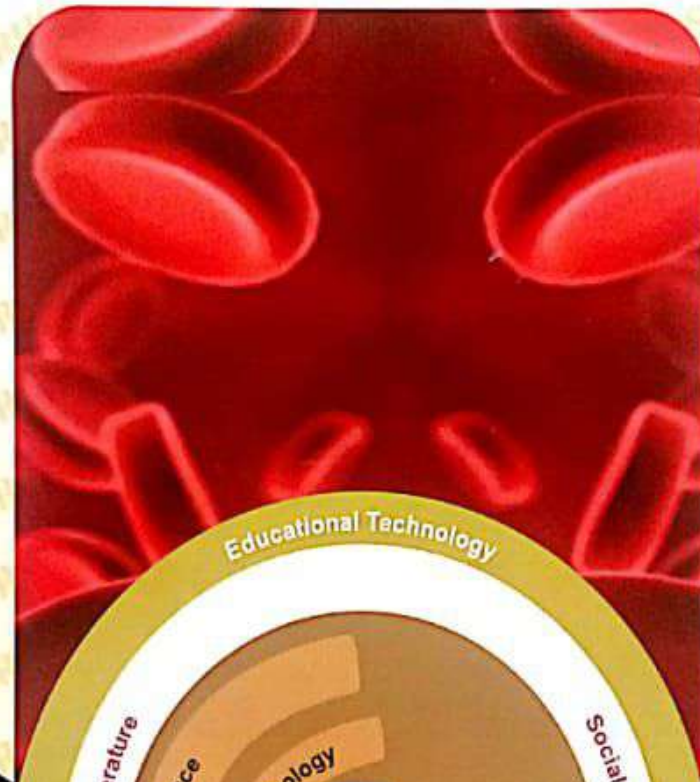
2090-95

UGC Approved Sr. No. 49366



SRJIS

ISSN -2278-8808



An International Peer Reviewed

Referred Quarterly

# SCHOLARLY RESEARCH JOURNAL FOR INTERDISCIPLINARY STUDIES

2090-95

JAN - FEB, 2018. VOL. 5, ISSUE -46

EDITOR IN CHIEF :: YASHPAL D. NETRAGAONKAR, Ph.D.

---

MARATHI PAPER

---

✓ 20	मुद्रित शोधनातील रोजगार संधी प्रा. डॉ. जगदीश आवटे	69-72
21	प्रसार माध्यमे आणि नोकरीच्या संधी प्रा. डॉ. निवृत्ती मिसाळ	73-74
22	व्यावहारिक मराठी आणि आधुनिक प्रसारमाध्यमांचे स्वरूप प्रा. डॉ. निलेश खरात	75-77
23	प्रसारमाध्यमे आणि नोकरीच्या संधी प्रा. मधुकर वैकरे	78-81
24	मराठी भाषा व नोकरीच्या संधी प्रा. डॉ. वसंत दामोदर सपकाळ	82-83
25	भाषा, साहित्य आणि व्यावसायिक संधी डॉ. कार्तिकी विजयकुमार नांगरे	84-86

---



S.B.V.P. Samaj's  
**Sahakar Maharshi Bhausaheb Santuji Thorat**  
**College of Arts, Science & Commerce,**

Sangamner - 422605, Dist. Ahmednagar (M.S.), India



**INTERNATIONAL CONFERENCE**

ON

**Recent Trends in Economics, Commerce & Management**

February 1 - 2, 2018

*Sponsored by*

Savitribai Phule Pune University, Pune

*Organized by*

Department of Economics

***Certificate***

*This is to certify that,*

Prof. / Dr. / Miss / Mr. *Shayin Jasin Shaikh.*

*has a actively Participated / Delivered a lecture as a Resource Person in the International Conference. He / She Presented a Paper titled on.....*

*He / Her Contributions to the Conference proceedings are duly acknowledged.*

**Dr. Suhas Avhad**  
Professor & Head, Dept. of Economics  
Co-ordinator



**Dr. R. K. Datir**  
Principal & Convener



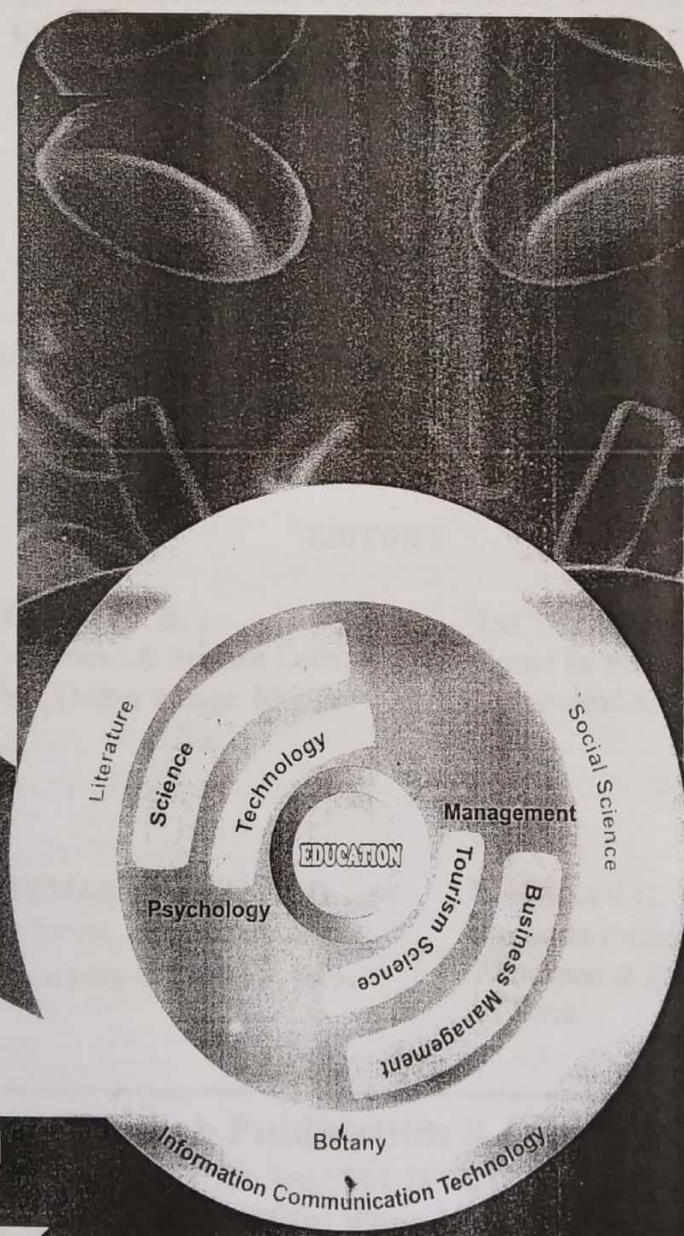
UGC Approved Sr. No. 49366



SRJIS

Online ISSN -2278-8808

Printed ISSN- 2349-4766



An International  
Peer Reviewed

Referred  
Quarterly

# SCHOLARLY RESEARCH JOURNAL FOR INTERDISCIPLINARY STUDIES

OCT-DEC, 2017. VOL. 6, ISSUE -34

EDITOR IN CHIEF : YASHPAL D. NETRAGAONKAR, Ph.D.

5



IMPACT FACTOR SJIF 2016 = 6.177  
ONLINE ISSN 2278-8808

UGC SR. NO. 49366  
PRINTED ISSN 2349-4766

*AN INTERNATIONAL, PEER REVIEWED, QUARTERLY*  
**SCHOLARLY RESEARCH JOURNAL FOR**  
**INTERDISCIPLINARY STUDIES**

**EDITOR IN CHIEF**

**YASHPAL D. NETRAGAONKAR, Ph. D.**  
Associate Professor, MAAER'S MIT School of Education &  
Research, Kothrud, Pune.

**EDITOR'S**

**NISHIKANT JHA, Ph. D.**  
Thakur Art, Commerce & Science College  
Kandiwali West, Thakur village, Mumbai

**JACINTA A. OPARA, Ph. D.**  
Center for Environmental Education  
Universidad Azteca, Chalco-Mexico

**SHABIR AHEMAD BHATT, Ph. D.**  
Associate Professor, Department of  
Education, University of Kashmir, India

**VAIBHAV G. JADHAV, Ph. D.**  
Assistant Professor, Department of  
Education & Extension, University  
of Pune.

---

**Amitesh Publication & Company,**

TCG's, SAI DATTA NIWAS, S. No. 5+4/ 5+4, D-WING, Flat No. 104, Dattnagar, Near  
Telco Colony, Ambegaon (Kh), Pune. Maharashtra. 411046. India.

**Website: [www.amiteshpublishers.in](http://www.amiteshpublishers.in), [www.srjis.com](http://www.srjis.com)**

**Email: [srjisarticles16@gmail.com](mailto:srjisarticles16@gmail.com)**

नेच अशा  
वेध पैलू  
। आणि  
त्यातून  
रची ती

आहेत  
त्यातून  
ज्ञेप्यास

प्रा. डॉ. विजयकुमार वावळे, शायिन यासिन शेख (1203-1209)

मानव विकास निर्देशांक व भारतीय मुस्लिम समाज— अहमदनगर जिल्ह्यातील श्रीरामपूर तालुक्यातील शहरी भागाचा एक व्यष्टी अध्ययन

प्रा. डॉ. विजयकुमार वावळे, शायिन यासिन शेख

प्रस्तुत शोध निबंधामध्ये अहमदनगर जिल्ह्यातील श्रीरामपूर तालुक्यातील शहरी मुस्लिम समाजाचा मानव विकास निर्देशांक अभ्यासण्यात आला आहे. विश्लेषणासाठी त्यामध्ये आरोग्य, शिक्षण, जीवनमानाचा दर्जा व दरडोई उत्पन्न हे निर्देशक वापरले आहेत.

• प्रस्तावना :- दरवर्षी मानव विकास निर्देशांक प्रसिध्दीसाठी जगातील विकसित, विकसितशील व अविकसित देशांचे तीन भागात असे वर्गीकरण करण्यात येते. UNDP ने १९९० मध्ये पहिल्यांदा मानव विकास अहवाल जाहिर केला होता. त्यामध्ये विविध देशांचे HDI मोजण्यात आले होते. त्यामागील प्रमुख प्रेरणा होती ती मानव विकास निर्देशांकाचे जनक पाकिस्तानी अर्थतज्ञ महबूब-उल-हक आणि भारतीय अर्थतज्ञ अमर्त्य सेन यांची. आपल्या भारतामध्ये २००२ पासून मानव विकास अहवाल प्रसिध्द केला जातो. भारतात हा अहवाल योजना आयोगाद्वारे (निती आयोग) सादर करण्यात येत असे. सध्याच्या सरकारने योजना आयोग बंद केला आहे. HDI पुढील तीन निकष (dimension) व त्यांच्याशी संबंधीत चार निर्देशक (indicators) यांवरून काढला जातो. त्यामध्ये a) आरोग्य (Health):- जन्माच्या वेळेचे आयुर्मान ही निर्देशक वापरला जातो. b) शिक्षण (Education):- i) २५ वर्षांपेक्षा अधिक वयाच्या प्रौढांची सरासरी शालेय वर्षे (Mean years of schooling), आणि ii) १८ वर्षांपेक्षा कमी वयाच्या मुलांची अपेक्षित शालेय वर्षे (Expected years of schooling). शिक्षणाचा निर्देशांक या दोन्ही निर्देशकांचा भूमितीय मध्य असतो. c) जीवनमानाचा दर्जा (Living Standerds) :- दरडोई स्थूल राष्ट्रीय उत्पन्न (Percapita GNI) हा निर्देशक वापरला जातो. प्रतत्याचे मूल्य ० ते १ दरम्यान व्यक्त केले जाते. १ च्या जवळ असलेले मूल्य मानव विकासाचा उच्च स्तर दर्शवितो. भारताची गणना मध्यम मानव विकास (medium human development) गटात आहे. उपरोक्त विषयाचे सूक्ष्म अध्ययन करण्यासाठी अहमदनगर जिल्ह्यातील श्रीरामपूर तालुक्यातील शहरी मुस्लिम समाज नमुना म्हणून निवडला आहे. या संबंधीत खालील समस्या, उद्दिष्टे, गृहितक व संशोधन पध्दतीचा अवलंब केला आहे.



- **समस्या विधान :-** अहमदनगर जिल्ह्यातील श्रीरामपूर तालुक्यातील शहरी भागातील मुस्लिम समाजाचा मानव विकास निर्देशांकांत उच्च स्तर दर्शवितो का?
- **उद्दिष्टे :-** अहमदनगर जिल्ह्यातील श्रीरामपूर तालुक्यातील शहरी भागातील मुस्लिम समाजाच्या मानव विकास निर्देशांकांचा अभ्यास करणे.
- **गृहितक :-** अहमदनगर जिल्ह्यातील श्रीरामपूर तालुक्यातील शहरी भागातील मुस्लिम समाजाचा मानव विकास निर्देशांक उच्च स्तर दर्शवितो.
- **संशोधन पध्दती :-** या अभ्यास विषयाची माहिती मिळविण्यासाठी प्राथमिक व दुय्य स्त्रोतांचा उपयोग केला गेला आहे.
- **नमुना निवड :-** अहमदनगर जिल्ह्यातील श्रीरामपूर तालुक्यातील शहरी भागातील वार्ड नं. २ या भागातील ४० कुटूंबांची साध्या यादृच्छीक नमुना निवड या पध्दतीने निवड केला आहे.
- **मर्यादा :-** श्रीरामपूर तालुक्यातील शहरी भागातील मुस्लिम समाजातील नमुना निवडलेल्या व्यक्तीच्या प्रश्नावली भरून देण्याच्या प्रतिसादावर तसेच त्यांनी दिलेल्या मुलाखतीतील उत्तरांवर त्यांचा मानव विकास निर्देशांक आधारित आहे.

#### • पुर्व अभ्यास (Review of Literature):-

१. **Sachar Rajindar Committee Report (२००६)<sup>१</sup>:-** या अहवालात असे, स्पष्ट दिसते की, भारतीय स्वातंत्र्याच्या ७० वर्षां नंतर मुस्लिमांची सामाजिक व आर्थिक स्थिती अतिशय मागासलेली आहे. तर त्यांच्या काही निष्कर्षांत मुस्लिमांची स्थिती अनुसूचित जातींच्या पेक्षा खूप मागासलेली आहे.

२. **Rehman Mahmmadur Committee Report (२०१३)<sup>२</sup> :-** रेहमान समिती महाराष्ट्र राज्यातील मुस्लिम समाजाचा अभ्यास केला आहे. त्यांच्या अध्ययनानुसार मुस्लिमांची शैक्षणिक स्थिती चांगली आहे. मात्र मुस्लिमांची आर्थिक, सामाजिक, प्रशासकिय व राजकिय स्थिती खालावलेली आहे. या समाजाचे शासकिय पातळीवर प्रतिनिधीत्व करण्यासाठी राजकिय दृष्टिकोनातून त्यांचा विकास आवश्यक असल्याचे प्रतिपादन रेहमान समितीने केले आहे.

३. **Kundu Amitabh Committee Report (२०१४)<sup>३</sup> :-** या अहवालामध्ये त्यांनी असे नमूद केले आहे की, सच्चर समितीच्या शिफारशी नंतर ही मुस्लिम समाजातील सामाजिक व आर्थिक मागासलेल्या स्थितीत लक्षणीय बदल झालेला दिसून येत नाही. याचा अर्थ मुस्लिम राजकिय नेतृत्वाचा अभाव व समाजाची इच्छाशक्तीचा अभाव कारणीभूत दिसून येतो.



४. मानव विकास अहवाल (२०१६) :- UNDP कडून “ ह्यूमन डेवेलपमेंट फॉर प्रोग्राम” या शीर्षकाखाली मानवी विकास अहवाल २०१६ जाहीर करण्यात आला. HDI यासाठी १८८ देशांचे मूल्यांकन केले गेले. HDI नुसार: प्रथम पाच देशांमध्ये नॉर्वे, ऑस्ट्रेलिया, स्वित्झर्लंड, जर्मनी आणि डेन्मार्क हे आहेत. सन १९९० आणि सन २०१५ या काळात भारताची मानव विकास निर्देशांक गुणांमधील प्रगतीमध्ये सुमारे अर्ध्याने वाढ झाली आहे. भारतात सार्वजनिक आरोग्यावरील खर्च हा GDP च्या १.४ टक्के एवढा आहे. तरीही भारताने सन १९९० आणि २०१५ या काळात जन्माच्या वेळी आयुर्मान १०.४ वर्षांपर्यंत वाढते केले आहे. बाल कुपोषण जवळजवळ १० टक्क्यांनी कमी झाले आहे. HDI मध्ये, भारत ०.६२४ गुणांसह १८८ देशांमध्ये १३१ व्या स्थानी आहे. यामुळे भारत मध्यम मानव विकास वर्गातील देशात आला आहे. भारताची HDI (१९९०-२०१५) मधील वार्षिक सरासरी वाढ इतर मध्यम HDI देशांपेक्षा जास्त आहे.

• मानव विकास निर्देशांक संकल्पना :- जागतिक स्तरावर UNDP ने विविध निर्देशांक रचना केली आहे. त्या आधारे देशांची तुलना करणे शक्य झाले आहे. UNDP मार्फत दरवर्षी ‘मानव विकास अहवाल’ जाहीर केला जातो. या अहवालात विविध देशांसाठी पुढील ४ प्रमुख निर्देशांकांची गणना केली जाते. १. मानव विकास निर्देशांक, २. असमानता-समायोजित मानव विकास निर्देशांक, ३. जेंडर असमानता निर्देशांक आणि ४. बहुआयामी दारिद्र्य निर्देशांक. • बहुआयामी दारिद्र्य निर्देशांकाची **(Multi-Dimensional Poverty Index : MPI)** सुरुवात UNDP आणि अॅक्सफर्ड विद्यापीठ यांनी मिळून जुलै २०१० मध्ये केली. या निर्देशांकाने १९९७ पासून लागू करण्यात आलेल्या मानवी दारिद्र्य निर्देशांकांची (HPI) जागा घेतली. विकासा प्रमाणेच दारिद्र्य सुध्दा बहुआयामी **(Multi-Dimensional)** असते. हा निर्देशांक ३ निकष व १० निर्देशांकांच्या सहाय्याने काढला जातो. १. आरोग्य : i). पोषण, ii). बाल मर्त्यता २. शिक्षण : i). शालेय वर्षे ii). बालक पटसंख्या ३. जीवनमान दर्जा : i). मालमत्ता ii). वीज, iii). पाणी, iv). स्वच्छतागृह, v). स्वयंपाकाचे इंधन vi). जमीन (अस्वच्छ जमीनीवरील जगणे)

• माहितीचे विश्लेषण :- मानव विकास निर्देशांक व मुस्लिम समाज-अहमदनगर जिल्ह्यातील श्रीरामपूर तालुक्यातील शहरी भाग एक व्यष्टी अभ्यास या अभ्यासाकरिता निवड केलेल्या ४० लाभार्थी कुटूंबांकडून गोळा केलेल्या माहितीवर आधारित विश्लेषण खालील प्रमाणे आहे. श्रीरामपूर तालुक्यातील मुस्लिम समाजातील लाभार्थी कुटूंबातील आरोग्यविषयक निर्देशक (तक्ता क्र. १), शिक्षणविषयक निर्देशक (तक्ता क्र. २), दरडोई



उत्पन्न (तक्ता क्र. ३), राहणीमानाची स्थिती/जीवनमानाचा दर्जा (तक्ता क्र. ४) खालील प्रमाणे दर्शविले आहे.

• आरोग्य विषयक निर्देशांक :- शिक्षणातून प्राप्त केलेली कौशल्ये वापरण्याची क्षमता आरोग्याच्या स्तरावर अवलंबून असते. दीर्घ जीवनकाल (Longevity) दर्शविण्यासाठी निर्देशांकामध्ये पुढील बाबींचा समावेश होतो. जन्माच्या वेळेचे आर्युमान, अर्भक मृत्यू दर, बालमृत्यूदर, माता मृत्यूदर, पोषण दर्जा, स्वच्छतेची स्थिती इत्यादी.

तक्ता क्र. १

### आरोग्यविषयक निर्देशक

आरोग्य विषयक स्थिती	बालमृत्यू झाले आहे का?		वय				बालमृत्यूचे कारणे		कुपोषणाची स्थिती	
	होय	नाही	०-१	१-३	३-४	४-५	कुपोषण	इतर कारणे	होय	नाही
संख्या	०१	३९	००	००	००	०१	०१	००	१५	२५
टक्केवारी	२.५%	९५.५%	००%	००%	००%	२.५%	२.५%	००%	३७.५%	६२.५%

स्रोत:- क्षेत्रीय अभ्यास

• शिक्षणविषयक निर्देशक :- देशातील शैक्षणिक स्तर दर्शविण्यासाठी साक्षरता दर, महिलांची साक्षरता, विभिन्न वयोगटातील शाळकरी मुलांचे स्थूल व निव्वळ पटसंख्या प्रमाण (Drop out ratio) विद्यार्थी-शिक्षण प्रमाण यांसारखे सूचक वापरले जातात.

तक्ता क्र. २

### शिक्षणविषयक निर्देशक

कौटुंबिक शैक्षणिक स्थिती	निरक्षर	प्राथमिक शिक्षण	माध्यमिक शिक्षण	उच्च माध्यमिक शिक्षण	पदवी	पदव्युत्तर	डिप्लोमा	अभियांत्रिकी	वैद्यकीय	आटीआय
संख्या	२१	३७	३६	१७	०७	००	००	००	००	००
टक्केवारी	५२.५%	९२.५%	९०%	४२.५%	१७.५%	००%	००%	००%	००%	००%
महिला शिक्षण										
संख्या	२१	३४	३१	१३	०३	००	००	००	००	००
टक्केवारी	५२.५%	८५%	७७.५%	३२.५%	७.५%	००%	००%	००%	००%	००%

स्रोत:- क्षेत्रीय अभ्यास

• दरडोई उत्पन्न :- दरडोई उत्पन्न म्हणजे राष्ट्रीय उत्पन्न भागिले लोकसंख्या होय. देशाचे दरडोई उत्पन्न जास्त असले तरी मात्र त्याचे व्यक्तीनिहाय वितरण अत्यंत असमान असू शकते.



श्रील

तक्ता क्र. ३ एकुण उत्पन्न व दरडोई उत्पन्न

बाब	एकुण उत्पन्न	दरडोई उत्पन्न
संख्या	१७,१४,००० □	९०२१.०५ □

स्त्रोत:- क्षेत्रीय अभ्यास

तक्ता क्र. ४

राहणीमानाची स्थिती/जीवनमानाचा दर्जा

जीवन मानाचा दर्जा	घरांची स्थिती			स्वच्छ पेयजलाची स्थिती			स्वच्छता गृहे			वीज		स्वयंपाकाचे इंधन			जमीन (अस्वच्छ जमीन वरील जगणे)		
	कच्चा	मध्यम	पक्का	सार्वजनिक	नळ	इतर	वैयक्तिक	सार्वजनिक	नाही	होय	नाही	गॅस	चूळ	इतर	माती	फरशी	इतर
संख्या	११	१९	१०	२०	१७	०९	१८	२१	१	३४	५	३८	१०	२१	०६	२२	१२
टक्केवारी	२७.५%	४७.५%	२५%	५०%	४२.५%	२२%	४५%	५२.५%	२.५%	८५%	१२.५%	९५%	२५%	५२%	१५%	५५%	३०%

स्त्रोत:- क्षेत्रीय अभ्यास

• निष्कर्ष :-

- सर्वेक्षित लाभार्थी मुस्लिम कुटूंबामध्ये सन. २०१७-१८ या कालावधीत कुपोषणामुळे १. (२.५ टक्के) बालमृत्यू झाले आहे. तर ३९ (९७.५ टक्के) कुटूंबामध्ये बालमृत्यूचे प्रमाण दिसून येत नाही. तर १५ (३७.५ टक्के) सर्वेक्षित लाभार्थी मुस्लिम कुटूंबामध्ये कुपोषणाची स्थिती असून २५ (६२.५ टक्के) कुटूंबामध्ये कुपोषणाची स्थिती दिसून येत नाही. (तक्ता क्र. १)
- सन २०१७-१८ या कालावधीतील सर्वेक्षित लाभार्थी मुस्लिम कुटूंबामध्ये कौटुंबिक व महिलांची शैक्षणिक स्थिती अनुक्रमे निरक्षर ५२.५ टक्के इतकी समान आहे. प्राथमिक शिक्षण पूर्ण करणारे ९५.५ टक्के व ८५ टक्के, माध्यमिक शिक्षण घेणारे ९० टक्के व ७७.५ टक्के, उच्च माध्यमिक शिक्षण घेणारे ४२.५ टक्के व ३२.५ टक्के, व पदवी शिक्षण घेणारे १७.५ टक्के व ७.५ टक्के असून पदव्युत्तर शिक्षण, डिप्लोमा, अभियांत्रिकी शिक्षण, वैद्यकीय शिक्षण, आय. टी. आय. या शैक्षणिक क्षेत्रात शिक्षण घेणारे मुस्लिम लाभार्थी कुटूंबे सर्वेक्षणात दिसून येत नाही. मुस्लिम समाजातील शैक्षणिक स्थिती खालावलेली असून मुस्लिम समाजातील महिलांची स्थिती अतिशय दयनीय स्वरूपाची आहे. यावरून मुस्लिम समाजातील कुटूंबामध्ये शाळा गळतीचे प्रमाण आजही मोठ्या प्रमाणात आहे. (तक्ता क्र. २)



**संदर्भ सूची :-**

1. Government of India, (2006), Sachar Rajindar Committee Report, Social and Educational Status of the Muslim Community of India, Publication Oxford University Press, New Delhi.
2. Government of Maharashtra, (2013), Rehman Mahmmadur Committee Report, Socio-Economic and Educational Backwardness of Muslim in Maharashtra, Published by B.E.S.Mumbai.
3. Government of India, (2014), Kundu Amitabh Committee Report, Post Sachar Evaluation Committee, Ministry of Minority Affairs, New Delhi.
4. UNDP (2016), Human Development Report 2016, Published in UNDP Programmed, New York.
5. Government of India, (2002), National Human Development Report 2001, Planning Commission, New Delhi.
6. *Varies website.*



## **An International Peer reviewed Scholarly Research Journal for Interdisciplinary Studies**

Scholarly Research Journal for Interdisciplinary Studies (SRJIS) is provides the unique platform established by well-known academicians, research based community to create awareness among the youngsters, readers and contributors. SRJIS motivate to exchange innovations and ideas and Educational Practices Globally.

SRJIS Scholarly Research Journal for Interdisciplinary Studies is an International Peer Reviewed Journal published online Bimonthly as well as printed Quarterly with an aim to provide a platform for researchers, practitioners, academicians and professional from diverse areas of all disciplines to bring out innovative research ideas & practices. Scholarly Research Journal for Interdisciplinary Studies is dedicated to publish high quality research articles on all aspects of education related to, Arts, Commerce, Science, Educational Technology, Information Communication and Technology, Education, Physical Education, Educational Psychology, English, Linguistics, Engineering, Management, Economics, Dramatics, Business Marketing, Archaeology, Public Administration, Political Science, Social Science, and related all disciplines. Scholarly Research Journal for Interdisciplinary Studies invites high quality research papers from all parts of the globe providing meaningful insights to research scholars.

Scholarly Research Journal for Interdisciplinary Studies (SRJIS) is a Peer Reviewed, & Refereed International Journal published Quarterly a year.

The Journal welcomes the submission of research papers, conceptual articles, manuscripts, project reports; meet the general criteria of significance and academic excellence.

Printed ISSN



2349-4766

Online ISSN



2278-8808

S. No. 37/1, Katraj-Dehu Road Bypass High way, Ambegaon (BK), Pune.  
Maharashtra. 411046. India. Website: [www.srijs.com](http://www.srijs.com). Email : [editor@srijs.com](mailto:editor@srijs.com)

₹ 750/-



ISSN: 2322-0015

UGC Approved Journal No. 63628  
CV 2016 : 55.77  
SJIF Impact Factor 4.115

International Research Journal of

# SCIENCE & ENGINEERING

An International Peer Reviewed Open Access Refereed Journal

Special Issue A 2 January 2018

State level Seminar on

**Advanced**

**Methods for Material**

**Characterization”**

**(SCAMMC- 2018)**



Organised by  
Department of Physics  
Dnyaneshwar Gramonnati Mandal's

**Hon. Balasaheb Jadhav**

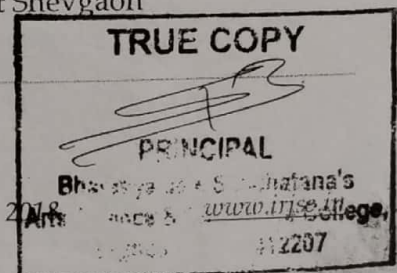


SCIENCE COLLEGE  
Mandla, Dist. Pune - 412411





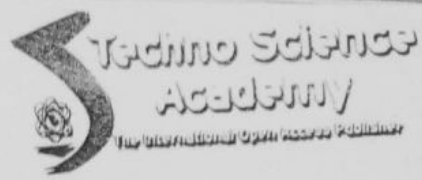
- 46 Study of Chemically Deposited Nanocrystalline Cd<sub>1-x</sub>Ni<sub>x</sub> Thin Films  
Sanap VB, Suryawanshi AD, Pawar BH
- 49 Dielectric and Thermal Behaviour of Yttrium Substituted Magnesium-Cadmium Ferrites (Mg<sub>1-x</sub>Cd<sub>x</sub>Y<sub>y</sub>Fe<sub>2</sub>-YO<sub>4</sub>, x = 0.2, 0.4, 0.6 and y = 0, 0.075) Synthesized Using Sol-gel Autocombustion Method  
Bhise RB and Rathod SM
- 55 ~~Synthesis and Characterisation of Genuine Bhasma by EDAX Analysis~~  
Gulalkari Rupali A
- 58 Dielectric Behavior, Resistivity and Thermoelectric Power of Multiferroic Composite  
Kadam SL
- 61 Transport Properties of PbS Thin Films  
Sonavane DK, Jare SK Suryawanshi RV, Kathare RV and Bulakhe RN
- 64 Ultrasonic Study of Molecular Interactions in Binary Liquid Mixtures and Acoustic Parameters of Dimethyl-sulphoxide with Ethanol at 303K  
Kolhe RK and Bhosale BB
- 69 Preparation of Nickel Sulphide Nano Films  
Pingale Shirish S
- 73 Biosynthesis of silver nanoparticles using the *Agaricus bisporus* (Button Mushroom) extract  
Kulkarni Vasudeo D, Kute Nilam S and Tanpure Priya D
- 76 Relationship between Dielectric Constant and Water Content of Soil from Western Ghat of Maharashtra, India  
Dhiware MD, Nahire SB, Deshmukh Sushant
- 83 Effects of Short-term Magnetic Field on Germination and Growth of Plants  
Ashutosh Khade and Mancharkar Avinash
- 89 Optimization of Preparative Parameters for the Electrode position of Cdse Films for Photo electrochemical Solar Cell Applications  
Dhanwate SV, Kokate AV, Kulkarni HR
- 94 Impacts of Meteorology on Surface Ozone Variability at Shevgaon  
Kakade AD





ISSN : 2395-6011  
E-ISSN : 2395-602X

P27  
P46




# National Conference on Green Approach towards Environment and Chemical Science

Organised by  
Department of Chemistry  
[ Faculty of Science ]  
Gramonnati Mandal's, Arts, Commerce, Science College, Narayangaon,  
Tal- Junnar Dist- Pune, Maharashtra, India

VOLUME 3, ISSUE 9, NOVEMBER-DECEMBER-2017

INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH IN SCIENCE & TECHNOLOGY

Email : editor@ijsrst.com Website : http://ijsrst.com

TRUE COPY  
  
PRINCIPAL  
Bharatiya Jain Samithi's  
Arts Science & Commerce College  
Narayangaon, Junnar, Pune

## CONTENTS

Sr. No	Article/Paper	Page No
1	Measurements of Glass Transition Temperature of Na-Borophosphate Glasses by Thermal Analysis Umakant B. Chanshetti, Amit L. Patil	01-04
2	Y <sup>3+</sup> Doped Ni <sub>0.4</sub> Mg <sub>0.4</sub> Cd <sub>0.2</sub> Fe <sub>2</sub> -yO <sub>4</sub> Spinel Nanoferrite : Structural, Morphological, and Electrical Properties R. B. Bhise	05-10
3	Survey of Medicinal Plants in Gadchiroli District of Maharashtra State R. B. Dange	11-12
4	Synthesis and characterization of Zinc Maleate Dihydrate and its thermal decomposition by the study of direct Current Electrical Conductivity M. D. Sangale, D. N. Gaikwad, D. V. Sonavane, S. S. Gaikwad	13-16
5	Synthesis, Characterization and Evaluation of Antifungal and Antibacterial Activities of Some Quinazoline Derivatives A. A. Kale, K. M. Durgade	17-23
6	Si-Fe Catalyzed Biginelli Reaction : A Versatile Method for the Synthesis of Dihydropyrimidinones Kishan P. Haval, Ravibhushan S. Kulkarni, Pramod S. Phatak, Radhakrishnan M. Tigote	24-26
7	Theoretical Validation of Medicinal Properties of Ginger Pramod Kulkarni, Sampat Suryawanshi	27-31
⑧	<del>Miraculous Properties of Lohabhasma Proven by Modern Techniques</del> Dr. Rupali A. Galankar	<del>32-40</del>
9	Antimicrobial Activity and Phytochemical Analysis of Carica Papaya Leaves, Root Extracts Pramila Kori, Meenakshi Nagar	41-45
10	A simple, convenient Grape Juice Catalyzed Synthesis of Dihydropyrimidinone/thione by Grindstone Technique : A Green chemistry Approach G. M. Nazeruddin, S. S. Mulani, Y. I. Shaikh, Samir S. Shaikh, Khursheed Ahmed	46-50
11	Persistence of Organic Pollutants in Ground Water Around Kurkumbh Industrial Area (Daund) from Pune District, (MS) INDIA D. V. Sonawane, V. B. Gaikwad, M. D. Sangale, S. R. Kuchekar	51-58
12	One Pot Synthesis of 6,7-Diimino imidazo[2,3-b]pyrimido[5,6-e]pyrimido[2,3-b][1,3]benzothiazole Derivatives Sambhaji P. Vartale, Sandeep G. Sontakke, Prashant N. Ubale	59-61
13	Physico-Chemical cum Biological Characteristics & Water Quality Index (WQI) of Dimbhe Dam in Pune District, Maharashtra State, India D. V. Sonawane, D. N. Gaikwad, S. S. Gaikwad, B. K. Jorvekar	62-68



# Miraculous Properties of Lohabhasma Proven by Modern Techniques

Dr. Rupali A. Gulalkari

Department of Chemistry BJS College Wagholi, Pune, Maharashtra, India

## ABSTRACT

Ayurvedic system of medicine includes an important class of drugs of mineral origin under which there is a subclass known as ayurvedicbhasmas. These are derived from metals like gold, silver, copper, iron, lead, supreme medicines due to their extraordinary medicinal properties. However, according to the modern science, heavy metals referred above are difficult to absorb at cellular levels and therefore are toxic and harmful to human bodies. As against this according to ayurved, all these elements, after ayurvedic processes of bhasmikananot only lose their toxicity but miraculous medicinal properties are induced when they are transformed into what is called as bhasma state. In an attempt to elucidate the exact nature of this bhasma state, we found that a genuine ayurvedicbhasma possesses two characteristics (i) extremely tiny particle size, tending to nano level of the order of 20-90 nm and (ii) attachment of an organic components to these nanosizedbhasma particles. These findings are expected to be useful to throw light on the medicinal potential of ayurvedicbhasma.

**Keywords :** Ayurvedic System , Bhasma, E-DAX, XRD

## I. INTRODUCTION

Ayurved firstly introduced the concept of "Bhasma" in its medicinal system. Originally, ayurvedic system of medicine was mostly restricted to medicinal plants (vanaushadhi) and to, some extent to animal products such as cowurine, cowdung, cowmilk, honey etc. Later on metal-based bhasmas were introduced and subsequently they constituted the most important class of drugs of mineral origin.

The art and science of ayurvedicbhasmas in general and metal-based bhasmas in particular is the subject of "ayurved rasashastra", which is an extremely important and interesting branch of ayurved. The origin, history, developments in ayurvedrasashastra is itself an attractive and promising area for research especially for chemists. Research in this subject will be also relevant and encouraging in coming years because ayurved and ayurvedic medicines will receive more and more appreciation and importance all over the world. Metal-based ayurvedic drugs being the superior drugs as compared to all other classes of drugs, there is an excellent opportunity to rejuvenate this original art with the help of modern scientific developments. The present work is an attempt from this point of view.

## II. SYNTHESIS AND CHARACTERIZATION OF METALLICBHASMAS

### Synthesis of Metallic Bhasmas.

Preparation of bhasma is an elaborate process involving shodhana, marana and bhasmikanana. The classical texts of Ayurveda prescribe in detail these processes. Metals are first purified through a process called shodhana, during which the metal is repeatedly heated and then cooled in herbal extracts. This is followed by bhasmikanana where, the shodhit metal is repeatedly triturated with herbs (bhavana) and calcinated in closed earthen crucibles in a pit, by burning cowdung cakes (a process called puta), to obtain bhasma. The size of pit, the number of cowdung cakes to be used to obtain a specific temperature and duration of heating are specified in detail in standard ayurvedic texts. This process is repeated as many times as prescribed in classical texts for each preparation. Thus we have dashaputa (10 cycles), shataputa (100 cycles), Sahastraputa (1000 cycles) etc. to ensure that the bhasma is properly prepared. To confirm the formation of a genuine bhasma a set of tests are also specified (Ayurvedic Formulary of India, 2003).

Though bhasma preparations are widely used in ayurved, practically nothing is known as to what happens to the metal when it is subjected to bhavana with herbs and subsequent calcinations processes. The traditional texts also don't throw any light on the changes undergone by a metal during the above processes.

The synthesis of an ayurvedic bhasma generally involves three major steps given below and illustrated in following flow sheet Ayurvedic purification of the metal (shuddhi).

- a. Destruction of metallic state (marana).
- b. Conversion of crude product into bhasma state (bhasmikaarana).

### Synthesis of Lohabhasma as a representative example

There are numerous methods reported in literature for the synthesis of lohabhasma which is an ancient and famous iron based ayurvedic preparation. Out of these following three methods are selected for the present work.

#### 1.1 Method Using Plant (Kanchnar) Material

In this method the general purification was first done by the standard method. For special purification trifala extract was prepared in cowurine and the above processed iron powder was heated to red heat and then dipped in this extract successively seven times. The process of marana was done in the juice of kanchnar (bauhinia variegata). For this purpose the purified iron powder was mixed with this plant juice in a mortar and the mixture was triturated till a homogenous paste is

formed. This paste was transformed to closed crucible system and then subjected to gaja-puta.

The process of bhasmikaarana was also done in the same way as that for marana but here the trituration for plant juice followed by gaja-puta was repeated seven times.

#### 1.2 Method Using cow-urine

In this method the first operation was identical with that described for general purification. For special purification, the above processed iron powder (500g) was heated and dipped in freshly collected cow-urine. This operation of heating and dipping the hot iron powder in cow urine was repeated seven times.

After special purification, the iron powder was taken in a mortar and mixed with cowurine and the mixture was triturated for six hours keeping it in viscous state. This mixture was kept overnight for interaction to complete the destruction of metallic state (marana).

Finally for bhasmikaarana, the above iron powder is mixed with cow-urine in a mortar and triturated till a homogenous paste is obtained. The paste is transferred to closed crucible system and subjected to gaja-puta. Total seven gaja-puta are given

Finally for bhasmikaarana, the above iron powder is mixed with lemon juice in a mortar and triturated till a homogenous paste is obtained. The paste is transferred to closed crucible system and subjected to gaja-puta. Total six gaja-puta are given.

### III. Characterization and particle size Determination

#### Chemical Composition by E-DAX

The quantitative determination of the elemental constituents of the two lohabhasma samples to establish their chemical composition was done through EDAX model Inc

Mahwah NJ USA. The E-DAX patterns are shown in figure 1.1 and the result of analysis is shown in table 1.1



**Table 1.1. Chemical Composition by E-DAX**

Method	C	O	Fe	Al	Si	Cr	K	S	Ca
Method I	30.40	28.07	35.60	0.40	1.02	—	0.15	0.58	1.91
Method II	36.93	28.30	29.14	—	0.77	3.43	1.17	0.26	—

### 1.3 Phase analysis by XRD and partile size determination

The investigations were done to examine the crystalline modifications of iron oxides. The XRD patterns were recorded on Phillips X-pert Pro Powder diffractometer in the diffraction range  $(10.90)2$ . Debye Scherrer equation was used to calculate mean crystallite size.

The XRD patterns with relevant details are shown in Fig. 2.2 while the results of phase analysis and particle size determination are shown in Table 2

**Table 2.2. components identified through XRD**

Sr. No.	Method	Major Constituent	Solid State Nature	Crystallite Size
1.	Method I	Hamatite	Microcrystalline	39.7 nm
2.	Method II	Fe <sub>2</sub> O <sub>3</sub>	Mostly Amorphous	23.5 nm

### Evidence for organic component <sup>14</sup>

The significant percentage of carbon identified by E-DAX and the nature of the IR spectra of lohabhasma (as well as for metallic bhasmas obtained from other metals) give some indications in favour of the presence of organic components associated with lohabhasma particles. However, since EDAX is unable to detect the presence of hydrogen and solid state IR spectra show poor resolution, some confirmatory evidence to support the presence of such organic component is necessary. For this purpose samples of lohabhasma(method II) were refluxed on pure toluene for 12 hour for three successive times and the soluble part was isolated. The IR spectra as well as electronic spectra (200-700 nm) in spectroscopic chloroform are then recorded)Tjese spectra gave confirmatory evidence for the presence of organic components. The exact nature of this component is under investigation at present.

### IV. Conclusions

According to the ayurvedic principals, metals as well as non-metals alone, cannot exhibit extraordinary medicinal properties in their inorganic form. Therefore, pure metal oxides; sulfides; silicates; carbonates or phosphates are not known to possess significant medicinal properties and also they are not assimilable to human bodies. But when they are transformed into their bhasma state miraculous medicinal properties are claimed to be induced in them. Two major factors seem to be responsible for induction of tremendous medicinal potential in the bhasma state. These may be (a) extremely tiny size tending to nanolevel (10-90 nm) of the bhasma particles and (b) organic component imparted to these tiny bhasma particles.

In the present work, encouraging experimental evidence is obtained in favour of both these factors. Similar results and evidence is obtained in metallic

bhasmas derived from copper, gold, tin and zinc. These result and evidences are expected to be useful to throw some light on the nature of ayurvedicbhasmas and their claimed extraordinary medicinal properties.

#### V. Acknowledgement:

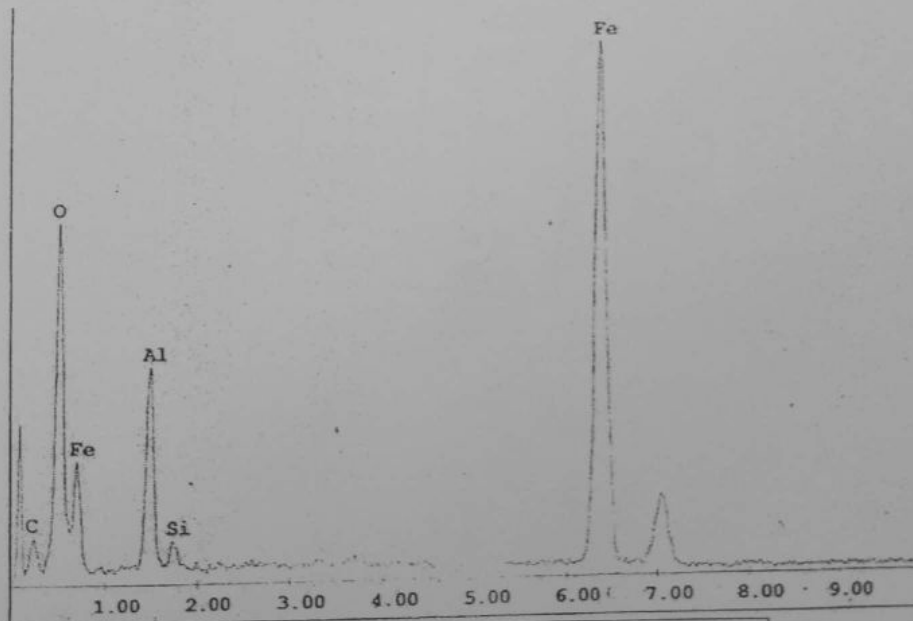
Im very much thankful to Dr. B.A Kulkarni ,Dr. RajendraKankaruya and MrudulaWadekar for cooperation to me for doing this work.

#### VI. REFERENCES

- [1]. S.B. Kulkarni -Dudhgaonkar  
Rasarattnasumuccya Shivaji University,  
Kolhapur publication (1970)
- [2]. PanditKashinathShastri, RAstarangini (Hindi)  
MotilalBanarasidasDehli (2004)
- [3]. M.P. Wadekar, C.V. Rode, Y.N. Bendale , K.R. Patil and A.A. Prabhune preparation and characterization of copper-based Indian Traditional Drugs TamraBhasma journal of pharmaceutical and Biomedical Analysis 39, 951 (2005)
- [4]. M.P. Wadekar, C.V. Rode, Y.N. Bendale, K.R. patil, A.B. Gaikwad, A.A. Prabhune Effect of calcinations cycles on the preparation of tin oxide based traditional drugs . Studies of its formation and characterization J. of pharmaceutical and biomedical Science, 41 1473-1478 (2006)

#### E-DAX ANALYSIS

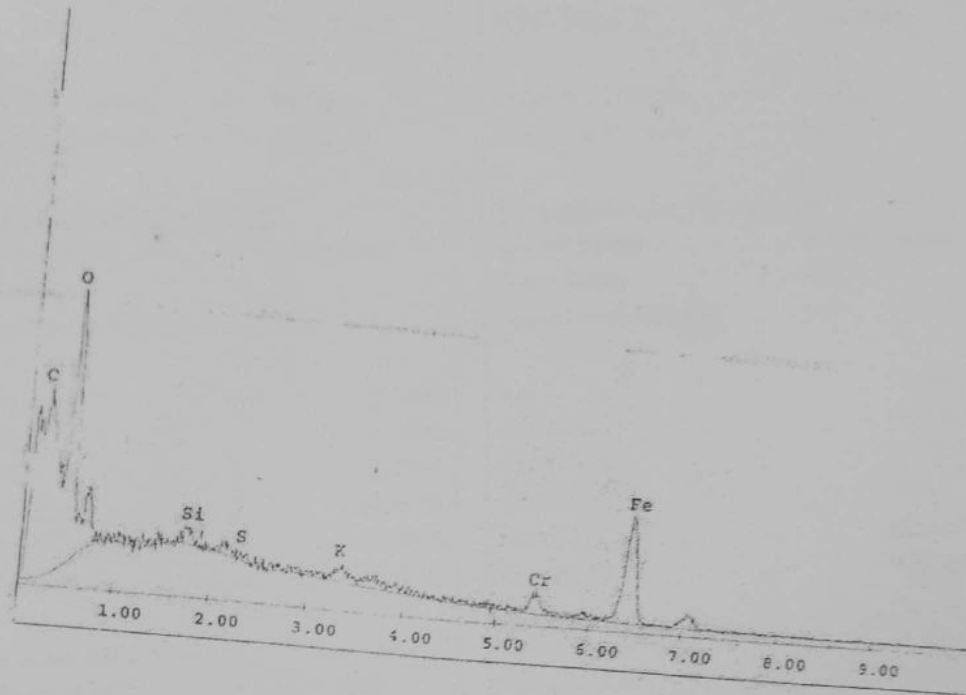
Figure No. : 3.6.1 Loha -01



Element	Wt %
CK	12.95
OK	24.66
AlK	9.86
SiK	1.01
FeK	51.52



Loha - 02  
Figure No. : 3.6.2



Element	Wt%
C K	36.93
O K	28.30
Si K	0.77
S K	0.26
KK	1.17
Cr K	3.43
Fe K	29.14
Total	100.00

<u>Name and Formula</u>	
Reference Code	: 01-076-1821
ICSD Name	: Iron Oxide
Empirical Formula	: Fe <sub>2</sub> O <sub>3</sub>
Chemical Formula	: Fe <sub>2</sub> O <sub>3</sub>
<u>Crystallographic Parameters</u>	
Crystal System	: Hexagonal
Space Group	: P3
Space Group Number	: 143
a (Å)	: 5.5600
b (Å)	: 5.5600
c (Å)	: 22.5500
Alpha (°)	: 90.0000
Beta (°)	: 90.0000
Gamma (°)	: 120.0000
Calculated density	: 2.63
Volume of cell	: 603.71
Z	: 6.00
RIR	: 2.08

<u>Name and Formula</u>	
Reference Code	: 01-084-0306
ICSD Name	: Iron Oxide
Empirical Formula	: Fe <sub>2</sub> O <sub>3</sub>
Chemical Formula	: Fe <sub>2</sub> O <sub>3</sub>
<u>Crystallographic Parameters</u>	
Crystal System	: Rhombohedral
Space Group	: R-3c
Space Group Number	: 167
a (Å)	: 5.0347
b (Å)	: 5.0347
c (Å)	: 13.7473
Alpha (°)	: 90.0000
Beta (°)	: 90.0000
Gamma (°)	: 120.0000
Calculated density	: 5.27
Volume of cell	: 301.78
Z	: 6.00
RIR	: 3.27

Figure No. : 3.7.2  
XRD patterns of  
Loha-02

Anchor Scan Parameters :

Sample Identification	: 654
Comment	: Fe-RGS-4, Pyro 18/06/07
Comment	: CuCeO <sub>2</sub> , 75,2%, 160C
Measurement Date / Time	: 6/18/2007 3:42:12 PM
Raw Data Origin	: XRD measurement (*.XRDML)
Scan Axis	: Gonio
Start Position [02Th]	: 5.0100
End Position [02Th]	: 39.9900
Step Size [02Th]	: 0.0200
Scan Step Time [s]	: 1.0000
Scan Type	: Continuous
Offset [02Th]	: 0.0000
Divergence Slit Type	: Fixed
Divergence Slit Size [0]	: 0.8709
Specimen Length [mm]	: 10.00
Receiving Slit Size [mm]	: 0.1000
Measurement Temperature [0C]	: 25.00



# XRD PATTERNS OF SYNTHESIZED LOHABHASMA

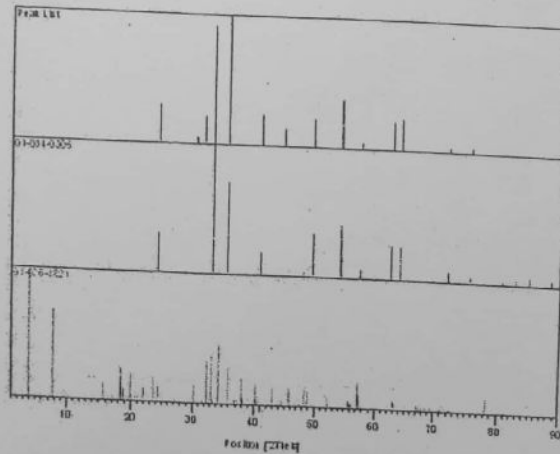
Figure No.: 3.7.1

XRD patterns of  
Loha-01

## Anchor Scan Parameters :

Sample Identification	: 694
Comment	: Fe203 RGS R1 100108
Measurement Date / Time	: 1/10/2008 1:52:08 PM
Raw Data Origin	: XRD measurement (*.XRDML)
Scan Axis	: Gonio
Start Position [ $^{\circ}$ 2Th]	: 10.0100
End Position [ $^{\circ}$ 2Th]	: 79.9900
Step Size [ $^{\circ}$ 2Th]	: 0.0200
Scan Step Time [s]	: 1.0000
Scan Type	: Continuous
Offset [ $^{\circ}$ 2Th]	: 0.0000
Divergence Slit Type	: Fixed
Divergence Slit Size [ $^{\circ}$ ]	: 0.8709
Specimen Length [mm]	: 10.00
Receiving Slit Size [mm]	: 0.1000
Measurement Temperature [ $^{\circ}$ C]	: 25.00
Anode Material	: Cu
Generator Settings	: 40kV. 30mA
Goniometer Radius [mm]	: 240.00
Dist. Focus-Diverg. Slit [mm]	: 100.00
Incident Beam Monochromator	: No
Spinning	: No

## Graphics :



**Name and Formula**

Reference Code : 01-084-0311  
ICSD Name : Iron Oxide  
Empirical Formula : Fe<sub>2</sub>O<sub>3</sub>  
Chemical Formula : Fe<sub>2</sub>O<sub>3</sub>

**Crystallographic Parameters**

Crystal System : Rhombohedral  
Space Group : R-3c  
Space Group Number : 167

a (Å) : 5.0016  
b (Å) : 5.0016  
c (Å) : 13.6202  
Alpha (°) : 90.0000  
Beta (°) : 90.0000  
Gamma (°) : 120.0000

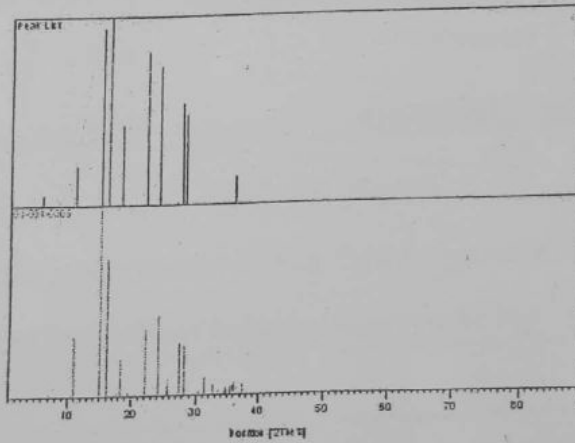
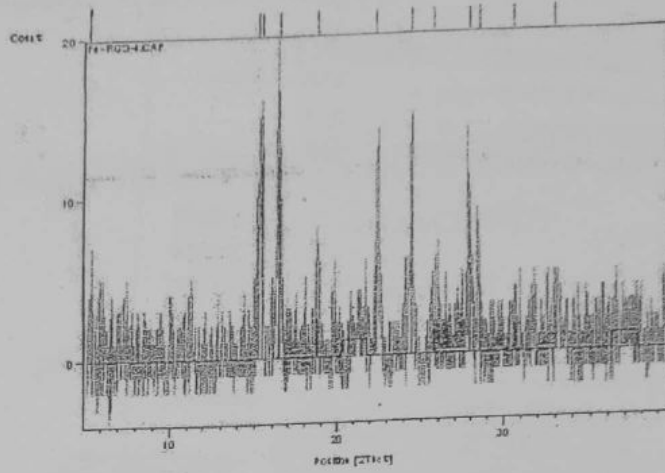
Calculated density : 5.39  
Volume of cell : 295.07  
Z : 6.00

RIR : 3.28



Anode Material : Mo  
Generator Settings : 40kV, 30mA  
Goniometer Radius [mm] : 240.00  
Dist. Focus-Diverg. Slit [mm] : 100.00  
Incident Beam Monochromator : No  
Spinning : No

Graphics :





Gramonnati Mandal's  
**Arts, Commerce & Science College**  
 Narayangaon, Tal.- Junnar, Dist.- Pune, 410 504

NAAC - Re-accredited 'A' Grade College Affiliated to Savitribai Phule Pune University ID. No. PU/PN/AC/100/(1993)

National Conference  
 on  
**Green Approach towards Environment and Chemical Science**  
 (GAECS-2017)

Sponsored by  
 BCUD, Savitribai Phule Pune University, Pune

**Certificate**

This is to certify that Prof./Dr./Mr./Ms. Dr. Rupali A. Gulalkari  
 of BJS College, Wagholi has  
 participated/as a Resource Person / Chair Person / presented a paper Oral / Poster entitled  
Miraculous Properties of Lohabhasma proven by Modern Techniques

in interdisciplinary National Conference "Green Approach towards Environment and  
 Chemical Science" held during 15<sup>th</sup> & 16<sup>th</sup> Dec. 2017, Organized by Department of Chemistry.

TRUE COPY  
  
 Prof. S. S. Shaikh  
 H.O.D. & Co-ordinator

Prof. S. S. Shewale  
 Principal & Convener



P61

Print ISSN: 2395-6011, Online ISSN: 2395-602X UGC Approved Journal [ Journal No : 64011 ]



**National Conference on Green Approach towards Environment and Chemical Science  
In Association With**

**IJSRST International Journal of Scientific Research in Science and Technology**

Scientific Journal Impact Factor = 3.587

Ref No: IJSRST/Certificate/Volume 3/Issue 9

16 December 2017



### *Certificate of Publication*

This is to certify that the research paper entitled

**Miraculous Properties of Lohabhasma Proven by Modern Techniques**

By

**Dr. Rupali A. Gulalkari**

After review is found suitable and has been published in Volume 3, Issue 9, November-December-2017  
in International Journal of Scientific Research in Science and Technology.

This Paper can be downloaded from the following IJSRST website link  
<http://ijsrst.com/IJSRST173908>

IJSRST Team wishes all the best for bright future

**Editor in Chief**

International Journal of Scientific Research in Science and Technology

Website : [www.ijsrst.com](http://www.ijsrst.com)



## कॉपिटॉल बाँब स्फोट खटला

डॉ. भूषण गोविंद फडतरे  
इतिहास विभाग प्रमुख,  
भारतीय जैन संघटनेचे  
कला, विज्ञान व वाणिज्य महाविद्यालय,  
वाघोली, पुणे - ४१२ २०७.

### प्रस्तावना

भारतीय स्वातंत्र्यलढ्यात शेवटचे परिणामकारक आंदोलन म्हणजे छोडो भारत आंदोलन होय. आंदोलनात पुणे जिल्हा अग्रेसर होता. आंदोलनाच्या प्रारंभीच नारायण दाभाडेच्या बलिदानापासून महाविद्यालयातील विद्यार्थ्यांनी प्रेरणा घेऊन आंदोलनास चांगली गती दिलेली होती. आंदोलनाची कमी करण्यासाठी तत्कालीन पुणे जिल्ह्याचे जिल्हाधिकारी मि.टी.ई. स्ट्रीटफील्ड यांना काढण्याशिवाय गत्यांतर राहिले नव्हते. असे असले तरी भूमिगत लोकांनी दिलेला लढा हा महत्त्वपूर्ण आहे. त्याचे नेतृत्व शिरूभाऊ लिमये यांनी केलेले आहे. पुण्यातील भूमिगत आंदोलनाच्या दिने कॉपिटॉल बाँब स्फोट व खटला, देहूरोड डेपो बाँब केस प्रकरण, काँग्रेस गुप्त रेडिओ केंद्र व महाराष्ट्र घटना महत्त्वाच्या आहेत. या घटनांपैकी कॉपिटॉल बाँब स्फोटाने पुणे शहरच नव्हेतर महाराष्ट्रातील विविध सरकारला चांगलाच हदरा बसलेला होता.

### कॉपिटॉल व वेस्टएंड चित्रपटगृहाची निवड:

ब्रिटिशांच्या दडपशाहिला धडा शिवण्यासाठी विद्यार्थ्यांनी बाँब तयार करून त्याचा वापर केला होता. त्याची क्षमता जरी कमी प्रमाणात असली तरी विद्यार्थ्यांनी केलेले धाडस हे भूमिगत आंदोलनाची दृष्टीने महत्त्वाचे होते.

छोडो भारत आंदोलनाकाळात राष्ट्रीय गीत व झेंडावंदनाचे कार्यक्रम नित्याचेच होत होते. त्याच भाग म्हणून भूमिगत लोकांनी येथील चित्रपट गृहात राष्ट्रगीत वाजविले पाहिजे अशा अश्याचे चित्रपटगृह मालकांना पाठविली होती. काही चित्रपटगृहात शेवटी गाँड सेव द किंग्ज गीत वाजवून पुढे जॅक फडविला जात होता. पुण्यातील अनेक चित्रपटगृह मालकांनी भूमिगत लोकांच्या पत्रकास पाठविले दिला. परंतु कॉम्प मधील कॉपिटॉल, वेस्टएंड व एम्पायर या चित्रपट गृहांच्या मालकांनी मात्र कोणता पत्रकास पाठिंबा दिला नाही. त्यामुळे या चित्रपटगृहात स्फोट करण्याचे नियोजन भूमिगत लोकांनी केले.

कॉपिटॉल चित्रपटगृहासाठी बाबूराव चव्हाण, बापू साळवी, दत्ता जोशी तर वेस्टएंड चित्रपटगृहासाठी स्फोट हरिभाऊ लिमये, शंकर कुलकर्णी, रामसिंग परदेशी यांची निवड करण्यात आलेली होती. वरील दोन्ही चित्रपट गृहात स्फोट करण्यासाठी २६ जानेवारी १९४३ हा दिवस निवडला होता. पण २६ दिवशी पोलिस यंत्रणा अधिक असल्याने तत्पूर्वीच स्फोट केला पाहिजे यादृष्टीने बाबूराव चव्हाण व बापू साळवी हे दोघेही चित्रपट गृहाची पहाणी करून आलेले होते. २४ जानेवारी रोजी गॅरी कपूरचा स्फोट चित्रपट प्रदर्शित होणार होता. त्या दिवशी ब्रिटिश सैन्याची संख्या देखील जास्त असणार होती. त्यामुळे या ठिकाणी स्फोट केला तर भारतीय सैनिकांना काहीही होणार नाही. पुढे निश्चित होण्यात येऊन योजनेनुसार २४ जानेवारीच्या रात्री नऊ ते साडेनऊ वाजता कॉपिटॉलमध्ये स्फोट झाला. त्यामध्ये काही ब्रिटिश अधिकारी मृत्यू तर १२ सैनिक जखमी झाले. वेस्टएंड मधील बाँब कचरा असलेल्या बाबूरी ठेवला होता. तेथे धूर निघत असल्याचे पाहून पाठीमागील रांगेत बसलेल्या विल्यम रॉबसन यांनी तत्काय तो बाँब घेऊन पाण्याच्या बादलीत टाकून निकामा केला. त्यामुळे तेथे स्फोट झाला नाही.

या दोन्ही ठिकाणांच्या स्फोटासाठी देहूरोड मधील ऑर्डेन्स डेपोतील हॅंड ग्रेनेडचा वापर केला नव्हता. परंतु सरकारी कागदपत्रात मात्र हॅंड ग्रेनेड ३६ या प्रकारातील होता असा उल्लेख आहे. अशा हॅंडग्रेनेडचा वापर अहमदनगर मधील सरोष चित्रपटगृहात देखील झालेला होता. पुण्यात स्वतःचा





ज्ञान-विज्ञान विमुक्तये



# NATIONAL CONFERENCE

on  
“Historiography and Methodology  
of  
Local History”

29<sup>th</sup> & 30<sup>th</sup> September, 2014  
Sponsored by U. G. C. New Delhi

**PROCEEDINGS**

Organized by

Department of History and A. I. H. C. & A.

S.S.P. MANDAL'S

**CHANDMAL TARACHAND BORA COLLEGE**

NAAC Re-accredited 'A' grade

SHIRUR, DIST. PUNE - 412210 (MS.) INDIA

E-mail : [ctborainfo68@gmail.com](mailto:ctborainfo68@gmail.com)

Website : [www.ctboracollege.edu.in](http://www.ctboracollege.edu.in)



शस्त्र हाती घेऊन राज्य उलथून पाडण्याचा प्रयत्न करणारे वासुदेव बळवंत फडके हे आद्य क्रांतीकारक म्हणून ओळखले जातात ते पुढील काळात चाफेकर बंधू, स्वातंत्र्यवीर सावरकर यांच्या सारख्या क्रांतीकारी देशभक्तांचे स्फुर्तीस्थान बनले. फडक्यांच्या लढतीने भारून गेलेल्या बंकीमचंद्र चट्टोपाध्याय सारख्या अक्वल दर्जाच्या प्रतिभावंताने फडक्यांच्या बंडापासून प्रेरणा घेऊन आनंदमठ कांदबरी लिहली. बंकीमचंद्र १८७९ मध्ये इंग्रज सरकारची नोकरी करत होते. उघड उघड फडक्यांच्या बंडा संबंधी गौरवपर लिहीणे त्यांना शक्य नव्हते म्हणून १७६८ ते १७६९ सालातल्या दुष्काळाच्या पार्श्वभूमीवर बंगालमध्ये सन्यासांनी केलेल्या बंडाचा विषय त्यांनी निवडला पण आनंद मठ लिहतांना बंकीमबाबु समोर होते वासुदेव बळवंताचे बंड.

वासुदेव बळवंताच्या आधी इंग्रज राजवटीला सशस्त्र प्रतिकार इतर प्रांताप्रमाणे महाराष्ट्रातही झाला होता पण इंग्रजी विद्या घेतलेल्या इंग्रज सरकारची नोकरी करत असलेल्या तरुणांने इंग्रजांचे राज्य बुडविण्याचा केलेला प्रयत्न अभुतपूर्व होता इंग्रज राजवटी विरुद्ध इंग्रजी विद्या घेतलेल्यांच्या मनात असंतोष घुमसत होता या असंतोषाला वाट करून देऊन राज्यकर्ते व प्रजाजन यांच्यामध्ये एखादा दुवा असण्याची गरज अॅल्यट्युम व्ह्युम या निवृत्त सनदी अधिकाऱ्याला वाटत होती, लोकांच्या मनातील दुःख, भय आशा, आकांक्षा जेथे बोलवून दाखवता येतील असे एखादी व्यासपीठ नसेल तर असंतुष्ट माणसे शस्त्र हाती घेऊन १८५७ च्या उठावाच्या वेळी जशी इंग्रज राजवटी विरुद्ध लढली तशी पुन्हा निकराने लढतील अशी व्ह्युम साहेबांना तीव्रतेने वाटू लागले, असे त्यांचे चरित्रकार विल्यम एडबर्न यांनी वासुदेव बळवंत फडक्यांच्या बंडाचा निःसंदिग्ध उल्लेख करून व्ह्युम साहेबांनी काँग्रेसची स्थापना करण्याचे कसे नेटाने प्रयत्न केले आहे हे स्पष्ट केले.

#### सारांश -

महाराष्ट्रातील आद्य क्रांतीकारक वासुदेव बळवंत फडके यांनी भारतीय स्वातंत्र्य आंदोलनातील सशस्त्र क्रांतीकारी गटाला एक महत्वपूर्ण प्रेरणा देवून स्वतंत्र आंदोलनातील क्रांतीकारी गट आपल्या जीवची पर्वा न करता ब्रिटीश साम्राज्य विरोधात शक्तीचा वापर करण्यास तयार झाला.

## दामोदर हरी चापेकर यांचे न्यायालयातील अप्रकाशित पत्र

डॉ. भूषण गोविंद फडतरे, इतिहास विभाग प्रमुख, भारतीय जैन संघटनेचे कला, विज्ञान व वाणिज्य महाविद्यालय, वाघोली, पुणे.

१९ व्या शतकाच्या उत्तरार्धात क्रांतीकारी चळवळीतील महत्वाची घटना म्हणजे चापेकरबंधूनी केलेला मि.रँडचा वध, पुण्यातील रेल्वे स्टेशनचा परिसर, रविवार पेठ, भाजी आळी, लोणार आळी, कसबा पेठ व शुक्रवार पेठ इत्यादी परिसरात प्लेगची साथ वेगाने पसरली होती. ही साथ ओटोक्यात आणण्यासाठी साताऱ्यातील उपजिल्हाधिकारी डब्ल्यू.सी.रँडची नेमणूक केली, मि.रँडने लष्कराच्या मदतीने प्लेगची साथ आटोक्यात आणण्यासाठी प्रयत्न सुरू केले. भारत मंत्री लॉर्ड जॉर्ज हॅमिल्टनने आदेश काढला की, 'साध्या उपायांनी जनता ऐकत नसेल आणि सरकारी उपाय योजनांना दाद देत नसेल तर आता जबरदस्ती करा, पण रोग आटोक्यात आणा.' अनेकांना मारहाण तर केलीच पण महिलांशीही गैरवर्तन केले. पंडिता रमाबाईंच्या आश्रमातील एका महिलेने अशा गैरवर्तनामुळेच आत्महत्या केलेली होती हे वृत्त पुढे पंडिता रमाबाईंनीच ज्ञानप्रकाशमध्ये व्यक्त केलेले होते.

'पुण्यात सध्या चालू असलेला धुमाकूळ' असा अग्रलेख लोकमान्य टिळकांनी केसरीत लिहिला. या अग्रलेखात ते नमूद करतात की, 'साथीच्या रोगांमुळे यंदा पुण्यास शिमगा आठ दहा दिवस आधीच सुरू झाला आहे. '१२ जून १८९७ रोजी पुण्यातील लकडी पुलाजवळील विठ्ठल मंदिरात लोकमान्य टिळकांच्या अध्यक्षतेखाली सभा भरली. शिवराम महादेव परांजपे यांचे सरकारच्या जुलमी राजवटीबद्दल तर प्रा.श्रीधर गणेश जिन्सीवाले यांचे 'स्वदेश व स्वधर्म' या विषयावर भाषण केले तर दुसऱ्या दिवशी प्रा. चिंतामण गंगाधर भानू यांनी अफजलखानाच्या वधाविषयी भाषण केले. ही तिन्ही भाषणे पुण्यातील क्रांतीकारकांना प्रेरणा देणारी ठरली. सभेच्या अध्यक्षस्थानी असलेल्या टिळकांनी अफजलखानाचा वध हा छत्रपती शिवाजी महाराजांनी केला, तो न्याय्यच





मराठी  
भाषाभ्यासक्रम  
विशेषांक

साहित्य, कला, संशोधन व परिवर्तनवादी पुरोगामी  
विचाराशी बांधिलकी ठेवणारे त्रैमासिक

# अक्षरगाथा

वर्ष : पाचवे । अंक : दुसरा-तिसरा ।  
जुलै-ऑक्टोबर २०१४ । नांदेड

संपादक

डॉ. मा. मा. जाधव

□

संपादन सहाय

डॉ. बाबुराव खंदारे

डॉ. माधव जाधव

□

प्रकाशक

अर्चना माधवराव जाधव

बळीवंश प्रकाशन,

'बळीवंश', नृसिंह पॅलेसच्या मागे,  
नरहरनगर, नांदेड - ४३१ ६०५.

□

मुद्रित तपासणी

दत्ता डांगे, ९८९००९९५४१

□

मुद्रक

मुद्रा ऑफसेट प्रिंटर्स अँड प्रोसेसर्स

शारदा टॉकीजवळ, एम.जी. रोड, नांदेड-०३.

□

मुखपृष्ठ,

अक्षरमांडणी व सजावट

विजयकुमार चित्तरवाड

९४२१९८७८०९

साहित्य व वर्गणी पाठविण्याचा पत्ता

प्रा.डॉ. मा. मा. जाधव

'बळीवंश', नृसिंह पॅलेसच्या मागे, नरहरनगर,

नांदेड - ४३१ ६०५. भ्र. ९४२२८७४३३६.

e-mail : akshargatha@gmail.com

□

वार्षिक वर्गणी : ₹ २००/- त्रैवार्षिक वर्गणी : ₹ ५००/-

आजीव व्यक्ती : ₹ २०००/- संस्था : ₹ २५००/-

या अंकाचे मूल्य : ₹ १००/-

- वार्षिक वर्गणी केवळ मनीऑर्डर/डी.डी./ रोखीने भरावी.  
त्रैवार्षिक व आजीव वर्गणी मनीऑर्डर/डी.डी./धनादेश/धनाकर्ष  
'अक्षरगाथा' या नावाने पाठवावा.
- मनीऑर्डरने वर्गणी पाठवताना संदेशच्या ठिकाणी काळजीपूर्वक  
पूर्ण पत्ता, पीन कोड, संपर्क क्रमांकासह (फोन/भ्रमणध्वनी) लिहावा.

□

वर्गणीदार असेही होता येते

भारतीय स्टेट बँक (S.B.I.) यशवंतनगर, नांदेड शाखेच्या

'अक्षरगाथा' खाते नं. 32204333102 वर

IFC Code SBI No 001922 MICR Code 431002093

वर्गणी रक्कम + ₹ ३० (शाखा विनिमय फीस) भरून रकमेच्या चालानची झेरॉक्स  
प्रत व आपला पत्ता आमचे पत्त्यावर पाठवून देऊन आपणास वर्गणीदार होता येते.

महाराष्ट्र राज्य साहित्य आणि संस्कृती मंडळाने या  
नियतकालिकाच्या प्रकाशनार्थ अनुदान दिले असले तरी, या  
नियतकालिकातील लेखकांच्या विचारांशी मंडळ व शासन सहमत  
असेलच असे नाही.

## अनुक्रम

## विभाग : एक

- मराठीचा अभ्यासक्रम : काही विचार
- विद्यापीठीय अभ्यासक्रम : वास्तव आणि अपेक्षा (मुलाखत)
- एम.ए. मराठीचा अभ्यासक्रम
- विद्यापीठीय अभ्यासक्रमातील सुसूत्रता
- शिक्षणव्यवस्थेचे समकालीन वास्तव व सं. गा. वा. अमरावती विद्यापीठातील पदव्युत्तर मराठीचा अभ्यासक्रम
- उच्चशिक्षणातील मराठीचे अभ्यासक्रम
- (मराठी) भाषेचे अभ्यासक्रम: पदवी स्तर
- शिक्षणव्यवस्था : समकालीन वास्तव
- उच्च शिक्षणातील मराठी भाषेचा अभ्यासक्रम: वास्तव आणि अपेक्षा
- विद्यापीठस्तरावरील मराठीचे अभ्यासक्रम : काही अधिक-उणे

वसंत आबाजी डहाके .....	०३
उत्तम कांबळे .....	०८
डॉ. यशवंत मनोहर .....	२१
डॉ. प्रमोद मुनघाटे .....	२५
डॉ. माधव पुटवाड .....	३१
डॉ. राहुल पुंगलिया .....	५१
डॉ. जयश्री पाटणकर .....	५५
डॉ. मनोज तायडे .....	६५
डॉ. सतीश बडवे .....	७३
डॉ. केशव तुपे .....	७७

## विभाग : दोन

- मराठी भाषा अभ्यासक्रम : अपेक्षा
- मराठी भाषा अध्ययन- अध्यापनाचा अभ्यासक्रम
- ✓ ■ पदवी व पदव्युत्तर स्तरावरील मराठीचा अभ्यासक्रम-एक विचार
- काळाची आव्हाने व मराठीचा अभ्यासक्रम

डॉ. अनिल गवळी .....	८१
प्रा. विजयकुमार पाईकराव .....	८४
डॉ. जगदीश आवटे .....	८८
डॉ. शिरीष बुधा पाटील .....	९२

## विभाग : तीन

- शिक्षण, राजकारण आणि राजकीय शिक्षण
- भाषा शिक्षण आणि विज्ञान साहित्य
- महाराजा सयाजीराव गायकवाड : लेखकांचे आश्रयदाते आणि प्रकाशकांचे पोशिंदे
- अभ्यासक्रम, ज्ञान आणि प्रभुत्व : नव-मार्क्सवादी मूल्यांकन

अ.रा. कामत .....	९७
डॉ. पंडित विद्यासागर .....	११०
बाबा भांड .....	११३
डॉ. दिलीप चव्हाण .....	१२४

## विभाग : चार

- पाठ्यपुस्तकातील मूल्याधिष्ठित शिक्षण
- भाषाशिक्षण आणि भाषाविज्ञान
- शालेय कविता: निवड आणि निकष
- माध्यमिक स्तरावरील मराठीचा अभ्यासक्रम
- मराठी भाषा: नव्या जबाबदाऱ्या

डॉ. अशोक राणा .....	१३४
डॉ. दिलीप धोंडगे .....	१४४
नारायण कुळकर्णी कवठेकर ...	१४९
डॉ. नंदकुमार मोरे .....	१५३
डॉ. सुवर्णा रा. गाडगे .....	१५९

## तुका म्हणे झरा

- अंधार पाहिलेला माणूस

डॉ. सतीश पावडे .....	१६५
----------------------	-----

- 'निवडणूक'

## हास्यगाथा

शीलवंत वाढवे .....	१७३
--------------------	-----



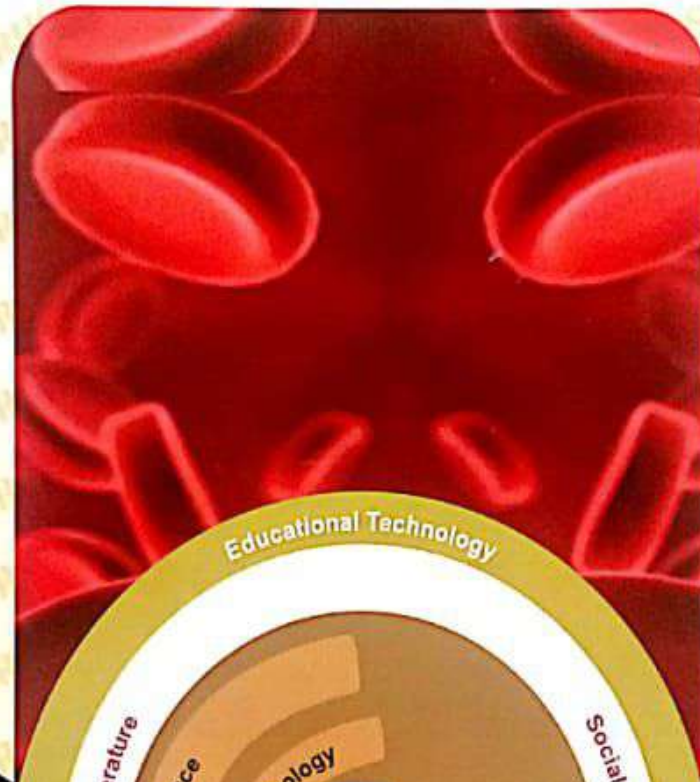
2090-95

UGC Approved Sr. No. 49366



SRJIS

ISSN -2278-8808



An International Peer Reviewed

Referred Quarterly

# SCHOLARLY RESEARCH JOURNAL FOR INTERDISCIPLINARY STUDIES

2090-95

JAN - FEB, 2018. VOL. 5, ISSUE -46

EDITOR IN CHIEF :: YASHPAL D. NETRAGAONKAR, Ph.D.

---

MARATHI PAPER

---

✓ 20	मुद्रित शोधनातील रोजगार संधी प्रा. डॉ. जगदीश आवटे	69-72
21	प्रसार माध्यमे आणि नोकरीच्या संधी प्रा. डॉ. निवृत्ती मिसाळ	73-74
22	व्यावहारिक मराठी आणि आधुनिक प्रसारमाध्यमांचे स्वरूप प्रा. डॉ. निलेश खरात	75-77
23	प्रसारमाध्यमे आणि नोकरीच्या संधी प्रा. मधुकर वैकरे	78-81
24	मराठी भाषा व नोकरीच्या संधी प्रा. डॉ. वसंत दामोदर सपकाळ	82-83
25	भाषा, साहित्य आणि व्यावसायिक संधी डॉ. कार्तिकी विजयकुमार नांगरे	84-86

---



## कॉपिटॉल बाँब स्फोट खटला

डॉ. भूषण गोविंद फडतरे  
इतिहास विभाग प्रमुख,  
भारतीय जैन संघटनेचे  
कला, विज्ञान व वाणिज्य महाविद्यालय,  
वाघोली, पुणे - ४१२ २०७.

### प्रस्तावना

भारतीय स्वातंत्र्यलढ्यात शेवटचे परिणामकारक आंदोलन म्हणजे छोडो भारत आंदोलन होय. आंदोलनात पुणे जिल्हा अग्रेसर होता. आंदोलनाच्या प्रारंभीच नारायण दाभाडेच्या बलिदानापासून महाविद्यालयातील विद्यार्थ्यांनी प्रेरणा घेऊन आंदोलनास चांगली गती दिलेली होती. आंदोलनाची कमी करण्यासाठी तत्कालीन पुणे जिल्हयाचे जिल्हाधिकारी मि.टी.ई. स्ट्रीटफील्ड यांना काढण्याशिवाय गत्यांतर राहिले नव्हते. असे असले तरी भूमिगत लोकांनी दिलेला लढा हा महत्त्वपूर्ण आहे. त्याचे नेतृत्व शिरूभाऊ लिमये यांनी केलेले आहे. पुण्यातील भूमिगत आंदोलनाच्या दृष्टीने कॉपिटॉल बाँब स्फोट व खटला, देहूरोड डेपो बाँब केस प्रकरण, कॉप्रेस गुप्त रेडिओ केंद्र व महाराष्ट्र सरकारला चांगलाच हदरा बसलेला होता.

### कॉपिटॉल व वेस्टएंड चित्रपटगृहाची निवड:

ब्रिटिशांच्या दडपशाहिला धडा शिवण्यासाठी विद्यार्थ्यांनी बाँब तयार करून त्याचा वापर केला होता. त्याची क्षमता जरी कमी प्रमाणात असली तरी विद्यार्थ्यांनी केलेले धाडस हे भूमिगत आंदोलनाच्या दृष्टीने महत्त्वाचे होते.

छोडो भारत आंदोलनाकाळात राष्ट्रीय गीत व झेंडावंदनाचे कार्यक्रम नित्याचेच होत होते. त्याच भाग म्हणून भूमिगत लोकांनी येथील चित्रपट गृहात राष्ट्रगीत वाजविले पाहिजे अशा अश्याचे चित्रपटगृह मालकांना पाठविली होती. काही चित्रपटगृहात शेवटी गाँड सेव द किंग्ज गीत वाजवून पुढे जॅक फडविला जात होता. पुण्यातील अनेक चित्रपटगृह मालकांनी भूमिगत लोकांच्या पत्रकास पाठविले दिला. परंतु कॉम्प मधील कॉपिटॉल, वेस्टएंड व एम्पायर या चित्रपट गृहांच्या मालकांनी मात्र कोणता पत्रकास पाठिंबा दिला नाही. त्यामुळे या चित्रपटगृहात स्फोट करण्याचे नियोजन भूमिगत लोकांनी केले.

कॉपिटॉल चित्रपटगृहासाठी बाबूराव चव्हाण, बापू साळवी, दत्ता जोशी तर वेस्टएंड चित्रपटगृहासाठी स्फोट हरिभाऊ लिमये, शंकर कुलकर्णी, रामसिंग परदेशी यांची निवड करण्यात आलेली होती. वरील दोन्ही चित्रपट गृहात स्फोट करण्यासाठी २६ जानेवारी १९४३ हा दिवस निवडला होता. पण २६ दिवशी पोलिस यंत्रणा अधिक असल्याने तत्पूर्वीच स्फोट केला पाहिजे यादृष्टीने बाबूराव चव्हाण व बापू साळवी हे दोघेही चित्रपट गृहाची पहाणी करून आलेले होते. २४ जानेवारी रोजी गॅरी कपूरचा स्फोट चित्रपट प्रदर्शित होणार होता. त्या दिवशी ब्रिटिश सैन्याची संख्या देखील जास्त असणार होती. त्यामुळे या ठिकाणी स्फोट केला तर भारतीय सैनिकांना काहीही होणार नाही. पुढे निश्चित होण्यात येऊन योजनेनुसार २४ जानेवारीच्या रात्री नऊ ते साडेनऊ वाजता कॉपिटॉलमध्ये स्फोट झाला. त्यामध्ये ब्रिटिश अधिकारी मृत्यू तर १२ सैनिक जखमी झाले. वेस्टएंड मधील बाँब कचरा असलेल्या बाबूरोड डेवला होता. तेथे धूर निघत असल्याचे पाहून पाठीमागील रांगेत बसलेल्या विल्यम रॉबसन यांनी तत्काय तो बाँब घेऊन पाण्याच्या बादलीत टाकून निकामा केला. त्यामुळे तेथे स्फोट झाला नाही.

या दोन्ही ठिकाणांच्या स्फोटासाठी देहूरोड मधील ऑर्डेन्स डेपोतील हॅंड ग्रेनेडचा वापर केला नव्हता. परंतु सरकारी कागदपत्रात मात्र हॅंड ग्रेनेड ३६ या प्रकारातील होता असा उल्लेख आहे. अशा हॅंडग्रेनेडचा वापर अहमदनगर मधील सरोष चित्रपटगृहात देखील झालेला होता. पुण्यात स्वतः





ज्ञान-विज्ञान विमुक्तये



# NATIONAL CONFERENCE

on  
“Historiography and Methodology  
of  
Local History”

29<sup>th</sup> & 30<sup>th</sup> September, 2014  
Sponsored by U. G. C. New Delhi

**PROCEEDINGS**

Organized by

Department of History and A. I. H. C. & A.

S.S.P. MANDAL'S

**CHANDMAL TARACHAND BORA COLLEGE**

NAAC Re-accredited 'A' grade

SHIRUR, DIST. PUNE - 412210 (MS.) INDIA

E-mail : [ctborainfo68@gmail.com](mailto:ctborainfo68@gmail.com)

Website : [www.ctboracollege.edu.in](http://www.ctboracollege.edu.in)



शस्त्र हाती घेऊन राज्य उलथून पाडण्याचा प्रयत्न करणारे वासुदेव बळवंत फडके हे आद्य क्रांतीकारक म्हणून ओळखले जातात ते पुढील काळात चाफेकर बंधू, स्वातंत्र्यवीर सावरकर यांच्या सारख्या क्रांतीकारी देशभक्तांचे स्फुर्तीस्थान बनले. फडक्यांच्या लढतीने भारून गेलेल्या बंकीमचंद्र चट्टोपाध्याय सारख्या अखिल दर्जाच्या प्रतिभावंताने फडक्यांच्या बंडापासून प्रेरणा घेऊन आनंदमठ कांदबरी लिहली. बंकीमचंद्र १८७९ मध्ये इंग्रज सरकारची नोकरी करत होते. उघड उघड फडक्यांच्या बंडा संबंधी गौरवपर लिहीणे त्यांना शक्य नव्हते म्हणून १७६८ ते १७६९ सालातल्या दुष्काळाच्या पार्श्वभूमीवर बंगालमध्ये सन्यासांनी केलेल्या बंडाचा विषय त्यांनी निवडला पण आनंद मठ लिहतांना बंकीमबाबु समोर होते वासुदेव बळवंताचे बंड.

वासुदेव बळवंताच्या आधी इंग्रज राजवटीला सशस्त्र प्रतिकार इतर प्रांताप्रमाणे महाराष्ट्रातही झाला होता पण इंग्रजी विद्या घेतलेल्या इंग्रज सरकारची नोकरी करत असलेल्या तरुणांने इंग्रजांचे राज्य बुडविण्याचा केलेला प्रयत्न अभूतपूर्व होता इंग्रज राजवटी विरुद्ध इंग्रजी विद्या घेतलेल्यांच्या मनात असंतोष घुमसत होता या असंतोषाला वाट करून देऊन राज्यकर्ते व प्रजाजन यांच्यामध्ये एखादा दुवा असण्याची गरज अँल्यट्युम व्ह्युम या निवृत्त सनदी अधिकाऱ्याला वाटत होती, लोकांच्या मनातील दुःख, भय आशा, आकांक्षा जेथे बोलवून दाखवता येतील असे एखादी व्यासपीठ नसेल तर असंतुष्ट माणसे शस्त्र हाती घेऊन १८५७ च्या उठावाच्या वेळी जशी इंग्रज राजवटी विरुद्ध लढली तशी पुन्हा निकराने लढतील अशी व्ह्युम साहेबांना तीव्रतेने वाटू लागले, असे त्यांचे चरित्रकार विल्यम एडबर्न यांनी वासुदेव बळवंत फडक्यांच्या बंडाचा निःसंदिग्ध उल्लेख करून व्ह्युम साहेबांनी काँग्रेसची स्थापना करण्याचे कसे नेटाने प्रयत्न केले आहे हे स्पष्ट केले.

#### सारांश -

महाराष्ट्रातील आद्य क्रांतीकारक वासुदेव बळवंत फडके यांनी भारतीय स्वातंत्र्य आंदोलनातील सशस्त्र क्रांतीकारी गटाला एक महत्वपूर्ण प्रेरणा देवून स्वतंत्र आंदोलनातील क्रांतीकारी गट आपल्या जीवची पर्वा न करता ब्रिटीश साम्राज्य विरोधात शक्तीचा वापर करण्यास तयार झाला.

## दामोदर हरी चापेकर यांचे न्यायालयातील अप्रकाशित पत्र

डॉ. भूषण गोविंद फडतरे, इतिहास विभाग प्रमुख, भारतीय जैन संघटनेचे कला, विज्ञान व वाणिज्य महाविद्यालय, वाघोली, पुणे.

१९ व्या शतकाच्या उत्तरार्धात क्रांतीकारी चळवळीतील महत्वाची घटना म्हणजे चापेकरबंधूनी केलेला मि.रँडचा वध, पुण्यातील रेल्वे स्टेशनचा परिसर, रविवार पेठ, भाजी आळी, लोणार आळी, कसबा पेठ व शुक्रवार पेठ इत्यादी परिसरात प्लेगची साथ वेगाने पसरली होती. ही साथ ओटोक्यात आणण्यासाठी साताऱ्यातील उपजिल्हाधिकारी डब्ल्यू.सी.रँडची नेमणूक केली, मि.रँडने लष्कराच्या मदतीने प्लेगची साथ आटोक्यात आणण्यासाठी प्रयत्न सुरू केले. भारत मंत्री लॉर्ड जॉर्ज हॅमिल्टनने आदेश काढला की, 'साध्या उपायांनी जनता ऐकत नसेल आणि सरकारी उपाय योजनांना दाद देत नसेल तर आता जबरदस्ती करा, पण रोग आटोक्यात आणा.' अनेकांना मारहाण तर केलीच पण महिलांशीही गैरवर्तन केले. पंडिता रमाबाईंच्या आश्रमातील एका महिलेने अशा गैरवर्तनामुळेच आत्महत्या केलेली होती हे वृत्त पुढे पंडिता रमाबाईंनीच ज्ञानप्रकाशमध्ये व्यक्त केलेले होते.

'पुण्यात सध्या चालू असलेला धुमाकूळ' असा अग्रलेख लोकमान्य टिळकांनी केसरीत लिहिला. या अग्रलेखात ते नमूद करतात की, 'साथीच्या रोगांमुळे यंदा पुण्यास शिमगा आठ दहा दिवस आधीच सुरू झाला आहे. '१२ जून १८९७ रोजी पुण्यातील लकडी पुलाजवळील विठ्ठल मंदिरात लोकमान्य टिळकांच्या अध्यक्षतेखाली सभा भरली. शिवराम महादेव परांजपे यांचे सरकारच्या जुलमी राजवटीबद्दल तर प्रा.श्रीधर गणेश जिन्सीवाले यांचे 'स्वदेश व स्वधर्म' या विषयावर भाषण केले तर दुसऱ्या दिवशी प्रा. चिंतामण गंगाधर भानू यांनी अफजलखानाच्या वधाविषयी भाषण केले. ही तिन्ही भाषणे पुण्यातील क्रांतीकारकांना प्रेरणा देणारी ठरली. सभेच्या अध्यक्षस्थानी असलेल्या टिळकांनी अफजलखानाचा वध हा छत्रपती शिवाजी महाराजांनी केला, तो न्याय्यच



मराठी  
भाषाभ्यासक्रम  
विशेषांक

साहित्य, कला, संशोधन व परिवर्तनवादी पुरोगामी  
विचाराशी बांधिलकी ठेवणारे त्रैमासिक

# अक्षरगाथा

वर्ष : पाचवे । अंक : दुसरा-तिसरा ।  
जुलै-ऑक्टोबर २०१४ । नांदेड

संपादक

डॉ. मा. मा. जाधव



संपादन सहाय

डॉ. बाबुराव खंदारे

डॉ. माधव जाधव



प्रकाशक

अर्चना माधवराव जाधव

बळीवंश प्रकाशन,

'बळीवंश', नृसिंह पॅलेसच्या मागे,  
नरहरनगर, नांदेड - ४३१ ६०५.



मुद्रित तपासणी

दत्ता डांगे, ९८९००९९५४१



मुद्रक

मुद्रा ऑफसेट प्रिंटर्स अँड प्रोसेसर्स

शारदा टॉकीजवळ, एम.जी. रोड, नांदेड-०३.



मुखपृष्ठ,

अक्षरमांडणी व सजावट

विजयकुमार चित्तरवाड

९४२१९८७८०९

साहित्य व वर्गणी पाठविण्याचा पत्ता

प्रा.डॉ. मा. मा. जाधव

'बळीवंश', नृसिंह पॅलेसच्या मागे, नरहरनगर,

नांदेड - ४३१ ६०५. भ्र. ९४२२८७४३३६.

e-mail : akshargatha@gmail.com



वार्षिक वर्गणी : ₹ २००/- त्रैवार्षिक वर्गणी : ₹ ५००/-

आजीव व्यक्ती : ₹ २०००/- संस्था : ₹ २५००/-

या अंकाचे मूल्य : ₹ १००/-

- वार्षिक वर्गणी केवळ मनीऑर्डर/डी.डी./ रोखीने भरावी.  
त्रैवार्षिक व आजीव वर्गणी मनीऑर्डर/डी.डी./धनादेश/धनाकर्ष  
'अक्षरगाथा' या नावाने पाठवावा.
- मनीऑर्डरने वर्गणी पाठवताना संदेशच्या ठिकाणी काळजीपूर्वक  
पूर्ण पत्ता, पीन कोड, संपर्क क्रमांकासह (फोन/भ्रमणध्वनी) लिहावा.



वर्गणीदार असेही होता येते

भारतीय स्टेट बँक (S.B.I.) यशवंतनगर, नांदेड शाखेच्या

'अक्षरगाथा' खाते नं. 32204333102 वर

IFC Code SBI No 001922 MICR Code 431002093

वर्गणी रक्कम + ₹ ३० (शाखा विनिमय फीस) भरून रकमेच्या चालानची झेरॉक्स  
प्रत व आपला पत्ता आमचे पत्त्यावर पाठवून देऊन आपणास वर्गणीदार होता येते.

महाराष्ट्र राज्य साहित्य आणि संस्कृती मंडळाने या  
नियतकालिकाच्या प्रकाशनार्थ अनुदान दिले असले तरी, या  
नियतकालिकातील लेखकांच्या विचारांशी मंडळ व शासन सहमत  
असेलच असे नाही.



## अनुक्रम

## विभाग : एक

- मराठीचा अभ्यासक्रम : काही विचार
- विद्यापीठीय अभ्यासक्रम : वास्तव आणि अपेक्षा (मुलाखत)
- एम.ए. मराठीचा अभ्यासक्रम
- विद्यापीठीय अभ्यासक्रमातील सुसूत्रता
- शिक्षणव्यवस्थेचे समकालीन वास्तव व सं. गा. वा. अमरावती विद्यापीठातील पदव्युत्तर मराठीचा अभ्यासक्रम
- उच्चशिक्षणातील मराठीचे अभ्यासक्रम
- (मराठी) भाषेचे अभ्यासक्रम: पदवी स्तर
- शिक्षणव्यवस्था : समकालीन वास्तव
- उच्च शिक्षणातील मराठी भाषेचा अभ्यासक्रम: वास्तव आणि अपेक्षा
- विद्यापीठस्तरावरील मराठीचे अभ्यासक्रम : काही अधिक-उणे

वसंत आबाजी डहाके .....	०३
उत्तम कांबळे .....	०८
डॉ. यशवंत मनोहर .....	२१
डॉ. प्रमोद मुनघाटे .....	२५
डॉ. माधव पुटवाड .....	३१
डॉ. राहुल पुंगलिया .....	५१
डॉ. जयश्री पाटणकर .....	५५
डॉ. मनोज तायडे .....	६५
डॉ. सतीश बडवे .....	७३
डॉ. केशव तुपे .....	७७

## विभाग : दोन

- मराठी भाषा अभ्यासक्रम : अपेक्षा
- मराठी भाषा अध्ययन- अध्यापनाचा अभ्यासक्रम
- ✓ ■ पदवी व पदव्युत्तर स्तरावरील मराठीचा अभ्यासक्रम-एक विचार
- काळाची आव्हाने व मराठीचा अभ्यासक्रम

डॉ. अनिल गवळी .....	८१
प्रा. विजयकुमार पाईकराव .....	८४
डॉ. जगदीश आवटे .....	८८
डॉ. शिरीष बुधा पाटील .....	९२

## विभाग : तीन

- शिक्षण, राजकारण आणि राजकीय शिक्षण
- भाषा शिक्षण आणि विज्ञान साहित्य
- महाराजा सयाजीराव गायकवाड : लेखकांचे आश्रयदाते आणि प्रकाशकांचे पोशिंदे
- अभ्यासक्रम, ज्ञान आणि प्रभुत्व : नव-मार्क्सवादी मूल्यांकन

अ.रा. कामत .....	९७
डॉ. पंडित विद्यासागर .....	११०
बाबा भांड .....	११३
डॉ. दिलीप चव्हाण .....	१२४

## विभाग : चार

- पाठ्यपुस्तकातील मूल्याधिष्ठित शिक्षण
- भाषाशिक्षण आणि भाषाविज्ञान
- शालेय कविता: निवड आणि निकष
- माध्यमिक स्तरावरील मराठीचा अभ्यासक्रम
- मराठी भाषा: नव्या जबाबदाऱ्या

डॉ. अशोक राणा .....	१३४
डॉ. दिलीप धोंडगे .....	१४४
नारायण कुळकर्णी कवठेकर ...	१४९
डॉ. नंदकुमार मोरे .....	१५३
डॉ. सुवर्णा रा. गाडगे .....	१५९

## तुका म्हणे झरा

- अंधार पाहिलेला माणूस

डॉ. सतीश पावडे .....	१६५
----------------------	-----

- 'निवडणूक'

## हास्यगाथा

शीलवंत वाढवे .....	१७३
--------------------	-----



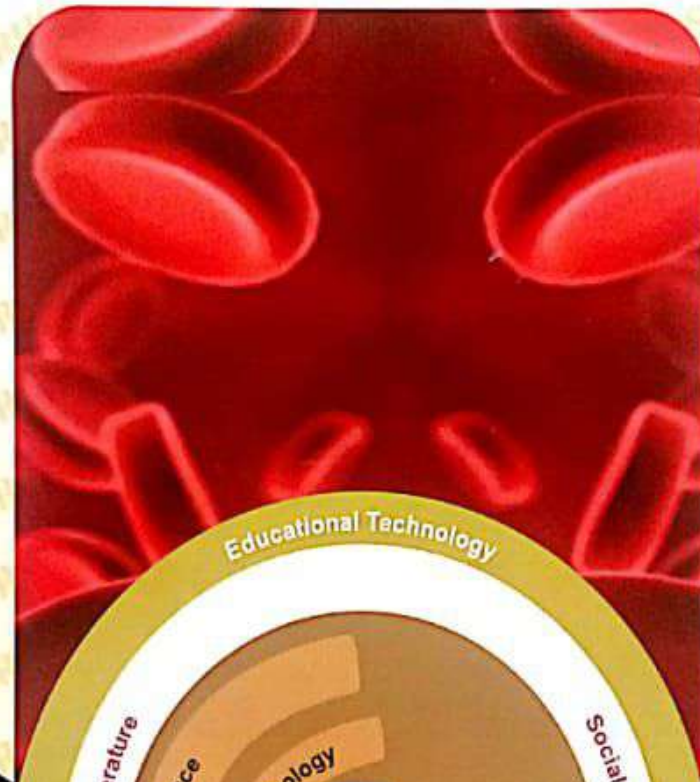
2090-95

UGC Approved Sr. No. 49366



SRJIS

ISSN -2278-8808



An International Peer Reviewed

Referred Quarterly

# SCHOLARLY RESEARCH JOURNAL FOR INTERDISCIPLINARY STUDIES

2090-95

JAN - FEB, 2018. VOL. 5, ISSUE -46

EDITOR IN CHIEF :: YASHPAL D. NETRAGAONKAR, Ph.D.



---

MARATHI PAPER

---

✓ 20	मुद्रित शोधनातील रोजगार संधी प्रा. डॉ. जगदीश आवटे	69-72
21	प्रसार माध्यमे आणि नोकरीच्या संधी प्रा. डॉ. निवृत्ती मिसाळ	73-74
22	व्यावहारिक मराठी आणि आधुनिक प्रसारमाध्यमांचे स्वरूप प्रा. डॉ. निलेश खरात	75-77
23	प्रसारमाध्यमे आणि नोकरीच्या संधी प्रा. मधुकर वैकरे	78-81
24	मराठी भाषा व नोकरीच्या संधी प्रा. डॉ. वसंत दामोदर सपकाळ	82-83
25	भाषा, साहित्य आणि व्यावसायिक संधी डॉ. कार्तिकी विजयकुमार नांगरे	84-86

---