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***gcc.margao@gmail.com***





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GCC Journal of Multi-Disciplinary Research is an annual publication of GCC Research and Publication Division, Government College of Commerce, Borda, Margao. The Journal aims to provide a platform for researchers is expressing their research findings and thoughts.



## Prologue

*We are academically happy and privileged to bring out the first issue of the GCC Journal of Multi-Disciplinary Research with ISSN number.*

*It was a challenging task to bring out a research Journal from a single faculty College with limited staff. Initially, the Journal will be an in-house publication for inculcating the idea of research as a part and parcel of teaching, moulding researching skill among young teachers and for equipping them for Ph.D. & M.Phil programmes.*

*All articles in the current issue were subjected to similarity check and only articles with less than 16% similarity were included.*

*In future, we propose to enhance the Journal as peer reviewed and referred annual publication seeking multi-disciplinary articles on issues concerning Goa state from independent researchers, scholars, teachers, etc. from all over the country and world.*

*The Journal during its future journey will strive to benchmark itself as the best in India and abroad by continuously improving its quality parameters.*

*We hope that this Journal will provide feasible solutions to the policy makers for addressing the concerns of the state.*

PRINCIPAL



## Editorial

It is said "Live so that when the final summons comes you will leave something more behind you than an epitaph on a tombstone or an obituary in a newspaper."

Peter Drucker has said "Knowledge has to be improved, challenged, and increased constantly, or it vanishes". A quest for knowledge is innate and not something that can be taught, but it can be nurtured. The research journal aims at disseminating the latest findings in facets of commerce, information technology, humanities, sporting front, etc. It aims at providing an impetus to minds dedicated to explore the diverse facets of their respective subject and ignite a flame and a thirst, to acquire more knowledge.

A study has been made with an in depth survey to see the implications of these technologies for societies, economies, businesses, and individuals in order to have a better understanding. Readers will find a host of important theoretical, empirical conceptual research findings and review papers of exceptional quality that contribute to and enrich thinking and practices. All papers submitted are original contributions

ASSOCIATE EDITOR



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# Public Perception about Railways: A Case Study of Konkan Railway Project in Goa

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Dr. Renji George Amballoor, Principal, Government College of Commerce, Borda, Margao, Goa.

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## ABSTRACT

*Konkan railway (KR) project which connected Mangalore in Karnataka to Roha in Mumbai through coastal rail line landed in lot of controversies from its initial days of inception. The present study examines the factors, events & circumstances contributing towards the negative perception about the project. Different policy suggestions are listed for changing the perception. The need for carrying out a detailed cost-benefit analysis is also put forward in the study to highlight the positive out-comes of the project.*

**KEY WORDS:** *Public Perception, Konkan railway, Migration.*

## INTRODUCTION

The Goa section of the Konkan railway (KR) project was started amid apprehensions and protest from different sections of stake-holders. The protesters argued that the project if materialized will harm the environment, culture and the social fabric of the society. The massive protest witnessed during the time gave a general impression that the Konkan railway project will doom the state with its adverse impacts. The public perception about the Konkan railway was highlighted through the following statement: "It is another good instance of modern development technology mindlessly ramming through and uprooting centuries of considered evolvement. A closer reckoning, however, shows it to be an excellent example of how an opportunistic, decadent and fractured polity coupled with irresponsible and callous bureaucracy can wreak environmental havoc of monstrous proportions". (Ecoforum, 1993).

The total length of Konkan Railway is 738.44 kms and passes through the west coast of India. The Konkan railway line from Mangalore to Roha is connected by Goa. The rail facilities both in terms of passenger and freight transport have witnessed a quantitative expansion after the completion of the KR project. The journey of Goans to the favorite destinations in India has become highly convenient after the project. Today, Goa is well connected with the rest of the country through rail network. Similarly the KR project has boosted the economic growth of Goa through the expansion of economic activities, employment creation, increased inflow of domestic tourists, connecting Goa with the other tourism corridors in India for foreign tourists, etc.

Even with all these positive contributions, the KR project is still looked upon by certain sections of the Goan society with a lot of suspicion. The present study is an attempt to understand the public perception about the KR project.

## **OBJECTIVES**

1. To understand the historical development of the Konkan railway project.
2. To understand the public perception about the Konkan railway project.
3. To suggest policy measures for creating favourable public perception.

## **METHODOLOGY**

The data for the study was put together from primary and secondary sources. The primary data was gathered from citizens who are residing in Goa for the last 10 years. A sample population of 200 each was interviewed from North and South Goa. The sample was selected on a random basis. A written questionnaire was used for collecting the data. The sample population identified were from different age groups, gender, and income strata, religious and political affiliations & identity.

The public perception of the respondents was gathered from their responses towards the positive and negative contributions of the Konkan railway. Different statistical techniques were employed for collection, tabulation, presentation and interpretation of data.

In the present study, perception includes all the processes by which an individual receives information about the environment-seeing, hearing, feeling, tasting and smelling. The study of these perceptual processes shows that their functioning is affected by three categories of variables: the objects or events being perceived, the environment in which perception occurs, and the individual doing the perceiving (Reitez, 1997).

In order to understand the perception, the sample population had to identify 3 major advantages and disadvantages each of KRP. For each of the variables listed under the category of advantages & disadvantages, the aggregate preference is calculated. Any variable with an aggregate value of 180 or more points was classified either as a primary advantage or disadvantage.

## **REVIEW OF LITERATURE**

There are no major studies about the public perception on Konkan railway. However, there are citizen's reports about the public perception on public utilities especially with respect to the efficiency in the delivery of public services.

Roads were the only major means of transport for the western coastal towns and villages of Goa, Karnataka and Mumbai. The topographical characters - hills, mountains, lakes, rivers, soft soil, etc.-of the Konkan region made a direct rail link between Mangalore and Mumbai a herculean task.. Union railway ministers like Madhu Dandavate and George



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Fernandes and parliamentarians like Nath Pai, Manohar Joshi, etc. who had political interest in the Konkan region, played a key role in making the project a reality.

### **DEVELOPMENT OF KR**

The origin of the Konkan railway can be traced back to 1966 with the construction of a railway line between Diva and Apta. In 1986 this railway line was extended up to Roha to oblige the needs of the industry. However, the link from Roha to Mangalore seemed to be a distant possibility.

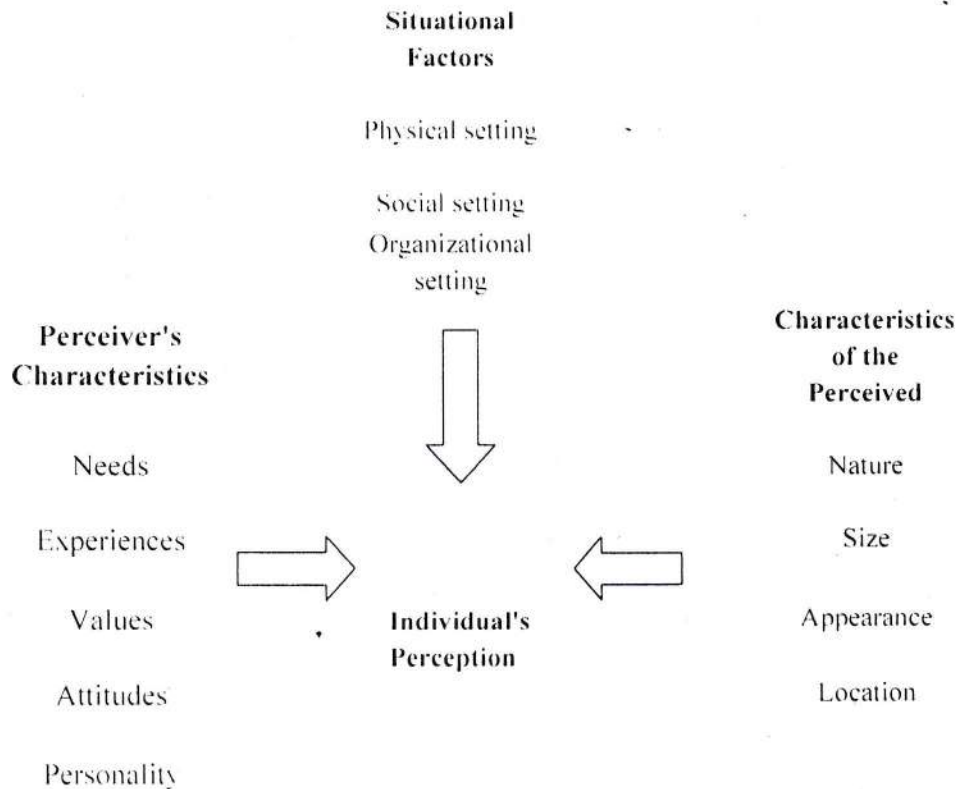
The Konkan rail project achieved momentum with Shri George Fernandes becoming the Railway Minister in 1989. In order to manage the construction and operation of the railway line, a public limited company - the Konkan Railway Corporation Limited (KRCL) became a legal entity on 19th July, 1990. The KRCL entered into an MoU with state governments of Maharashtra, Goa Karnataka and Kerala. The railway project was built under BOT ( Build, Operate & Transfer) mode. The KRCL had to raise its own funds for the construction. Shri. E. Sridharan, was appointed as its initial Chairman cum Managing Director. Its headquarters is located in CBD Belapur in Navi Mumbai.

The project cost was estimated to be Rs.867 crores. The final cost of the completed project has come to Rs.3555 crores, comprising of Rs.2520 crore as cost of works and Rs.1035 crore as financing costs. The project is financed through equity capital of Rs.800 crore and balance of Rs.2755 crore through market borrowings.

The rail project had to face a number of social, political cultural, legal and technological difficulties. The route had to be planned through very difficult terrain about which insufficient data and information (especially of Maharashtra) was available. More than 2000 bridges and 91 tunnels had to be constructed in the regions with different topographical culture and ecological constituents. The occurrence of cave-ins, flash flood, and landslides, the presence of hard rocks, soft soil, higher water table, etc. were challenges contributing to the delay of the project.

Land acquisition related cases were another hurdle in the speedy implementation of the project. At many places, KRCL was able to persuade the families to give up their land voluntarily in lieu for employment.

The 105 kms stretch of KR project in Goa witnessed public opposition by different NGO's under the banner of Konkan Railway Re-Alignment Committee (KRRAC) with the tacit support of the Catholic church. They were of the opinion that the " coastal alignment of Konkan Railway would destroy the ecology, tear down the historical sites and disturb the everyday lives of people residing along the coastal belt of Goa". The KRRAC proposed an substitute for the coastal alignment which came to be known as



**Source:** *Organizational Behaviour : K Aswathappa*

### **DATA ANALYSIS**

About 87 to 90% of the respondents from both the districts were from the age groups – 20-25, 25-30, 30-35 and 35-40 years. The male-female composition of the respondents in North & South Goa was 93: 107 and 110:90 respectively. Seventy Three percent of respondents in South Goa were Christian community whereas eighty percent in North Goa were Hindus. About 8 to 9% respondents in both the districts were from other communities.

In North Goa, the primary advantages were the following:- employment generation, convenient travel, reduce the monopoly of bus operators, linkages with the rest of the country, cultural harmony, easy to purchase railway tickets and expansion of tourism. Whereas in South Goa, in addition to the primary advantages listed above, the respondents also included that Konkan railway saves time. The table below represents the aggregate points given by the respondents as far as the advantages of the Konkan railway are concerned. According to North Goa respondent, convenient travel was the highly preferred advantage of KRP.



Advantages	Aggregates of First Three Ranks	
	North Goa	South Goa
Employment generation	181	180
Boost for local economy	130	136
Convenient travel	188	185
Easy for Leisure trips	133	134
Expanded markets	134	135
Reduces the monopoly of bus operators	182	185
Linkages with rest of the country	182	181
Promotes Cultural Harmony	181	183
Timely Arrival of trains	134	138
Better Railway Information System	138	137
Easy to Purchase Tickets	181	139
Equips better Appreciation of Natural Beauty	135	137
Saves Time	137	186
Expansion of tourism	180	182

As far as the disadvantages were concerned, the aggregate scores are in favour of in-migration and increasing crimes whereas in South Goa the ranking was assigned to in-migration, environmental destruction and loss of cultural identity. In South Goa the response was sharper because the Konkan railway project is laid through settlement and agriculture zones. The table below describes the disadvantages of Konkan railway project listed by respondents of North & South Goa.

Dis-Advantages	Aggregates of First Three Ranks	
	North Goa	South Goa
In-migration	188	200
Increasing Crimes	189	182
Pollution	139	182
Environmental Destruction	183	200
Worsening Law & Order situation	183	181
Entry of inferior goods from neighbouring states	180	133
Loss of revenue for the bus operators	140	136
Loss of cultural identity	188	200
Easy spread of diseases	182	184
Spurious liquor	185	187

The respondents were told to make a cost benefit analysis of Konkan railway and to state which is dominant in general its advantages or disadvantages. According to 90% respondents from both North and South Goa, the disadvantages of Konkan railway are more prominent.

Both in North and South Goa, the respondents believed that the public perception about Konkan railway can be improved. In North Goa & South Goa, 131 & 147 respondents respectively believed that public perception about Konkan railway can be enhanced. Most of the respondents argued that the public perception is presently unfavourable due to economic, socio-cultural, historical, demographic, political, psychological and religious factors.

The respondents argued that Konkan railway has boosted the in-migration which has changed the demographic, socio-cultural and political dynamics in favour of migrants. Many believed that the economic opportunities created by Konkan railway have been grabbed by migrants. Many of the North Goa respondents were of the opinion that Konkan railway is through interior areas of the state in North Goa and many long distance trains hardly have any stops in their regions. Historically, the Portuguese rule has inflicted a lot of hardships and made them strangers in their own land. Many of the respondents believe that migrants will one day over take the local population in numbers and cause hardships. In the initial phase of the Konkan railway project, massive protests were with the support and blessings of the Catholic church. This segment of the society continue to speak lowly about Konkan railway due to religious perception developed in the early stages of this project.

### **CONCLUSIONS & SUGGESTIONS**

In the present study, it was found that public perception about Konkan Railway is influenced by economic, socio-cultural, historical, demographic, psychological and religious factors evolved over a period of time. These factors contributed towards the moulding of public perception both in positive and negative sense.

The respondents argued that Konkan Railway has boosted the in-migration which has changed the demographic, socio-cultural and political dynamics of the state. Many believed that the economic opportunities created by Konkan Railway have been grabbed by migrants. About 78% of the North Goa respondents were of the opinion that Konkan Railway is through interior areas of the state in North Goa and many long distance trains hardly have any stops in their regions.

The responses differed based on the place of residence, gender, age composition, religious background, employment status, educational achievements, etc. Seventy of the respondents strongly believed that the present public perception about Konkan Railway can be improved.



Following are the suggestions for improving the public perception about Konkan Railways:

1. The Konkan Railways should have more interactions with the public through regular meetings with the socio-political and cultural groups for addressing their areas of concerns.
2. Efforts should be made to recruit more Goans in the Konkan Railway project especially in higher managerial and engineering positions. The Konkan Railway can hold campus interviews in Goa. In case the required manpower is not locally available the same should be made known to the public also.
3. The Konkan Railway project has provided jobs to many of the Goan families who had lost the land for the project. However, information on such employment provided are not easily available in the public domain to quench the doubts of the critics.
4. The Konkan Railways should conduct studies on the beneficial aspects of Konkan railways in comparison to other modes of transport especially, the road transport. The findings of such studies should be made available to the public using the electronic and print media.
5. All inquiry counters of Konkan railway in Goa should be manned by persons who can get very well with the local population.
6. Facilities should be created in Konkan railway stations for the local self-help groups to display & sell their produce.
7. Un authorized entry of passengers in the reserved compartments & the practice of strangers dumping luggages under the reserved seats should be addressed by the Konkan railway. Preventing such incidents in the train during the period 10.00 pm to 8.00 am requires a very proactive railway staff.
8. The vehicle parking & the pre-paid taxi services at the main Konkan railway stations in Goa needs immediate attention of the authorities. Such services are used by unscrupulous elements to exploit passengers for earning super-normal profit. If such practices not bridled, the brand name of the Goa as a tourist destination & the reputation of KR project will be at stake.
9. Open counters in Konkan railway trains or at designated railway stations in collaboration with mineral water & soft drink suppliers to buy back the used bottles & other plastic items.
10. The cleanliness of the trains plying through Konkan route needs urgent attention atleast in the Goa section of the route. At designated railway stations in Goa or after every eight hours of journey, the bogies have to be cleaned. The task can be

entrusted to private agencies. Modern technology can be employed for ensuring the optimum cleanliness & sanitation at the shortest possible time. After cleaning, let the agency take the inputs from atleast two passengers on the feedback form.

11. The quality of the bed spread, pillow, blanket, towel, etc. provided to the passengers has to be improved. The tendency to provide already used materials to the new passenger is a matter of concern.
12. The Konkan Railway should, in partnership with the local TV channels, make documentaries about the beneficial advantages of the project. It will prove that many of the criticisms levelled against the project are myths, especially those relating to huge in-migration and sky rocketing crime graph of Goa. A survey of migrant passengers reaching Goa will reveal that they are in Goa not because of Konkan Railway but because of demand supply inequalities in the labour markets of Goa. A study of the perpetrators of crime who are languishing in jails of Goa may prove that the Konkan Railways has only an insignificant role in the leap-frogging crime statistics of Goa.
13. The Konkan Railway project should devise programmes to influence the moulding of positive perceptions among students in Goa. The Konkan Railways should start a train for 'Goa Darshan on Rails'. This train can ply from North to South Goa with stops at important places. During the train journey modern communication tools can be used for empowering the students about the advantages, highlights and milestones about the project and also for proving that many of the criticisms against the project are a part of mythology.
14. In all Konkan Railway stations, the public display boards should have entries in Konkani language. The railway reservation/cancellations forms should also be available in Konkani language.
15. Since many of the Konkan railway stations in Goa are away from main towns & cities, the railway should ply air conditioned buses with a premium fare to ferry the passengers to main towns.
16. The Konkan Railways should devise mechanisms for scientific solid waste management for the waste it generates while plying through Goa. There is a lot of criticism that the Konkan Railways are contributing to pollution and environmental degradation because of its unscientific waste management practices.
17. At many places, especially in fields and streams we can see the left over debris and concrete blocks from the inception of the project. Such rubbles should be removed immediately for making the fields and streams user friendly and aesthetically beautiful.



## **BIBLIOGRAPHY**

1. Government of Goa, Directorate of Planning, Statistics & Evaluation, Economic Survey 2010-2011. Panaji Goa.
2. Government of Goa, Directorate of Planning, Statistics & Evaluation, Economic Survey 2012-2013. Panaji- Goa.
3. S. Nakkiran, 2004, A Study on the Effectiveness of Public Distribution System in Rural Tamilnadu.
4. Padrakali, A. 2014, Consumer's attitude towards fair price shops, a study with reference to Tuticorin Town.
5. Ghanshyam Das Ojha, 1987, Organization and Management of Public Distribution System, Delhi: Mittal Publication.
6. Anju Kohli, Farida Shah and A. P. Chowdhary, 1997, Sustainable Development in Tribal and Backward Areas, New Delhi: Indus Publishing Company.

## **WEBSITES**

1. <http://goacivilsupplies.gov.in> dt. 3/12/2014
2. <http://fcamin.nic.in> dt. 28/10/2014
3. [http://ijnn.org/media\\_uploads/observer-2011-12-issue27-dipikaration.html](http://ijnn.org/media_uploads/observer-2011-12-issue27-dipikaration.html), dt.15/11/14

## **Consumer Perception towards Fair Price Shops: A Case Study of Fair Price Shops in Salcete-Goa**

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Riva R Paes, Assistant Professor in Commerce, Government College of Commerce, Borda, Margao, Goa.

### **ABSTRACT**

*The basic problem of India is raising prices. If the price index is analyzed, the continuous increase in price could be understood. In India, more than twenty per cent of the people live below the poverty line. A well organized Public Distribution System plays a significant role in alleviating the sufferings of the masses. Through the fair price shops the weaker section of the society can get the benefit of obtaining commodity at a price that is within their reach. This paper reflects on the consumer perception towards fair price shops and attempts to suggest some ways to enhance the offering to the masses.*

*The scope of the study has been restricted to state of Goa. In the study Salcete taluka is selected. Sample size for the study will be 100 respondents from selected fair price shop. Data will collected by both primary and secondary sources. Primary data will be collected through a questionnaire which will be filled by the respondents visiting fair price shop in Salcete taluka.*

**KEYWORDS:** Ration Card, Fair Price Shops, Consumer Perception, Public Distribution System.

### **INTRODUCTION**

Public distribution system (PDS) is an Indian food security system which is established by the Government of India under the Ministry of Consumer Affairs, Food, and Public Distribution which is managed jointly by the state governments in India. It distributes subsidized food and non-food items to people Below the Poverty Line (BPL) and . The major commodities which are distributed under Public distribution system include staple food grains, such as Rice, Wheat, Sugar, Edible Oil and Kerosene, through a network of public distribution shops (also known as ration shops) established in almost all states across the country. Food Corporation of India, which is a Government-owned corporation, procures and maintains the Public distribution system. In coverage and public expenditure, it is considered to be the most important food security network. Distribution of food grains to poor and the needy people throughout the country is managed by the state governments.



Both the central and state governments share the responsibility of regulating the Public distribution system. Where the central government is responsible for procurement, storage, transportation and bulk allocation of food grains, where as the state governments takes the responsibility for distributing the same to the consumers through the established network of Fair Price Shops (FPSs). The State governments are also responsible for operational responsibilities including the allocation and identification of families below poverty line, issuing of ration cards, supervision and monitoring the functioning of Fair Price Shops.

That as of date there are about 5,05,879 lakh Fair Price Shops (FPSs) spread across India. Locally these Fair Price Shops (FPSs) are popularly known as "ration shops" or "ration societies" and they chiefly sell rice, wheat, kerosene, edible oil and sugar at a price lower than the market price. Other essential commodities are also sold in these FPSs. To buy these items one must have a ration card issued by the State Government through its Department of Civil Supplies And Consumers Affairs or equivalent authorities. These shops are operated throughout the country by joint assistance of both Central and State government. However the items from these shops are cheaper than the same items which are available in the market but these items are of poor quality. These Ration shops are present in most localities, village's towns and cities.

In Goa there is a strong network of 501 Fair Price Shops spread across every nook and corner of State catering to each village and town for distributing food grains under the Targeted Public Distribution Scheme ie: Below the Poverty Line (BPL) and Above Poverty Line (APL).

### **OBJECTIVES OF THE STUDY**

Keeping in view the significance of fair price shops, the research work entitled Consumer's Perception toward Fair Price Shops: A Case Study of Fair Price Shops in Salcete-Goa was undertaken with the following specific objectives:

1. To study the factors influencing consumers' perception regarding the services rendered by fair price shops.
2. To study the benefits derived out of Fair Price Shops.
3. To understand the difficulties faced by consumer and consider their suggestion to improve the working in fair price shop.

### **METHODOLOGY OF THE STUDY**

To fulfill afore said objectives, the data was collected from both sources primary sources and secondary sources. The primary data were collected with support of

questionnaire from the sample respondents and the secondary data were collected from the various journals, books and website. The sample consisted of 100 random respondents making purchases from fair price shops in salcete-Goa.

### **REVIEW OF THE LITERATURE**

Dr. S. Nakkiran (2004) in his research 'A Study on the Effectiveness of Public Distribution System in Rural Tamilnadu' mentioned that lack of information on the non-availability of ration-articles was major reason for not lifting articles during certain times from the fair price shops.

Ghanshyam Das Ojha (1987). The fair price shops unlike the earlier cases, has economic viability. Nevertheless they suffered from continuous uncertainties about the release of quotas, excessive interference of the village political leaders, contempt of the consumers and the low morale of the employees is more pronounced in the rural areas than in the urban sector.

Anju Kohli, et al., (1997) in their book mentioned that as per the study made by S.Singh and R. Garg they found many defects in the existing public distribution system at the organizational and functional set-up. They say that this happens because of unawareness, poverty among consumers and lack of interest on the part of fair price shop dealers. They also found that fair price dealers have operational problems with district supply officers such as less stock to distribute, poor communication, delays in dealer's remuneration, poor quality of goods and lack of storage and transport facilities. Whereas, problems faced by consumers are basically timing of the fair price shop, ill behavior of dealers, poor measurement in the distribution and poor quality of goods.

According to Dipika Datta Pillay (2011) the government assumes that the problem of hunger and right to food is solved when food grains are supplied to the Fair Price Shop. But, they fail to keep a check on the loopholes. The urban poor are regularly looted by the fair price shop in their area of more pay for their monthly grains. Charging more than the government fixed rate, supplying less with tampered weights and selling kerosene in black are few of the issues residents are facing. According to a study conducted by the Associated Chambers of Commerce and Industry of India in 2006, more than one – third of the subsidized kerosene is being diverted to black markets or adulterated by owners of the PDS.

### **DATA ANALYSIS AND INTREPRETATION**

An attempt was made to understand consumer perception towards the fair price shops. The perception of consumers regarding the service, supply of commodities,



waiting time in queue, time taken by employee in billing, weighing, the treatment by salesmen, quality of commodities and the like.

#### **Frequency of purchase:**

Out of the sample customers, almost all buy rice regularly whether they are in actual need or not. The study reveals that the users of kerosene are very rare.

**Frequency of Purchase by the Respondents.**

<b>Commodity</b>	<b>Frequency</b>	<b>Regularly</b>	<b>Sometimes</b>	<b>Not at all</b>
Rice	80	8	12	
Wheat	48	12	30	
Edible Oil	53	18	29	
Kerosene	9	21	70	
Sugar	63	18	19	

From the above table it could be noted that 80 the sample respondents buy their rice quota regularly whereas sugar is purchased by 63 respondents. In the case of oil, the regular purchasers are 53, whereas wheat is purchased by only 48 persons. In respect of kerosene the regular users only 9. Further, it could be said that the sample respondents give first preference to rice, followed by sugar and oil while buying their quota from the fair price shops. All the sample respondents said that they are eligible to get all articles from the fair price shop and there is no compulsion of buying any articles.

#### **Quality of goods supplied by fair price shops:**

The quality of the articles supplied by the fair price shops influence the consumers' buying pattern. The following table shows the opinion of the sample respondents regarding the quality of the products supplied through the fair price shops.

### Quality of Goods

Quality Commodity	Good 1	Fair 2	Poor 3
Rice	65	25	10
Wheat	58	27	15
Edible Oil	46	28	26
Kerosene	93	05	02
Sugar	68	19	13

From the above table it could be stated that the quality of sugar ranks first followed by rice, wheat and oil. In the case of rice 10 sample respondents opined that the quality of rice is poor. Whereas, in respect of oil 26 per cent of them opined that the quality is poor.

### Reasons for purchasing in fair price shops:

The reason for purchasing the goods from the fair price shops is reasonable price and correct measurement. Non availability of these articles in the open market is the least ranked reason for purchase from fair price shop.

### Number of Visits:

The fair price shops ensure supply of all rationed articles on all working days depending upon existence of stock. The sample survey reveals that out of 100 consumers, 94 per cent opined that they visit the fair price shop once in a month whereas, the remaining visit twice or thrice in a month to purchase different commodities.

### Regularity and Extra Units:

All the sample consumers were of the same opinion that they receive their monthly quota regularly. The consumers also can't buy extra units from the fair price shops.



### Reasons for Non-purchase from fair price shop:

The following table shows the reasons for not purchasing the rationed articles from the fair price shops.

Reasons for non-purchase by respondents

Commodity	Poor Quality	Not Necessary
Rice	10	2
Wheat	7	23
Edible Oil	10	19
Kerosene	-	70
Sugar	5	14

Kerosene is not purchased by 70 sample consumers because they do not need kerosene. Because of poor quality 10 consumers do not purchase rice. Among the non buyers of wheat 7 feel that the quality of wheat is very poor. 23 respondents feel that they do not need wheat. The quality of oil is considered to be poor by 10 sample consumers and 19 sample consumers feel that oil is not necessary. 14 sample consumers feel that sugar is not necessary and 5 sample consumers feel that it is of poor quality.

Some of the sample consumers said they are not in the position to purchase some commodities like oil, sugar and kerosene because they are not available at their fair price shop.

### Measurement:

Among the 100 sample consumers 86 consumers are satisfied with the measurements and 14 consumers are dissatisfied with the measurements. Most of the respondents do not weigh the products which are purchased from the fair price shops. The dissatisfied consumers feel that there is regular under-weighment of commodities purchased from the fair price shop.

**Information about the supply:**

Usually the data of supply of rationed articles is displayed by the fair price shops on their notice board. But the sample survey reveals that only 20 per cent of the consumers get the information from the notice board, 63 per cent of them get the information through their neighbors, and 17 per cent get the information by making direct enquiry from the fair price shops.

**Consumers' opinion regarding Business Hours:**

The consumers gave a mixed opinion on the business hours of the fair price shops. Some said the fair price shop in their locality is open only in the morning, whereas some said that the shop is open only in the evening. There were some responders who said that the fair price shop is open for full day in the morning, the supply commences only after 8.30 a.m., closes at 12.00 p.m., after noon supply commences by 3.00 p.m. and by 5.00 p.m. the supply is stopped.

This causes inconvenience to the salaried class and wage earners, but they ask their neighbors or relatives to collect their monthly quota. The sample survey reveals that out of 100 (12 per cent) of the consumers feel that the business hours are inconvenient. Because of this inconvenience they have to even forgo their monthly quota. Many of the consumers feel that the fair price shops should be open on Sunday.

**Purchasing rationed articles from other's cards:**

The survey reveals that only 18 per cent of the respondents are depending upon other people's ration card in addition to their own cards. They prefer to buy rice, sugar, wheat and oil by borrowing others' cards, 47 per cent of the consumers lend their ration card to others to purchase from the fair price shop. None of the surveyed consumer sell the rationed articles purchased from the fair price shop.

**Inspection of Fair price Shops:**

The existence and working of vigilance committee was not known by 60 per cent of the sample consumers. Majority of the consumers are satisfied with the inspection work of inspecting officers. The study reveals that 70% sample consumers are satisfied with the services of inspecting officers. Nevertheless 30 per cent consumers are not satisfied with the services of inspection officers.

The fair price shop owner shall maintain records of all the ration card holders, stock registers, issue or sale registers, etc. as may be prescribed either by the Central



Government or the State Government. It is binding on the F.P.S. owner to allow inspection of these documents by the members of Gram Panchayats, Municipalities, Vigilance Committees, recognized Non Government Organizations or any local citizens as the case may be on a day/time (two hours) notified for this purpose once every week. Friday is fixed as the day of inspection (two hours).

#### **Standard of Living:**

The survey reveals that the respondents feel that the fair price shops meet the consumption needs of masses, by controlling the prices of essential commodities and making them available at reasonable prices to the venerable section of the society. Hence, fair price shop improves the standard of living of living of the consumers.

#### **Behaviour of Sales people:**

The sales people in the fair price shops do not behave properly. Some consumers are rendered proper service whereas other consumers are not properly treated. 64 per cent of the sample consumers are not satisfied with the services rendered by the sales people in the fair price shops. The sales people are not courteous to the consumers: they demand exact changes for buying rationed articles. It has been observed that they do not give prompt replies to the consumers' enquiries. The sales people give preferential treatment to those consumers who have political influence.

The time taken by the sales people for preparation of bills and delivery of goods in fair price shops is considered as reasonable by 70 per cent of the consumers. But, they are not satisfied with the waiting time to get their quota. They say many a time the sales people are not in their place during working hours when they go to collect their monthly quota.

#### **Supply of Items**

The consumers are not assured of the supply if they do not purchase immediately. The supply of commodities will be restricted to the stock on hand. Thus, the consumers are not assured of their quota every month. Only if they are able to buy when the stock is on hand and within business hours, the consumers will be supplied with commodities. Because of this situation every consumer visits the shops immediately when he hears about the supply of commodities. Thus, uncertainty as regards the supply of commodities creates a long queue on the first few days of commencement of supply of commodities. All the consumers were of the opinion that during the time of general elections the supply of items is uninterrupted.

## **CONCLUSION**

The fair price shops play a major role in the life of the society. They help in providing essential commodities to the vulnerable section of the society at reasonable price. The quality of commodities supplied by the fair price shops has an impact on the purchasing pattern of the consumer. An attempt must be made to provide good quality products. The distribution system performs the important function in distributing essential commodities to the vulnerable sections of the society; though distribution system has many weaknesses.

The behavior of sales people must be fair to all, they must be courteous and helpful to all those who visit the fair price shop. The Food Corporation of India should ensure that there is no shortage of commodities and all the ration card holders get their monthly quota regularly. The grievances of the consumers must be heard and also suitable action must be taken accordingly.

## **SUGGESTIONS**

To improve the current system, the following suggestions are furnished :

1. Personnel-in-charge of the department should be chosen locally.
2. Food Corporation of India (F.C.I.) and other prominent agencies should provide better quality of food grains for distribution.
3. The Civil Supplies Corporation along with its associated authorized agencies should open more fair price shops in all villages special in remote rural areas.
4. The fair price dealers rarely display rate chart and quantity available in the block-boards in front of the fair price shop. This should be compulsorily enforced.
5. Should encourage community based storage facilities to tackle distributions and availability problems.
6. The old system of quota based on number of members in the family must be reverted.
7. Interactive District Website may be used for effective Management Information System. Improve mechanisms for communication of availability or non-availability of food grains at FPS.



8. Timely distribution of Targeted Public Distribution System (TPDS) Commodities should be one of the priorities for a proper distribution system. Measures should be taken by all the States/Union territories to ensure that the quota of food grains for particular month is available with each and every Fair Price Shop by end of the previous month for timely distribution to the beneficiaries.
9. Community participation in monitoring of Public Distribution System should be encouraged by taking measures such as social audit by local bodies/ community groups/ NGOs. SMS based information made available to Ration Card holders, etc.
10. All important information concerning TPDS in the State/UT may be made public through websites, Call-Centers, Press/Electronic Media on a regular basis.
11. There should be a responsive Grievance Redressal Mechanism, display of information about rights and duties in every FPS, helpline in the form of Call-centre with toll-free numbers and web based complaint registration and monitoring system.
12. Grievance Redressal Mechanism is to be set up at the National, State and district levels with necessary infrastructure and staff.

#### **BIBLIOGRAPHY**

1. Government of Goa, Directorate of Planning, Statistics & Evaluation, Economic Survey 2010-2011, Panaji - Goa.
2. Government of Goa, Directorate of Planning, Statistics & Evaluation, Economic Survey 2012-2013, Panaji - Goa.
3. Dr. S. Nakkiran, 2004, A Study on the Effectiveness of Public Distribution System in Rural Tamilnadu.
4. Padrakali, A, 2014, Consumer's attitude towards fair price shops, a study with reference to Tuticorin Town.
5. Ghanshyam Das Ojha, 1987, Organization and Management of Public Distribution System, Delhi: Mittal Publication.
6. Anju Kohli, Farida Shah and A. P. Chowdhary, 1997, Sustainable Development in Tribal and Backward Areas, New Delhi: Indus Publishing Company.

#### **WEBSITES:**

1. <http://goacivilsupplies.gov.in> dt. 3/12/2014
2. <http://fcamin.nic.in> dt. 28/10/2014
3. [http://ijmm.org/media/uploads/observer\\_2011\\_12\\_issue27\\_dipikaration.html](http://ijmm.org/media/uploads/observer_2011_12_issue27_dipikaration.html) dt. 15/11/14

## A Brief Study on "Forward Shift Sequence" and "Backward Shift Sequence" In IR

Heramb B. Aiya, Assistant Professor in Commerce, Government College of Commerce, Borda, Margao, Goa.

### ABSTRACT

This research article is an introduction of " $i^{\text{th}}$  Forward Shift Sequence" and " $i^{\text{th}}$  Backward Shift Sequence" in IR. Illustration of these "Shift Sequences" is given with the help of examples. Algebraic properties of these "Shift Sequences" are under study. An effort is made to prove the following statements:

1. If a sequence in IR is bounded, then "Shift Sequences" are bounded.
2. If a sequence in IR is convergent, then "Shift Sequences" are convergent.
3. If a sequence in IR with is Cauchy, then "Shift Sequences" are Cauchy.

This research articles has been laid on the basis of many concepts and results on sequences in IR with usual metrič. The research study is based on secondary data which will be collected from various sources such as text books, research articles etc.

**KEYWORDS:**  $i^{\text{th}}$  Forward Shift Sequence,  $i^{\text{th}}$  Backward Shift Sequence, Shift Sequences, Convergent Sequence, Bounded Sequence, Cauchy Sequence.

### REVIEW OF LITERATURE:

1. **SEQUENCE IN IR:-** A sequence in IR, is a function  $f: \mathbb{N} \rightarrow \mathbb{R}$ . It is usually denoted by  $(x_n)$ , where " $x_n$ " is called the  $n^{\text{th}}$  term of the sequence  $(x_n)$ . It is also denoted by  $\bar{x} = (x_1, x_2, \dots, x_n, \dots)$ .

e.g. (1) Let  $x_n = \frac{1}{n} \forall n \in \mathbb{N}$ . Then  $\bar{x} = (1, \frac{1}{2}, \frac{1}{3}, \dots, \frac{1}{n}, \dots)$  is a real sequence.

(2) Let  $y_n = n \forall n \in \mathbb{N}$ . Then  $y = (1, 2, 3, \dots, n, \dots)$  is a real sequence.

2. **BOUNDED SEQUENCE:-** A real sequence  $\bar{x} = (x_n)$ , is said to be bounded if  $\exists M > 0$  such that  $|x_n| \leq M \forall n \in \mathbb{N}$ .

3. **CONVERGENT SEQUENCE IN IR:-** A real sequence  $\bar{x} = (x_n)$ , is said to be convergent if  $\exists x \in \mathbb{R}$  such that for any given  $\varepsilon > 0$ ,  $\exists n_0 \in \mathbb{N}$  such that  $|x_n - x| < \varepsilon \forall n > n_0$ .



Here,  $x$  is called **limit** of a sequence  $\bar{x} = (x_n)$  and is denoted by  $\lim_{n \rightarrow \infty} x_n = x$  or

$\lim_{n \rightarrow \infty} \bar{x} = x$ . We also denote this by writing ' $x_n \rightarrow x$ ' or ' $\bar{x} \rightarrow x$ ' read as  $(x_n)$

converges to  $x$  or  $\bar{x}$  converges  $x$ .

If the sequence is **not convergent**, then it is said to be **divergent**.

4. **CACHY SEQUENCE IN IR:-** A real sequence  $\bar{x} = (x_n)$  is said to be **Cauchy** if for any given  $\varepsilon > 0$ ,  $\exists n_0 \in \mathbb{N}$  such that  $|x_n - x_m| < \varepsilon$   
 $\forall n, m \geq n_0$ .

5. **SUBSEQUENCE OF A SEQUENCE:-** Let  $(x_n)$  be any real sequence and  $(n_1, n_2, \dots, n_k, \dots)$  be strictly increasing sequence of natural numbers. Then,  $(x_{n_k})$  is called a subsequence of  $(x_n)$ .

e.g. Consider  $x_n = n \forall n \in \mathbb{N}$ .

Then,  $(x_{2n})$ ,  $(x_{n+1})$  and  $(x_{2n+1})$  are subsequences of  $(x_n)$ .

6. Every subsequence of convergent sequence in **IR** is convergent.

### FORWARD SHIFT SEQUENCE AND BACKWARD SHIFT SEQUENCE

**FORWARD SHIFT SEQUENCE:-** Let  $x = (x_1, x_2, \dots, x_n, \dots)$  be a sequence in **IR**. Then, the  $i^{\text{th}}$  forward shift sequence corresponding to  $x$  is denoted by  $S^i \bar{x}$  and is defined as,  $y = S^i \bar{x} = (0, 0, \dots, 0(i^{\text{th}} \text{ place}), x_1, x_2, \dots, x_n, \dots)$ .

If  $\bar{y} = S^i \bar{x} = (y_1, y_2, \dots, y_n, \dots)$ , then  $y_n = \begin{cases} 0 & : 1 \leq n \leq i \\ x_{n-i} & : n \geq i+1 \end{cases}$

e.g. Let  $x = (1, \frac{1}{2}, \frac{1}{3}, \dots, \frac{1}{n}, \dots)$ . Then,  $\bar{y} = S^4 x = (0, 0, 0, 0, 1, \frac{1}{2},$

$\frac{1}{3}, \dots)$ .

Here,  $y_n = \begin{cases} 0 & : 1 \leq n < 4 \\ \frac{1}{n-4} & : n \geq 5 \end{cases}$

**BACKWARD SHIFT SEQUENCE:-** Let  $\bar{x} = (x_1, x_2, \dots, x_n, \dots)$  be a sequence in **IR**. Then, the  $i^{\text{th}}$  backward shift sequence corresponding to  $\bar{x}$  is denoted by  $S^{-i} \bar{x}$  and is defined as,  $\bar{z} = S^{-i} \bar{x} = (x_{i+1}, x_{i+2}, x_{i+3}, \dots)$ .

If  $\bar{z} = S^{-i} \bar{x} = (z_1, z_2, \dots, z_n, \dots)$ , then  $z_n = x_{i+n} \forall n \in \mathbb{N}$ .

eg: Let  $\bar{x} = (1, 2, 3, \dots, n, \dots)$ . Then,  $\bar{y} = S^{-8}\bar{x} = (9, 10, 11, 12, \dots)$ .

Here,  $z_n = n + 8 \forall n \in \mathbb{N}$ .

### ALGEBRAIC PROPERTIES OF $i^{\text{th}}$ FORWARD SHIFT SEQUENCE:

Let  $x = (x_1, x_2, \dots, x_n, \dots)$  and  $\bar{y} = (y_1, y_2, \dots, y_n, \dots)$  be sequences in  $\mathbb{R}$ .

$$(1) S^i(\bar{x} + \bar{y}) = S^i\bar{x} + S^i\bar{y}.$$

Proof:  $\because \bar{x} = (x_1, x_2, \dots, x_n, \dots)$  and  $\bar{y} = (y_1, y_2, \dots, y_n, \dots)$

$\therefore S^i\bar{x} = (0, 0, \dots, 0(i^{\text{th}} \text{ place}), x_1, x_2, \dots, x_n, \dots)$  and

$S^i\bar{y} = (0, 0, \dots, 0(i^{\text{th}} \text{ place}), y_1, y_2, \dots, y_n, \dots)$ .

$\therefore S^i\bar{x} + S^i\bar{y} = (0, 0, \dots, 0(i^{\text{th}} \text{ place}), x_1, x_2, \dots, x_n, \dots) +$

$(0, 0, \dots, 0(i^{\text{th}} \text{ place}), y_1, y_2, \dots, y_n, \dots)$

$= (0, 0, \dots, 0(i^{\text{th}} \text{ place}), x_1 + y_1, x_2 + y_2, \dots$

$x_n + y_n, \dots)$

$= S^i(x + y)$

$\therefore S^i(\bar{x} + \bar{y}) = S^i\bar{x} + S^i\bar{y}.$

$$(2) S^i(\alpha \bar{x}) = \alpha S^i\bar{x}.$$

Proof:  $\because \bar{x} = (x_1, x_2, \dots, x_n, \dots)$

$\therefore \alpha\bar{x} = (\alpha x_1, \alpha x_2, \dots, \alpha x_n, \dots)$  and  $S^i\bar{x} = (0, 0, \dots, 0(i^{\text{th}} \text{ place}), x_1, x_2, \dots, x_n, \dots)$ .

$\therefore S^i(\alpha \bar{x}) = (0, 0, \dots, 0(i^{\text{th}} \text{ place}), \alpha x_1, \alpha x_2, \dots, \alpha x_n, \dots)$

$= \alpha (0, 0, \dots, 0(i^{\text{th}} \text{ place}), x_1, x_2, \dots, x_n, \dots)$

$= \alpha S^i\bar{x}$

$\therefore S^i(\alpha \bar{x}) = \alpha S^i\bar{x}.$

$$(3) S^i(\bar{x} \bar{y}) = (S^i\bar{x})(S^i\bar{y}).$$

Proof:  $\because \bar{x} = (x_1, x_2, \dots, x_n, \dots)$  and  $\bar{y} = (y_1, y_2, \dots, y_n, \dots)$

$\therefore S^i\bar{x} = (0, 0, \dots, 0(i^{\text{th}} \text{ place}), x_1, x_2, \dots, x_n, \dots)$ .

$S^i\bar{y} = (0, 0, \dots, 0(i^{\text{th}} \text{ place}), y_1, y_2, \dots, y_n, \dots)$  and

$\bar{x} \bar{y} = (x_1 y_1, x_2 y_2, \dots, x_n y_n, \dots)$

$\therefore (S^i\bar{x})(S^i\bar{y}) = (0, 0, \dots, 0(i^{\text{th}} \text{ place}), x_1, x_2, \dots, x_n, \dots)$

$(0, 0, \dots, 0(i^{\text{th}} \text{ place}), y_1, y_2, \dots, y_n, \dots)$

$= (0, 0, \dots, 0(i^{\text{th}} \text{ place}), x_1 y_1, x_2 y_2, \dots, x_n y_n, \dots)$

$= S^i(\bar{x} \bar{y})$

$\therefore S^i(\bar{x} \bar{y}) = (S^i\bar{x})(S^i\bar{y}).$

### ALGEBRAIC PROPERTIES OF $i^{\text{th}}$ BACKWARD SHIFT SEQUENCE:

Let  $\bar{x} = (x_1, x_2, \dots, x_n, \dots)$  and  $\bar{y} = (y_1, y_2, \dots, y_n, \dots)$  be sequences in  $\mathbb{R}$ .

$$(1) S^{-i}(\bar{x} \pm \bar{y}) = S^{-i} \bar{x} \pm S^{-i} \bar{y}.$$

**Proof:**  $\because \bar{x} = (x_1, x_2, \dots, x_n, \dots)$  and  $\bar{y} = (y_1, y_2, \dots, y_n, \dots)$

$$\therefore S^{-i} \bar{x} = (x_{i+1}, x_{i+2}, x_{i+3}, \dots)$$

$$S^{-i} \bar{y} = (y_{i+1}, y_{i+2}, y_{i+3}, \dots).$$

$$\therefore S^{-i} \bar{x} \pm S^{-i} \bar{y} = (x_{i+1}, x_{i+2}, x_{i+3}, \dots) \pm (y_{i+1}, y_{i+2}, y_{i+3}, \dots)$$

$$= (x_{i+1} \pm y_{i+1}, x_{i+2} \pm y_{i+2}, x_{i+3} \pm y_{i+3}, \dots)$$

$$= S^{-i}(\bar{x} \pm \bar{y})$$

$$\therefore S^{-i}(\bar{x} \pm \bar{y}) = S^{-i} \bar{x} \pm S^{-i} \bar{y}.$$

$$(2) S^{-i}(\alpha \bar{x}) = \alpha S^{-i} \bar{x}.$$

**Proof:**  $\because \bar{x} = (x_1, x_2, \dots, x_n, \dots)$

$$\therefore \alpha \bar{x} = (\alpha x_1, \alpha x_2, \dots, \alpha x_n, \dots) \text{ and } S^{-i} \bar{x} = (x_{i+1}, x_{i+2}, x_{i+3}, \dots).$$

$$\therefore S^{-i}(\alpha \bar{x}) = (\alpha x_{i+1}, \alpha x_{i+2}, \alpha x_{i+3}, \dots)$$

$$= \alpha (x_{i+1}, x_{i+2}, x_{i+3}, \dots)$$

$$= \alpha S^{-i} \bar{x}$$

$$\therefore S^{-i}(\alpha \bar{x}) = \alpha S^{-i} \bar{x}.$$

$$(3) S^{-i}(\bar{x} \bar{y}) = (S^{-i} \bar{x})(S^{-i} \bar{y}).$$

**Proof:**  $\because \bar{x} = (x_1, x_2, \dots, x_n, \dots)$  and  $\bar{y} = (y_1, y_2, \dots, y_n, \dots)$

$$\therefore S^{-i} \bar{x} = (x_{i+1}, x_{i+2}, x_{i+3}, \dots),$$

$$S^{-i} \bar{y} = (y_{i+1}, y_{i+2}, y_{i+3}, \dots) \text{ and}$$

$$\bar{x} \bar{y} = (x_1 y_1, x_2 y_2, \dots, x_n y_n, \dots).$$

$$\therefore (S^{-i} \bar{x})(S^{-i} \bar{y}) = (x_{i+1}, x_{i+2}, x_{i+3}, \dots)(y_{i+1}, y_{i+2}, y_{i+3}, \dots)$$

$$= (x_{i+1} y_{i+1}, x_{i+2} y_{i+2}, x_{i+3} y_{i+3}, \dots)$$

$$= S^{-i}(\bar{x} \bar{y})$$

$$\therefore S^{-i}(\bar{x} \bar{y}) = (S^{-i} \bar{x})(S^{-i} \bar{y}).$$

**Theorem:-** Let  $x = (x_n)$  be a bounded real sequence. Then,  $S^i x$  and  $S^{-i} \bar{x}$  are bounded.

**Proof:-**  $\because \bar{x} = (x_n)$  is bounded.

$$\therefore \exists M > 0 \text{ such that } |x_n| \leq M \quad \forall n \in \mathbb{N}.$$

$$\text{Let } \bar{y} = S^i \bar{x} = (y_1, y_2, \dots, y_n, \dots).$$



$$\therefore y_n = \begin{cases} 0 & ; 1 \leq n \leq i \\ x_{n-i} & ; n \geq i+1 \end{cases}$$

$$\because M > 0,$$

$$\therefore |y_n| = 0 < M \quad \forall n \text{ such that } 1 \leq n \leq i.$$

$$\text{For } n \geq i+1, |y_n| = |x_{n-i}| \leq M.$$

$$\therefore |y_n| \leq M \quad \forall n \in \mathbb{IN}.$$

$$\therefore \bar{y} = S^i \bar{x} \text{ is a bounded sequence.}$$

$$\text{Consider, } z = S^{-i} \bar{x} = (z_1, z_2, \dots, z_n, \dots)$$

$$\text{where, } z_n = x_{i+n} \quad \forall n \in \mathbb{IN}.$$

$$\therefore |z_n| = |x_{i+n}| \leq M \quad \forall n \in \mathbb{IN}.$$

$$\therefore z = S^{-i} \bar{x} \text{ is a bounded sequence.}$$

**Theorem:-** Let  $\bar{x} = (x_n)$  be a real convergent sequence converging to  $x \in \mathbb{IR}$ . Then,  $S^i \bar{x}$  and  $S^{-i} \bar{x}$  are also convergent to 'x'.

**Proof:-** Let  $\varepsilon > 0$  be arbitrary.

$$\because \bar{x} = (x_n) \text{ is convergent to 'x'}$$

$$\therefore \exists n_0 \in \mathbb{IN} \text{ such that } |x_n - x| < \varepsilon \quad \forall n > n_0.$$

$$\text{Let } \bar{y} = S^i \bar{x} = (y_1, y_2, \dots, y_n, \dots).$$

$$\therefore y_n = \begin{cases} 0 & ; 1 \leq n \leq i \\ x_{n-i} & ; n \geq i+1 \end{cases}$$

$$\text{Let } N = n_0 + i.$$

$$\text{If } n \geq N = n_0 + i, \text{ then } n - i > n_0.$$

$$\therefore |x_{n-i} - x| < \varepsilon$$

$$\text{i.e. } |y_n - x| < \varepsilon$$

$$\therefore n \geq N \Rightarrow |y_n - x| < \varepsilon$$

$$\text{i.e. } |y_n - x| < \varepsilon \quad \forall n > N.$$

$$\therefore y \rightarrow x.$$

$$\text{i.e. } S^i \bar{x} \rightarrow x.$$

$$\text{Consider, } z = S^{-i} \bar{x} = (z_1, z_2, \dots, z_n, \dots)$$

$$\text{where, } z_n = x_{i+n} \quad \forall n \in \mathbb{IN}.$$

$$\text{If } n \geq n_0, \text{ then } n + i \geq n_0 + i \geq n_0.$$

$$\therefore |x_{n+i} - x| < \varepsilon.$$

$$\text{i.e. } |z_n - x| < \varepsilon.$$

$$\therefore n \geq n_0 \Rightarrow |z_n - x| < \varepsilon.$$

$$\text{i.e. } |z_n - x| < \varepsilon \quad \forall n \geq n_0.$$

$$\therefore \bar{z} \rightarrow x.$$

$$\text{i.e. } S^{-i} \bar{x} \rightarrow x.$$

Hence,  $S^i x$  and  $S^{-i} x$  are both convergent to 'x'.

**Theorem:-** Let  $\bar{x} = (x_n)$  be a real Cauchy sequence. Then,  $S^i \bar{x}$  and  $S^{-i} \bar{x}$  are also Cauchy.

**Proof:-** Let  $\varepsilon > 0$  be arbitrary.

$\because \bar{x} = (x_n)$  is Cauchy.

$\therefore \exists n_0 \in \mathbb{N}$  such that  $|x_n - x_m| < \varepsilon \quad \forall n, m \geq n_0$ .

Let  $\bar{y} = S^i \bar{x} = (y_1, y_2, \dots, y_n, \dots)$ .

$$\therefore y_n = \begin{cases} 0 & ; 1 \leq n \leq i \\ x_{n-i} & ; n \geq i+1 \end{cases}$$

Let  $N = n_0 + i$ .

If  $n, m \geq N = n_0 + i$ , then  $n - i, m - i \geq n_0$ .

$$\therefore |x_{n-i} - x_{m-i}| < \varepsilon$$

$$\text{i.e. } |y_n - y_m| < \varepsilon$$

$$\therefore n, m \geq N \Rightarrow |y_n - y_m| < \varepsilon$$

$$\text{i.e. } |y_n - y_m| < \varepsilon \quad \forall n, m \geq N.$$

$\therefore \bar{y} = S^i \bar{x}$  is a Cauchy sequence.

Consider,  $\bar{z} = S^{-i} \bar{x} = (z_1, z_2, \dots, z_n, \dots)$

where,  $z_n = x_{n+i} \quad \forall n \in \mathbb{N}$ .

If  $n \geq n_0$ , then  $n + i, m + i \geq n_0 + i \geq n_0$ .

$$\therefore |x_{n+i} - x_{m+i}| < \varepsilon.$$

$$\text{i.e. } |z_n - z_m| < \varepsilon.$$

$$\therefore n, m \geq n_0 \Rightarrow |z_n - z_m| < \varepsilon.$$

$$\text{i.e. } |z_n - z_m| < \varepsilon \quad \forall n, m \geq n_0.$$

$\therefore \bar{z} = S^{-i} \bar{x}$  is a Cauchy sequence.

Hence,  $S^i \bar{x}$  and  $S^{-i} \bar{x}$  are both Cauchy sequences.

### SUBSEQUENCES OF $i^{\text{th}}$ FORWARD AND BACKWARD SEQUENCE:

**NOTE:-** (1) Every subsequences of  $\bar{x} = (x_n)$  is a subsequence of  $S^i \bar{x}$ .

(2) Every subsequences of  $S^{-i} \bar{x}$  is a subsequence of  $\bar{x} = (x_n)$ .

(3) Every subsequences of  $S^i \bar{x}$  is a subsequence of  $S^i \bar{x}$ .

**Theorem:-** Let  $\bar{x} = (x_n)$  be a real convergent sequence converging to  $x \in \mathbb{R}$ . Then, every subsequence of  $S^i \bar{x}$  and  $S^{-i} \bar{x}$  is also convergent to 'x'.

**Proof:-**  $\because \bar{x} \rightarrow x$ ,

$\therefore S^i \bar{x}$  and  $S^{-i} \bar{x}$  both converge to 'x'.

$\therefore$  every subsequence of  $S^i \bar{x}$  and  $S^{-i} \bar{x}$  is also convergent to 'x'.

### CONCLUSION:

1. If a sequence in  $\mathbb{R}$  is bounded, then the corresponding " $i^{\text{th}}$  Shift Sequences" are bounded.
2. If a sequence in  $\mathbb{R}$  is convergent, then the corresponding " $i^{\text{th}}$  Shift Sequences" are convergent.
3. If a sequence in  $\mathbb{R}$  with is Cauchy, then the corresponding " $i^{\text{th}}$  Shift Sequences" are Cauchy.

### BIBLIOGRAPHY:

1. *A text book of Mathematical Analysis- I* – R. D. Bhat- Vipul prakashan.
2. *Mathematical Analysis- II* – J. N. Sharma & A. R. Vasishtha- Krishna Prakashan Pvt. Ltd. (Meerut).
3. *Mathematical Analysis- Tom Apostol*- Narosa Book distributors Pvt. Ltd. New Delhi.
4. *Principles of Mathematical Analysis*- Walter Rudin- Tata McGraw Hill Higher Education.
5. *Introduction to Real Analysis*- Bartle & Sherbert- Wiley 2011.



# A Comparative Study of Emotional Intelligence of Achievers and Non-Achievers from Individual and Team Games

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Siddhesh Kesarkar, College Director of Physical Education, Government College of Commerce, Borda, Margao, Goa.

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## **ABSTRACT**

All our actions are due to the emotions. We cannot change or control them but we can manage them intelligently, this states the "Emotional Intelligence". This research aimed at exploring the Emotional Intelligence of Achievers and Non-Achievers of individual and Team games, for this purpose a Descriptive Comparative survey was used. The Emotional Intelligence questionnaires were given to 103 Achievers and 103 Non-Achievers from 5 team and 9 Individual games randomly from the inter-collegiate competition organized by Pune city zone in the year 2012-2013. The data collected was statistically tested by using one way ANOVA, the calculated F value was 13.969 and it showed that there was a significant difference at 0.05 level of significance between Emotional Intelligence of Achievers and Non-Achievers of Individual games ( $p=0.001$ ) and between Achievers and Non-Achievers of and Team games ( $p=0.001$ ) but there was no significant difference between Achievers of individual and Team games and Non Achievers of individual and Team games. So this study is concluded by saying that team and Individual games Achievers have a higher Emotional Intelligence compared to Non-Achievers of individual and Team games.

**KEYWORDS:** Emotional Intelligence, Achievers, Non-Achievers, Individual games, Team games.

## **INTRODUCTION**

Physical activity is the basic need for man to live a healthy life. It keeps us fit and away from diseases. For an athlete, staying fit and participating in competitive sport is the primary aim. The performance of an athlete depends on various factors like physical fitness, psychological state, societal aspect etc. Psychology is one of the main factors in performance. Emotions facilitate our actions, positive emotions help one to discover or learn certain things for themselves and prove to be useful in executing creative tasks and the tasks which require a short term memory, whereas tasks which require deeper processing and a long thought process are promoted by negative emotions (Kurus, 2002). Emotional Intelligence is the manner in which we manage our cognition along with our emotions (Lyons and Schneider, 2005).

Emotional Intelligence has become a popular construct in both academic and applied settings. Research indicates that Emotional Intelligence is associated with successful

performance outcomes in a range of domains including academics and business. Thought processes can be influenced by emotions by promoting different information processing strategies (Forgas, 1995; Schwarz, 1990). Emotional Intelligence helps us to improve our relationships with our colleagues, maintains control, lowers stress level, maintains motivation, enhances reputation within the team and organization, enables good communication and an ability to influence others without conflict (Carmeli, 2003). Emotional Intelligence is defined as 'the ability to perceive, monitor, employ, and manage emotions within one and in others.

After a competition we get winners and losers which can be termed as Achievers and Non achievers. They differ from each other in various aspects. In traditional Olympics, in Greece, only the winners were appreciated and awarded whereas the runners up or the losers were considered as a disgrace (Coubertin 1896). In this study Achievers are the athletes who made up to the podium in Individual games, and both the finalist teams of the Team games. Non-Achievers are three athletes and two teams that didn't win a single match.

For the purpose of the study only 9 Individual games/events and 5 Team games were considered. Judo, Gymnastics, Swimming, Diving, 100mts, 1500mts, Discus Throw, Shot-Put, Javelin Throw were selected as the Individual events/games and 5 Team games considered were Volleyball, Basketball, Football, Kabbadi, Kho-Kho.

The study aimed at comparing the Emotional Intelligence of Achievers and Non-Achievers of individual and Team games. Where in the Achievers and Non-Achievers of individual and Team games were compared and Achievers of individual and Team games and Non-Achievers of individual and Team games were compared.

## **MATERIALS AND METHOD**

Descriptive Survey method was used to study the Emotional Intelligence of Achievers and Non-Achievers from individual and Team games/events. Descriptive Comparative Survey technique was used to conduct the research. 27 Achievers and 27 Non-Achievers from Individual games and 76 Achievers and 76 Non-Achievers from Team games were selected using Random Sampling Method (n=206). The data was collected with the help of the Emotional Intelligence scale which was developed in 2007 by Anukool Hyde, Sanjot Pethe, Upinder Dhar.

## **PROCEDURE**

In order to find out the Emotional Intelligence of Achievers and Non-Achievers the Emotional Intelligence Scale was used. The researcher carried out a pilot study to find if the scale was understandable to the athletes. It was carried out on 20 athletes. The results showed that the objective of the pilot study was achieved. The athletes understood the statements and could answer it.

The Emotional Intelligence scale was then administered on 206 athletes, which were Achievers and Non-Achievers of individual and Team games after their match. The score



that was derived from the scale depicted the Emotional Intelligence of the athlete. The data collected was later Statistically Analyzed and Interpreted.

### **STATISTICAL ANALYSIS**

To study the Emotional Intelligence of Achievers and NonAchievers of Individual and Team games, the researcher used the descriptive statistics for mean and standard deviation to describe the data, and to compare the difference of Emotional Intelligence one way ANOVA followed by Scheffe's post-hoc test was employed.

Based on the scores that were scored by the athletes in the Emotional Intelligence Scale, the number of athletes in each of the four groups has been shown along with its mean, standard deviation, minimum, maximum has been shown in the table below.

**Table No. 1**  
**Descriptive statistics of Emotional Intelligence for four groups of athletes**

<b>Athletes</b>	<b>Number</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Standard Error</b>	<b>Minimum</b>	<b>Maximum</b>
<b>Individual Achievers</b>	27	137.407	12.417	2.389	98	156
<b>Individual Non-Achievers</b>	27	117.667	13.516	2.601	96	151
<b>Team Achievers</b>	76	131.947	15.504	1.778	99	156
<b>Team Non-Achievers</b>	76	121.855	15.19	1.742	95	159
<b>Total</b>	206	127.068	16.115	1.123	95	159

From the table No.1 , it can be seen that individual Achievers are 27 athletes, they have a mean of 137.407 with a standard deviation of 12.417 the lowest score scored by an athlete is 98 while one of the athlete got a high score off 156. It also shows that individual NonAchievers were 27 athletes and they had a mean of 117.667 with a standard deviation of 13.516. the lowest score obtained by an athlete is 96 and the highest is 151.

On analyzing the 76 team Achievers, they had a mean score of 131.947, with a standard deviation of 15.504 with an athlete scoring the highest score of 156 and lowest of 99. Coming to the last group of 76 athletes, that of team NonAchievers, they had a mean score of 121.558 with a standard deviation of 15.190. An athlete scoring the highest score of 159 and a lowest score of 95 in the emotional intelligent scale.

For comparing the Emotional Intelligence of Achievers and Non-Achievers of individual and Team games ANOVA was used.



**Table No. 2**

**ANOVA for comparing Emotional Intelligence of Achievers and Non-Achievers**

	Sum of Squares	Degree of freedom	Mean Square	F	Sig.
<b>Between Groups</b>	9147.333	3	3049.111	13.969	0.001
<b>Within Groups</b>	44091.716	202	218.276		
<b>Total</b>	53239.049	205			

From the above table above it can be depicted that between groups, degree of freedom is 3, while within groups degree of freedom is 202. The calculated F value 13.969 was significant at 0.05 level of significance ( $p=0.001$ )

Multiple comparisons were done with the groups in order to test the hypothesis stated. The score obtained by the Emotional Intelligence questionnaire was used to compare. The table below shows the statistical interpretation.

**Table No: 3**

**Multiple Comparisons between the four groups of athletes using the Scheffe's post-hoc test**

(I) Group	(J) Group	Mean Difference (I-J)	Std. Error	Sig.
<b>Individual Achievers</b>	Individual Non-Achievers	19.741	4.02102	0.001
<b>Individual Achievers</b>	Team Achievers	5.460	3.31004	0.439
<b>Individual Non-Achievers</b>	Team Non-Achievers	-4.189	3.31004	0.660
<b>Team Achievers</b>	Team Non-Achievers	10.092*	2.39669	0.001

\* Significance level at 0.05 level.

On comparing the Emotional Intelligence of Individual Achievers with the Individual Non-Achievers score, it shows that it is significant at 0.05 level of significance ( $p=0.001$ ) at a mean difference of 19.741. At a mean difference of 10.092 the Emotional Intelligence score of team Achievers was compared with team Non-Achievers which was significant at 0.05 level of significance ( $p=0.001$ )

Individual Achievers Emotional Intelligence was compared to team Achievers which showed that it was not significant at 0.05 level ( $p=0.439$ ) and it showed a mean difference of 5.460. The last comparison of Emotional Intelligence was done between individual Non

Achievers with team NonAchievers and it depicted that there was no significance at 0.05 level of significance ( $p=0.660$ ) with a mean difference of 4.189.

## **RESULTS**

After calculating the Emotional Intelligence of Achievers and NonAchievers of individual and Team games it is found that the Achiever athletes have a higher Emotional Intelligence compared to the NonAchievers of individual and Team games. While there is no significant difference between the Emotional Intelligence of Achievers of individual and Achievers of Team games, also no significant difference between NonAchievers of individual and NonAchievers of Team games. Thus it is said that Emotional Intelligence affects performance.

## **DISCUSSION**

Emotional Intelligence would help in better assessment of challenges and result in improved performance. Whereas low Emotional Intelligence levels would not allow the greatest performance. Individual with low level of Emotional Intelligence is said to contribute less in his team's effort. (Lyons and Schneider.2005). Our actions are facilitated by our emotions (Kurus.2002). Emotional Intelligence training helps amateur and elite level athletes from all sports to effectively cope up with stress and enhance subjective well-being (Ajayi, 2008). The player's Emotional Intelligence has its effect on individual as well as team's performance.

## **CONCLUSION**

This study concludes that the Team games Achievers and Individual Game Achievers have a higher EI compared to Non-Achievers of Individual and Team games.

## **REFERENCES**

1. Ajayi, M. A.(2008) *Effect of a SixWeek Emotional Intelligence Programme on theSports Performance of Amateur Athletes in Oyo state of Nigeria.*[www.sirc.ca](http://www.sirc.ca).
2. Carmeli, A. (2003). *The relationship between Emotional Intelligence and work attitudes, behavior and outcomes.* *Journal of Managerial Psychology*, 18, 788-813.
3. Coubertin, P. de (1896). *Introduction.* In: Lambros& N.G Politis (Eds), *Olympic games, 776 BC- 1896 A.D* pp.108-110, Athens:Beck.
4. Forgas, J. P. (1995). *Mood and Judgement: The Affect of Infusion Model (AIM).* *PsychologicalBulletin*, 117, 39-66.
5. Kurus .M.(2002).*Emotions - How To Understand, Identify Release Your Emotions.* From [www.mkprojects.com](http://www.mkprojects.com)
6. Lyons .J, Tamera R. Schneider Received 12 May 2004; received in revised form 9 February 2005; accepted 22 February 2005 Available online 11 April 2005 *The influence of Emotional Intelligence on performance* from [www.sciencedirect.com](http://www.sciencedirect.com).



## **Agriculture Transition in Goa: A Case study of Velguem Farmers**

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**Guruprasad R. Naik**, Assistant Professor in Economics, Government College of Commerce, Borda, Margao, Goa.

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### **ABSTRACT**

*Agriculture has predominantly been the primary occupation of majority of population around the world since medieval times. It has provided live production for consumption and not for commercial purpose. At the onset of independence it contributed 75% to the Gross Domestic Product of India. Since then various efforts have been undertaken by the Government of India for the further development of agriculture in India. Right from Five Year Plans, Planning Commission to Economic Reforms that brought about significant changes in the economy of India agricultural development has always been one of the objectives of governmental policy.*

*Goa, smallest state of India is also an agrarian economy where agriculture has been practiced almost in all the talukas of the two districts of Goa. However, since the development of industrial sector and the extensive development of tourism sector has resulted in the slow decline of agriculture in the state of Goa. Also, youth preferring to take up jobs either in the private or government sector has resulted in downfall of the agriculture in the state of Goa.*

*The present paper aims at focus on the scenario of agriculture, farmers' problems, etc. in the Velguem village of Bicholim taluka of Goa.*

**KEYWORDS:** - Transition, Rural, Sustenance, Productivity.

### **INTRODUCTION**

Agriculture has been practiced since the time immemorial in India. The traces of agriculture can be found in Rigveda, one of the four ancient Vedas of Hindu mythologies. It dates back 1100 BC. Hence, we can see the dependence of people on agriculture since medieval times for their livelihood. During earlier time periods, people mainly undertook crops that were required for self consumption. In the absence of extensive business and trade reforms people did not think much about commercialization. They worked in the field, sowed and reaped the benefits of agriculture for themselves. However, since the progress of mankind and several problems that people faced while exchanging goods through the barter system, led them to shift to adoption of varied forms of money. Money was popularized as a medium of exchange all over in its various forms. Gradually, people started moving away from subsistence farming to commercial farming whereby families undertook cultivation not only for their self-consumption but also for selling these in the



village community of the market. This trend gradually spread out and even to some extent people started venturing out into other areas to earn money rather than pursuing age old agricultural practices.

Today the contribution of agriculture to the Gross Domestic Product of the country is less than 17% which is severely less as compared to its contribution of 75% to the GDP of the country during the independence. Many reasons can be attributed for this downfall ranging from outlook of today's youth towards agriculture. Agriculture as we know is dependent on monsoons and being one of the major factors that often fails if there's bad monsoon. Today agriculture has become a practice that requires very hard work coupled with high input costs, huge expenditure on equipments and tiring manual work that one has to put in the field. These types of practices were very common in earlier and even in the late 20<sup>th</sup> century but since Globalization of the economy brought about by the economic reforms of the 1990's Indian economy has also opened up avenues for the youth to enter into industry that offers handsome salary packages, good accommodation, regular increments and performance appraisals, etc. These things have taken away the youth from on field agricultural jobs to in-office jobs that demand very little physical but lot of mental work. Here, there is no risk as propounded by agriculture. As a result of such turnout of youth towards agriculture is has become very difficult for the existing farmers to get manual labourers to do field work as many of such workers are working in construction industry or are employed in other unorganized sector activities that yield them good wages rather than the low wages available to them in the agricultural sector.

## **REVIEW OF LITERATURE**

1. Dr. Siddaraju V.G. (2013) stresses on the importance of agriculture as dominant sector of economy that helps in growth and sustainability of the Indian economy. Indian agricultural has benefitted from participation to a wider extent in global economy. This study analyses the growth of agriculture sector in India. The Government has also initiated encouragement of private investment in food processing industry since agricultural sector is one of the significant and dynamic sectors of Indian economy.
2. N.H.Rao. (2002) in his paper highlights the crucial role of India's National Agriculture Policy that accords high priority to sustainability of agriculture, and also recognizes the importance of institutions such as Indian Council of Agricultural Research (ICAR) and various State Agricultural Universities which comprise the National Agricultural Research System (NARS). This paper proposes a framework based on an identification of agricultural production systems at different levels and their linkages, assessments of production requirements and supplies over time, tradeoffs between production increases and the quality of the natural resource base and capabilities of knowledge and technologies to later the balance of tradeoffs and also identifies the challenges posed to the existing agricultural research and education systems in India in transition towards sustainable agriculture.

3. Vijay Paul Sharma, (2011) in his paper stresses on the situation of agriculture in India. During the last two decades Indian agriculture has been facing major challenges like deceleration in growth rate, inter-sectoral and inter-regional equity, declining input efficiency, degradation of natural resources, etc. with consequent adverse effects on food and nutritional security, food inflation and poverty reduction.
4. S. Mahendra Dev, (2012) in his paper stated that the agriculture sector has many challenges. Green Revolution technology mainly benefited high-potential and irrigated areas, and had less impact on dry land and rainfed areas. With urbanization and income growth, consumption patterns have shifted from cereals to non-cereal food (pulses, edible oils, fruits, vegetables, dairy, meat, and fish). Supply of these commodities is lagging compared to demand, resulting in increased food inflation in recent years. Agricultural growth decelerated from 3.5 percent during 1981–1997 to 2 percent during 1997–2005. Further scope for increase in net sown area is limited. Land degradation has increased, in the form of depletion of soil fertility, erosion, and water logging. Long-term factors, such as steeper decline in per capita land availability and shrinking farm size, are also responsible for the slow performance of agriculture. Thus, there is a need for a second green revolution, to revive agricultural growth and increase farmers' incomes.

## **OBJECTIVES**

The objectives of the paper are as follows:-

1. To study the changes in the agriculture practice.
2. To bring out the problems faced by the farmers.

## **METHODOLOGY**

The present paper aims to study the agricultural practice followed by farmers in the Velguem village of Bicholim taluka in Goa. Bicholim taluka encompasses many villages. Velguem being one of them. Bicholim taluka has always been on the radar of Directorate of Agriculture, Government of Goa when implementing various schemes both state as well as centre sponsored for the development of agriculture in the state of Goa. Velguem is a comparatively small village in Bicholim taluka.

Present paper makes use of both primary as well as secondary data. Primary data is collected through a pre-structured questionnaire that was filled by 30 small and marginal farmers. 21 farmers have their own land whereas 9 farmers have acquired ownership of land through the land reforms were randomly selected. Whereas, secondary data was collected from various sources such as Economic Surveys of government of Goa, Research and scholarly articles by various researchers in the field of agriculture, etc.



## AGRICULTURE IN GOA

Goa is state of India that is land bound from East, North and South except for West which is engulfed by the beautiful Arabian Sea. It is bound to the state of Maharashtra in Northern region and by the state of Karnataka in the South and to the East borders of both the states encompass goa. It is surrounded by Western Ghats on its eastern side that are classified as one of the biodiversity hotspots by the United Nations organization. Goa is rich in diverse types of flora and fauna present in its thick forest cover, stretching along its eastern side very densely with encroachment happening to a large extent by the industrial exploitation of such forests. However the system of doing agriculture has undergone several changes in the past decades especially with the change in the technology of the agricultural sector, skill enhancement of the farmers, etc. It started out as dominant economic activity of the state. Gradually as the time went by there has been a decline in the agriculture in the state of Goa.

## DATA ANALYSIS

Primary data analysis results are discussed below:-

1. **Ownership of Farm Land:** - All 30 farmers selected for research study have their own land and they have been undertaking agriculture for many years. However, pattern of ownership was found different with 21 farmers traditionally owning land and 9 farmers have acquired land ownership due to tenancy reforms since they worked on the land previously as tenants. This practice of agriculture has been passed on to the farmers from their forefathers down the generation line which is a significant factor showing the practice of agriculture as a sole occupation in the past when people did not have any other occupation and the indulgence of entire households into the field.
2. **Source of Water** :- Of the 30 farmers interrogated 16 said that rain water is stored and used for undertaking the agricultural activities in the field, as opposed to this 14 remaining farmers stored water from natural springs and later on supplied water to their fields. This still shows that majority of the farming community is dependent on rainfall for various agricultural activities which is the predominant nature of Indian agriculture. Some farmers have undertaken natural spring water storage as they cannot depend on rainfall to undertake agriculture since doing agriculture and earning some income is their only livelihood source.
3. **Irrigation:** - 11 out of 30 farmers under the study have been identified to be undertaking irrigation by utilizing machinery for doing agriculture. They own electrical pump sets which is used by them to pump water into their fields. This shows the use of machine for irrigation among the selected set of farmers against our ideology that majority of the farmers undertake agriculture by utilizing modern facilities. Hence, this is insight into the farmer's life that still prefer to do agriculture in the traditional way depending on rains and not moving on to the use of machines.



4. **Ownership of Farming Tools:** - Farmers were asked to reveal their ownership of different types of farming tools that they use ranging from hand used tools to the latest and modern machineries. Response of the farmers can be summarized and in light on the response that 27 farmers undertake agriculture by traditional tools such as sickle, plough, etc. that were used since historic times and have not moved on to purchase of machinery to do farming the modern way.
5. **Cattle and Livestock rearing :-** Only 16 farmers from the entire sample possess their own cattle and other livestock whereas the remaining 14 farmers do not own any form of cattle and livestock. Among the cattle majority of 12 farmers own buffaloes, followed by Cow 6, Bull 6, Goat 3 and He-buffalo the remaining 3 farmers. This type of ownership mainly suggests that mainly buffalo rearing is higher as compared to rearing of cow and other livestock to earn income by selling the cattle milk and other products that are made out of cattle milk. Since, buffalo milk is high fat milk it yields more income than cow milk which is low fat. Hence, rural economy mainly therefore might have witnessed rise in buffalo rearing then cow rearing due to the higher economic benefit given by buffalo rearing.
6. **Type of Crops grown:** - Goa is famous worldwide for its Fish, Rice and curry. To a large extent farmers have undertaken cultivation of crops starting from Rice cultivation that is practiced by 8 farmers, followed by Nachni 5, Coconut 3, Cashew 3, Supari 3, Mango 3, Wheat 2 and Sugarcane, Groundnut and Turdaal each 1 respectively. Such a cropping pattern shows high degree of dependence on rice than any other crop as it is mostly consumed in entire goa and therefore economically viable for production. Following crops are produced according their requirement sin the dietary needs of the population of Goa.
7. **Crop productivity:** - Farmers have complained of various factors that have led to changes in the productivity of their crops from minute problems of crop disease, animal insurgence to large scale effects such as dust pollution, decrease in ground water level and rise in temperatures, siltation in the fields, etc. Thus sustenance of agriculture has attained high level of attention as almost 20 farmers have complained a decrease in crop yield due to various factors affecting it.
8. **High cost of Farming:-** Farmers complained that the increase in the cost of manure, pesticides and fertilizers etc, have resulted in increase in their cost of farming that has gone out of their budget to undertake farming as a result of which it was noticed that some farmers even had to stop farming due to economically unaffordable rise in cost of inputs.

## **CONCLUSION**

Agriculture in Goa has witnessed a lot of changes in the last several years with some changes having drastically affected agricultural sector irrespective of positive and negative effects. It would be a matter of great concern to have an idea of such different types of

factors that affect agriculture. Hence, in absence of a concrete database of information on agriculture it would be advisable to further research on agriculture in Goa and that too a multidisciplinary research because effect on aspects such as crop productivity, crop yield, fertility of soil, etc. require scientific testing of soil and other follow on tests that will help in combining the scientific research with other disciplinary researches that may help to focus on farmers problems. Through this research it has been found that majority of the farmers have problem of managing their budget due to increased cost of crops, costly fertilizers, pesticides, etc. As a result of these things some farmers still prefer to use manure and other traditional inputs for doing agriculture and in the absence of good yield have to undergo losses. Even the farmers who have had some sort of agriculture that too has been destroyed by wild animals entry into their sown area.

Therefore, in light of such changes the agricultural policy of the government should also undergo changes and it should be shaped in such a manner so as to bring into its scope the various problems that affect agriculture and also to accordingly compensate farmers against these losses so that at least those who are doing agriculture should not leave it. Sustainability of agriculture is of utmost importance owing to overcrowding of people into industrial and service sectors has also brought down the manpower in the agriculture sector and hence strong need of manual labour is felt in this area.

## **REFERENCES**

1. Dr. Lall Madhurima, Singh Harnam and Tripathi Rashmi (2011), "Agricultural Insurance in India: Issues and Concern", "Shodh Sanchayan", Vol. 2, Issue 1 and 2.
2. Dr. G Siddaraju V. (2013), "Growth of Agricultural Sector in India – A Time for New Thinking", "Global Research Analysis", Vol. 2
3. Rao .N.H (2002), "Sustainable Agriculture: Critical Challenges Facing the Structure and Function of Agricultural Research and Education in India", National Workshop on Agricultural Policy 2002.
4. Sharma Vijay P. (2011), "India's Agricultural Development under the New Economic Regime: Policy Perspective and Strategy for the 12th Five Year Plan", 71st Annual Conference of the Indian Society of Agricultural Economics, University of Agricultural Sciences, Dharwad, Karnataka, November 3-5, 2011.
5. Dev S. Mahendra (2012), "Agriculture-Nutrition Linkages and Policies in India", Indira Gandhi Institute of Development Research.

## **WEB REFERENCES**

1. <http://goaenvs.nic.in/agriculture.htm>
2. <http://www.cceindia.org/esf/download/paper35.pdf>
3. <https://www.econ.umd.edu/research/papers/34/download/300>
4. <http://www.iimahd.ernet.in/assets/upload/faculty/678631189High%20Value%20Agri.%20Working%20Paper.pdf>
5. <http://www.ijesd.org/papers/249-CD0059.pdf>



# Unethical TV Advertising in Goa: A Response Study of the Residents of Madel in Goa

Amanda S. Pereira, Assistant Professor in Commerce, Government College of Commerce, Borda, Margao, Goa.

## ABSTRACT

*Advertising is one of the well-known marketing tools used to promote the products and services. It has increased the reputation and image created by the firms. Over the years many forms of advertising like hoardings, Transit, TV, radio, newspaper, and other latest trends like the internet advertising are used in order to attract the customer's attention. Even though a majority of the TV viewers are women, a lot of advertising brings worries by some people that are concerned about inappropriate advertising as it is viewed by all ages including, kids, teenagers, adults and the old people. The complains are now on the rise. The present paper attempts to examine the same in Goa.*

*An analysis of the views of 100 respondents from the people of Madel Margao revealed that the T.V ads undermine social moral and negatively influence the human behaviour. The advertisers also do not keep into consideration the culture and traditions of the yester years they also violate the ethical norms. The other points of concern highlighted in the study are the degradation of the family relationships and the misleading and the untruthful content of the T.V advertisements.*

**KEYWORDS:-**Unethical advertisement, values, women, children.

## INTRODUCTION

"Advertising, a form of commercial mass communication designed to promote the sale of a product or service, or a message on behalf of an institution, organization, or candidate for political office."

Advertising can be looked at from various perspectives. As the quote above states, its purpose is to increase the number of articles or products sold. Advertising is defined as "any paid form of non-personal presentation and promotion of ideas, goods and services through mass media such as newspapers, magazines, television or radio by an identified sponsor" (Philip Kotler, 1984). Advertising was targeted as big business in the 20<sup>th</sup> century, as numerous amount of jobs were offered in advertising agencies and the promotional areas. The use of media, like newspapers, television, direct mail, radio, magazines, outdoor signs and of course the Internet made this growth possible as a lot of creativity is involved as well. It is a form of transporting information as well as creating awareness to the consumer, but which does not only have positive sides. Advertising has a great impact on the people and society at large. It has a great influence on their attitude behavior, priorities. Advertising is unethical if it refers to disruption of societal values and norms



established by the religious, governmental or political institutions to which one looks for moral and ethical guidance (Spence & Heekeren, 2005). Snyder (2003) had classified advertising ethics into three categories based on truth, fairness, and taste and decency.

Advertising has many critical aspects, like convincing people to do unhealthy things like drinking, smoking, producing special stereotypes that others would mind to imitate. Advertising has profound consequences due to its pervasiveness, stereotypical portrayals, manipulative and persuasive nature, preoccupation with materialism and consumption, frequent use of sex appeals and lack of information. Advertisers target infants, children as well as other minor groups. Nevertheless, advertising has become international, since producers and companies try to sell their products on a globalized market in almost every corner of the world and this has an adverse effect on the people.

### **OBJECTIVES**

- To study the impact of unethical television advertising.
- To provide suggestions for the marketers and advertising agencies.

### **METHODOLOGY**

Ethics deals with concepts such as good and bad, right and wrong, values and virtue. Advertisements can be considered as unethical if it is in a direct conflict with its rivals by underestimating their products and services, immoral, and it fails to inform the viewers about its adverse effects.

The present paper aims to study the impact of unethical television advertising in Madel, Margao of Salcete taluka in Goa. Madel lies in the heart of the commercial capital, even though most of the people are working parents they do keep a track on their surroundings and do not tolerate any nuisance or unethical or illegal stuff.

Present paper makes use of both primary as well as secondary data. Primary data is collected through a pre-structured questionnaire that was filled by 100 residents from Madel, Margao who were randomly selected. The age groups of 18-60 years were taken into consideration. Gender wise 80 females and 20 males were selected. Questions on portrayal of women, cultural values, moral values, reliability, effects on children, price, and suitability of speech, privacy, family relationships and life style were included. The advertisements of national networks are taken into consideration. Generally the paper focuses on advertisements in Hindi and English.

Whereas, secondary data was collected from various sources such as the internet, articles, books etc.

## REVIEW OF LITERATURE

- Trust is important for marketers as well as consumers. As Ferrell, Gresham and Fraedrich (1989) has highlighted on the significance of trust, they state that it is important for the consumers and marketers. If there exists no bonding the exchange process comes to a standstill.
- Ferrell and Gresham (1989) in their article "A Contingency Framework for Understanding Ethical Decision Making in Marketing," stated that when it comes to ethics the right behavior should be portrayed in a situation. Children have more learning capacity and understanding.
- Brucks, Armstrong, and Goldberg (1988), stressed that children are not aware that advertisers are trying to convince or persuade the people to buy their product as a result it is proven through research that children are more likely to believe in these advertisements
- Stern and Handel, (2001) in his paper stated that, most of the scenes used in advertisements highlight couples with children are more unattractive, adolescents get attracted to each other by viewing indecent sexual scenes
- Baker's study (2005) depicted that that most of the men in the U.S look at women as only sex objects. He stated that in a day 3000 advertisements are shown on T.V and women are mostly targeted in a negative way.
- Ramirez and Reichert (2000) proposed that the viewer's look only at the physical attractiveness and appearance.

## DATA ANALYSIS

**1. Advertising stereotypes portrayal of women:** - Out of the 100 selected respondents 83 have stated that unethical TV advertising leads to rise in crime and violence against women. 73 out of the 100 respondents who were women mentioned that the ad that promoted, feminine hygiene products is embarrassing and these are not fit to be watched with the entire family. In today's corporate world, Women are generally viewed as an object and are exploited as a marketing instrument in a wide range of firm's activities. Irrespective to any product, women are negatively targeted. The use of female images in advertisements is so widespread that such images are found in the advertisements for most product types from clothing to motor cars, from cosmetics to furniture.

**2. Advertising opposes the cultural values of the society:** - 82 out of 100 respondents that comprises of both men as well as women stated that most of the advertisements undermine traditions and culture. Whereas 18 respondents stated that it is essential in order to modernize. Culture refers to the moral fabric of the society. Cultural values are mostly



related to the society. Depiction of indecent scenes and promotion of harmful products near the holy places irrespective of any religion hurt the sentiments of the people. (Pollay, 1986) in his study stated that the society is destroyed and weakened as it affects the religious and also the moral values.

**3. Advertising is vulgar in taste:** - 72 out of 100 respondents had to say that the use of sexual appeals in TV advertisements produces negative side effects, e.g. effect on children, teenagers and men. An advertisement bad in taste is called vulgar. It may be language, behavior, an idea or even a person. Vulgarity is generally termed as "unrefined behavior". Vulgar advertisements are common. Women as well as men are shown in indecent poses. Vulgar advertisements are socially undesirable and even dangerous leading to conflicts.

**4. Advertising is false, deceptive and misleading:-** Due to experience from 100 nearly 89 people stated that advertisements contain statements that are false, deceptive, untruthful, or misleading. Nearly 4 respondents who were uneducated and old felt cheated. Advertising misleads the consumers. It gives false, incomplete, incorrect information to consumers in order to exploit them. Advertising is one type of brainwashing technique. Repetitions of advertisements help the consumers to remember about the product. Advertising persuades the consumers to purchase harmful products as well. When consumers are misguided, advertising becomes false, deceptive and misleading. These advertisements contain "make to believe" statements, wrong records as well as statistics, and fake testimonials and so on.

**5. Advertising to children:** -When questioned 58 respondents who were parents said that unethical advertisements encourage children to bypass parental authority. 42 respondents stated that the children try to imitate the characters. (O'Sullivan, 2005) in his journal "Advertising and Children: What Do the Kids Think?" highlighted that children quite often are more compelled to watch T.V and often find the advertisements attractive, they even view the advertisements which are meant for adults. (Austin & Reed, 1999) in his paper stated that the parents are more concerned about the unhealthy eating habits of their children as well as teenager. TV advertisements take undue advantage of children by promoting less important goods: they demand goods or products from parents and even threaten to suicide if they do not get the product they desire to own. Children get attracted to the violent and action scenes and try to imitate them.

**6. Use of speech in advertising:** - In the survey it was found that 69% of the Unethical advertisements promote unsafe behavior and actions among children. Vulgar words should be avoided in any form, as not only children but elders too imitate it.

**7. Advertising increases the costs of goods:** -59 out of 100 respondents said that advertisements persuade/tempt them to buy expensive products beyond their capacity. There is a drastic increase in the price of the products as the Advertising charges paid by the manufacturers are quite high and these charges are being recovered from the consumers.



**8. Advertising destroys family relationships by compelling the people to buy the things they do not need:** -Nearly 72 out of the 100 people said that advertisements create conflict between parents and children over purchase of products advertised. Many families have difficulties in making ends meet so 28% conflicts are caused among couples in order to decide over the products to be purchased.

Advertising creates artificial demand for the products. Advertisements persuade the people to purchase the things they do not need. Repetition of advertisements creates an urge to own the product immediately. Consumers are thus tempted to waste their money by purchasing unwanted goods in order to buy the advertised products: people take loans even if their financial position is not stable. People try to get the product by committing crimes or through any other means.

**9. Change in the social structure and life style:-** In this survey 73 of the 100 respondents mentioned that advertisements have changed their dressing, and consumption habits. The old traditions are fading as Joint families are no longer visible. People are moving towards the cities. Educated couples desire to lead independent lives. As both the husband and wife are earning, they have a lot of purchasing power. They prefer to adopt modern lifestyles.

### **SUGGESTIONS FOR CONTROLLING UNETHICAL TV ADVERTISING**

Advertising is neither morally good nor bad. The advertising should be done morally rather than just for the sake of it thus: ultimately bombarding customers with too much of brands will not suffice well on the part of advertisers. The Advertising Standards Council of India (ASCI) has to play a more central role in regulating the frequency of multiple advertisements suitable for people across different age groups such that neither advertisement will be hampered nor the general public have to bear improper time of display of inappropriate advertisements.

The following suggestions were given by the respondents to the marketers as well as the advertisement agencies on how to avoid unethical TV advertising.

1. There should be a specific showing time for certain advertisements, and this has to be done while screening adult programmer.
2. Advertisements targeting adults should be aired late in the night when children are supposedly asleep.
3. Alcohol, cigarettes and drug advertisements should be totally banned from TV and it should be advertised in places like pubs where they are consumed.
4. Products related to women can be advertised during school hours
5. Misleading and exaggerated advertisements should be discarded.

6. The advertising agencies have to empower its staff to make the right decisions by having in place policies and guidelines.
7. The government for broad casting and media should take keen interest in screening all the advertisements.
8. Advertisements which provide valuable information and awareness should be encouraged.
9. Advertisements which portray political discrimination should be avoided.
10. Indecent advertisements about women should be discouraged.
11. Advertisements for products such as condoms be banned from TV and use other media to advertise such as: print. Parents argued that this would work because children do not get to interact with print a lot compared to television.
12. Cartoons should not be used to advertise products inappropriately for children e.g. alcohol or cigarettes.
13. Television should do much more of social marketing/rather than commercial advertising.
14. A warning should accompany every television advertiser that is strictly targeting adult audience. This is so that children may know first-hand that the product is inappropriate for them.
15. Older models should be used in advertising certain products to prevent children from wanting to associate with models in the advertisement. This is especially so for adult products such as alcohol, cigarettes, gutka etc.

## **CONCLUSIONS**

In recent times advertising has become the life and breath of modern business economy. The marketer has to use the basic task of marketing to attract the prospects as well as buyers when a wide assortment products and services are manufactured.

Indian advertising is too much westernized and goes much beyond the limits of decency and social norms. Advertising has always raised a lot of criticism from the public. The consumers no longer rely on advertisements and advertising agencies as the confidence of the buyers has been lost and they view advertisements as fake, unfair, Misleading and untruthful. All these have retarded the growth of advertising in India numerous studies have been done mostly on the areas of impact of unethical advertising towards consumers. Advertisements should be rated like movies. It is important for the advertisers to develop creative or use more creative media strategies that match the cultural context of the target market to the advertising message. The main motto of any advertising campaign is to create a favorable reaction in the market and motivate people to purchase more goods and services. Therefore the advertiser must put all the means in place to ensure that the customers and public do not get offended.



## REFERENCES

1. Advertising to children: Is it ethical? By REBECCA A. CLAY September 2000, Vol. 31, No. 8
2. Advertising, Marketing and Sales Management By D. Thakur Advertising- by N. G. Kale
3. Austin, M. J., & Reed, M. L. (1999). Targeting Children Online: Internet Advertising Ethics Issues. *Journal of Consumer Marketing*, 16(6), 590-601.
4. Baker, S. (1961). Visual Persuasion. New York: McGraw-Hill, December 1.
5. (Brucks, Merrie, Marvin E. Goldberg, and Gary M. Armstrong (1986). "Children's Cognitive Responses to Advertising," in Advances in Consumer Research, ed..R. Lutz, Provo, UT: Association for Consumer Research,650-654.)
6. (Ferrell, O.C. and Larry G. Gresham (1985). "A Contingency Framework for Understanding Ethical Decision Making in Marketing," *Journal of Marketing*, 49 (Summer), 87-96.)
7. Hackley, C. E. (1999, January). The Meanings of Ethics in and of Advertising. *Business Ethics: A European Review*, 8(1), 37-42.
8. Kotler P. Marketing Essentials / Northwestern University. Prentice-Hall, Inc., 1984. VOL 2 ,Pg.58
9. Ramirez, A. and Reichert, T. (2000). Defining sexually oriented appeals in advertising: A grounded theory investigation. *Advances in Consumer Research*, 27, 269-273.
10. Mittal, B. (1994, January/February). Public Assessment of TV Advertising. *Journal of Advertising Research*, 35-53
11. O'Sullivan, T. (2005). Advertising and Children: What Do the Kids Think? *Qualitative Market Research: An International Journal*, 8(4), 371-384
12. Pollay, R. (1986). The distorted mirror: reflections on the unintended consequences of advertising. *Journal of Marketing*, 50 (April), 18-36.
13. Snyder, W. S. (2003). Ethics in Advertising: The Players, the Rules, and the Scorecard. *Business & Professional Ethics Journal*, 22(1), 37-47.
14. Spence, E. H., & Heekeren, B. V. (2005). *Advertising Ethics*. New Jersey: Pearson Education, Inc.
15. Stern, E.S. and Handel, A.D (2001).Sexuality and Mass Media: The Historical Context of Psychology's Reaction to Sexuality on the Internet.*The Journal of Sex Research*, 38, November, 283-291.

## WEB REFERENCES

1. <https://advertisinginindia.wordpress.com/tag/advertising-history-in-india/>
2. [http://www.academia.edu/1476147/Is\\_it\\_ethical\\_to\\_use\\_women\\_as\\_a\\_marketing\\_instrument](http://www.academia.edu/1476147/Is_it_ethical_to_use_women_as_a_marketing_instrument)
3. <http://www.theguardian.com/sustainable-business/marketing-advertising-children-issues-at-stake>
4. <http://www.papermasters.com/>
5. [http://www.rzuser.uni-heidelberg.de/~el6/presentations/pres\\_c2\\_hoa/](http://www.rzuser.uni-heidelberg.de/~el6/presentations/pres_c2_hoa/)
6. <http://shaer.uca.edu/research/sma/1997/PDF/09.pdf>